

## **Cooperative Republic of Guyana**

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### **Hinterland Environmentally Sustainable Agricultural Development Project**

#### **Design completion report**

#### **Main report and appendices**

Document Date: 30-Sep 2016  
Project No. 2000001472  
Report number: 4197-GY

Latin America and Caribbean Division  
Programme Management Department



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## Currency equivalents

Currency Unit	=
US\$1.0	=

## Weights and measures

1 kilogram	=	1000 g
1 000 kg	=	2.204 lb.
1 kilometre (km)	=	0.62 mile
1 metre	=	1.09 yards
1 square metre	=	10.76 square feet
1 acre	=	0.405 hectare
1 hectare	=	2.47 acres

## Abbreviations and acronyms

ADF	Amerindian Development Fund
AVC	Amerindian Village Councils
CDB	Caribbean Development Bank
CDC	Civil Defence Commission
CI	Conservation International
FNSS	Guyana Food and Nutrition Security Strategy 2011 – 2020
GFC	Guyana Forestry Commission
GLDA	Guyana Livestock Development Agency
GLSC	Guyana Survey on Living Conditions
GMC	Guyana Marketing Corporation
GNI	Gross National Income
GRIF	Guyana's Reducing Emissions from Deforestation and Forest Degradation REDD Plus Investment Fund
LCDS	Low Carbon Development Strategy
MDRI	Multilateral Debt Relief Initiative
MIPA	Ministry of Indigenous Peoples' Affairs
MNR	Ministry of Natural Resources
MOA	Ministry of Agriculture
MOC	Ministry of Communities
MOF	Ministries of Finance
MPI	Multilateral Poverty Index
MRU	Makashi Research Unit
MSP	Ministry of Social Protection
NAREI	National Agricultural Research and Extension Institute
NDC	Neighborhood Development Councils
PCN	Project Concept Note
PDR	Project Design Report
RDC	Regional Development Council
SECAP	Social, Environmental and Climate Assessment Procedures
UNCBD	United Nations Convention on Biological Diversity
UNDP	United Nations Development Program
UNFCCC	United Nations Framework Convention on Climate Change
VAT	Value Added Tax

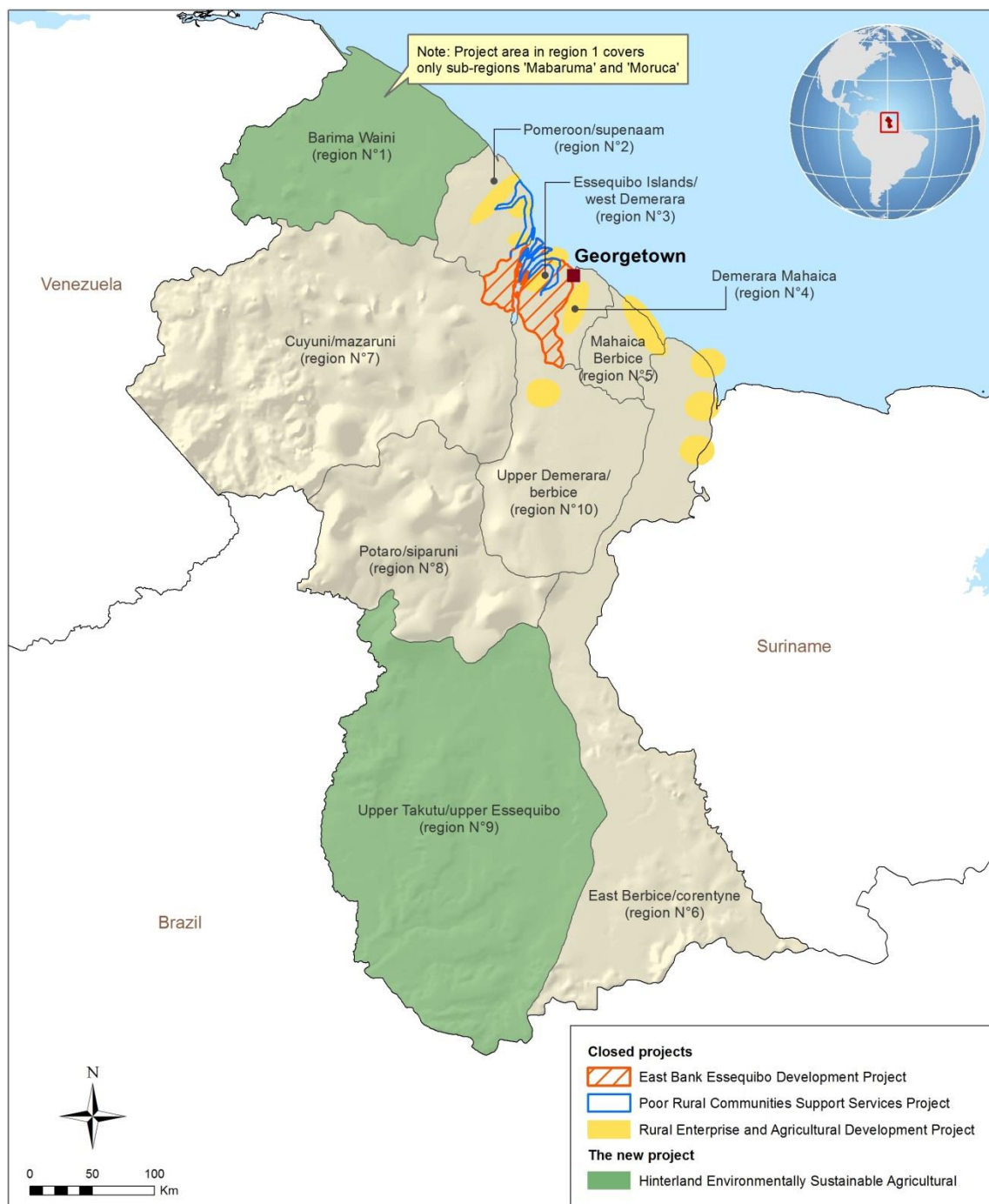


## Map of the project area

### Cooperative Republic of Guyana

IFAD-funded operations

*Design completion report*



The designations employed and the presentation of the material in this map do not imply the expression of any opinion whatsoever on the part of IFAD concerning the delimitation of the frontiers or boundaries, or the authorities thereof.

Map compiled by IFAD | 29-08-2016



## Executive Summary

1. The following Design Completion Report has been prepared taking into account IFAD's Country Strategy Note (CSN), to be submitted for information to the Executive Board during its September 2016 meeting, and a Project Concept Note (PCN) considered by the Operational Strategy Committee (OSC) in May 2016. Project formulation was undertaken by a first IFAD mission<sup>1</sup> that visited Guyana from 7 to 14 June 2016, and by a second IFAD mission that visited Guyana from 7 to 18 August 2016. Meetings were held with national authorities including the ministries of Finance (MOF), Agriculture (MOA), Indigenous People's Affairs (MIPA), Communities (MOC), Natural Resources (MNR), Business (MOB) and Social Protection (MSP). The Mission also met with the National Research and Extension Institute (NAREI), the Guyana Marketing Corporation (GMC), financial institutions (IPED and GBTI) and financial and technical assistance cooperation agencies including the Inter-American Development Bank (IDB), the Food and Agriculture Organization of the United Nations (FAO) and the United Nations Development Programme. Working sessions were held with officials of Conservation International (CI) in relation to experience gained in implementing the Leveraging Natural Capital project in Region 9. Mission members visited Region 9 and Mabaruma sub-region in Region 1 to undertake consultations with potential project beneficiaries.

2. **Poverty, nutrition and food security.** In the rural hinterland of the country, where indigenous peoples are concentrated, three out of four people are poor. Extant studies show that households' food security in hinterland Region 9 is compromised and that the situation worsens during drought and flood seasons. Sea level is projected to rise at a rate of 1cm/year; saline intrusion is already affecting water and soil resources in the most fertile agricultural lands up to 120 km away from the coast, leading the government to prioritize the development of hinterland agriculture for food security and to support agricultural exports. Temporary or permanent out-migration towards mining and logging areas or to agricultural jobs in Brazil is depriving hinterland communities of valuable human capital, since more than half of the youths who leave their communities do not return. The rising dependence on remittances is negatively affecting consumption patterns in indigenous areas; discernible changes in Amerindian diets (rising consumption of refined carbohydrates, processed foods, and sweetened and calorie-dense foods) may for example be indicted for the rise in chronic diseases in this Region.

3. **Main natural resources constraints for the development of the agricultural and rural sector in Region 9 and Region 1:** Agriculture and rural livelihoods in both Region 9 and Region 1 are affected by increased variability in rainfall patterns. The effects of such variability are more severely felt in Region 9 where severe floods and prolonged dry spells, coupled with the lack of adequate water management technologies, represent major challenges for the development of agriculture and the livestock sector. The low fertility of the savannah soil poses a further constraint to agriculture in Region 9. In Region 1, salt water intrusion is an important impact of climate change which over time will affect arable land and freshwater resources in coastal areas. Notwithstanding these differences, climate change is affecting the sustainability of established production patterns and, in particular, the transition to new, more settled production patterns in both regions where traditional coping strategies are no longer an option. The transition to new production patterns therefore needs to incorporate better adaptability to changing climate and economic conditions. This will require access to knowledge, investment and technologies for natural resource management that at the moment are lacking.

4. **Main economic constraints in Region 9 and Region 1.** The remoteness of project areas in both Region 9 and Region 1 remains a persistent challenge for the development of business and income-generating opportunities. The lack of infrastructure (in particular, poor transportation and

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<sup>1</sup> The missions were composed by: Ladislao Rubio, CPM and Team Leader; Ingrid Schreuel, Gender and M&E Specialist; Ivan Cucco, Rural Development Specialist; Rikke Olivera, Natural Resource Specialist; Oliver Page, Climate Change Specialist; Kelvin Craig, IFAD Liaison Officer, Guyana. The Mission wishes to thank the staff and managers of Conservation International – Guyana, and in particular David Singh and Rene' Edwards, for the outstanding support received during the field visit in Region 9 and for generously sharing documents, information and experiences from their projects in Rupununi that have provided valuable insights for the design of the project

telecommunication networks) significantly limits access to markets and hinders the integration of local activities in the national economy due to high transportation costs combined with low volumes, low productivity and high production costs. Similarly limited is the access to information, technology and energy that are needed to support investment in productive activities and to promote adaptation to the changing economic and environmental context.

5. **Main challenges:** Within a context characterized by persistent poverty and affected by climate change, the identified constraints are posing a severe strain on the resilience and social cohesion of the target group. The capacity of hinterland communities to respond to new economic and environmental challenges is further limited by the lack of incentives for investments able to reduce economic and climate risks.

6. The Government of Guyana (GoG) has for the first time formulated an overall agricultural strategy ("National Strategy for Agriculture in Guyana 2012-2020") that calls for Guyana to use its natural resources as efficiently and as sustainably as possible by exploiting the country's comparative advantage in the agricultural sector. Since June 2009, Guyana has adopted a Low Carbon Development Strategy (LCDS) that aims at combating poverty while responding to the impact of climate change by avoiding deforestation and creating a low carbon, climate-resilient economy as the basis for the environmental, social and economic transformation of the country.

7. Within this framework, the Mission agreed with national authorities to pursue project formulation for submission to the December 2016 Executive Board along the following main considerations: the project will aim to improve the livelihood resilience of the target group by addressing major risks arising from the contextual challenges that the households in the project area have to confront. The pillars of the project strategy are: (a) Promoting access to markets through short value chains and exploitation of the ensuing opportunities for increasing income; (b) Addressing the economic and climate change-related risks deriving from the lack of capacities, knowledge, investment and technologies necessary to promote the sustainable transformation of livelihoods and production patterns; (c) Promoting a participatory planning process. The project will operate in all sub-regions of Region 9 and in the Mabaruma and Moruca sub-regions of Region 1. By sustainably integrating new income-generating activities in the diversified livelihoods of rural households, and improving nutritional knowledge, the project aims to improve food security and diet quality, and contribute to improved nutrition, for rural households in the hinterland of Guyana.

8. **Targeting.** The project will follow IFAD's geographic targeting approach as it will address the needs of the rural poor men and women and their households living in the project area. The target group will include 6,000 poor households that would be receiving project services, which is equivalent to 94 per cent of the existing poor households in the project area. At least 15 per cent of these households (900 households) would be female headed households as this reflects the reality in the project area. The 6,000 households represent a total number of direct and indirect beneficiaries of approximately 30,000 men and women of different age groups. At least 75 per cent of the project beneficiaries would be from Amerindian tribes. At least 30 per cent would be from the age group 15-44 years old and at least 50 per cent would be women. The beneficiaries will come from approximately 80 of the 128 existing villages and communities in Regions 1 and 9 (60 communities in Region 9 and 20 communities in Region 1).

9. **Project Objectives.** The Development Objective of the Project, responding to the priorities identified in the Country Strategy Note, is that "Improved livelihood resilience through income generation, access to assets, improved nutrition and adaptation to climate variability."

10. Livelihood resilience will be strengthened by (a) increasing income-generating opportunities through the identification of key commodities that can act as drivers for the inclusion of small farmers in the market and increase the local demand for services and labour; (b) increasing access to public goods, knowledge and technologies that build community resilience and create an enabling productive environment; (c) enhancing food security and nutrition by identifying and promoting primarily local crops that improve the diet quality of the household and by increasing awareness of nutritional issues and healthy diets through nutrition education and behaviour change activities, including the diffusion and adoption of food-based dietary guidelines.

11. **Components.** In order to achieve project objectives, the project will include two main components: (a) Strengthening of communities' and producer groups' investment planning; and (b)

Implementation of investment plans. A third component will be dedicated to project management, monitoring and evaluation, and knowledge management.

12. **Component 1.** The objective of this component is to support Village and Community Councils (in Region 9), value chain roundtables (in Region 1) and Regional Development Councils in planning and prioritizing investments for the development of local value chains<sup>2</sup> and resilient communities and livelihoods. The expected outcome is that communities and producer groups have strengthened capacities to identify investment opportunities and manage economic and climate change risks. The main instruments that will be developed by this component are Community Production Development Plans (CPDP) for Region 9 and Value Chain Action Plans (VCAP) for Region 1. These overall medium-term plans will be the basis for the development of three types of concrete investment plans to be implemented with the project support: Public/Collective Investment Plans (P/CIP), Community Training Plans (CTP), and Business Plans (BP).

13. **Component 2.** While component 1 will provide training, studies and capacity building needed to develop these plans, component 2 will support their actual implementation. Under component 2 an Investment Fund will be established to finance, through non-reimbursable mechanisms, public and common goods and services in the following categories of investments that may be included in the different types of investment plans: (a) investments in public and common goods and services that contribute to the reduction of climate and investment risks, included in P/CIPs; (b) services for training, capacity-building and awareness-raising activities, and related background studies, that contribute to the reduction of climate, economic and nutritional risks, included in CTPs; (c) technical assistance and services to favor activities that have positive spillover effects on the hosting communities since they contribute to the diffusion of models, knowledge, technologies and capacities that improve livelihood resilience by reducing the climate, economic and nutritional risks, included in BPs.

14. **Component 3.** The purpose of the third component is to establish management and administrative procedures including accounting and auditing as well as setting up monitoring and evaluation mechanisms in accordance with IFAD and national guidelines. Specific evidence-based knowledge products will be developed on the basis of Project experiences in order to extract lessons and best practices, up-scale innovative solutions, and achieve better outcomes and greater impact from development resources. Also, coordination and activities to link project and regional planning will be supported.

15. **Planning, monitoring and evaluation, learning and knowledge management.** The Lead agency for the implementation of the Hinterland Project will be the Ministry of Agriculture through its Agriculture's Sector Development Unit (ASDU). It was also agreed that for activities such as consultative village planning processes, agricultural technologies and technical assistance, natural resource management and regional investment planning, the MOA would be assisted by the MIPA, MNE, MOC, MOB and other government agencies, Non-Governmental Organizations (NGOs), Community-Based Organizations (CBOs) and local educational institutes. The Project Management Unit (PMU) will comprise the office at the MOA in Georgetown and regional offices in Region 1 and Region 9. Effective coordination with other line ministries, Regional Democratic Councils and private sector initiatives in the regions is essential in order to create synergies and ensure sustainability of project results. To this end, a National Steering Committee (NSC) and Regional Management Committees (RMC) will be established to provide policy direction and support for implementation, advise on the Annual Workplan and Budget, and encourage inter-organizational coordination and linkages. The project will on one hand provide support to strengthen the capacity of the MOA M&E Unit, and on the other hand ensure that project implementation monitoring is linked to MOA performance monitoring and feeds into existing Agriculture Strategy indicators. Monitoring and evaluation will be conducted using the participatory approach adopted by the project. Data collection will be kept simple, not be time consuming and will ensure the reliability and especially the usefulness of the data collected. Specific evidence-based knowledge products will be developed on the basis of Project experiences in order to extract lessons and best practices, replicate innovative solutions, achieve better outcomes and greater impact from development resources, and strategically disseminate the knowledge generated to support national, regional and local decision making and

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<sup>2</sup> In the case of Region 1 there is significant potential for the production and marketing of species where other local and national market, there is a significant potential on international markets

policy processes. In accordance with the Government, the Baseline Study will be carried out immediately after the approval of the Financing Agreement by IFAD's Board of Directors, and before the project's implementation.

16. **Cost and financing.** The total cost of the project is US\$ 11.15 million, over a period of six years. Of these, US\$ 10.54 million (95%) are total baseline costs and US\$ 0.61 million (5%) are physical and price contingencies (5%). Financing. The project would be financed as follows: (a) the Cooperative Republic of Guyana would provide US\$ 2.43 million, equal to 22% of the total cost; (b) IFAD would finance US\$ 8.45 million (total allocation PBAS 2016-2018) 76% of the total cost, including a Grant of US\$ 0.50 ; (c) beneficiaries would contribute US\$ 0.27 million, 2% of the total cost.

17. **Sustainability.** The project will contribute to the GoG objective of reducing poverty, exclusion and isolation of Guyana's hinterland communities. It will be aligned with the government's National Strategy for Agriculture in Guyana 2013-2020, the Low Carbon Development Strategy (LCDS) and the Food and Nutrition Security 2011-2020 Strategy (FNSS). Project formulation has taken into consideration the Country Strategy Note (CSN) and the Project Concept Note considered by the OSC. The proposed project will contribute towards achieving some of the overall objectives of the National Strategy for Agriculture, mainly in terms of furthering sustained agricultural growth for uplifting living standards while enhancing provision of safe and high quality food. Among the objectives the project will support are the following: (i) increasing production and improving quality of traditional crops, (ii) facilitating and supporting efforts to link small farmers to dynamic markets, (iii) increasing adaptation to a changing climate in a low carbon development pathway; and (iv) deepening ownership and access to land by small farmers and indigenous communities.

18. **Risk identification and mitigation.** Project implementation entails risks identified during the preparation of project design that include: a) economic risks, b) climate change risks, c) social risks, and d) institutional risks. A summary of the key risks identified in the Design Phase, and of measures to reduce their incidence, is provided in the Table below.

**Table: Risk Identification and Mitigation**

<b>Risks</b>	<b>Risk Mitigation Measures</b>	<b>Rating</b>
<b>Economic Risks</b>		
Productive specialization (vs traditional diversification strategy): vulnerability to market shocks; increased seasonality effects on income and labour cycles	Training and support actions to increase the capacity of communities to plan for strengthened economic resilience. Business Plans must include a mitigation strategy for specialisation. Favour income-generating activities and their sustainable integration in diversified livelihoods through TA and incentives for value chain upgrading, labour-saving technologies, better access to market information, increased coordination among value chains stakeholders.	<b>Medium</b>
Competition for labour from other sectors (e.g., mining)	Increase income and employment opportunities in agriculture and related activities by maximizing the economic viability of supported Business Plans through (a) technical assistance for market search and marketing activities; (b) incentives for investment in technologies that can generate demand for local services (ICT and renewable energy installations, VC support services)	<b>High</b>
<b>Climate Change Risks</b>		
Productive transformation without access to adequate technology and information for water and soil management	Non-reimbursable contributions for the provision of public goods that increase access to knowledge, technology and information for water and NRM. Incentives to producers' groups for the incorporation of technologies and good practices for better on-farm management of trees, soils and water and the adoption of adaptive and preventive measures for climate change	<b>Medium</b>
Shift to less diversified farming systems	Business Plans must have a mitigation strategy addressing specialisation risks for nutrition and CC resilience through agrobiodiversity / diversification	<b>Medium</b>
<b>Social risks</b>		
Weakening of social capital and organization capacity at community level	Strengthened participatory community planning practices, with measures for the inclusion of vulnerable groups, and phased implementation strategy to build upon existing planning experiences. VC investments identified through community planning (R9) or multi-stakeholder roundtables and agreed upon by communities through MOUs. Training, TA and support given to communities and producers' organization for design and implementation of investments plans.	<b>Medium</b>
Exclusion of vulnerable groups including women and youth	Targeting strategy based on direct targeting and self-targeting based on clearly defined profiles that include the poorest population groups. CTPs must include youth-focused skills development activities and vocational training. Business Plans that demonstrate participation of youth, women and vulnerable households will be prioritized.	<b>Medium</b>
Risks for nutrition and food security:	Awareness-raising, training activities and technical assistance activities for communities, households and government agencies to strengthen the linkage between increased income generation and quality of nutrition.	<b>Medium</b>
<b>Institutional risks</b>		
Limited inter-institutional coordination for actions at the regional level	Strengthen coordination at the national and regional level through NCS and RMC that facilitate linkages between ministries, agencies and programs. Generation and diffusion of knowledge and information to assist more informed regional planning.	<b>Medium</b>
Incipient managerial and organizational capacity to implement investments at the local level (communities and producers' groups)	Training and capacity building to communities / collective organizations for the design of CPDPs and VCAP. Project's monitoring of the investment implementation phase. Technical assistance to producers' groups to strengthen their organizational and managerial capacities. Financial institutions involved in the evaluation of Business Plans to improve viability.	<b>Medium</b>



## Logical Framework

Results Hierarchy	Indicators			Means of Verification			Risks
	Name	Baseline	End Target	Source	Frequency	Responsibility	
<b>Development Objective:</b> Improved livelihood resilience through income generation, access to assets, improved nutrition, and adaptation to climate variability.	80% of targeted households have increased their score on the resilience scorecard by at least 2 points <sup>3</sup> .	Baseline resilience TBD	4,800 hh (15% female headed hh)	Baseline studies Impact study Verification in the field	Before Effectiveness Mid Term Before Closing	PMU MOA	<b>Economic risks:</b> <ul style="list-style-type: none"><li>Productive specialization (vs traditional diversification strategy): vulnerability to market shocks; increased seasonality effects on income and labour cycles</li><li>Competition for labour from other sectors (e.g., mining)</li></ul>
<b>Component 1: Strengthening of community and producer groups investment planning</b>							
<b>Outcome 1</b> Communities and producer groups have identified investment opportunities manage economic and climate change risk.	80% of households in targeted communities participate in development of public / collective investments plans.	0	4,500 hh (15% female headed hh)	Reports M&E Supervision reports Progress reports	Semi-annually Annually Mid Term Before Closing	PMU MOA	
	People in targeted communities participating in producer groups with approved business plans.	0	2,500 people (50% women; 30% youth)				

<sup>3</sup> Household resilience will be measured by using a simple scorecard. A household is more resilient at the end of the project, if its score has increased compared to the baseline survey score. The household score is the sum of the 1 point given for each positive answer to the following questions: 1) have one or more household members participated in the formulation of CPDPs and P/CIPs?; 2) is at least one family member participating in a producer group with an adopted business plan, that has increased household incomes; 3) does the household use the same or an increased number of crops and animal varieties and wild species as food or income generating source compared to use at project start? 4) Has the household adopted a climate-smart production system including measures for the sustainable management of soils and water in at least 1/4 of its cultivated land?; 5) has the household access to a secure water source (rainwater harvesting and micro irrigation) for at least 1/5 of its cultivated land (region 9)?; 6) in the last years has the family used the internet to access climate, weather or market information and used this information to take decision on crops and varieties to cultivate and time of planting?; 7) does the family have access to a renewable energy source for household and production needs?; 8) Do women and children 6-23 months old in the household consume a diet with a minimum acceptable level of dietary diversity? (for the last question in the case of women the Minimum Dietary Diversity-Women indicator (MDD-W <http://www.fao.org/3/a-i5486e.pdf>) should be used and for children 6-23 months old the indicator from the Infant and Young Child Feeding Practices guidelines (<http://www.who.int/nutrition/publications/infantfeeding/9789241599290/en/>) should be used).

Results Hierarchy	Indicators			Means of Verification			Risks
	Name	Baseline	End Target	Source	Frequency	Responsibility	
<b>Component 2: Implementation of investment plans</b>							
<b>Outcome 2.1</b> Increased investments in business plans that increase agriculture and related income-generating opportunities and increase market access.	<ul style="list-style-type: none"> <li>At least 80% of the households that invested in business plans have increased their income from agriculture and related activities by 50%<sup>4</sup>.</li> </ul>	Private assets baseline TBD	2,000 hh (15% female headed hh)	Baseline studies Impact study Progress reports Verification in the field	Before effectiveness Annually Mid Term Before Closing	PMU MOA	<b>Climate change risks:</b> <ul style="list-style-type: none"> <li>Productive transformation without access to adequate technology and information for water and soil management</li> <li>Shift to less diversified farming systems</li> </ul> <b>Social risks:</b> <ul style="list-style-type: none"> <li>Weakening of social capital and organization capacity at community level</li> <li>Exclusion of vulnerable groups including women and youth</li> <li>Risks for nutrition and food security:</li> <li>Increased complexity of nutritional problems (e.g., transition to unhealthy diets)</li> <li>Decrease of food security</li> </ul>
<b>Outcome 2.2</b> Increased access to assets that build community resilience and create an enabling productive environment (water, energy, ITC).	Additional volume of water stored in targeted communities.	Baseline TBD	TBD				
	Number of households in targeted communities with access to renewable energy sources.	Baseline TBD	TBD				
	Number of Internet Access Points available to households in targeted communities.	Baseline TBD	TBD				
	Number of households in target communities that adopt technologies for integrated soil fertility management, integrated pest management, and technology for increasing efficient water use that improved adaptability to climate change	Baseline TBD	TBD				
<b>Outcome 2.3</b> Improved diet of adequate quality and appropriate quantity, referring to context-appropriate	60% of households have food consumption patterns that substantially reflect appropriate "best option food basket".	Baseline TBD	3,600 hh (15% female headed hh)				

<sup>4</sup>Refers to BL on income of the households that as part of a producers group present a Business Plan; a score card would allow registration of different incomes disaggregated by income source, including incomes coming from agriculture and related activities. The purpose is to identify any additional incomes coming from agriculture and related activities as result of project activities.



Results Hierarchy	Indicators			Means of Verification			Risks
	Name	Baseline	End Target	Source	Frequency	Responsibility	
food-based dietary guidelines and drawing insofar as possible on own-production and local markets in a context of effective behaviour change and nutrition education activities.	▪ Number of reference “best option food baskets,” reflecting nutritionally adequate, low-cost options, developed and communicated (based on food-based dietary guidelines and giving preference to foods available from local production).	▪ Baseline TBD	TBD	Baseline studies Impact study Progress reports Verification in the field	Before effectiveness Annually Mid Term Before Closing	PMU MOA	▪ Loss of traditional knowledge, food culture and agro-biodiversity <b>Institutional risks:</b> ▪ Limited inter-institutional coordination for actions at the regional level ▪ Incipient managerial and organizational capacity to implement investments at the local level (communities and producers’ organizations)
	▪ Number of crops and animal varieties and wild species used as food or income generating source at community level.	▪ Baseline TBD	▪ Same or more				
<b>Component 3: Project and Knowledge management and Coordination</b>							
<b>Outcome 3</b> Efficient and adequate management and implementation of planned activities and effective coordination and planning between institutions at the national, regional and local level.	▪ At least 90 per cent of the AWPB is implemented each year.	▪ 0	▪ 90 per cent annual	AWPB Supervision reports Progress reports	Annually Mid Term Before Closing	PMU MOA	
	▪ Number of evidence based knowledge products developed (written, video or oral/radio).	▪ 0	▪ At least four	Supervision reports Progress reports			
	▪ Number of MOUs signed with public institutions to provide services to the project.	▪ 0	▪ At least four				
	▪ The project’s global investment plan and AWPBs are reflected in the regional budgets and plans for two regions.	▪ 0	▪ Two regions	NSC and RM Minutes Progress reports			



## I. Strategic context and rationale

### A. Country and rural development context<sup>5</sup>

1. **Country geography and population.** Situated on the northern coast of South America, Guyana borders the Atlantic Ocean, Suriname, Venezuela and Brazil. It covers an area of approximately 215,000 square kilometres with a population of 747,883 inhabitants according to the Guyana Population and Housing Census 2012 Preliminary Report<sup>6</sup>. The country is situated in the tropical territory of north-eastern South America and is part of the Guiana Shield region which forms part of the Amazon Biome. Guyana is home to a vast expanse of primary tropical forest, freshwater resources and a unique savannah ecosystem. The country is divided into four distinct natural regions: the coastal plain, hilly sand and clay in the northeast, interior savannahs in the south west and the highland forest. The savannah and highland forest are also called the hinterland.
2. From an administrative point of view, Guyana is composed of ten regions. These include: Region 1 Barima Waini, Region 2 Pomeroon-Supenaam, Region 3 Essequibo Islands-West Demerara, Region 4 Demerara-Mahaica, Region 5 Mahaica-Berbice, Region 6 East Berbice-Corentyne, Region 7 Cuyuni-Mazaruni, Region 8 Potaro-Siparuni, Region 9 Upper Takutu-Upper Essequibo (Rupununi) and, Region 10 Upper Demerara-Upper Berbice. The territorial administration is under the Ministry of Communities (MOC) which is responsible for overseeing local government comprising ten Regional Democratic Councils (RDCs).<sup>7</sup>
3. According to the 2012 Preliminary Census Report, 90 per cent (673,095) of the country's inhabitants live on the narrow coastal plain, with a population density of more than 115 persons km<sup>-2</sup>. The population density for the entire country is 3.5 persons per km<sup>-2</sup>, with a very sparsely populated hinterland regions with less than one person km<sup>-2</sup>. In terms of rural versus urban population the 2012 census indicated that 26.4 per cent (191,810 inhabitants) live in urban areas as compared to 73.6 per cent (535,193 inhabitants) in rural areas. The census further indicated that females slightly outnumbered males. There were 372,547 males and 375,337 females, thus giving an estimated sex ratio of 99 males per every 100 females. Average household size has decreased from 4.1 persons per household in 2002 to 3.6 persons per household in 2012. The highest average household size was recorded for the hinterland regions representing 4.7 persons per household.
4. **Indigenous peoples.** Indigenous peoples account for more than three quarters of the population in regions 8 and 9 (75.9 per cent and 89.2 per cent, respectively) and close to two thirds of the population in region 1 (62.2 per cent). According to census information, Guyana's population is composed of: Indo-Guyanese (43.5 per cent); Afro-Guyanese (30.2 per cent); Mixed Heritage (17.6 per cent) and Amerindian: Arawaks, Macushis, Patamonas, Wapishana, Wai Wais, Caribs, Akawaio, Warrauas and Arecunas (9.2 per cent). The Census preliminary report indicates that, there are several indigenous peoples in Guyana not recognized by the Census: Trio, Taruma and Atorad.
5. **The economy.** The World Bank estimates that Guyana's Gross Domestic Product (GDP), based on the Atlas Method, was US\$ 3,763 in 2014. Both the Bank and the Economist Intelligence Unit (EIU)<sup>8</sup> see GDP growth in 2016-17 supported by commodities production and mining investments. The EIU report notes that, following an estimated expansion of just 1.6 per cent in 2015, economic growth is forecast to accelerate to 3.2 per cent in 2016 and 3.7 per cent in 2017 as substantial new gold mining projects come on stream. The EIU report also forecasts that the new administration will continue implementation of its Low Carbon Development Strategy (LCDS), under which Guyana is committed to reducing emissions and deforestation in exchange for development assistance. The EIU considers however that economic growth presents important downside risks, as prospects for a sustainable recovery in the sugar industry remain poor despite a recent boost to production levels. The entire agricultural sector will remain exposed to flooding and other weather-

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<sup>5</sup> See Appendix 1 for additional information on country and donor strategies, projects and programmes and a more detailed institutional framework.

<sup>6</sup> [http://www.statisticsguyana.gov.gy/pubs/2012\\_Prelim.pdf](http://www.statisticsguyana.gov.gy/pubs/2012_Prelim.pdf)

<sup>7</sup> Commonwealth Local Government Forum,

[http://www.clgf.org.uk/userfiles/1/file/Guyana\\_Local\\_Government\\_Profile\\_2013\\_CLGF.pdf](http://www.clgf.org.uk/userfiles/1/file/Guyana_Local_Government_Profile_2013_CLGF.pdf)

<sup>8</sup> Economist Intelligence Unit .March 2016i

related risks. Furthermore, a prolonged slump in gold prices could curtail output from existing capacity, as well as new investment in small and medium-scale mining.

6. **Agriculture and rural development.** As noted above, agriculture continues to be significant in terms of the country's development. Its development is framed by the government's National Strategy for Agriculture in Guyana 2013- 2020<sup>9</sup>. The Strategy document provides comprehensive information on agricultural resources and their export potential. The document indicates that an estimated 1,740,000 ha of land are being used for agricultural purposes although only approximately 200,000 ha are used effectively with relatively adequate drainage and irrigation. Agriculture is predominantly undertaken by small-scale farmers and indigenous people, farming less than 5 ha of land. Cultivated crops include rice (90,000 ha), sugar (48,000 ha), coconut (25,000 ha), and non-traditional crops occupying about 30,000 to 40,000 ha and showing upward trends while about 158,473 ha of agricultural land are used for livestock. The document highlights agriculture's contribution to the economy in terms of exports indicating that approximately 31 per cent of total exports are agricultural exports, excluding forest products. In 2013, rice exports amounted to US\$ 243 million (14 per cent), sugar accounted for US\$ 132.2 million (9.5 per cent), shrimp and fish amounted to US\$63.9 million (4.6 per cent), timber amounted to US\$ 39 million (2.8 per cent) and other crops (fruits and vegetables US \$4.7 million (0.3 per cent)

7. **Poverty and human development.**<sup>10</sup> The United Nations Development Programme (UNDP) indicates that, based on the 2009 Household Income and Expenditure Survey (HIES) and the Guyana Living Conditions Survey, the proportion of households living in moderate poverty (on US\$ 2 daily) had declined from 43 per cent to 36.3 per cent and extreme poverty had dropped from 28.7 per cent to 19.1 per cent from 1992. Notwithstanding, data revealed that for particularly vulnerable groups, such as Amerindians, the outlook was less positive as 77 per cent were considered poor. More recent data on living conditions will only be available upon completion of a new survey being carried out under an Inter-American Development Bank (IDB) technical cooperation project expected by mid-2016.

8. An earlier Poverty Reduction Strategy Paper (PRSP)<sup>11</sup> noted that "the poor are largely self-employed in agriculture or work as manual labourers. In urban areas, the incidence of the poor is highest among the unemployed and those working as domestic workers and in the construction sector. The proportion of poor households headed by women is similar to that of non-poor households, suggesting that female headship is not necessarily a cause of poverty. Similarly, the age of the head of the household seems not to have any bearing on poverty, the average age of the household head, at 43.6 years being fairly even across all welfare groups. One of the main differences among poor and non-poor households, however, is in the number of people living in the household. Households in the poorest quintile are likely to have two more people, both of them children, than those in the other quintiles. This means that poor households are not only larger, but that each wage earner in a poor household supports a larger number of dependent children".

9. The UNDP considers Guyana to be in the medium human development category, positioning it at 124 out of 188 countries and territories. Between 1985 and 2014, Guyana's Human Development Index (HDI) value increased from 0.545 to 0.636, an increase of 16.6 per cent or an average annual increase of about 0.53 per cent. The report underlines that between 1980 and 2014, Guyana's life expectancy at birth increased by 3.8 years, mean years of schooling increased by 2.7 years and expected years of schooling increased by 0.5 years. Guyana's 2014 HDI of 0.636 is above the average of 0.630 for countries in the medium human development group although below the average of 0.748 for countries in Latin America and the Caribbean.

10. **Nutrition.** In 2003, FAO reported that in Guyana "multiple forms of malnutrition remain significant public health concerns and a threat to human and national development." The same is true today, with indications of substantial inequality between urban, coastal populations and rural, indigenous peoples in the hinterlands. Guyana's population suffers from undernutrition, micronutrient deficiencies, and overweight and obesity. For children, undernutrition remains the greatest problem, whereas adults face mostly problems of micronutrient deficiencies and overweight and obesity. While

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<sup>9</sup> [http://grdb.gy/images/stories/annualreport/national\\_per\\_cent20agriculture\\_per\\_cent20strategy\\_per\\_cent202013-2020.pdf](http://grdb.gy/images/stories/annualreport/national_per_cent20agriculture_per_cent20strategy_per_cent202013-2020.pdf)

<sup>10</sup> [http://www.gy.undp.org/content/guyana/en/home/ourwork/povertyreduction/in\\_depth/](http://www.gy.undp.org/content/guyana/en/home/ourwork/povertyreduction/in_depth/)

<sup>11</sup> [http://www.finance.gov.gy/images/Docs/Government\\_per\\_cent20Documents/Policy\\_per\\_cent20Documents/PRSP.pdf](http://www.finance.gov.gy/images/Docs/Government_per_cent20Documents/Policy_per_cent20Documents/PRSP.pdf)

these problems are clearly happening at the population level, it is also likely that co-existence of stunted children and overweight or obese mothers in the same household also occurs. Such problems are common in middle-income countries like Guyana, which experience a nutrition transition as incomes increase, livelihoods and the food systems transform, and diets change to include more purchased and processed foods, even for the more rural populations. A PAHO/CFNI report in 2000 already noted that diet- and obesity-related diseases such as diabetes, hypertension, and heart disease were among the ten leading causes of death.

11. The prevalence of stunting (chronic undernutrition, indicated by low height-for-age) has stagnated in Guyana in the past decades. According to the 2015 country profile for Guyana in the *Global Nutrition Report*<sup>12</sup>, the prevalence of stunting of children under 5 was 14 percent in 1997 and 17 years later, in 2014, it was at 12 percent. Among the poorest quintile, data from 2007 and 2009 put stunting between 25 and 30 percent, or almost one out of every three children, representing a serious public health problem. Significant differences also exist by geography: while 3 percent of children under 5 are stunted in coastal areas, 13 percent are stunted in the interior (DHS 2009). Only 5 percent of children in this age group are considered overweight. At the same time, 62 percent of adult women and 44 percent of adult men are overweight. Eight percent of women have a low body-mass-index ("thinness"). Thirty-four percent of women of reproductive age suffer from anemia. Of children 6 to 59 months old, 7 percent suffer from vitamin A deficiency (Global Nutrition Report 2015).

12. **Gender equality.** The UNDP 2015 Human Development Report shows that Guyana has a Gender Inequality Index (GII) value of 0.515, ranking it 114 out of 155 countries in 2014 underlining that in Guyana: (i) 31.3 per cent of parliamentary seats are held by women, (ii) 60.3 per cent of adult women have reached at least a secondary level of education compared to 47.8 per cent of their male counterparts, (iii) for every 100,000 live births, 250 women die from pregnancy related causes; and the adolescent birth rate is 88.5 births per 1,000 women of ages 15-19 and, (iv) female participation in the labour market is 42.6 per cent compared to 80.5 for men.

13. **Agricultural development and environmental policies.** The "National Strategy for Agriculture in Guyana 2013-2020"<sup>13</sup> integrates for the first time sub-sectoral policies in an overall agricultural strategy. The strategy aims at furthering sustained agricultural growth for uplifting living standards while enhancing provision of safe and high quality food. It calls for Guyana to use its natural resources as efficiently and as sustainably as possible by exploiting the country's comparative advantage in the agricultural sector (broadly defined to include crop production, livestock and fisheries) to expand and add value to agricultural exports and to substitute imports in an efficient manner.

14. The "Guyana Food and Nutrition Security Strategy 2011 – 2020" (FNSS)<sup>14</sup> aims to address the factors affecting Guyana's food availability, stability and access. The FNSS places emphasis in appropriate technology transfer, facilitating marketing through value-added products and market information, increasing employment in rural areas and vulnerable groups, reducing risk and vulnerability to natural disaster and economic crisis, furthering food safety and quality control and improving nutritional practices at the household levels

15. The GoG has since June 2009 adopted a Low Carbon Development Strategy (LCDS)<sup>15</sup> that aims at combating poverty while mitigating and responding to the impact of climate change by avoiding deforestation and creating a low carbon, climate-resilient economy as the basis for the environmental, social and economic transformation of the country. Its objectives include *inter alia* investing in strategic low carbon economic infrastructure, including hydro-electricity development, improving access to arable, non-forested land and furthering investment in high-potential low carbon sectors, such as fruits and vegetables, aquaculture and ecotourism. The LCDS underlines the need to create new economic opportunities for Amerindian communities and protect productive land from changing weather patterns. Two concrete projects prioritised under the LCDS are directly benefitting

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<sup>12</sup> <http://ebrary.ifpri.org/utils/getfile/collection/p15738coll2/id/129945/file/130156.pdf>

<sup>13</sup> [http://cms2.caricom.org/documents/11264-moa\\_agriculture\\_strategy\\_2013-2020\\_-\\_cd.pdf](http://cms2.caricom.org/documents/11264-moa_agriculture_strategy_2013-2020_-_cd.pdf)

<sup>14</sup> [http://infoagro.net/programas/seguridad/politicas/regioncaribe/estrategia\\_guyana.pdf](http://infoagro.net/programas/seguridad/politicas/regioncaribe/estrategia_guyana.pdf)

<sup>15</sup> <http://www.lcds.gov.gy/>

Amerindian communities: the Amerindian Land Titling project (ALT) and the Amerindian Socioeconomic Development FUND both implemented By UNDP and MIPA<sup>16</sup>. The government is currently developing a Green Economy Strategy which will be substituting the LCDS.

16. **Land tenure.** In the hinterland the land is mostly state land which can be leased out to private investors, through long term leases. Another important part of the land is owned by Amerindian Village Councils whom also lease land to individual non-indigenous farmers. The Village Council, an elected customary institution recognized by the government, assigns land uses for community and family activities through consultative processes within the community. Some land is still in the process of being titled to Amerindian Village Councils supported by the ALT, with the expectation that titling and demarcation will strengthen land tenure security and the expansion of the asset base of Amerindian villages, thus enabling improved long term planning for their future development. The expected outputs of the ALT are: i) Land titles issued and demarcation process completed for all Amerindian villages that submit requests; ii) A mechanism in place for identifying and resolving land issues; iii) A Revised Communication Strategy. Based on the principles of FPIC, the land titling process is done for Amerindian Villages where two thirds of the adult population are supporting the request.

17. **Agricultural and rural development institutions.** Overall responsibility for agricultural development lies with the Ministry of Agriculture (MOA). Its principal mandate is to ensure the formulation and implementation of policies and programmes which facilitate the development of agriculture (including fisheries) while contributing to the enhancement of rural life by sustainably improving incomes of producers and other participants in the agricultural production and marketing chain; and maintaining a sound physical and institutional environment for present and future productive activities. Agencies under its aegis include: i) the National Agricultural Research and Extension Institute (NAREI), the Guyana Livestock Development Authority (GLDA), the Guyana Marketing Corporation (GMC), the Hydro-meteorological Unit and the National Drainage and Irrigation Authority (NDIA).

18. Other relevant government institutions for agriculture and rural development include: (a) the Ministry of Indigenous Peoples' Affairs (MIPA), which is, among other things, responsible for protecting Amerindian cultural heritage, continuing land titling and demarcation for Amerindian communities, expanding community social services, supporting the expansion and establishment of sustained value-added and agro-processing initiatives, and supporting the implementation of Village/Community Development Plans aimed at achieving food and security, generating employment and increasing income levels for Amerindian communities; (b) the recently founded Ministry of Communities (MOC), which supports the government's commitment to decentralisation including the devolution of political and administrative decision-making processes to sub-national levels of government such as Regional Democratic Councils, Neighbourhood Democratic Councils and Town Councils; (c) the Ministry of Natural Resources and the Environment (MNRE), responsible for forestry, mining, environmental management, wildlife, protected areas, land use planning and coordination, and climate change; (d) the Office of Climate Change (OCC), responsible for coordinating climate change adaptation and mitigation initiatives and the implementation of the LCDS; (e) the Civil Defense Commission (CDC), responsible for disaster risk management and response.

19. A number of Non-Governmental Organizations (NGO) are also present throughout the country. One of the most relevant in the proposed intervention area of the new operation in Region 9 is Conservation International Guyana.

## B. Rationale

20. **The political framework and national priorities.** The proposed project would contribute towards achieving the overall objectives of the National Strategy for Agriculture of furthering sustained agricultural growth to raise living standards while enhancing provision of safe and nutritious food. Among the strategy's 25 priorities the proposed project would support: (i) increasing production and improving quality of traditional crops, (ii) facilitating and supporting efforts to link small farmers to dynamic markets, (iii) maximizing farmer-to-farmer education in order to develop knowledge and

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<sup>16</sup> Both projects are financed through the main financing instrument of the LCDS, the Guyana REDD+ Investment Fund (GRIF). For further details see appendix 1

skills, (iv) increasing adaptation to a changing climate in a low carbon development pathway; (v) deepening ownership and access to land by small farmers and indigenous communities; and (vi) strengthening the participation of farmers and farming communities in the management of drainage and irrigation systems, including support for Water Users' Associations.

21. In relation to the LCDS, the project would contribute towards the objectives of creating new economic opportunities for indigenous peoples' communities and protecting productive land from changing weather patterns. In terms of the FNSS the project would contribute towards improving livelihood resilience through income generation, access to assets, improved nutrition, and adaptation to climate variability.

22. The project will also contribute to the achievement of the strategic goals of the Integrated Agriculture Development Strategy for Region 9 2015-2020, which aims to: (i) Improve food and nutrition security, reduce poverty, and enable sustainable and integrated development of local communities; (ii) Strengthen coordination between agricultural related institutions to improve public and private sector linkages and promote a business-like approach to agriculture; (iii) Enhance food systems production, diversification, efficiency and profitability; (iv) Enhance the growth, competitiveness and efficiency of marketing systems and agro-food enterprises both in the domestic and international markets; and (v) Develop Infrastructure and Services in support of Agricultural expansion.

23. **Rural poverty persistence and concentration.** The 2009 HIES referenced in Guyana's PRSP 2011-2015<sup>17</sup> indicates that, based on consumption, poverty was highest in Region 1, Region 8 and Region 9. In the rural interior region of the country, where indigenous peoples are concentrated, three out of four people are poor. The poverty gap and poverty severity also suggested that poverty was deepest in the rural interior. The "Rupununi Economic and Environmental Baseline Report" by Conservation International - Guyana (2015)<sup>18</sup> provides further evidence that households' food security in hinterland Region 9 is compromised, and that the situation worsens during drought and flood seasons.<sup>19</sup> The dependence on one main crop, cassava, is one of the main drivers of climate vulnerability. Additionally, discernible changes in the Amerindian diets (increasingly in favour of refined carbohydrates, processed foods, and sweetened and calorie-dense foods), may be indicted for the rise in chronic diseases in this Region. While these nutritional and epidemiological transitions are in the incipient stages, they could become the main burden of public health, concurrently eroding the human capital that is vital to the future development of the Region.

24. **Climate Change vulnerability.**<sup>20</sup> Guyana's weather and climate are primarily influenced by the Inter Tropical Convergence Zone (ITCZ) and are sensitive to El Nino Southern Oscillation (ENSO). The second National Communication to the United Nations Framework Convention on Climate Change (UNFCCC) (2012) states that Guyana has a tropical climate, that has experienced significant changes since the 1960s (e.g. increase in temperature). Climate models indicate that these changes will exacerbate over the forthcoming century, affecting Guyana's principal vulnerabilities to climate-specific risks that include droughts, floods and sea level rise/saltwater intrusion in the coastal plain. Climate model projections predict that temperatures can increase by up to 4°C and weather patterns will become more extreme. Sea level is projected to rise at a rate of 1cm/year, about 40cm-60cm by the end of the 21st century, with significant impacts on the coastal areas and the attendant reductions in agricultural productivity. Guyana was ranked 13 out of 162 countries for flood risk by the United Nations Office for Disaster Risk Reduction. At the same time, stresses on Guyana's internal water resources, aquifers and rivers are growing due to changing rainfall patterns, increases in the number of dry spells and drought conditions. The problem will worsen under the projected CC scenarios.

25. **Main economic constraints in Region 9 and 1.** The remoteness of project areas in both Region 9 and Region 1 remains a persistent challenge for the development of business and income-generating opportunities. The lack of infrastructure (in particular, poor transportation and

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<sup>17</sup> <https://www.mindbank.info/item/6053>

<sup>18</sup> Conservation International-Guyana, 2015. The Rupununi Economic and Environmental Baseline Report.

<sup>19</sup> The climate of the Rupununi is characterized by a wet season (April to August) during which the Region receives more than 80 per cent of 1600 mm of rainfall. The unimodal rainfall pattern effectively facilitates only a single crop per annum; and the combination of low water infiltration rate, drought conditions and changing rainfall patterns is affecting the agricultural production.

<sup>20</sup> See the Appendix 14 SECAP Note for detailed data and assessment of environmental issues affecting Guyana.



telecommunication networks) significantly limits access to markets and hinders the integration of local activities in the national economy due to high transportation costs combined with low volumes, low productivity and high production costs. Similarly limited is the access to information, technology and energy that are needed to support investment in productive activities and to promote adaptation to the changing economic and environmental context.

**26. Main natural resources constraints for the development of the agricultural and rural sector in Region 9 and 1:** Agriculture and rural livelihoods in both Region 9 and Region 1 are affected by increased variability in rainfall patterns. The effects of such variability are more severely felt in Region 9 where severe floods and prolonged dry spells, coupled with the lack of adequate water management technologies, represent major challenges for the development of agriculture and the livestock sector. The low fertility of the savannah soil poses a further constraint to agriculture in Region 9. In Region 1, salt water intrusion is an important impact of climate change which by time will affect arable land and freshwater resources in coastal areas. Notwithstanding these differences, climate change is affecting the sustainability of established production patterns and in particular the transition to new more settled production patterns in both regions where traditional coping strategies are no longer an option. The transition to new production patterns therefore need to incorporate better adaptability to changing climate and economic conditions. This will require access to knowledge, investment and technologies for natural resource management that at the moment are lacking.

**27. Main challenges:** within a context characterized by persisting poverty and affected by climate change, the identified constraints are posing a severe strain on the resilience and social cohesion of the target group. The capacity of hinterland communities to respond to new economic and environmental challenges is further limited by the lack of incentives for investments able to reduce economic and climate risks. The main consequences of this situation on the agricultural sector and on the livelihoods of rural households in the project area are twofold:

- (a) As agriculture keeps losing competitiveness against other sectors such as mining, which continues to attract the flows of capital and labour in the region to the detriment of other rural sectors, agricultural production remains largely dominated by uncoordinated small producers that do not have the capacity to undertake joint investments in common goods (technology, knowledge) required to upgrade the quality, competitiveness and reliability of local production so as to access distant markets or attract VC drivers to the area.
- (b) Traditional response strategies to climate variability and existing production patterns are threatened while rural livelihoods are becoming increasingly dis-embedded from the territory. The lack of income opportunities in the local economy and the presence of better employment opportunities in the mining sector are discouraging people (and particularly young people) from participating in the household economy and in agriculture. Temporary or permanent migration is leading to the disintegration of the traditional household structure with ensuing social problems, while the increasing dependence on external income sources and the de-legitimation of the traditional household economy is enhancing the complexity of nutritional problems, including an incipient transition to unhealthy diets, decreased food security and the loss of traditional knowledge and the use of a diversity of crops and wild species as food sources.

**28. Opportunities to improve livelihoods of indigenous people and small farmers in the project area.** Project areas in both Region 9 and Region 1 offer however favourable conditions that can be exploited to improve the livelihoods of the target group and increase income-generation opportunities in agriculture and related activities.

**29. In the long and medium term,** the MOA, which will be the main implementing agency for the project, is interested in strengthening agricultural value chains in the hinterland within the general objectives of re-balancing agricultural production away from traditional export products, such as sugar and rice, that are vulnerable to global market risks; and away from traditional coastal agricultural areas that are vulnerable to salinization and other adverse effects of climate change. The availability of state land, low population pressure and the availability of labour (particularly youth) in the hinterland offer long-term opportunities for strengthening the national agricultural sector by increasing production and market linkages in the hinterland to serve national and international markets. The building of market-oriented production capacity in the hinterland is seen as complemented by long-term infrastructural investment in key regional centers (Lethem in Region 9 for example) that will aim to build roads and energy supply for large-scale processing and cold storage facilities that will serve as



regional hubs for linking regional value chains to national and international markets. These conditions can generate viable opportunities for linking small farmers and indigenous people in project areas with commercial agriculture and increasing their participation in national and international markets.

30. *In the short term*, consultations and field visits in Region 9 and Region 1 confirmed the presence of promising conditions that can be leveraged to improve the resilience of rural livelihoods in project areas: (a) the government is placing high priority on the development of the hinterland and its integration in the national economy; (b) high levels of human capital as expressed in education, skills and motivation and incipient entrepreneurial attitude; (c) widespread and acute awareness of the need to improve livelihood strategies to adapt to economic and environmental challenges and to increase resilience in the face of climate change, coupled with a diffused appreciation for the value of ecosystems and biodiversity; (d) most villages in the project area have common land titles and a strong community governance supported by social capital bridging across ethnic and socio-economic groups and they have some familiarity with participatory planning approaches as the result of previous activities supported by government agencies, international cooperation agencies and local NGOs; (e) local markets and local public procurement offer an accessible and still unsaturated opportunity for small- and medium-scale agricultural producers with little competition from large businesses; (f) project areas host an incipient network of producers' groups (including women's associations) that have established positive collaborations with NGOs and local government agencies. The project will stimulate synergies between these factors by rooting local value chains development in a strengthened participatory planning approach.

31. The conditions highlighted above provide an opportunity for the project to support rural households and communities in the identification and development of value chains that can provide new income opportunities and contribute to rural livelihood diversification. Both regions offer viable opportunities to increase the competitiveness, inclusiveness and sustainability of local value chains through improvements in natural resources management, production, processing, storage and quality-enhancing technologies and through the strengthening of market access for small-holders. These include cassava and its main by-products (farine and cassava bread), peanuts, fruit and livestock in Region 9; and spices (ginger, turmeric, black pepper, nutmeg) in Region 1.

**Table 1: Commodities identified for local value chain development**

Region 9	Region 1
<ul style="list-style-type: none"> <li>• Cassava and its by-products (farine and cassava bread)</li> <li>• Peanuts</li> <li>• Fruit</li> <li>• Livestock</li> </ul>	<ul style="list-style-type: none"> <li>• Ginger</li> <li>• Turmeric</li> <li>• Black pepper</li> <li>• Nutmeg</li> </ul>

32. Preliminary investigations suggest that Region 1 would be well placed to exploit opportunities for value chains development through increased linkages to national and international markets. To support the upgrading of the local spices value chain and promote market linkages at the national and international level, the MOA has built a ginger processing factory in Mabaruma that is expected to start its operations in the course of 2017. Preliminary consultations undertaken by the MOA have shown that private agri-food companies operating in the region (such as Beharry Group and Continental Group) would be interested in purchasing locally-produced ginger and turmeric for the national market, given that raw materials currently have to be imported. At the international level, drink companies from Suriname are interested in buying dried ginger from Guyana. Although informal consultations have been held with buyers, a detailed value chains study for ginger and other spices has not yet been undertaken. It has been agreed that a detailed value chains study for spices in Region 1 will have to be completed as a condition for first IFAD disbursement and will be reimbursed as a retroactive expense. Opportunities for greater integration in national markets also exist for other agricultural products in Region 1, as shown by the case of the Blue Flame women's agro-processing group in Mabaruma that has been able to access and consolidate a growing market in Georgetown for its cocoa products and, lately, for its natural coconut oil products.

33. In Region 9, given the persistence of logistic and transportation problems, opportunities for value chains development mostly relate to increased access to local and regional markets; opportunities are however also linked to short-range cross-border trade with Brazil. Preliminary

indications on the commodities and sectors that hinterland communities have identified as possible targets for local value chains development in Region 9 come from the participatory value chains analysis performed as part of the IDB-MIF “Leveraging Natural Capital in the Rupununi” project, (see Appendix 4, Box I). Rupununi cassava farine has still untapped market opportunities at the regional level, driven by demand from labourers in the mining sector. The wholesomeness of Rupununi farine is a value that can also be exploited to develop short-range cross-border trade with Brazil due to the presence in border areas of Amerindian groups. Concerning the peanut value chain, peanut butter is currently sold locally through state procurement channels (including school breakfast programs and Guyana defense forces). Regional niche markets for naturally produced peanut butter are however available thanks to the growth of eco-tourism, with the primary buyers being eco-lodges, restaurants and hotels. Consultations with the Industry Department of the Ministry of Business (MOB) have shown that the development of the new Industrial Park in Lethem could offer interesting prospects for the nuts and fruits value chains, since agri-business processors have already submitted applications for operations related to the production of jams and jelly and for the processing of nuts produced in the region

**34. Environmental sustainability and adaptation.** Region 9 presents a unique combination of natural and cultural capital. A broad belt of thick forest separates the Rupununi from the coast, the most densely populated part of the country. This has contributed to maintaining a relatively intact and fully functional ecosystem in the Rupununi. Currently about 1.1 per cent of the forest in the region is actively used for subsistence, shifting agriculture with a 10-20 year cycle for returning to the same plot, which in general means the practice is sustainable. A total of 67.5 per cent of the 4,571 hectares of arable lands are under mixed forest cover and the other 32.5 per cent are in pockets of the savannahs. In addition, Region 9 has the highest acreage and percentage of land set aside for conservation purposes, including the conservation areas identified by Amerindian communities in their titled lands<sup>21</sup> along with 59 sites of spiritual importance located in the forest throughout the region<sup>22</sup>. There is evidence that increased access (e.g. roads) has already resulted in indiscriminate and at times illegal collection, hunting and fishing.<sup>23</sup> Based on their access to the natural resources and ownership of forestlands, Amerindian Communities are optimally placed to enable conservation of standing forests while improving their livelihoods, in this way linking local wealth creation and sustainable NRM.

**35. IFAD strategy in the country. Consolidation, replication and scaling-up.** Previous IFAD projects in Guyana mainly operated in the coastal region and focused on expanding opportunities for small-scale rural producers and strengthening their capacity to develop small-scale enterprises. The proposed project offers the opportunity to apply the experience matured in promoting the sustainable development of agricultural and non-agricultural activities to remote hinterland regions largely populated by Amerindian people. Through this strategy, IFAD is therefore supporting the GoG in its intention to reduce the divide between the hinterland and the coast and in its attempts to reduce poverty levels of rural men and women in isolated communities. The proposed project is aligned with IFAD’s strategy for Guyana, as defined in the Country Strategy Note.

**36. Strategic alliances.** The proposed project will be implemented under the leadership of the MOA, in this way ensuring close cooperation with relevant MOA agencies with an established presence at the local level such as NAREI, GLDA, GMC, Hydromet and NDIA. Also MIPA will be closely involved in project implementation, in particular in relation to the project’s emphasis on strengthening the planning, budgeting and management capacity of villages, communities and community-based organizations. This emphasis is aligned with current government decentralization strategies involving local governments and Amerindian community institutions. Efforts for strengthening the role of local government levels (Regional Development Councils and Neighbourhood Development Councils) are taking place through the recently established MOC, while a sustained emphasis on Village- and District-level Development Planning in Amerindian villages and communities is underpinned by several initiatives and projects implemented by the MIPA, often in partnership with international donors and local NGOs. Close cooperation with these agencies and organizations will be sought throughout the project, so as to favour synergies and promote a

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<sup>21</sup> FAO, CI, IDB, MIF. 2015. The State of Food and Agriculture in the Rupununi, Guyana.

<sup>22</sup> CI, IDB, MIF, Practical Action. 2015. Rupununi Ecosystem Baseline.

<sup>23</sup> IDB. 2012. Leveraging Natural Capital in Guyana’s Rupununi. Donors Memorandum.

widespread and lasting diffusion within both the government and civil society of the capacities for natural resources, nutrition and climate resilience-aware planning that will be built during the project.

37. In Region 9, the Hinterland Project will harness complementarities with the activities that will be undertaken by the IDB Sustainable Agricultural Development Project. The main objective of the IDB financed Program is to increase the productivity of the agricultural sector while maintaining a sustainable and climate resilient use of natural resources in Guyana; its areas of operation are Regions 5, 9 and 10. The IDB Program will support MOA agencies in the preparation and implementation of an extension strategy that will include incentives to small farmers for the adoption of technology packages for cassava, peanuts, orchards, livestock and pastures. To enhance synergies between both investments and improve coordination at the national and regional level, the two project will use the same National Steering Committee (NSC) and Regional Management Committee (RMC) in Region 9. Collaboration will also be sought with IDB initiatives for the use of information and communication technologies in rural areas.

38. The proposed project would also be harmonised with approaches under the IDB-MIF “Leveraging Natural Capital in the Rupununi Region” (Region 9) project, aimed at creating and strengthening environmentally sustainable local-level initiatives and assisting beneficiary community-based enterprises in accessing markets for their products. It would be harmonised also with Guyana’s Reducing Emissions from Deforestation and Forest Degradation REDD Plus Investment Fund (GRIF)<sup>24</sup> that aims to align national economic development with climate resilience and low-deforestation, low carbon growth by investing in low-carbon strategies identified in the LCDS. Collaboration would be sought with FAO in order to adapt and scale up the SOFA study undertaken in Region 9 to Region 1, and support the implementation of the Integrated Sustainable Agriculture Development Strategy for Region 9 2015-2020 developed in collaboration between MOA, FAO and CI-Guyana.

## II. Project description

### A. Project area and target group

39. **Project area.** The project will focus on indigenous and non-indigenous rural households in all sub-regions of Region 9. With regard to Region 1, the project will only intervene in the Mabaruma and Moruca Sub-regions acknowledging that the current knowledge about the contextual and baselines conditions in the area is extremely limited and it would be too much for the project to cover data gaps and make an adequate intervention strategy for all three subregions of region 1. The current population in Region 1 and Region 9 accounts for approximately 6.8 per cent of the country’s population. A list of the indigenous people living in Region 1 and Region 9 is presented in Table 7, Appendix 2.

40. **Region 1 (Barima-Waini).** Region 1 is located in the northwest of the country covers an area of 20,339 km<sup>2</sup>. There are three sub-regions: Mabaruma, Matarkai, and Moruka. Most of the villages are isolated and located along the banks of the many rivers in the region. This area is covered with dense rainforest and only accessible by airplane or boat. The northern and northeastern sections include thousands of acres of rich alluvial soil, of which its main crops include coffee, ground provisions (such as cassava, eddoes and yams), cabbage, beans, corn, peanuts, and citrus fruits. While main activities are subsistence farming, fishing, and craft-production, many community members are involved in logging for coastal and multi-national sawmills, manicole palm harvesting, and gold-mining on the Barama and Barima Rivers.

41. In 2002, the population of Region 1 was 24,275 people; official final census data for 2012 shows an increase in population over a 10 year period to 27,643 inhabitants (1,1 per cent increase). Approximately 64 per cent of the population is young (24 years and less) and 48 per cent is female. The average household size is 5.47, which leads to 5,053 households in region 1 in 2012. Region 1 (like all hinterland regions), shows higher sex ratios, that is, more males than females in contrast to the Coastland regions with a 52.5 per cent male ratio. According to the 2012 Census (preliminary

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<sup>24</sup> <http://fs-unep-centre.org/sites/default/files/publications/grifcasestudy2012final.pdf>

results), in Region 1 there are 743 female headed households, of which 6 per cent are headed by women in the age group of 15 to 24 years of age.

42. **Region 9 (Upper Takutu-Upper Essequibo - Rupununi).** Region 9 is the largest region of Guyana. The main population center is Lethem, located on the Brazil-Guyana border, with an ethnically-diverse population. The surrounding communities all have as a minimum a government-built community center and primary school, with households spaced typically 100 m or more from each other. This region is divided in 4 geographical areas: northern Savannah's, Center including Lethem, South-Central and Deep-South. The Rupununi is situated on the Guiana Shield and represents part of the northern South American savannas and transition forest-savanna biome being one of the headwater tributaries to the Amazon basin.

43. Indigenous people comprise approximately 90 per cent of the population in Region 9; mixed ethnicity is 9 per cent. The main tribes are the Makushi, the Wapishana and the Wai Wai. The Makushi are located mainly in the north and central savannahs, the Wapishana in the south savannahs and the Wai wai in the headwaters of the Essequibo River at Gunn's Trip in the Deep-South.

44. The Macushi, Wapishana and Wai Wai primarily follow subsistence-oriented livelihoods, including small-scale shifting farming in the foothills of the mountains where the soil fertility benefits from the organic material generated by the forest in contrast to the little fertile and saline savannah soil. Many households rely heavily on gathering, hunting and fishing. Fishing is an important source of protein, especially during the dry seasons when fish are concentrated in shallows and game animals are more dispersed. During the rainy seasons, when much of the lower areas are flooded, hunting becomes more important and easier as the animals are concentrated on higher ground. Domesticated animals also provide an occasional protein source for most households. Farming areas, most ranging between 0.5-1 ha per household, are usually cleared from forest and cultivated with cassava, bananas, and, in some cases, peanuts as key crops. Other crops grown include corn, watermelons, pineapples, papaws, and cotton. Data on income from agro-processing, wages, tourism, fishing and livestock are presented in Appendix 2.

45. In 2002, the population of Region 9 was 19,387 people, and the official final census data for 2012, shows an increase of population in a 10 year period, to a total of 24,238 inhabitants (1.25 per cent increase). Approximately 63 per cent of the population is young (24 years and less) and 49 per cent is female. The average household size is 4.91, which leads to 4,936 households in region 9 in 2012. Like all Hinterland regions, Region 9 shows a higher sex ratio, that is, more males than females in contrast to the Coastland regions with a sex ratio of 51.3 per cent male. According to the 2012 Census (preliminary results), in Region 9 there are 685 female headed households, of which 13 per cent are headed by women in the age group of 15 to 24 years of age.

46. **Poverty, nutrition and food security.** The proportion of people living in poverty in Region 1 didn't improve in the period 1993 to 2006 (78.9 per cent and 80.1 per cent respectively); in Region 9, there has been some improvement for the same period: 93.3 per cent in 1993 and 74.4 per cent in 2006. Compared to the average percentage of population living in poverty (36.1 per cent in 2006) the data show that hinterland regions are still among the poorest regions in the country<sup>25</sup>. The proportion of underweight (weight for age) children under the age of 5 is almost 12 per cent in the Hinterland (15.5 per cent in Region 1 and 11.5 per cent in Region 9). Nearly 13 per cent of children in the interior are stunted (height for age) compared to 3.3 per cent in coastal areas and 5.4 per cent in rural areas (Demographic and Health Survey, Ministry of Health, 2009).

47. Several factors, singly or combined, contribute to the households' vulnerability to food insecurity in Regions 1 and 9. These factors are ecological/environmental, economic, and political-social. Both Regions, relative to the population that resides there, are characterized by a large land mass, a wide range of resources, increasing climate variability and challenges of salt water intrusion (Region 1) and extensive flooding followed by prolonged dry periods (Region 9), undeveloped markets, and remoteness leading to economic disadvantages of the regions. In this respect, transportation costs are relatively high and entire sub-districts and their villages are excluded from air and even secondary roads. This then translates into high per-unit costs thereby neutralizing any competitive economic

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<sup>25</sup> It should be noted however that using the same consumption basket to calculate poverty lines in urban and rural areas may have led to the possibility of measurement errors in these data (GOG, 2011).

advantages that may exist. Notwithstanding their remoteness, communities in these Regions feel the full impact of rising food, fuel and other commodity prices.

48. **Livelihoods and coping strategies.** Households in the project area engage in several income-generating activities to support their livelihoods. On average only 1 to 10 per cent of households in indigenous people's communities have members with full-time salaried jobs (teachers, health workers). In most cases, indigenous people work in a range of subsistence and cash-earning activities, including sales of raw and processed food crops, livestock and fish, forest products and crafts; petty trading; and occasional work as labourers, drivers, boatmen, tourist guides and NGO project workers. Households employed a range of coping strategies in the event of shocks, seasonality and other risks to food insecurity of the households.

**Table 2: Household coping strategies**

Type of Strategy	Consumption Strategies	Livelihood Strategies
<b>Adaptive</b>	Slight/moderate reduction in food intake and increased efforts at exploiting the natural-resources: hunting, fishing, gathering.	Borrow food or cash mainly from relatives and friends or purchase food on credit. Engage in wage labour. Increase storage of preserved foods, sale of livestock, and change agricultural practices.
<b>Distress</b>	Harvest young/immature crops and consume planting stocks. Reduce food consumption, seek assistance from relatives/friends or purchase food-items from shops.	Keep children from school. Moderate to heavy sales of livestock or other assets. Seek employment outside of the community.
<b>Survival</b>	Drastically reduce food consumption—adults and even children: skip meals for entire day; reduce quality of meals.	Wide-spread migration in search of food.

Source: SOFA Rupununi, 2015.

49. **Land tenure.** Amerindian villages have communal and legal ownership of the village lands, meaning that the land is owned by the Village, under administration of an elected Village Council, headed by a Toshao (chief). The Amerindian villages in the northern Rupununi all have titles to their demarcated land. Also in the Deep-south the land titling process have almost been fully completed, while in the south center processes with all 19 Village Councils, whom have submitted their request, is under way. The land demarcation and titling situation in the center is more complex because of a wider mix of big investor farms, private cattle ranges, Amerindian communities and the urbanization of Lethem. In Region 1 the situation is rather complex with a more mixed communities with individual farmers not belonging to an Amerindian village. However, in the Mabaruma subregion where the project interventions would start, all Amerindian villages have settled land titles and have not filed any request for expansion under the current land titling process. The project will work with villages and communities with and without their land titling resulted as well as with individual small farmers leasing land from the state or from Village Councils. To date, Amerindians collectively own almost 14 per cent of Guyana's land mass.

50. Many settlements today consist of main villages, satellite communities, farm camps and hunting and fishing camps that are widely dispersed across the territory. The settlement pattern is a tripartite one, whereby most families occupy three different family dwellings: a permanent house in the main village, a house or hut on the family homestead or farm camp near to their farming grounds and a semi-permanent hunting and fishing camp in the bush.

51. While government has recognized the majority of the villages with legal title to lands to date, communities have long had their own agreed-upon, or customary "rules" of land use that control where houses can be built, and where farming, logging, fishing, and hunting activities are permitted. The Village Council coordinates with the Village the allocation and use of the land to both residents and non-residents, including leases to non-residents and private companies. Each village (made up of a central and satellite communities) elects a Toshao and a Village Council to represent the Village. Out of the total body of 212 Tshaos, for a period of 3 years, a National Tshaos' Council of 20 members is elected as well as a chairperson to represent the Council. Nowadays, though still dominated by men, there are a few women elected as Tshaos and several women are village councillors, whereas in the past the leadership was completely managed by men.

52. **Youth and women.** Young people, 19 years and less, are about 58 per cent of the population in the project area. Moreover, between 8-9 per cent of the youths in the project area are in the 15-19 age groups, representing persons who might have completed primary and secondary education and are working or actively looking for jobs. Many of the youth migrate to Brazil or the Guyana coastlands in search of jobs in logging and mining concessions. The scale of Amerindian involvement in mining is causing loss of vital human capital, consumer goods acquisition has become a measure of status and has negatively influenced the quality of nutrition, subsistence agriculture and other socio-cultural practices have been devalued, and there is a rise in the number of female-headed households, which leads to excessive burden on women.

53. Women traditionally played a key role in conventional food supply and agriculture practices. In most communities, women perform strenuous tasks such as planting crops, reaping and transporting the produce from the farm to the home, and preparing cassava for processing. Fetching the catch from hunts, preparing and preserving it, fetching firewood and water are common activities of Amerindian women. Men on the other hand, in addition to their roles as head of the household, prepare the land for planting (men who migrate often are back in the village during the period the land needs to be prepared) and hunt wild animals for food.

54. There is a limited participation of women in training events and meetings due to: (i) lack of confidence, shyness in large groups, (ii) discomfort/uncertainty in speaking in front of men, (iii) difficulty to understand technical jargon, and (iv) language barrier.

55. In addition to the several gender equality issues mentioned before, in discussions with different government institutions as well as several non-governmental organisations it was found that Guyana, and the Hinterland in particular, faces a number of social issues, many of which have a specific gender equality element. The main issues are: (i) domestic violence, (ii) child abuse and incest, (iii) teenage pregnancies, and (iv) human trafficking. These issues are thoroughly addressed in Appendix 2. As discussed below, these issues have been considered in the design of the targeting strategy to promote the social inclusion of marginalized groups.

56. **Targeting strategy.** The Project's targeting strategy takes into consideration the following facts: (i) The incidence of poverty and food insecurity is higher amongst the indigenous population; (ii) The diversified livelihoods characterizing the majority of the rural poor in the project area are threatened by market and environmental shocks; (iii) Households headed by women are especially vulnerable; (iv) Rural indigenous households are engaged in low productivity subsistence farming systems that are small in scale, use a low level of technology and are labour intensive; (v) Most rural and indigenous households in the project area have limited access to rural financial services; (vi) Most rural and indigenous households in the project area face an absence of support services to encourage and assist them to adopt improved practices to increase production while maintaining their diversified livelihoods, productivity, integration in small value chains, and access to (local and regional) markets; and (vii) Rural and indigenous young men and women have few income generating opportunities, are forced to migrate, many become involved in exploitative jobs in mining, and are vulnerable to be subjected to human trafficking and forced labour.

57. **Geographical targeting.** The use of geographic targeting allows for identifying the project's target group to include:

- (a) Men and women of poor rural and/or indigenous households, that face more frequent and intense floods and droughts (Region 9) or salt water intrusion (Region 1) as consequence of climate change.
- (b) Men and women of rural and/or indigenous households living in extreme poverty and poverty with fewer assets and opportunities;
- (c) Men and women of rural and/or indigenous households whose food security has been compromised;
- (d) Men and women of rural and/or indigenous households vulnerable to external shocks (whose present relative wealth or non-poverty situation can rapidly change);
- (e) Rural and/or indigenous young and adult men and women (age group 15-44, equivalent of 39% of the population in regions 1 and 9); and
- (f) Rural and/or indigenous female headed households (average 14% of households in region 1 and 9).

58. **Target Population.** Using final official 2012 Census data (Population & Housing Census 2012 - Final Population Count), the total population in regions 1 and 9 comprises 51,881 men and women. The population is made up of a majority of young people with 45 per cent in the age group 0-14 years old, 18 per cent in the age group 15 to 24 years old, 21 per cent in the age group 25 to 44 years old, 12 per cent in the age group 45 to 64 years old and 4 per cent 65 years old and over.

59. The proportion of people living in poverty<sup>26</sup> in Region 1 was 97 per cent and in Region 9 this was almost 96 per cent according data from the MICS5 study, 2014 (published by UNICEF in 2016). This result in 1,654 poor households in the sub-regions Mabaruma and Moruca from Region 1 and 4,739 poor households in Region 9. The target population is therefore made up of 6,393 poor households in the project area.

**Table 3: Total and target population in project area**

	Total population (approx.)	Total number households	Total poor households (target population)
Region 1: Sub regions Mabaruma and Moruca	9,238	1,705	1,654
Region 9	24,238	4,936	4,739
Total	33,476	6,641	6,393

Source: prepared by Final Design Mission, 2016.

60. **Target group.** The target group would be made up by 6,000 poor households that would be receiving project services, which is equivalent to 94 per cent of the existing poor households in the project area. At least 15 per cent of these households (900 households) would be female headed households as this reflects the reality in the project area.

61. The 6,000 households represent a total number of direct and indirect beneficiaries of approximately 30,000 men and women of different age groups. At least 75 per cent of the project beneficiaries would be from Amerindian tribes. At least 30 per cent would be from the age group 15-44 years old and at least 50 per cent would be women.

62. **Phasing-in of villages and communities.** The beneficiaries will come from approximately 80 of the 128 existing villages and communities in Regions 1 and 9 (60 communities in Region 9 and 20 communities in Region 1). In region 9, all villages and communities are eligible for project implementation, whereas in region 1, communities from the sub-regions Mabaruma and Moruca will participate in the Project (these will be identified during Y1 of project implementation). Phasing-in of communities (further described in Appendix 2) is to ensure there is sufficient time to assist villages, communities, and producer groups with the implementation of their Investment and Business Plans.

63. **Strategy for the inclusion of women, youth and indigenous peoples.** Social inclusion is the process of improving the terms for individuals and groups to take part in society. The project will ensure that the most vulnerable groups access to services and investment empowering and facilitating the participation of indigenous peoples, youth, and women. Gender equality is part of social inclusion and will be mainstreamed in overall Project implementation and through specific affirmative actions. Project implementation will take into consideration, amongst others: (i) knowledge of gender equality and indigenous peoples would be included in the Terms of Reference of all project staff and contracts and MOUs with service providers; (ii) participation of representatives of beneficiaries in the National Steering Committee and Regional Management Committees; (iii) service providers should hire field staff who speak the local languages (or provide translation where required); (iv) gender specific eligibility criteria would be established in the Project Implementation Manual for the selection of investment plans (Public/ Collective Investment Plans and Business Plans); (v) social inclusion would be mainstreamed in the Value Chain Action Plans for region 1; (vi) monitoring and evaluation would use disaggregated data (analysis and reporting) and the project implementation strategy will be adjusted if gender and youth targets are not met; (vii) training is to be implemented as much as possible in villages/communities to make them more accessible to women; (viii) provisions would be made to facilitate women's and youth participation in exchange visits organized or financed by the Project; and (ix) awareness raising and training materials would be adequate and understandable for its specific audiences.

<sup>26</sup> Belonging to the poorest and second poorest quintiles.

64. Affirmative actions are specific activities designed to address inequalities in a society and help members of a disadvantaged group or a more vulnerable group to overcome obstacles to equal access to development opportunities. The affirmative actions included in Project design have the purpose of creating an enabling environment for its two technical components to be successful. They include: (i) Vocational and Technical Skills Training, (ii) Life skills Training, (iii) Leadership training, and (iv) Labour-saving technologies and practices.

65. The project would provide vocational and skills training for project beneficiaries, especially oriented towards young men and women with the purpose of increasing their possibilities to become employed or self-employed and start a business. The creation of income generating opportunities in the project area is crucial for the youth to have access to more dignified job opportunities, improve their economic situation, and at the same time address social problems such as low self-esteem and teenage pregnancies. It is important to note here that training provisions for young men and women would be based on market opportunities, not on the traditional division of labour. Both regions 1 and 9 have Technical Institutes and there are several governmental and non-governmental skills training programmes that the Project could tap into and through scholarships make these training programmes accessible to the project's target group.

66. The social problems and issues affecting the quality of life among the target group cannot be overlooked and addressing these issues are a key element of the affirmative actions. The purpose of life skills training is to identify, discuss and equip participants to address the crucial human relationship issues, challenges, abuses and constraints that impact on the individual, household, community, and consequently, the nation. These include but are not restricted to positive life skills, motivation, self-esteem, gender sensitization, traditional gender roles and development. A series of training sessions, thematic workshops, public and community awareness and education programmes would be utilised. In addition, the Project would create capacity amongst local leaders (Toshaos and Village Councillors/Councillors) to understand and identify social problems in their communities and know where to go for further assistance. They would be key as multipliers of knowledge on social issues and raise awareness amongst village/community members.

67. The traditional organizational structure in indigenous villages and communities is still the leading structure nowadays and is respected not only by community members but also more and more so by regional and national decision making entities. In the continuously changing socioeconomic context and with more development opportunities opening up in the project area, however, Toshaos and Village Councillors need to be strengthened in negotiation skills, rights and responsibilities (legal framework for indigenous peoples), reporting and basic accounting. These skills are required to ensure that local leaders have the capacity to be in charge of and implement locally, development programmes from national and regional government, NGOs, and the donor community. Whereas the participation of women in leadership positions is slowly growing, this is still incipient and requires strengthening through: (i) awareness raising amongst community members of women's and young people's potential as leaders, and (ii) strengthen their capabilities and leadership skills. The Project would identify in the villages and communities the need for leadership skills for men, for women and for youth and develop and implement differentiated training programmes according to the needs of each group.

68. The Project would support villages/communities with labour-saving technologies and practices that would have as a co-benefit the reduction of women's workload. This relates mainly to public/collective good investments in increased access to improved water sources. Eventually, other investments such as for improved food processing and preparation or cookstoves using renewable energy sources, could be part of business plans. This would increase the time available to women to participate in leadership positions, training and technical assistance, vocational and skills training, and engage in new or existing productive and income earning activities.

69. **Ensuring targeting is achieved.** The project will pursue its targeting strategy through both self-targeting and direct targeting. Self-targeting has the purpose of including those who are often excluded (or self-excluded). This is foreseen in the Project through specific affirmative actions, activities and investments oriented towards young males and females, local leaders (especially women), amongst others. As discussed above, proactive measures designed to build the capacity of these groups have been included in project design. Direct targeting is foreseen in the Project, especially through the eligibility criteria for accessing the Investment Fund (to be defined in the Project Implementation Manual).



## B. Development objective and impact indicators

70. **Strategy of the project.** The aim of this project' strategy is to improve the livelihood resilience of the target group by addressing major risks arising from the contextual challenges that the households in the project area have to confront. The principal components of the strategy are:

- (a) Promoting access to local markets through local value chains and exploitation of the ensuing opportunities for increasing income.
- (b) Addressing the economic and climate change-related risks deriving from the lack of capacities, knowledge, investment and technologies necessary to promote the sustainable transformation of livelihoods and production patterns.
- (c) Promoting a participatory governance of the current productive transformation process.

71. As mentioned in paragraph 24, major challenges for the development of the agricultural and rural sector in the project area are related to economic and natural resources constraints. Both challenges increase the vulnerability of the target group and reduce the incentives for private sector investment.

72. The government's interest to create a favourable environment for private investments, particularly in Region 9<sup>27</sup>, and to include in economic development indigenous peoples and small farmers will certainly bring benefits to the target population. But the productive transformation potentially set in motion by government incentives may originate risks that the project should mitigate, in order to support an inclusive and informed participation of local communities.

73. Productive specialization driven by market access could displace traditional diversification strategies and result in greater vulnerability to economic and climate-related challenges. Similarly, excessive specialization and the loss of traditional knowledge, food culture and of the use of a diversity of crops and wild species as food sources may impoverish local food systems and affect the increasingly complex nutritional problems of the target population. In addition a sudden change of the traditional productive system may put further pressure on the social and governance structures of the local communities.

74. In order to mitigate these risks the project strategy will facilitate adequate access to knowledge, information and technology for improved natural resource management; support an inclusive and informed participation to market opportunities that improve household income; increase awareness of nutritional issues and how to address them and support an inclusive participatory planning process, so as to strengthen the organizational capacities of communities and producers' groups, as well the inter-institutional coordination at national and local level.

75. Livelihood resilience will be strengthened by increasing income-generating opportunities and access to assets and improving food and nutrition security as described below:

- (a) **Income-generating opportunities** will be increased through the identification of key commodities that can act as drivers for the inclusion of small farmers in the market and increase the local demand for services and labour;
- (b) **Access to public goods and knowledge and technologies assets will be improved** in order to build community resilience and create an enabling productive environment, through: technology, knowledge and information for better territorial planning and natural resource management; improved water availability for agriculture and human consumption; better soil management practices, ICT diffusion, adoption of renewable energy and valorization of agro-biodiversity.
- (c) **Food and nutrition security will be enhanced** by identifying and promoting commodities, including crops, fish and forest products, that improve and maintain the diet quality of the household and by increasing awareness of nutritional issues and dietary guidelines, to ensure that target households benefit from higher incomes and greater production to have improved, consistent access to foods with adequate nutritional quality through self-provision and markets.

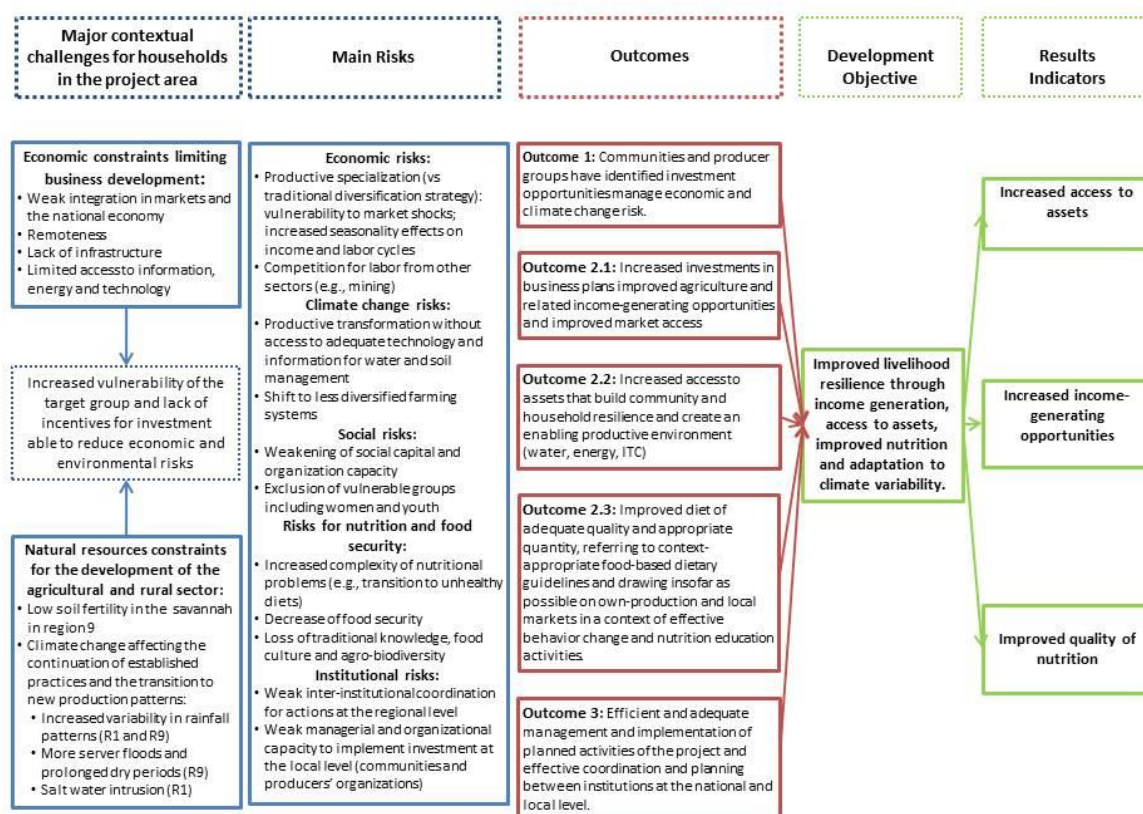
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<sup>27</sup> Including entrepreneurs from Brazil due that Region 9 have borders with the Amazonian states of Para and Roraima

76. Taking into account that natural resources and local governance systems are threatened by the current economic and environmental risks, in order to fulfil the above tasks and to strengthen the resilience of the target communities the prioritization of opportunities and the planning of investments and activities will be carried out through a participatory process which will include local actors and local governing bodies.

77. The logic underpinning the theory of change of the project is graphically represented in Figure 1 below and will be more fully explained in the description of project components.

Figure 1: The theory of change of the project



78. **Development Objective.** The Development Objective of the project, responding to the priorities identified in the Country Strategy Note, is “Improved livelihood resilience through income generation, access to assets, improved nutrition and adaptation to climate variability”.

79. **Development Objective indicator**

- 80% of targeted households have increased their score on the resilience scorecard by at least 2 points.

80. **Outcome indicators** will measure the contribution of the project to the achievement of its development objective:

- 80 % of households in targeted communities participate in the development of public / collective investment plans
- People in targeted communities participating in producers' groups with approved business plans.
- At least 80% of the households that invested in business plans have increased their income from agriculture and related activities by 50 per cent in relation to the baseline
- Additional volume of water stored in targeted communities

- (e) Number of households in targeted communities with access to renewable energy sources
- (f) Number of Internet Access Points available to households in targeted communities
- (g) Number of reference “best option food baskets,” reflecting nutritionally adequate, low-cost options, are developed and communicated (based on food-based dietary guidelines and giving preference to foods available from local production)
- (h) 60% of households have food consumption patterns that substantially reflect appropriate “best option food basket”
- (i) Number of crops and animal varieties and wild species used as food or income generating source at community level
- (j) At least 90 per cent of the AWPB is implemented each year
- (k) Number of evidence based knowledge products developed
- (l) Number of MOUs signed with public institutions to provide services to the project
- (m) The project’s global investment plan and AWPBs are reflected in the regional budgets and plans for two regions.

### C. Outcomes/Components

81. In order to achieve project objectives and outcomes, the project includes two main components: (a) Strengthening of communities and producer group’s investment planning; and (b) Implementation of investments plans. A third component will be dedicated to Project and knowledge management and coordination.

#### **Component 1: Strengthening of communities’ and producer groups’ investment planning**

82. The objective of this component is to support Village and Community Councils and RDCs in planning and prioritizing investments for the development of local value chains and resilient communities and livelihoods. **The expected outcome is** that communities and producer groups have strengthened capacities to identify investment opportunities and manage economic and climate change risks. In recognition of the differences between Region 1 and Region 9 the component will apply a differentiated strategy for the two regions. While Region 9 is more advanced in community planning and has a regional Integrated Sustainable Agriculture Development Strategy based on a detailed study of the State of Food and Agriculture (SOFA) in the region, Region 1 lacks these elements. Also the land tenure, community social capital and ethnic dynamics differ in the two regions with Region 1 having more mixed communities and more individual farmers not belonging to an Amerindian village or producer group. Finally, in terms of natural resources and climate conditions, Region 1 has significantly more fertile soils and adequate rainfall for the production season, and as such good conditions for agriculture development. Instead of the challenge of prolonged dry periods seen in Region 9, drainage management and possible salt water intrusion are the key issues in the between hills swamp farming systems, while the hill top farming faces no major special challenges.

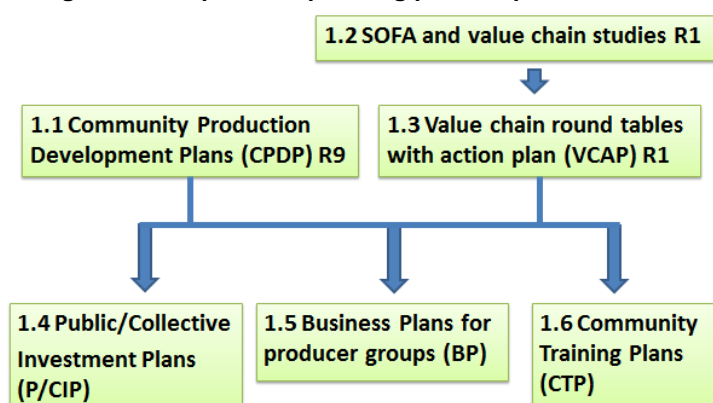
83. The component will therefore start from the community entity in Region 9 and support a participatory community planning process to identify production opportunities linked to territorial management and diversified livelihood strategies in each community. Subsequently, the component will support the formation of value chain round tables gathering producer groups from different communities with interests in the same produce. Although the community planning processes will primarily take place within Amerindian villages, whenever appropriate the process will also involve households, businesses and organizations located in neighbouring communities that contribute or are linked to the activities that villages intend to develop.

84. In Region 1 the project will have a more narrow intervention concentrated on a few value chains in the Mabaruma and Moruca subregions. In order to confirm the relevance and viability of the preselected spices value chains for Region 1 and get a better understanding of production constraints and opportunities and livelihood strategies, the component will start with a SOFA and value chain studies for spices. The participatory planning process to identify needed supporting investments will subsequently be done using value chain round tables for each produce.

85. The main instruments that will be developed by this component are Community Production Development Plans (CPDP) for Region 9 and Value Chain Action Plans (VCAP) for Region 1. These

overall medium term plans will be the basis for the development of three types of concrete investment plans to be implemented with the project support: Public/Collective Investment Plans (P/CIP); Community Training Plans (CTP), and Business Plans (BP), see Figure 2. While component 1 will provide training, studies and capacity building needed to develop these plans, component 2 will support their actual implementation.

**Figure 2: Component 1 planning process products**



86. In the following paragraphs, each output of component 1 is described in more details.

#### **Output 1.1: Community Production Development Plans (CPDP) Region 9**

87. During the last decade several Village Councils in Rupununi have done territorial land use mapping and participatory preparation of Village Development Plans through different projects supported by MIPA and NGOs. Particularly relevant in this regard has been the experience generated by Conservation International - Guyana, whose models and practices of participatory Community Development Planning in Rupununi have been an important source of knowledge and inspiration for the design of the proposed project. Ten villages organized in the Kanuku Mountains Community Representative Group (KMCRG) have developed Village Resources Development Plans (VRDPs) supported by CI-Guyana. In the northern Rupununi 16 Villages have come together in the North Rupununi District Development Board (NRDDDB) and prepared their development plan for the northern district, which has allowed them to raise resources for different community projects. In the south and south central Rupununi 17 villages have joint forces in forming the South and South Central District Toshos Council and a Management Plan of their territory ("Baokopa'o wa di'itinpan wadauniinao ati'o nii - Thinking together for those coming behind us") have been prepared.

88. Based on CI-Guyana's and MIPA's experiences with participatory planning processes, the MIPA has developed guidelines for the preparation of Community Development Plans (CDP) for Amerindian villages and a Framework Agreement on the same has been approved by the Cabinet in June 2016. The objective of the development of CDPs is for the communities and the government and other supporting partners to have a more formalized agreement to organize technical and financial assistance to the communities for the implementation of the plans. The guidelines build on a participatory process applying FPIC principles for identifying village priorities in the areas of health, education, nature and environment, traditions & culture, livelihood, and governance. Within the next year it is foreseen that the World Wildlife Fund (WWF) and CI-Guyana will support 20 and 11 communities respectively in the development of CDPs covering the most of Region 9.

89. For the development of the CPDPs the PMU will work in close collaboration with MIPA and contract service providers (NGOs with experience in village land-use and development planning) to facilitate community processes to strengthen agricultural production, supporting assets and services and nutrition aspects in existing CDPs and develop a CPDP document for each village. The participatory process leading to the CPDPs will apply specific strategies for the involvement of women, youth and vulnerable households and include: (i) mapping of human and natural resources and production opportunities and constraints for income generation and diversified livelihoods; (ii) identifying limiting factors, and investment needs in public or community collective assets and services in order to create an enabling environment for the development of local value chains and for

the resilience of local livelihoods; and (iii) identifying potential producer groups who will prepare business plans.

90. As part of the development of the CPDPs and building on a capacity needs assessment of Village Council and community members the service providers will support training activities and technical assistance in different areas which are important for the resilience of the communities and therefore need to be taken into account in the CPDPs. These aspects include: (i) sustainable management of natural resources (water, forest crop and grassland) and different options of practices and technologies which can enhance their sustainable use; (ii) climate change trends and projections and effects on village and household assets and activities and options for adaptation; (iii) nutrition awareness linked to food production and purchase and family health; (iv) financial and economic variability analysis of agricultural production, processing and marketing opportunities for income generation; and (v) specific actions for the inclusion of women, youth and vulnerable households. The CPDPs will conclude in an agreement (MoU with Village Council) on: (i) priorities for project support in public/collective investments; (ii) producer groups, production and processing activities and allocation of land and water resources for these activities; and (iii) 6 years production development targets and means of monitoring so the communities can follow up on the implementation of the CPDPs.

#### **Output 1.2: State of Food and Agriculture (SOFA) and value chain studies Region 1**

91. Through the IFAD grant the project will finance a SOFA study for Region 1 that builds on the methodology and approach already adopted in Region 9. The SOFA study will be undertaken under the direction of the MOA with appropriate technical assistance (possibly from FAO) and will cover the Mabaruma and Moruca sub-regions identified as suitable candidates for project intervention. The information generated through the SOFA study will allow for fine-tuning the project intervention and targeting strategy for these sub-regions where lack of data is currently an obstacle. Likewise, to obtain a better understanding of the spices value chains the grant will also finance value chain studies. These studies will include an identification of key constraints and opportunities for the development of the value chains with the inclusion of Amerindian and small holder farmers including constraints in production and transport costs, produce volume and quality compared to market demands.

92. In order to avoid delays in project implementation for Region 1, resources for the SOFA and the value chain studies can be anticipated by the GOG as soon as the loan agreement has been signed. Expenses incurred for the SOFA study will be considered as retroactive expenses, and will therefore be reimbursed once the conditions for the effectiveness and disbursement of the Financing Agreement are fulfilled.

#### **Output 1.3: Value Chain round tables and action plans (VCAP)**

93. The MoA will work in close collaboration with the Ministry of Business, playing a lead facilitation role, to establish value chain round tables for the spices which have shown to be viable in the value chain studies. The roundtables would gather interested producers, processors, NARI, the RDC, GMC and other key stakeholders for the development of the value chains. In line with the project's targeting strategy a special effort and strategies will be applied to include Amerindian and small producers, women and youth. Informed by the SOFA and the value chain studies and a participatory process, the roundtable will develop and agree on a 6 years VCAP for project support to address key constraints for the development of the value chain and identify roles and responsibilities of producer groups and supporting institutions. In addition the VCAP should contain implementation targets, indicators and measures of verification for the round table to follow the success of its implementation.

#### **Output 1.4: Public/Collective Investment Plans (P/CIP)**

94. Based on the priorities identified in the CPDP (R9) or VCAP (R1), Village Councils (R9) or value chain round tables (R1) will develop P/CIPs supported by a service provider and in collaboration with relevant government institutions including: Ministry of Public Infrastructure (energy); MoC Guyana Water Inc. (water resources management and household water); MoA National Drainage and Irrigation Authority (drainage and irrigation); and NARI (agricultural research and extension). Examples of public/collective assets which may be included in the investment plans are: studies of water needs for multiple uses, available sources, and measures for integrated water resources management; infrastructure and technical assistance for rainwater harvesting, increased infiltration and recharge of the aquifer, drainage, and water mobilization and channelling for multiple use; renewable energy for multiple use (solar, wind, biogas); ICT access points; equipment and support for

technical training facilities; climate proofed multiple use storage facilities; participatory research in resilient climate-smart and/or organic agricultural inputs and their application including drought and salt tolerant varieties, bio-pesticides, organic fertilisers, and integrated pest management (IPM) practices.

95. Each P/CIP must include: an operation and maintenance plan of any equipment and infrastructure with full cost coverage; show sustainable use of natural resources; support climate change resilience; and show positive impacts on good nutrition and diversified livelihoods.

#### **Output 1.5: Business Plans (BP) for producer groups**

96. Producer groups identified in the CPDP (R9) or VCAP (R1) will be supported by service providers in preparing BPs for the development of local income generating value chains. Examples of investments that may be included are: processing, packaging and storage facilities; technical assistance minor infrastructure and equipment for access to and efficient use of water; technical assistance in soil improving measures, IPM, intercropping and use of more drought, pest and salt tolerant varieties; technical assistance in accounting, business management and marketing; and organizational strengthening of the producer group for the implementation of the BP and further build negotiation skills, reporting and social auditing capacities. The BPs must include: a baseline for the producer group of production volume and assets, input supplies and output buyers, and organisational and business management capacities; demonstration of business, economic, environmental and social viability; demonstration of climate change resilience; and a mitigation strategy for specialisation risks for nutrition and CC resilience through linkages to use of agrobiodiversity and diversified livelihoods. In addition, plans that demonstrate participation of youth, women and vulnerable households will be prioritized.

#### **Output 1.6: Community Training Plans (CTP)**

97. Based on training and awareness needs identified in the CPDP (R9) or VCAP (R1), Village Councils (R9) or value chain round tables (R1) will develop CTPs supported by a service provider and in collaboration with relevant government institutions (NARI, MoH, MoB, etc). The topics for training that may be included in these plans are: (i) understanding climate change effects, vulnerabilities and mitigation strategies including disaster risk management; (ii) nutrition and the family food basket and sources including technical assistance for strengthening the formulation, diffusion and adoption of 'best food basket' recommendations in target communities; (iii) different renewable energy technologies, their maintenance, and service and input supply; (iv) ICT technologies and their use for accessing information on cultivation and processing technologies and practices, climate information, market information, knowledge exchange and communication with buyers and suppliers; (v) capacities for strengthening local governance and its structures; (vi) capacities that strengthen coordination for more effective public interventions addressing climate, economic and nutritional risks. The CTP must include youth focused skills development activities and vocational training of young women and men in areas including: (i) processing and marketing of agricultural produce; (ii) renewable energy technologies and their maintenance; (iii) Information and Communication Technologies (ICT); and (iv) small business administration and basic accounting.

#### **Output 1.7: List of cross community investments, studies and TA for the implementation of P/CIPs, BPs and CTPs**

98. When P/CIPs, BPs and CTPs have been finalized from various communities, the PMU will map out opportunities for synergies and joint investments, studies and TA across communities and value chains, to make the implementation of the plans more cost efficient. This exercise will allow for compiling a list of joint public investments and related studies at the regional level, which may also support the RDC in their regional investment planning, and joint community training and awareness raising activities. In the case of Region 9 this exercise will also identify opportunities for the establishment of value chain roundtables where producer groups can work together to harmonize the development of the chains and exchange knowledge and experience.

99. One of the areas of study that would benefit from a regional approach is a hydrological study and identification of integrated solutions for water management and mobilization for Region 9. Guyana does not have a water act, and the National Water Council under the Ministry of Communities, responsible for building the national framework for management of water resources, is currently being revived. Region 9 does not currently have a mapping of groundwater resources and a study of

hydrological dynamics including recharge. Such mapping and studies are needed to decide on the best combination of cost-efficient, environmental and hydrological sound solutions for mobilizing water for agriculture activities and human consumption overcoming the often prolonged dry season the region is experiencing as a consequence of climate change. IICA is supporting (USD 300,000) a study on water conservation options in Region 9, and IDB has also assigned some funds for a study identifying possible points in the landscape topographically adequate for the establishment of medium scale reservoirs. However, many communities might not live close enough to these possible reservoirs to benefit from the mobilized water. The project will therefore complement these efforts and finance a hydrological analysis and mapping and identification of integrated local solutions for water management and mobilization. The study would also identify internal and external knowledge institutions and service providers who can bring practices and technologies and build the needed capacities in the communities and in the region.

100. Other areas relevant for regional level studies are renewable energy and ICT. These studies should also complement other ongoing national initiatives at the regional level and include rural renewable energy needs, technology options (solar, wind, biogas), existing technology providers, and opportunities for youth participation in maintenance and input markets as well as ICT needs and solutions for improved access.

101. **Costs for the Component.** The budget allocated for Component 1 is US\$ 2.77 million.

### **Component 2: Implementation of investment plans**

102. The objective of this component is to finance and support the implementation of Public/Collective, Community Training and Business Investment Plans identified and formulated under Component 1. Under Component 2 an Investment Fund will be established, which administration and execution will be arranged through an agreement signed between MOA and a Financial Institution(s) with presence in the regions (see box below). The selection of the Financial Institution(s) will be through a competitive bidding process. The PMU will be responsible for monitoring the implementation of the Investment Fund and evaluating the performance of the Financial Institution as well as the results achieved

#### **Financial institutions operating in target areas**

The Institute for Private Enterprise Development (IPED): in Region 9, IPED has an office in Lethem and a sub-office in Annai that is visited once a month, with a portfolio of about 500,000 USD. In Region 1, IPED has an office in Mabaruma (in the project area) and an office in Port Kaituma with a portfolio of about 700,000 USD. IPED has some exposure to the agricultural sector in Region 9 (peanuts and cassava).

The Guyana Bank for Trade and Industry (GBTI): GBTI has a branch in Lethem (Region 9) and a branch in Port Kaituma (Region 1, but outside the project area). GBTI has a small rural portfolio in Region 9 (which also includes vegetable production, livestock, poultry and aquaculture), and has to date mobilized 20 mln GYD (about 100,000 USD) out of the 60 mln GYD (about 300,000 USD) of the Rupununi Innovation Fund established under the Leveraging Natural Capital in Guyana's Rupununi project financed by the IDB-MIF.

The Republic Bank has a branch in Lethem and is more oriented to urban financial products and services including: deposit and checking accounts, electronic banking, various forms of lending, and foreign exchange and money transfer facilities, including an Automated Teller Machine (ATM) facility

103. The Fund will, through non-reimbursable mechanism, finance public and common goods and services in the following categories of investments, included in the different types of investment plans:

- (a) **Public/Collective Investment Plans.** Investments in public and common goods and services that contribute to the reduction of climate and investment risks, such as investments in assets, technologies, knowledge and information for water and natural resource management, renewable energy and ICT; co-financing by the involved communities will be required to cover the operational and maintenance costs associated with these investments;
- (b) **Community Training Plans.** Services for training, capacity-building and awareness-raising activities, and related background studies, that contribute to the reduction of climate, economic and nutritional risks;
- (c) **Business Plans.** Technical Assistance and Services to favor activities that have positive spillover effects on the hosting communities. These services will contribute to the diffusion of models, knowledge, technologies and capacities that improve livelihood



resilience by reducing the climate, economic and nutritional risks deriving from over-specialization and from productive transformation not sustained by appropriate technologies, knowledge and information.

**Table 4: Main public and collective goods and services financed by the project**

	<b>Public/Collective Investment Plans and Community Training Plans</b>	<b>Business Plans for Producers' Groups</b>
<b>Increased access to assets</b>	Knowledge and information for effective public investments (e.g., hydrological studies) NRM and access to water Renewable energy and ICT Strengthened local governance and coordination Training facilities and action research	Integrated soil fertility management (rotation, intercropping, manure) Integrated Pest Management (organic farming practices) Technologies for increasing efficient water use for productive activities
<b>Increased income-generating opportunities</b>	Studies on value chains and access to market Establishment of sub-regional value chain roundtables	Technical assistance, business incubation and coaching for improved productivity and competitiveness Increased management capacity (accountability, monitoring, implementation) Marketing activities i.e. branding, packaging promotion etc
<b>Improved quality of nutrition</b>	Collective awareness-raising and training activities (for public institution, schools, etc.) Use of the 'food basket' and its relation to the food system	Technical assistance for maintaining or increasing agro-biodiversity in diversified farming systems Technical assistance strengthening diversified livelihood strategy

104. The project will not directly finance private goods that can be individually appropriated. The project will, however, provide incentives for investments for the adequate management of natural resources and climate risks and nutrition security included in Business Plans. These incentives will be financed by the Investment Fund through a non-reimbursable matching grant equal to 30 per cent of the total cost of the investment; the remaining 70 per cent will have to be covered by the beneficiaries through own resources or through the credit market. The 30 per cent contribution will be calculated on the total amount of the investment that cannot exceed 1,500 USD per household. The contribution for these privately-appropriable goods is justified on two grounds:

- (a) They help overcome poverty barriers for the adoption of technologies that help households, participating in producers' groups, to manage economic and climate risks and achieve a more sustainable integration of income-generating activities in diversified livelihood strategies;
- (b) These investments have positive externalities and spillover effects on hosting communities since they: (1) favour the diffusion and adaptation of knowledge and technologies for upgrading the local value chain of cash crops and commodities identified as "pillars" for income and employment generation in CPDPs and VCAPs; (2) can help improve the quality, quantity, variety and affordability of processed and semi-processed foods available in the local food system; (3) can generate local demand for employment related to the processing activities themselves and to the servicing of machinery, equipment and renewable energy infrastructure; (4) can contribute to the diffusion of technologies, practices and knowledge for better NRM and climate change adaptation.

105. **Approval of investment plans.** The criteria for the evaluation of investment plans and the procedures for their approval by the PMU will be established in the Project Implementation Manual. In the case of business plans, even when proponents are not intending to request credit, a financial institution will be involved in the approval process to assess the economic viability of the proposed business plan and to evaluate the business capacity of proponents. If the proponents of Business Plans intend to access credit, the project will provide support and technical assistance so as to reduce the perceived credit risk of applicants and the barriers they face to access credit. Technical support



will be given for the preparation of improved Business Plans that comply with the standards required by the financial sector, including the establishment of an accounting system and the production of cash flow statements. The project will also provide assistance for the administrative procedures required to access bank credit.

**Outcome 2.1: Increased investments in business plans improved agriculture and related income-generating opportunities and improved market access.**

106. The first expected contribution of Component 2 to the projects' development objective is the increased incomes that the target group obtain from agriculture, processing and related activities and exploiting the opportunities for increased market access provided by key commodities identified as "pillars" of local agricultural development in CPDPs and VCAPs. This will happen through the realization of investments for production and processing activities included in Business Plans, the delivery of technical assistance to improve the marketing, organizational and managerial capacities of producers' groups, and the strengthening of sub-regional coordination and information-sharing among stakeholders involved in the value chains of targeted commodities and cash crops.

**Output 2.1.1 Business plans for the production and processing of cash crops and related value-adding activities approved by a financial institution, financed and implemented**

107. Preliminary investigations, existing value chains studies and experiences generated by previous projects indicate that the crops and commodities most likely to be prioritized by local communities will include: (i) In Region 9, cassava, peanuts, fruit, livestock and poultry; (ii) In the Mabaruma sub-region of Region 1, spices (ginger, turmeric, black pepper, nutmeg), cocoa and avocado. Further indications on the type of investments that producers' organizations in Region 9 will likely prioritize in their Business Plans come from experiences generated under the Amerindian Development Fund and Rupununi Revolving Innovation Fund (see Appendix 4, Box III). In both cases, business investment proposals focused on: (i) the processing and storage of peanuts and cassava; (ii) the upgrading of facilities for small-scale poultry farming serving local markets; (iii) breeding improvements for community cattle herds; and (iv) fruit processing facilities.

108. The activities identified in Business Plans can be linked to any stage of the local value chain such as input and service provision, production, processing, storage and logistics. Investments planned under a Business Plan can either be used to start a new activity or to improve, expand or upgrade an existing activity. Business Plans must include specific provision for the inclusion of women and youth. These may include the establishment of small rural businesses providing support services for local value chains development (including for example the installation and servicing of ITC and renewable energy facilities) able to generate local employment opportunities for local youths and women.

109. An accompanying strategy will be established by the PMU to assist beneficiaries throughout the implementation phase of the investment plan; the support services identified in the accompanying strategy will be delivered by local MOA agencies with support from the MIPA, MoB and MoC and, when needed, civil society organizations with adequate capacity. In order to ensure that minimum standards are adhered to during the implementation of investment plans and in the utilization of the allocated resources, an Induction Plan will be designed to introduce project beneficiaries to all relevant rules and procedures.

110. As a further support measure for the implementation of Business Plans, a financial institution will assist the PMU in the approval process of Business Plans, even when beneficiaries do not intend to access credit, in order to assess the economic viability of the proposed Business Plans according to consolidated standards in the formal credit sector. The financial institution will provide indications concerning the areas of the Business Plan that need strengthening, and technical assistance will be given to proponents to improve and revise the Business Plan according to these indications.

111. In order to favor synergies and avoid overlaps with initiatives undertaken by other government agencies and development partners in project areas, and to build on existing experiences with participatory investment planning in target areas, the format of business plans for the Hinterland project will be designed taking into account the business plans templates used for other support actions to producers' groups in target areas. Examples of business plans adopted in previous projects (the RIF business plan developed by CI and GBTI, and the business plan developed for the Small

Business Program by the Small Business Bureau of the MOC) are included as Annexes to Appendix 5.

**Output 2.1.2: Increase in volume sold through new or existing market channels and Coaching, technical assistance and business incubation activities provided for the implementation of Business Plans**

112. In order to effectively contribute to income generation, Business Plans must be commercially-oriented, economically sustainable and effectively implemented. Previous experiences, as well as consultations with potential project beneficiaries and financial institutions held during the Project Design Mission, have shown that exclusively focusing on the production side without adequately strengthening managerial capacities and consolidating market channels negatively affects the economic sustainability of the supported businesses, resulting in loss of motivation for beneficiaries and in their continued reliance on external support. For these reasons, the activities supported by Component 2 will also focus on helping producers' groups and association to strengthen their organizational and managerial capacities, and to identify, establish and consolidate market linkages at the regional and, whenever possible, national level.

113. The Investment Fund will therefore finance technical assistance activities included in Business Plans covering the following areas:

- (a) Technical support services for identifying and exploiting market opportunities for the commodities and crops produced by producers' groups with an approved Business Plan, for developing a marketing strategy and for specific activities that improve and expand market opportunities such as branding, packaging and promotion activities;
- (b) Technical assistance and support services for strengthening the organizational and managerial capacity of producers' groups with an approved Business Plan in areas including accountability, monitoring and business plan implementation;

114. In order to favor the coordination between the activities of producers' groups and regional-level initiatives for value chains and markets development, the project will promote the participation in market-related TA activities of specialized government agencies that are involved in the design and implementation of regulatory, industrial and infrastructural policies that affect regional-level value chains. Particularly relevant in this regard are different Agencies of the MoB, such as: the Industry Department, that is overseeing the establishment of an Industrial Zone in Lethem that will host, among other, agri-processing enterprises; the Guyana Office for Investment, that can assist with the identification of market opportunities; the Standards Bureau, that is overseeing food safety standards and regulations and can provide relevant indications for complying with sanitary measures.

115. Other possible providers of TA services include: (1) Training centers already identified and strengthened by the MOB through its Small Business Training Program; (b) the Bina Hill Institute and other community training institutions; (c) specialized organizations of the MOA such as NAREI, GMC, GLDA and NDIA; (d) when appropriate, assistance from civil society organizations and NGOs with consolidated expertise and presence in project areas will also be sought.

**Output 2.1.3: Sub-regional roundtables established to coordinate actions on key cash crops and commodities in Region 9 and studies for specific value chains and related market opportunities**

116. To improve coordination and information exchange among value chains stakeholder at the local level, the project will support training, capacity-building and support activities to facilitate the establishment of sub-regional value chains roundtables identified for Region 9 under Component 1 output 1.7. The project will support through non-reimbursable fund, interventions that include:

- (a) the production and dissemination to relevant value chains stakeholders of documents and training materials based on good practices;
- (b) activities for the dissemination of information on key stakeholders and on the opportunities for coordination emerging from the analysis of cross-community investments performed by the PMU under Component 1 output 1.7;
- (c) the organisation of a kick-off meeting for each sub-regional value chain roundtable that brings together relevant stakeholders from communities, producers' organizations, government agencies and the private sector

- (d) detailed studies on the value chains for which roundtables have been established; these studies should focus on identifying opportunities for the inclusion of small farmers, women and youth, opportunities for increasing market access and for local upgrading; the project will also finance the dissemination of the main results and recommendations emerging from these studies to all relevant stakeholders.

**Outcome 2.2: Increased access to assets that build community and household resilience and create an enabling productive environment (water, energy, ITC).**

117. While the activities listed above have as their main objective increased income generation for the target group, the activities that contribute to Outcome 2.2 aim at improving livelihood resilience by increasing access to assets, knowledge and information that reduce climate and investment risks, improve natural resource management and establish a more conducive environment for private investment in the agricultural sector.

**Output 2.2.1: Investments in public goods for improved water management, renewable energy and in public facilities and infrastructure that increase access to internet in target communities.**

118. The project will support, through non-reimbursable funds, investments for public goods and services included in approved P/CIPs in the following areas: (i) infrastructure and technical assistance for rainwater harvesting, infiltration and recharge of the aquifer, drainage, and water mobilization and channelling for multiple use; (ii) natural resources management (water, forest, crop and grassland); (iii) renewable energy solutions for multiple use, including solar, wind and biogas; (iv) climate proofed storage facilities; (v) ICT solutions, including mobile technologies and internet access points, to increase access to information on markets, climate change, diet and nutrition.

**Output 2.2.2: Investments for integrated soil fertility management (rotation, intercropping, better use of plant genetic resources), Integrated Pest Management, and in technology for increasing efficient water use for productive activities in business plans.**

119. To complement the investments in resilience-building public assets included in P/CIPs, the project will support technical assistance for incorporation of technologies and good climate resilient practices for better on-farm management of trees, plant genetic resources, soils and water as well as integrated pest management identified in Business Plans formulated by producers' groups. In this way, proponents of Business Plans will be encouraged to make use of the increased availability of public assets, knowledge and training activities resulting from the implementation of P/CIPs and CTPs to build resilience in their production activities.

120. Support for the realization of these objectives will take two forms:

- (a) The project will support, through non-reimbursable funds, technical assistance to Business Plans proponents for the adoption of integrated soil fertility management (such as rotation, intercropping and better use of plant genetic resources), the adoption of Integrated Pest Management and organic farming practices, and the adoption of technologies for increasing efficient water use for productive activities;
- (b) The project will provide an incentive, through a non-reimbursable matching grant equal to 30 per cent of the total cost of the investment, to cover the "incremental" costs associated with the investments in goods, technologies and services required to introduce these practices in the production cycle of commodities and cash crops included in Business Plans.

**Outcome 2.3: Improved diet of adequate quality and appropriate quantity, referring to context-appropriate food-based dietary guidelines and drawing insofar as possible on own-production and local markets in a context of effective behaviour change and nutrition education activities.**

121. As a further element contributing to improving the livelihood resilience of the target group, the project will support activities that strengthen the linkage between increased income generation and quality of nutrition. Given the vulnerability of local households to climate change effects and to shocks originating in commodity and labour markets, participation in new income-generating activities should in fact not result in over-specialization or in the abandonment of productive activities that play a crucial role in households' food security and nutrition quality, including the production of food for self-consumption. Component 2 will support awareness-raising, training activities and technical assistance

identified in CTPs that help address the increasing complexity of nutritional problems affecting target areas. The aim of these activities are: (a) to help households in target areas make more informed dietary choices; (b) to increase the relevance and use of information and recommendations produced by the government, including the “best food basket” system; (c) to maintain or increase the richness, variety and nutritional quality of foods available in the local food system.

**Output 2.3.1: Increased knowledge on nutrition and balancing of diet through awareness raised and training**

122. To assist households and communities make more informed and healthy dietary choices, the project will support through non-reimbursable funds the following activities that can be included in CTPs formulated by individual communities or aggregated, when deemed appropriate, by the PMU in joint cross-community interventions:

- (a) Collective awareness-raising and training activities on the nutritional implications of dietary choices and on the potential contribution of local food to nutrition quality, delivered through schools and other public institution;
- (b) Activities that strengthen the formulation of “best food basket” recommendations by the MOH, increase its attention to locally produced food, and improve its delivery, diffusion and adoption by households in target communities

**Output 2.3.2: Production of food that balances diets at community level increased**

123. To limit the risks that specialization in commercially-oriented production may result in the impoverishment of the local food system and in the abandonment of diversified farming system that contribute to households’ food security and nutritional quality, the project will support, through non-reimbursable fund, activities included in Business Plans that aim at:

- (a) accessing support services and technical assistance for maintaining or increasing agro-biodiversity in the diversified farming systems of households participating in producers’ groups with an approved Business Plan, including the small-scale production of varieties of high nutritional value in vegetable gardens for self-consumption or local markets;
- (b) accessing technical assistance for increasing the capacity of target households to integrate new income-generating activities in diversified livelihood strategies, including a better understanding of how new activities affect the labour, income and food security cycles of the household.

124. The budget allocated for Component is US\$5.97 million.

**Component 3: Project and Knowledge management and Coordination**

**Outcome 3: Efficient and adequate management and implementation of planned activities and effective coordination and planning between institutions at the national, regional and local level.**

**Output 3.1: Participatory planning and M&E.**

125. The purpose of the third component would be to establish management and administrative procedures including accounting and auditing as well as setting up monitoring and evaluation mechanisms in accordance with IFAD and national guidelines. Specific evidence-based knowledge products will be developed on the basis of Project experiences in order to extract lessons and best practices, up-scale innovative solutions, achieve better outcomes and greater impact from development resources. Also coordination and linking project and regional planning will be supported.

126. **The procurement of goods and services** related to investments funded by the Investment Fund will be undertaken by the Hinterland project office at the ASDU. Beneficiaries (including Village Councils and producers’ organizations) will be consulted for the identification of suppliers, contractors and service providers. Urgent and relatively small and local procurement, with thresholds to be determined in the Project Implementation Manual and modelled upon the experience of READ, can be delegated to the Regional Administrative/Accounts Officers. Payments to suppliers, contractors and service providers for investments covered by the Investment Fund will be directly issued from the Project Operational Account; direct payment to suppliers and service providers for approved business plans has been successfully adopted by the Small Business Program administered by the Small Business Bureau of the Ministry of Business (MoB). Procurement by the PMU is also intended to

favour efficiencies and savings by identifying, whenever possible, opportunities for joint investments that involve different communities and producers' groups.

127. **The implementation, monitoring and evaluation** of Public/Collective Investment Plans, Community Training Plans and Business Plans financed by the Hinterland Project resides with the beneficiaries. These will primarily include Village Councils, Community Councils and producers' groups. The reporting requirements will be determined in the Project Implementation Manual.

128. If required by the scale and nature of proposed investments, as in the case of joint investments plans identified by the PMU that involve different communities or producers groups whose members reside in different communities, the implementation, monitoring and evaluation of investment plans can be delegated to higher-level organizations including:

- (a) umbrella organizations that represent multiple villages and communities, such as District Development Boards and multi villages development boards (south center and south and north Rupununi);
- (b) sectoral producers' organizations with adequate capacity and stability to fulfill the implementation role, such as the Producers' Association and Cooperatives;
- (c) the value chains roundtables established through project support in Region 9 and Region 1, if offering an adequate management and organizational capacity;
- (d) other *ad hoc* organizational arrangements as identified by the PMU through the analysis of possibilities for joint investments.

129. Local capacity building for participatory planning and M&E is important as part of the empowerment of the project beneficiaries. The Project will therefore work closely together with target communities, villages, producers organizations, sectoral associations and other umbrella organizations, helping them develop their own monitoring and evaluation tools (simple and participatory) in an effort to monitor their own progress and evaluate outcomes and impact of the implementation of public/collective goods Investment Plans and business Plans

130. The budget allocated for Component is US\$ 1.79 million.

## **D. Lessons learned and adherence to IFAD policies and the SECAP**

131. **Previous IFAD projects in Guyana.** IFAD has worked in Guyana since 1987, providing over US\$22 million in financing for three rural development initiatives which benefited some 12,000 poor rural households, namely the Rural Enterprise and Agricultural Development Project, the Poor Rural Communities Support Services Project and the East Bank Essequibo Development Project. Projects supported by IFAD in Guyana were designed to expand market opportunities for small-scale rural producers and strengthen their capacity to develop small-scale enterprises. The projects have also aimed to expand smallholders' access to services – including financial ones – that enable them to increase their productivity and reduce their vulnerability. Moreover, IFAD has invested in human and social capital to build self-reliance in rural communities facing challenges of sustainable development.

132. Interventions achieved good results particularly in relation to the provision of credit to the rural poor, in the provision of technical assistance, in the delivery of advisory support and training from service providers led to substantial productivity gains in land preparation, soil testing, animal nutrition, crop production and diversification.

133. **Lessons learned.** As far as lessons learned are concerned the latter can be summarized as follows:

- *Importance of a careful assessment of the needs of the most vulnerable individuals.* Taking into account the high ethnical heterogeneity of the target group (Amerindian, coastal and riverine men, women and youth), a careful assessment of the needs of the most vulnerable individuals has to be carried out so as to ensure that the project's instruments provide opportunities, goods and services tailored to their needs. Experience from the past projects has shown during project implementation has been quite challenging.
- *Participatory approach to capacity building as one of the main strengths.* Particularly as for the READ case, training and capacity building activities were particularly successful in reaching the most vulnerable segments of the population (Amerindian, women, youth). This was possible due to needs assessments undertaken together with CBOs prior to project implementation. The

- results of these assessment were incorporated into decision on training topics, for instance and taken into account in the ultimate design of the financing facilities.
- *Strong project management.* The necessity to establish a sound PMU from the start-up of the activities is one of the major lessons which can be drawn from the implementation of the past operations (both READ and the Poor Rural Communities Support Services Project). This should include the limitation of turnover in the PMU staff, the adoption of appropriate management practices from start up, and a constant connection with the field. To avoid this problem, project activity work plans have to be developed to reflect realistic time lines – relevant to country conditions and capacity. Also, procurement has to be managed by professional staff.
  - *Necessity of establishing sound M&E.* M&E must be developed and functioning early in the project cycle and be prioritized as fundamental cornerstone to project planning and implementation. Experience shows that delays in designing an appropriate monitoring and evaluation system and the lack of a well-functioning M&E was one of the weakest aspects of all the projects implemented so far. Despite increasingly useful sets of data, the absence of comprehensive baseline data and well integrated M&E and knowledge management system affected project effectiveness and decision making and hampered the ability to conduct benchmark assessment and overall evaluation of project result. In order to achieve this, some key studies (SOFA/region 1, inclusive value chain studies for specific commodities, amongst others) the baseline study, and the support to the MOA M&E Unit's database (platform) will be financed through the IFAD Grant.
  - *Use of community participatory mapping techniques.* To respond to the already mentioned necessity to ensure consistency as for targeting, an effective use of participatory mapping techniques should be made, also by taking into account experience from other development actors, already operating in the region. Community participatory mapping techniques used by Conservation International - Guyana for example has demonstrated to be particularly successful in this respect. Apart from gathering spatial information, this type of mapping supports communities to learn, discuss and make decisions about their communities and associated resources. Such a process allow to meet the main challenge currently faced by indigenous communities in the targeted area, namely the possibility to promote competitive business activities while maintaining their own traditional culture and values.
  - *Continuous presence on the field.* Considering the complexity of the context where the development intervention are to be carried out (vulnerable communities in remote areas where the Fund will be operating for the first time), the continuous presence of project technical staff on the field is an essential condition for the success of the operation so as to better mentor beneficiaries, to better monitor progress, to better provide support and make adjustments where necessary.
134. **Adherence to IFAD policies and to SECAP.** The operation is aligned with national policies and priorities to the extent to which it contributes towards achieving Government programmatic objectives, particularly the ones relating to the reduction of poverty levels in the isolated communities of the country.
135. Specifically, this operation fits into the "Vision for Agriculture 2020" strategy which promotes sustainable natural resource management by exploiting the country's comparative advantage in the agricultural sector and with the national Low Carbon Development Strategy (LCDS) whose objectives include the need to create new economic opportunities for Amerindian communities and to protect productive land from changing weather patterns. The program is also aligned with national strategies as contained in Guyana's third generation Poverty Strategy Paper (PSRP) 2011-2015 which focused on accelerating and sustaining economic growth through enhanced competitiveness and social development by also protecting the environment and managing the natural resources with simultaneous sustainable social and economic development.
136. The new operation complies with the IFAD Guyana Country Strategy note objectives. Moreover, the project responds to GoG priorities as expressed in its dialogue with IFAD since it aims to i) strengthen management and productive capacities of families and community-based organizations; ii) improve agricultural and non-agricultural activities and facilitate market access; iii) improve food and nutritional security of families by linking local food production to their diet; iv) ensure adequate

management of natural resources including forest resources for timber exploitation and non-traditional forest products and water for human and agricultural consumption in the context of climate change.

137. Moreover, the project adheres to the following IFAD policies: i) Targeting: it will focus on poor rural people who live principally in marginal, low potential areas and it will adopt a demand-driven approach; ii) Gender equality and women's empowerment. By using a participatory approach and by working with at the household level, the Hinterland project will seek to identify positive complementarities between women and men which could be leveraged by the development intervention; iii) Nutrition Action Plan 2016-2018: the Hinterland project aims to improve food and nutritional security of families by linking local food production to their diet; iv) Climate and Natural Resources Management Policy: in the framework of community/village plans, priority will be given to those initiatives which aim to enhance climate –related disaster risks reduction and management ; as for the family and community based enterprises investment plans, the project will finance those plans aiming to provide technical assistance for the incorporation of good practices for better management of trees, soils and water on the farm and for the resilience to climate change adaptive and preventive measures.

138. Regarding the adherence to the SECAP, the project falls into category B for environmental and social classification (minor and reversible negative environmental and social impacts). The project is designed to positively affect social and environmental conditions, on the recognition that in both Regions, proper NRM is critical for the maintenance of the livelihoods. Positive environmental impacts are foreseen, both directly and indirectly, by supporting the Households/ CBE that have at their core the sustainable use of NR. Considering the nature of Hinterland Project, which is a demand-driven project, it may be difficult to pre-determine all potential adverse impacts until project implementation, therefore additional environmental and social analysis will be carried out as part of the implementation of the Environmental and Social Management Plan (ESMP), attached to the PDR.

139. The climate risk categorization is Moderate, with the differentiation among the two Regions. In Region 9, the population has access to abundant natural resources; but water can be a constraint for crop production during the dry season. Despite the population possess traditional knowledge to adapt, if the agro-ecological systems are negatively affected by climate variability and change, the population can become food insecure. The Coastal Plains of Region 1 has higher exposure to climate hazards, deriving from flooding, sea level rise, salinization and saline intrusion affecting water and soil resources. A climate risk screening of Region 1 should inform the targeting and the replicability of project approach.

### III. Project implementation

#### A. Organizational framework

140. **Project Management Unit (PMU).** For the Hinterland Project, which in the case of Region 9 will be implemented more than 500 km away from Georgetown and Region 1 and 9 being two geographically distinct regions with no direct air, road or water transport between them, regional project offices would be established. The Project Management Unit would therefore comprise the office at the MOA in Georgetown and the regional offices in Region 1 and 9.

141. The Office in Georgetown will have a Project Manager (PM), a Procurement Officer, an Administrative/Finance Officer, and an M&E Specialist. The latter will be located at the M&E Unit of the MOA. In each regional office, the Project will be supported by a Regional Project Coordinator (RPC), an Administrative/ Accounts Officer and a Field Facilitator. The office in Region 9 will also have a Social Inclusion and Gender Specialist who will assist both Regional Project Coordinators in this particular area of expertise.

142. **Coordination.** The Lead agency for the implementation of the Hinterland Project will be the Ministry of Agriculture through its ASDU. However, effective coordination with other line ministry's, Regional Democratic Councils and private sector initiatives in the regions is essential in order to create synergies and ensure sustainability of project results. The specifics of this particular project: e.g. the indigenous population and their traditional governance structures, the participatory planning processes and identification of public/collective investments, the linkages with regional planning processes, the focus on natural resource management, business plans and coaching, or on nutrition,

the cross cutting gender equality issues, call for effective coordination both at central and regional level.

143. To enhance synergies between the Hinterland project and investments provided by the IDB in support of the MOA in Region 9, and to improve coordination at the national and regional level, the two projects will use the same National Steering Committee (NSC) and Regional Management Committee (RMC) in Region 9. The NSC and RMC will also be important for any coordination in regions 1 and 9 with other ongoing operations of other donors. Collaboration will be sought with CI at the operational level, meaning that the Regional Project Manager will liaise with CI staff in the region. CI might also be contracted as a service provider, but this would depend on the results of competitive processes put in place for obtaining these services.

144. **National Steering Committee (NSC).** The Director of ASDU and Project Manager will receive guidance from a National Steering Committee, chaired by the Ministry of Agriculture, that will: (i) provide policy directions and support for project implementation, (ii) advice on the Annual Work Plans and Budget, and (iii) facilitate desirable coordination and linkages with related ministries, agencies, government programmes, and projects. The NSC is comprised of representatives from the: Ministry of Agriculture (MOA), Ministry of Indigenous People's Affairs (MOIPA), Ministry of Natural Resources and Environment (MNRE), Ministry of Business (MOB), Ministry of Health (MOH), Ministry of Communities (MOC), Ministry of Social Protection (MSP), Office of Climate Change at the Presidency, and two Representatives from the beneficiaries (one from Region 1 and one from Region 9). The NSC will also provide guidance to the implementation new MOA/IDB project.

145. **Regional Management Committee (RMC).** Each region will be supported by a Regional Management Committee that will: (i) provide support on the implementation of the Project at the regional level and ensuring conformity with the agreed-upon respective Annual Work Plans and budgets; (ii) facilitate linkages between the Project and Ministries, Agencies or Organizations, other related projects, governmental programmes and private sector activities required for project success; and, (iii) provide guidance on the inclusion of stakeholders as specified in relevant project documents. The RMCs will be chaired by the Regional Chairman and comprised of: representatives of the Regional Agricultural Committee (could be NAREI and/or GLDA), regional representatives of MOIPA, MNRE, MOB (eg. Business Desk), MOH, MSP, and two (2) representatives from the beneficiaries. In Region 9, the RMC will also provide guidance to the implementation new MOA/IDB project.

146. **Implementation arrangements.** The PMU has been kept to a minimum in order for the Project to contract quality technical services for the implementation of for instance the participatory community planning process including the formulation of investment and business plans, the coaching of business plan implementation, technical assistance in areas of production or marketing, amongst others. It is also recognized that in many areas, the MOIPA or other organizations such the SSOS or CI Guyana have more experience than the MOA and may be better equipped to achieve certain deliverables. Therefore, certain aspects of the Project will be executed in the field by a range of Service Providers (public institutions, non-profit organisations, individual consultants) who will be contracted and supervised by the PMU. The PMU is responsible for the development of Terms of Reference or Memorandum of Understanding, the procurement process, performance monitoring and supervision of the work carried out by the service providers, and the final evaluation of compliance with the contract or MOU and achieved results.

147. **Investment Fund.** For the administration and execution of the Investment Fund, MOA will sign an agreement with a Financial Institution(s) with presence in the regions. The selection of the Financial Institution(s) will be through a competitive bidding process. The PMU will be responsible for monitoring the implementation of the Investment Fund and evaluating the performance of the Financial Institution as well as the results achieved.

## **B. Planning, M&E, learning and knowledge management**

148. **Planning.** Since a decade ago, the Government of Guyana has been implementing reforms aimed at improving public sector efficiency and effectiveness through MfDR, including the introduction of Monitoring and Evaluation (M&E). In 2011, as result of a Technical Cooperation project between the Ministry of Finance and the IDB, a 5-year M&E Action Plan called "A Strategy and Action Plan for Institutionalizing Monitoring and Evaluation in Guyana" was produced. As a consequence, a Central M&E Unit was created within the Ministry of Finance, work is in progress for the institutionalization of



technical processes, and training seminars have been provided to improve the capacities of other institutions involved in the M&E system. It is this context that in addition to line ministries such as Health and Education, also the Ministry of Agriculture (MOA), has developed in 2013 a National Agriculture Sector Strategy 2013-2020 and has identified sector indicators which are the basis for M&E of the MOA and all its agencies and projects.

149. A number of MOA agencies (and MOA projects) work together to implement the Agriculture Strategy 2013-2020. Each department and or authority will develop annual work plans and is responsible for its implementation. The Ministry of Agriculture Heads of Departments monitor the implementation on a quarterly basis. The MOA M&E Unit reports quarterly to the Permanent Secretary and the Heads of Departments on the implementation performance.

150. The Project would on the one hand provide support to further strengthen the capacity of the MOA M&E Unit and on the other hand ensure that Project implementation monitoring is linked to MOA performance monitoring and feeds into existing Agriculture Strategy indicators in addition to project specific indicators as they have been identified in the Logical Framework.

151. The specific objectives of the M&E and Knowledge management would be to:

- (a) Provide the Borrower (MOF), the MOA and other relevant GOG institutions such as the Ministry of Indigenous People's Affairs (MOIPA), as well as IFAD, with data regarding Project progress in relation to the Logical Framework indicators;
- (b) Provide the information on progress and problems encountered that would help the PMU in decision making in favour of the successful implementation of the Project;
- (c) Create the capacity at Project client level and their organizations to plan on an annual basis and evaluate progress accordingly;
- (d) Generate and share knowledge from Project experiences that can lead to further innovation and possibly up scaling of best practices;
- (e) Provide the MOA and IFAD with information and knowledge that will be a useful input to the policy dialogue.

152. **Monitoring and evaluation.** Monitoring and evaluation would be conducted using the participatory approach adopted by the Project. Data collection would be kept simple, not time consuming and would ensure the reliability and especially the usefulness of the data collected. Projects tend to collect too much data while not having the capacity (human resources) to analyse all the information. Another weakness in many Projects is that there are no feedback mechanisms in place to share among stakeholder the knowledge that is generated from the analysed data. This results in a system that just extracts information from project clients for the benefit of donors and government statistics rather than a learning and results-based management system.

153. The Project's Monitoring and Evaluation system would include the following key elements: (i) Start-up; (ii) Planning; (iii) Monitoring (data collection and registration, analysis and feedback); (iv) Reporting (half yearly and annual reporting to the Borrower and IFAD); (v) Local capacity building for participatory planning and M&E; (vi) Evaluation (baseline, regional annual evaluation and planning workshops, impact study); (vii) Project Completion Process and Report; (viii) Project Supervision; and; (ix) Knowledge generation and knowledge sharing.

154. In order to be able to evaluate over time progress made and impact achieved, it is essential to have access to baseline data. It is imperative that the baseline study be conducted by MOA before the start-up of the project (condition for Project effectiveness) in order to have data that really reflect the initial situation at project start-up. The minimum requirement of data for the baseline is that they provide the information required to be able to measure the indicators defined in the Logframe (LF).

155. The project can tap into the IDB baseline survey carried out in 2016 in region 9. The SOFA (State of Food and Agriculture) study to be carried out for Region 1 in Y1 (before project effectiveness), is expected to generate a lot of baseline data for this Region. However, a Baseline study for both regions has been catered for in order to complement the IDB (region 9) and SOFA (region 1) data so as to ensure measurement of for all Project LF indicators. Both the SOFA/R1 and the Baseline study would be paid for through the IFAD Grant.

156. A simple (user friendly, ease of application and that generates reliable and useful data) database (and a data collection system) would be developed by MOA (M&E Unit) with assistance of a consultant as

soon as baseline data is available. It is imperative that the database be developed before the Project becomes operational so data can be registered from day-1 of project implementation. The database would cover the data required to measure the outputs and outcomes as defined in the Logframe, and to monitor progress made on the implementation of the AWPB.

157. In order ensure that above mentioned key M&E activities and other essential activities such as specific studies and can take place before the project becomes operational, the following actions would be financed through the IFAD Grant.

**Table 5: Activities financed by IFAD Grant**

SOFA Region 1
Study on inclusive value chains for selected commodities
Hydrological study
Studies for opportunities for renewable energy
Project Baseline study
Project Final Impact Evaluation Study
MOA M&E Platform and database

158. In accordance with the Government, the Baseline Study will be carried out immediately after the approval of the Financing Agreement by IFAD's Board of Directors, and before the project's implementation.

159. **Learning and knowledge management.** Knowledge generation and knowledge sharing are important elements in addition to the M&E process. Specific evidence-based knowledge products will be developed on the basis of Project experiences in order to extract lessons and best practices, replicate innovative solutions, achieve better outcomes and greater impact from development resources, and strategically disseminate the knowledge generated to support national, regional and local decision making and policy processes.

160. Knowledge capturing would happen through amongst others: (i) thematic networks in regions 1 and 9 that will include indigenous peoples' organizations; farmers' and community organizations; government and civil society organizations; and the private sector; (ii) the writing of short development (success) stories with input from staff members, project clients, and other stakeholders; (iii) the use of photo documentation as evidence; (iv) participatory development of short videos and radio programmes (as an alternative to written communication). The Project would have a basic information technology platform to enable information management, communication and knowledge-sharing (Web page, twitter account, Facebook page, link to IFAD virtual platforms, uploads to Youtube, Instagram, etc.). The Project would also tap into existing Learning Routes in Latin America and the Caribbean or IFAD projects in other English speaking countries seeking to enhance the knowledge accumulated by other rural development initiatives.

## **C. Financial management, procurement and governance**

161. **Governance and Financial Management Risks.** The country risk is rated as Medium. Transparency International's Corruption Perception Index ranked Guyana 119 of 168 countries in 2015 with a score of 29.

162. Over the years the Government of Guyana has embarked on implementing reforms aimed at improving its public financial management (PFM) systems, strengthening public procurement and introducing additional modern public financial management tools to ensure effective and efficient allocation of resources. In the beginning of 2016 Guyana became a member of the Global Forum on Transparency and Exchange of Information for Tax purposes, which illustrates Government's interest towards increased transparency.

163. **Financial Management.** A desk review was carried out to assess the Financial Management (FM) of the Ministry of Agriculture's Sector Development Unit – ASDU, which is the implementing entity for the Hinterland Project. The review was carried out using the IFAD's Financial Management Assessment checklist. The objective of the assessment was to determine whether the implementing entity has acceptable financial management arrangements, which will ensure that: (1) project funds

are used only for the intended purposes in an efficient and economical way, (2) accurate, reliable and timely periodic financial reports are prepared, and (3) the entities' assets are safeguarded.

164. Overall, the assessment concluded that ASDU's FM arrangements satisfy IFAD's minimum requirements for a robust and sound FM with a mitigated risk level assessed as LOW. (Refer to Working paper 7 for details).

165. **Financial Management Organization.** FM and Procurement of the Hinterland Project will be undertaken by the ASDU, which has an extensive experience in implementing internationally funded projects, including the recently closed IFAD funded READ Project, which had satisfactory rating for the quality of FM. The ASDU is already equipped with appropriate accounting software systems, and staff is already trained in donor reporting and disbursement procedures. At the time of the FM assessment the position of the Finance Manager was vacant. It is required that this position is filled by a certified experienced accountant through a competitive process.

166. This arrangement will contribute towards further country capacity building and will mitigate FM risks by ensuring acceptable financial accounting and reporting from the start of the project.

167. Due to the remoteness of the project areas, two regional offices will be set up. At each regional office an Administrative/ Finance Officer would be recruited through a competitive process; he/she will be responsible to perform administrative and basic accounts functions.

168. **Accounting and financial reporting arrangements.** The Project will continue to work with ASDU accounting procedures and policies consistent with International Public Sector Accounting Standards (IPSAS) – cash basis and Government requirements.

169. The ASDU currently use Quick Books Multi currency Accounting Software to record all the transactions and produce financial statements and various reports. This software has the capabilities to maintain the records of transactions by financiers, category and by component and printed of cheque. This software was used for the READ project and it provided the project with the reliable financial reports.

170. **Budgeting.** Planning will have a bottom up approach, which will begin with the beneficiaries All the activities and expenditures that will be implemented by the Hinterland Project will be included in an Annual Work Plan and Budget (AWPB), including the extent to which budgeted expenditures are intended to be financed by each financier (IFAD, GOG, beneficiaries). To facilitate transparency of the budgeting process, as well as implementation and monitoring of the budgeted activities, approved AWPBs will be accessible to all project staff and the ASDU.

171. **Procurement.** All procurement will be carried out by ASDU procurement department and a dedicated procurement officer will be assigned to the Hinterland project. During the assessment it was confirmed that the ASDU only has one procurement officer and therefore it is required that MOA recruits through a competitive process a procurement officer who will be assigned only to the Hinterland Project.

172. It should be also noted that the design team assessed the procurement capacity of the ASDU, and the risk is medium. Valuable lessons learned under the READ Project should be taken into consideration. The main problems identified were: 1) poor procurement planning; 2) weak technical capacity of staff in handling procurement; 3) lack of knowledge of the procurement guidelines; 4) inconsistency between some bid evaluations reports and recommendations; 5) bid costs that are much higher than original estimates; 6) re-bidding because of poor response. Refer to Working Paper 8 for further details.

173. **Disbursement arrangements and Flow of Funds.** The proceeds of IFAD financing will be used for eligible expenditures as defined in the Financing Agreement, and in line with the disbursement allocations specified in the relevant section of the Financing Agreement.

174. A segregated designated account, denominated in USD will be opened in the Central Bank of Guyana for the IFAD Loan and Grant. A separate account will be opened for GOG Counterpart fund denominated in Guyanese Dollars and managed by ASDU Finance Manager. Project operational account will be opened in a commercial bank and will be denominated in Guyanese dollars.

175. The IFAD Designated Account will be replenished on the basis of Withdrawal Applications prepared and submitted to IFAD by the ASDU finance unit, signed by the authorised representatives

of the Borrower, accompanied by the required supporting documentation. The detailed instructions for disbursements will be included in the Letter to the Borrower (LTB) issued for the Hinterland Project.

176. Upon the request from the project staff and in accordance with the approved Project AWPBs, funds will be transferred from the designated accounts to the Project operational account.

177. Each Regional Office will operate a bank account in Guyanese dollar, The signatories for the account will be Regional Project Coordinator and the Administrative/Finance Officer. The account will operate on an imprest system managed by the Finance Manager of the ASDU with a ceiling to be determined. Payments made by the regional offices will be for urgent and relatively small procurement (threshold to be determined and included in the Project Implementation Manual (PIM). The Administrative / Finance Officer will be responsible for the reconciliation of the Bank accounts.

178. Additional general conditions prior to disbursements are: i) Opening of the Project Account; ii) Operational Manual; iii) Assignment of Project Coordinator and Financial Administrator; iv) Baseline for final impact evaluation; and v) for Region 1 the completion of the SOFA study and value chain studies.

179. In order to facilitate the start of Project implementation, if necessary, the following financing mechanisms could be agreed upon:

- **Retroactive reimbursement of expenses.** This mechanism allows expenses to be eligible from the date of negotiations. The mechanism foresees the Borrower to advance the payment of expenses and submit them to IFAD for reimbursement, as a first withdrawal application, once the Loan Agreement has become effective and the general and additional conditions for disbursements have been met. The retroactive reimbursement of expenses has to be mentioned in the President's Report for approval by IFAD's Executive Board.
- **Start-up Expenses.** This mechanism allows expenses to be eligible from the date of effectiveness and before the disbursement conditions have been met. Under this mechanism, the project could receive an advance of funds from the date of effectiveness.

180. The maximum amounts for "retroactive reimbursement of expenses" and "start-up expenses" as well as the pertinent categories, to which these can be applied on the basis of a budget, will be set in the Loan Agreement. The eligible expenses for "retroactive reimbursement of expenses" and "start-up expenses" are normally those associated to the additional general conditions prior to disbursements, including for example, hiring of key personnel, expenses for the project office to become operational (i.e. furniture, computing equipment, vehicles), and the establishment of the project monitoring and evaluation system (base line).

181. **Internal controls and internal audit.** MoA has a functioning internal audit unit called the Verification unit, which helps to ensure a sound control environment within the Ministry. This department is relatively new and, hence, the staff of this unit should be part of the start up workshop. Supervision missions would report on the activity of the internal audit with respect to the Hinterland Project and ASDU by reviewing their reports and assessing management's responsiveness to any recommendations formulated.

182. Internal controls will also be verified during the annual audit exercise and reported to IFAD in a Management letter, in line with the IFAD's audit guidelines.

183. In the preparation of the PIM, the roles and responsibilities for the Hinterland Project activities should be well defined.

184. **Audit Arrangements.** The project financial statements, will be prepared by the Finance Manager of the ASDU, and will be audited on an annual basis in accordance with the International Standard on Auditing and the IFAD guidelines on Auditing of the projects.

185. In line with its mandate as per the Guyana Audit Act 2004, the Auditor General shall be responsible for conducting financial, compliance, performance and value-for-money audits with respect to the accounts of all projects funded by the way of loans or grants by any foreign state or organization.

186. In this regard, the Guyana Auditor General Audit Office will conduct the audit of the Hinterland Project financial statements and provide separate opinions on the financial statements, on the operation of the Designated Account and on the certified statement of expenditure. A separate

management letter addressing the adequacy of the accounting and internal control systems should also be issued. The audit report including all the opinions mentioned above should be submitted to IFAD within the six months of the end of the fiscal year.

187. Appendix 7 provides more detail on financial management and disbursement arrangements.

## **D. Supervision**

188. IFAD will provide direct supervision for the project, complemented by Implementation Support Missions. Two Supervision Missions are generally planned for each year. The first Supervision Mission will be undertaken approximately six months after project effectiveness. The first Supervision Mission will monitor progress in relation to the timeframe defined in the implementation plan, and will assess advancements in fiduciary aspects, expenditures, contribution of funds from the counterpart and compliance with the terms of the loan agreement. The second Supervision Mission will be undertaken six months after the first. If required, and depending upon the availability of resources from IFAD, Implementation Support Missions will be organized to cover the themes and areas recommended by Supervision Missions.

## **E. Risk identification and mitigation**

189. Project implementation entails risks identified during the preparation of project design that include: a) economic risks, b) climate change risks, c) social risks, and d) institutional risks.

190. Project formulation would address the identified economic risks (linked to excessive productive specialization and competition for labour from other sectors) through the provision of training and support activities to communities and producers' groups that increase their awareness of specialization risks and help them formulate mitigation strategies for integrating new income-generation activities in diversified livelihood strategies. Furthermore, the project will promote upgrading in local value chains and increase access to information so as to favour a more equitable participation of target households in agricultural markets, and will provide technical assistance and incentives to investments to producers' groups to maximize the incomes and employment generated from agriculture and related activities.

191. The identified climate change risks will be addressed through the provision of support for investments in public and collective goods included in P/CIP and CTP that increase access to knowledge, technology and information for improved water and NRM. Support will be given to the adoption of good practices for NRM and for the adoption of adaptive and preventive measures for climate change in approved Business Plans. Producer's groups that submit a Business Plan will have to include a mitigation strategy to reduce the negative effects that productive specialization may have on CC resilience and nutrition, through the use of agro-biodiversity and the maintenance of diversified livelihoods.

192. Social risks will be reduced through the adoption of FPIC plans and by strengthening and promoting participatory community planning based on the experiences already existing in Region 9. The participation of vulnerable groups, including women and youth, will be promoted through the targeting strategy, through the request that CTPs must include specific skill development and training addressed at youths and women, and through the prioritization of Business Plans that demonstrate the participation of vulnerable groups.

193. Risks for nutrition and food security, identified as part of social risks, will be addressed through a series of training and technical assistance activities that aim at strengthening the link between income generation and quality of nutrition by: (a) helping households make more informed dietary choices; (b) increasing the diffusion and adoption of dietary recommendations formulated by the government; (c) maintaining and increasing the richness, variety and nutritional quality of the local food system.

194. Institutional risks are related to limited inter-institutional coordination at the regional level, and to the possibly weak managerial, organizational and implementation capacities of communities and producers' groups. To address these risks, the project will strengthen coordination at the national and regional level through its NCS and RMC, that will facilitate linkages between ministries, agencies or organizations, other related projects and governmental programmes. The project will also provide

knowledge and information to assist more informed regional planning (including regional studies on water, energy and ICT and the mapping of planned investments).

195. The Project will provide training and will build capacity for participatory mapping and planning, and will strengthen through technical assistance and training the managerial, organizational and monitoring capacity of community organizations and producers' groups.

**Table 6: Risk Identification and Mitigation**

<b>Risks</b>	<b>Risk Mitigation Measures</b>	<b>Rating</b>
<b>Economic Risks</b>		
Productive specialization (vs traditional diversification strategy): vulnerability to market shocks; increased seasonality effects on income and labour cycles	Training and support actions to increase the capacity of communities to plan for strengthened economic resilience. Business Plans must include a mitigation strategy for specialisation. Favour income-generating activities and their sustainable integration in diversified livelihoods through TA and incentives for value chain upgrading, labour-saving technologies, better access to market information, increased coordination among value chains stakeholders.	<b>Medium</b>
Competition for labour from other sectors (e.g., mining)	Increase income and employment opportunities in agriculture and related activities by maximizing the economic viability of supported Business Plans through (a) technical assistance for market search and marketing activities; (b) incentives for investment in technologies that can generate demand for local services (ICT and renewable energy installations, VC support services)	<b>High</b>
<b>Climate Change Risks</b>		
Productive transformation without access to adequate technology and information for water and soil management	Non-reimbursable contributions for the provision of public goods that increase access to knowledge, technology and information for water and NRM. Incentives to producers' groups for the incorporation of technologies and good practices for better on-farm management of trees, soils and water and the adoption of adaptive and preventive measures for climate change	<b>Medium</b>
Shift to less diversified farming systems	Business Plans must have a mitigation strategy addressing specialisation risks for nutrition and CC resilience through agrobiodiversity / diversification	<b>Medium</b>
<b>Social risks</b>		
Weakening of social capital and organization capacity at community level	Strengthened participatory community planning practices, with measures for the inclusion of vulnerable groups, and phased implementation strategy to build upon existing planning experiences. VC investments identified through community planning (R9) or multi-stakeholder roundtables and agreed upon by communities through MOUs. Training, TA and support given to communities and producers' organization for design and implementation of investments plans.	<b>Medium</b>
Exclusion of vulnerable groups including women and youth	Targeting strategy based on direct targeting and self-targeting based on clearly defined profiles that include the poorest population groups. CTPs must include youth-focused skills development activities and vocational training. Business Plans that demonstrate participation of youth, women and vulnerable households will be prioritized.	<b>Medium</b>
Risks for nutrition and food security:	Awareness-raising, training activities and technical assistance activities for communities, households and government agencies to strengthen the linkage between increased income generation and quality of nutrition.	<b>Medium</b>
<b>Institutional risks</b>		
Limited inter-institutional coordination for actions at the regional level	Strengthened coordination at the national and regional level through NCS and RMC that facilitate linkages between ministries, agencies and programs. Generation and diffusion of knowledge and information to assist more informed regional planning.	<b>Medium</b>
Incipient managerial and organizational capacity to implement investments at the local level (communities and producers' groups)	Training and capacity building to communities / collective organizations for the design of CPDPs and VCAP. Project's monitoring of the investment implementation phase. Technical assistance to producers' groups to strengthen their organizational and managerial capacities. Financial institutions involved in the evaluation of Business Plans to improve viability.	<b>Medium</b>

196. **Risks for Project economic viability.** Sensitivity analysis (see Appendix 10) shows that economic viability indicators are insensitive to the reduction of the benefits. This indicates that reductions in commodity prices or a decline in the adoption rate, will not affect significantly the economic results of the project. The switching value (SV) for the reduction of the benefits was 51.8 per cent; this means that a benefits reduction in this percentage would reduce the ENPV to zero.

197. On the other hand, economic viability indicators are sensitive to the increased costs. The SV for the costs increase was 21.9.0 per cent. Moreover, the indicators of viability are sensitive to the combined effect of a 20 per cent benefits reduction and a 20 per cent costs increasing. However, in this eventual situation the Hinterland Project project will remain economically viable.

198. Finally, the delay in obtaining the benefits (2-3 years) will not alter sensitively the project economic viability. This indicates that the delays in the implementation would not put in risk the

achievement of the expected results. This is due to a realistic and gradual incorporation of the beneficiaries.

## IV. Project costs, financing, benefits and sustainability

### A. Project costs

199. The total cost of the project is US\$ 11.15 million, over a period of six years. Of these, US\$ 10.54 million (95%) are total baseline costs and US\$ 0.61 million (5%) are physical and price contingencies (5%).

**Table 7: Total Project Cost by Component and by Year (USD '000)**

Project Components by Year Base Costs (US\$ '000)	Base Cost						Total		
	PY1	PY2	PY3	PY4	PY5	PY6	Amount	% BC	% TC
1. Studies and analysis, capacity building and village planning	776	909	619	255	105	104	2 770	26%	
2. Implementation of investment plans	178	1 344	2 592	1 652	104	102	5 972	57%	
3. Project management, M&E and knowledge management	533	222	232	222	222	365	1 795	17%	
<b>Total BASELINE COSTS</b>	<b>1 487</b>	<b>2 475</b>	<b>3 444</b>	<b>2 129</b>	<b>431</b>	<b>571</b>	<b>10 537</b>	<b>100%</b>	<b>95%</b>
Physical Contingencies	49	65	58	29	7	14	221		2%
Price Contingencies	31	67	93	75	46	74	385		4%
<b>Total PROJECT COSTS</b>	<b>1 567</b>	<b>2 606</b>	<b>3 594</b>	<b>2 234</b>	<b>483</b>	<b>658</b>	<b>11 143</b>		<b>100%</b>
Taxes	203	368	525	306	25	52	1 480	13%	
Foreign Exchange	188	74	168	113	11	10	564	5%	

**Table 8: Project Total Cost by Expenditure Account and Component (USD '000)**

Expenditure Accounts by Components Base Costs (US\$ '000)	Strengthening of community's and producer groups' investment planning		Implementation of investment plans		Project and knowledge management and coordination		Total		Physical Contingencies % Amount	
<b>I. Investment Costs</b>										
A. Vehicles	48	27%	68	39%	61	34%	177	2%	-	-
B. Equipment	8	19%	8	18%	27	63%	43	0%	-	-
C. Training	558	85%	-	-	95	15%	653	6%	5.0	33
D. Consultancy Services										
1. Consultancy services - Loan	1 470	43%	1 306	38%	679	20%	3 455	33%	3.9	134
2. Consultancy services - Grant	274	50%	-	-	273	50%	547	5%	5.0	27
Subtotal Consultancy Services	1 744	44%	1 306	33%	952	24%	4 002	38%	4.0	162
E. Grants (for sub-projects)										
1. Community Development Plans	-	-	2 360	100%	-	-	2 360	22%	-	-
2. Business Plans for Producer Groups	-	-	1 768	100%	-	-	1 768	17%	-	-
Subtotal Investment Fund	-	-	4 128	100%	-	-	4 128	39%	-	-
<b>Total Investment Costs</b>	<b>2 358</b>	<b>26%</b>	<b>5 510</b>	<b>61%</b>	<b>1 135</b>	<b>13%</b>	<b>9 002</b>		<b>2.2</b>	<b>194</b>
<b>II. Recurrent Costs</b>										
A. Salaries	264	27%	264	27%	468	47%	996	9%	-	-
B. Operating Expenses	148	27%	198	37%	193	36%	539	5%	5.0	27
<b>Total Recurrent Costs</b>	<b>412</b>	<b>27%</b>	<b>462</b>	<b>30%</b>	<b>661</b>	<b>43%</b>	<b>1 535</b>		<b>1.8</b>	<b>27</b>
<b>Total BASELINE COSTS</b>	<b>2 770</b>	<b>26%</b>	<b>5 972</b>	<b>57%</b>	<b>1 795</b>	<b>17%</b>	<b>10 537</b>	<b>177%</b>	<b>2.1</b>	<b>221</b>
Physical Contingencies	115	52%	67	30%	39	18%	221	2%	-	-
Price Contingencies	141	37%	120	31%	124	32%	385	3%	3.1	12
<b>Total PROJECT COSTS</b>	<b>3 025</b>	<b>27%</b>	<b>6 159</b>	<b>55%</b>	<b>1 959</b>	<b>18%</b>	<b>11 143</b>	<b>100%</b>	<b>2.1</b>	<b>233</b>
Taxes	412		913		155		1 480		2.5	37
Foreign Exchange	62		409		93		564		0.5	3

200. Components 1 and 2 represent 83% of the project baseline cost. The majority of these funds will directly benefit household/enterprise or community organizations, either in the form of funds for implementing investment plans, as project-supported investments in public goods on through capacity building activities. Management costs (Component 3) will be equal to 17% of the project baseline cost.

201. Category E (Grants for sub-projects) receives the largest share of resources, US\$ 4.128 million (39% of the baseline cost); it will be used to finance Community development plans and producers' groups business plans. Categories A and B (salaries and operating expenses, recurrent costs) cover project recurrent costs, and absorb 14% of the project baseline cost. Categories C and D (training and



consultancy services) will finance technical assistance for background studies and to provide support for the formulation of community development and producers' groups business plans (44% of the total baseline cost). Finally, 2% of the project baseline cost would be used to finance vehicles and equipment (categories A and B, investment costs).

## B. Project financing

202. **Financing.** The project would be financed as follows: (a) the Cooperative Republic of Guyana would provide US\$ 2.426 million, equal to 22% of the total cost; (b) IFAD would finance investments in all components and expense categories, with a total of US\$ 8.452 million (total allocation PBAS 2016-2018), including a grant of up to US\$ 500,000 required for supporting national authorities in collecting and analysing first and secondary information, mainly in Region 1, and monitoring and evaluation activities, 76% of the total cost; (c) beneficiaries would contribute US\$ 0.265 million, 2% of the total cost.

**Table 9: Project Financing by Component (USD '000)**

Components by Financiers Total Costs (US\$ '000)	Guyana Government	IFAD Loan	IFAD Grant	Beneficiaries	Total	
					Amount	%
1. Strengthening of community's and producer groups' Investment planning	637 21%	2 142 71%	247 8%	- -	3 025	27%
2. Implementation of investment plans	1 139 18%	4 755 77%	- -	265 4%	6 159	55%
3. Project and knowledge management and coordination	650 33%	1 055 54%	253 13%	- -	1 959	18%
<b>TOTAL PROJECT COSTS</b>	<b>2 426</b> 22%	<b>7 952</b> 71%	<b>500</b> 4%	<b>265</b> 2%	<b>11 143</b>	<b>100%</b>

203. **Financing of expenditure categories.** Financing of expenditure categories and their respective percentages of funding are as follows:

- Government of Guyana. It will finance the taxes of all investment and recurrent costs of the project, 50% of project salaries, and 50% of specific consultancy services;
- IFAD loan. It will finance the eligible expenditures of categories: Vehicles, Equipment; Training; Consultancy services; Grants (for sub-projects); Salaries; and Operating expenses.
- IFAD grant. It will finance the eligible expenditures category Consultancy Services – Grant. This category includes the activities presented in the Table 10
- Project beneficiaries. Their contributions will be to co-finance the Grants (for sub-projects) category. These contributions will be mainly in-kind, and smaller amounts in money.

**Table 10: Activities Financed with IFAD Grant**

Activities	Total
	Amount (US\$'000)
<b>Component 1</b>	
1 SOFA Region 1	103
Specific value chain study Region 1	25
Inclusive value chains for selected commodities	17
Hydrological study	76
Studies of opportunities for renewable energy	25
<b>Sub-total Component 1</b>	<b>247</b>
<b>Component 1 - M&amp;E - KM</b>	
Project Baseline Study and Final Evaluation	154
MOA - M&E Platform and Database	99
<b>Sub-total Component 2</b>	<b>253</b>
<b>TOTAL GRANT</b>	<b>500</b>

## C. Summary benefits and economic analysis

204. **Direct beneficiaries.** The project will support approximately 6 000 rural families (approximately 30 000 persons) including: (a) 2 750 rural families that will receive support to improve the agricultural production; and (b) 250 families will be supported to implement and operate 25 producers' group enterprises.

205. **Financial analysis.** To verify the financial viability of Project activities, it was calculated the flow of annual incremental net benefits over a period of 10 years, both for the agricultural production of rural households and for of the supported producers' groups enterprises. In all the models it was checked an increase of benefit, of family net income, of sales and of labour. Financial viability was positive on all models, with financial internal rates of return (FIRR) between 23 to 312%.

AGRICULTURAL MODELS	Benefit (US\$ / year)			Family Net Income (US\$ / year)			Labor (days / year)			Investment			FIRR	FNPV 14%
	Without project	With project	Diff.	Without project	With project	Diff.	Without project	With project	Diff.	Project financing	Family financing	Total		
										US\$	US\$	US\$		
Cassava-cattle production	1 246	1 963	718	1 246	1 963	718	202	278	76	209	44	253	101%	1 436
Peanut-sheep production	1 492	2 120	629	1 956	2 932	976	228	324	96	163	44	207	312%	2 517

ENTERPRISES MODELS	Benefit (US\$ / year)			Sales (US\$ / year)			Labor (days / year)			Investment			FIRR	FNPV 14%
	Without project	With project	Diff.	Without project	With project	Diff.	Without project	With project	Diff.	Project financing	CBE financing	Total		
										US\$	US\$	US\$		
Cassava procesing	-	9 439	9 439	-	81 895	81 895	-	720	720	14 528	2 082	16 610	35%	17 473
Guest house - ecotourism	-	8 197	8 197	-	12 349	12 349	-	345	345	17 433	4 358	21 792	23%	8 726

### Economic analysis.

206. The methodology to establish the economic viability of the project was the cost-benefit analysis, with economic prices (shadow prices). This methodology calculates the flow of annual incremental net benefits during a 10 years' period, compatible with the maturation time of principal investments. The economic viability indicators were Economic internal rate of return -EIRR-, and Economic net present value -ENPV-.

207. For this analysis, they have only been considered the incremental benefits and costs associated with the interventions of the project, including the rural production -agricultural and enterprises production- and the benefits of the drinking water systems and the internet facilities to be implemented.

208. The indicators of economic viability were positive, since the EIRR was 21.0% and the ENPV was of US \$ 6.97 million. These indicators of viability are very little sensitive to the reduction of benefits and to the backwardness in the obtaining of the benefits; and moderately sensitive to the increase of the cost.

## D. Sustainability

209. **Political and institutional sustainability.** The project is aligned with the national policy framework that, through its different strategies and components, highlights the development of hinterland agriculture, the reduction of poverty and isolation in Amerindian communities and the adoption of environmentally-sustainable development strategies in the face of increased threats from climate change. Coordination between technical government agencies and local government authorities is already taking place in Region 9, and the project will contribute to further strengthening the dialogue and coordination between government agencies, indigenous communities, international donors and civil society organizations that operate to reduce poverty, malnutrition and environmental vulnerability in hinterland areas. Constant coordination will be sought with international donors that are assisting the GoG in its efforts to build local capacities, increase access to market and environmental information for isolated communities and develop infrastructure and public goods that support adaptation and mitigation to climate change.

210. **Sustainability, upscaling and replication.** Previous IFAD projects in Guyana mostly concentrated on coastal areas and communities. The proposed project responds to GoG long-term

commitment to furthering development and reducing poverty in hinterland regions mostly inhabited by indigenous communities. The project therefore builds upon and adapts IFAD approach to the specific conditions of the hinterland and it paves the way for replication and upscaling in other remote areas of the country that share similar conditions. Particularly relevant in this regard is the phased implementation approach adopted for Region 1, where one sub-region will be selected after a SOFA study is conducted in the first year of the project. The knowledge generated and the lessons learned through implementation in one sub-region can be used to replicate the project in other areas of Region 1. The participatory planning approach complements GoG current efforts to decentralize planning, budgeting and decision-making authority to local governments under the leadership of the recently established MOC; and government-led actions to strengthen the planning capacity of Amerindian Villages and Communities through initiatives guided by the MIPA in partnership with international donors and local NGOs. The project will on the one hand build on the extant planning capacity developed in villages that have already started to design Community Development Plans; on the other hand, it will strengthen skills and capacities for climate- and nutrition-aware planning.

**211. Food security and nutritional quality.** Although the project starts from the identification and strengthening of local value chains, it adopts a holistic view of household livelihoods strategies. Through assistance and capacity building provided by the project, households will be strengthened in their ability to develop medium-term investment plans that consider the (positive or negative) impact that new market-oriented income opportunities may have on household food security, nutritional quality and resilience to market or environmental risks. Specific awareness-raising activities and the production of training material are planned in relation to nutritional quality.

**212. Environmental sustainability.** The adoption of climate resilient measures such as the identification of crops varieties resilient and tolerant to drought, flood, pests and soil sanity, and the definition of climate proof agricultural technical packages will pave the way for sustained productivity and quality improvements. The SOFA study that will be undertaken in Region 1 will fill a gap in the knowledge of environmental and socio-economic conditions in the area, thus contributing to better planning.



## Appendix 1: Country and rural context background

1. The following document expands information contained in the PDR's main report including a summary of IFAD and other donor strategies for interventions in Guyana as well as national rural development strategies. It further provides information on rural development projects funded by international cooperation agencies and lastly it summarizes the roles and mandates of national agencies involved in furthering and supporting rural development interventions.

### I. Donor strategies

2. **IFAD's strategy.** IFAD's strategy for Guyana aims at addressing limitations to agricultural and rural development in isolated regions and communities, and to contribute towards achieving government priorities, including: (i) increased incomes of both men and women; (ii) supporting indigenous communities in pursuing their own development through implementation of viable community development projects; (iii) furthering access to markets of agricultural and livestock outputs; (iv) expanding the introduction and use of information communication technologies (ICTs); and (v) ensuring rural families' food and nutritional security in the context of enhancing diversified agriculture in the hinterland and savannahs, while addressing infrastructure constraints, climate change and mitigation of natural disasters.
3. The strategy for Guyana is consistent with IFAD's Strategic Framework 2016-2025 and the Policy of Engagement with Indigenous Peoples and will contribute to further operationalizing IFAD's scaling up agenda by supporting smallholder institutions so that they can reach scale and foster linkages with public- and private-sector players all along value chains, and by promoting promising innovations and managing knowledge to influence the decisions of policy makers, private-sector investors and public-sector programmes.
4. **Caribbean Development Bank<sup>28</sup>.** The CDB Guyana Country Strategy Paper 2013-2016 includes four main objectives:
  - (a) Promoting broad-based economic growth and inclusive social development by: (i) improving access to and quality of social and economic infrastructure; (ii) improving sustainable agricultural production and productivity (iii) improving quality of and access to education and training; and (iv) improving private sector operations and development through training and capacity-building.
  - (b) Supporting environmental sustainability and disaster risk management by: (i) enhancing protection and sustainable management of natural resources and reduced vulnerability to natural disasters
  - (c) Promoting good governance through: (i) improved capacity for strategic policy management and coordination, including evidence-based, gender responsive, decision-making and leadership for promoting gender equality
  - (d) Fostering regional cooperation and integration through: (i) enhanced capacity for implementation of policies and programmes that promote regional integration,
5. **Inter-American Development Bank.** The IDB strategy paper<sup>29</sup> outlines four priority areas: (i) Sustainable Energy, (ii) Natural Resource Management, (iii) Private Sector Development, and (iv) Public Sector Management. The strategy further proposes to address indigenous Amerindian populations' needs in a cross-cutting manner.
  - (a) **Sustainable Energy** furthering: (i) implementation of a sustainable low-carbon energy framework for reducing the cost of electricity while expanding generation, transmission

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<sup>28</sup> [http://www.caribank.org/uploads/2014/12/BD13\\_13\\_CSP\\_Guyana-2013-2017\\_FINALwithCORR.pdf](http://www.caribank.org/uploads/2014/12/BD13_13_CSP_Guyana-2013-2017_FINALwithCORR.pdf)

<sup>29</sup> <http://idbdocs.iadb.org/wsdocs/getdocument.aspx?docnum=38350772>

and distribution; (ii) increased generation capacity and promotion of development of a more sustainable and greener energy matrix; (iii) expanded electricity coverage; and (iv) enhanced institutional, legal, and regulatory measures by supporting agencies involved in the sector.

- (b) **Natural Resource Management** focusing on three complementary areas: (i) boosting productivity growth in natural resource-based economic activity with sustainability; (ii) strengthening institutional capacity for natural resource management that supports the effective implementation of the LCDS while meeting international standards of ecological sustainability; and (iii) mitigating disaster risk by mainstreaming risk management including the impacts of climate change into natural resource management.
- (c) **Private Sector Development** including: (i) improving the business climate by enhancing access to credit, as well as augmenting the retention of skilled labour required by employers in non-traditional sectors; (ii) enhancing government's institutional and regulatory capacity to promote and enforce standards of quality, thus creating incentives for companies to pursue quality certifications and investments in quality control; and (iii) strengthening capabilities of local firms, to facilitate the adoption of new production technologies and foment product and export diversification.
- (d) **Public sector management** facilitating: (i) improvements in tax administration; (ii) the design of an adequate monitoring and evaluation institutional architecture and legal framework to ensure sustainability of these systems and their use by decision makers; and (iii) the development of e-Government systems and the design and implementation of an institutional framework to manage the deployment of information and communication technologies (ICT).

6. **The World Bank.** The World Bank Country Engagement Note <sup>30</sup> approved in May 2016 includes three main thrusts:

- (a) **Building resilience to natural disasters:** Guyana is one of the most vulnerable countries to climate change. Nearly 90 per cent of Guyana's population lives in the narrow coastal plain, largely below sea level. Specifically, the projects will continue improving flood preparedness through improved hydro-meteorological monitoring and the rehabilitation of critical infrastructure to reduce the risk of flooding in the East Demerara coast.
- (b) **Improving high quality education:** Guyana has made progress in achieving universal primary education, but learning remains an issue across grade levels. Student learning achievement in secondary education show that only 50 per cent pass mathematics and 70 per cent pass English in 11th grade. To improve education quality from early childhood to university, the Bank will help strengthen the University of Guyana through curriculum improvements, teachers training in mathematics, and a pilot technology-assisted learning in mathematics. It will also provide early childhood education support to all nursery and Grade 1 classes in the hinterland regions and targeted remote areas.
- (c) **Laying the ground for private sector development:** The World Bank Group will focus on strengthening the financial infrastructure and the business regulatory environment to support the government's efforts to promote private sector growth and access to finance.

## II. National rural development strategies and plans

<sup>30</sup> <http://documents.worldbank.org/curated/pt/2016/05/26216773/guyana-country-engagement-note-period-fy16-18>

7. **National Strategy for Agriculture<sup>31</sup>** The strategy aims at furthering sustained agricultural growth for uplifting living standards while enhancing provision of safe and high quality food. The strategy's 25 priorities supports inter alia: (i) increasing production and improving quality of traditional crops, (ii) facilitating and supporting efforts to link small farmers to dynamic markets, (iii) maximizing farmer-to-farmer education in order to develop knowledge and skills, (iv) increasing adaptation to a changing climate in a low carbon development pathway so as to cover short term needs (adaptation) and the Low Carbon Development Strategy (LCDS) long term perspective (mitigation).and furthering a "green economy, (v) deepening ownership and access to land by small farmers and indigenous communities and, (vi) strengthening the participation of farmers and farming communities in the management of drainage and irrigation systems including support to Water Users' Associations.
8. **Low Carbon Developments Strategy (LCDS)<sup>32</sup>**. The LCDS aims at combating poverty while responding to the impact of climate change by avoiding deforestation and creating a low carbon, climate-resilient economy as the basis for the environmental, social and economic transformation of the country. This strategy supplements the National Development Strategy (2000-2010), the National Competitiveness Strategy, and the Poverty Reduction Strategy Papers- (PRSPs) (2004-2008) and 2011-2015). The LCDS represents complementarity of environmental responsibility and economic growth, and functions to mobilize financial payments for the climate services provided by Guyana's vast standing forests.
9. The strategy focuses on: (a) nurturing investment in high-potential low carbon sectors, such as fruits and vegetables, aquaculture, business process outsourcing and ecotourism; (b) reforming existing forest-dependent sectors, including forestry and mining, where necessary, so that these sectors operate at the standards needed to sustainably maintain the forest; (c) expanding access to services, and creating new economic opportunities, for indigenous people's communities through improved social services (including health and education), low carbon energy sources, clean water and employment which does not threaten the forest, (d) improving services to Guyanese, including improving and expanding job prospects, promoting private sector entrepreneurship, and improving social services with a particular focus on health and education and, (e) protecting Guyana's people and productive land from changing weather patterns.
10. **Guyana's Food and Nutrition Security 2011 2020<sup>33</sup> (FNSS)**.This strategy places emphasis on factors affecting Guyana's food availability, stability and access. In terms of availability, major concerns are production and marketing constraints; stability relates to natural disasters and climate variability; while access concerns are characterized by those whose livelihoods survive on a very limited income. The overall goal of the FNSS's Implementation Plan is to enhance economic growth and poverty reduction by increasing the contribution of the agriculture sector to the national economy while enhancing agricultural production and productivity and strategically address issues related to agricultural production and productivity and the promotion of the consumption of a healthy and nutritious diet year round.
11. The FNSS strategy places emphasis in appropriate technology transfer, facilitating marketing through value-added products and market information, increasing employment in rural areas and vulnerable groups, reducing risk and vulnerability to natural disaster and economic crisis, furthering food safety and quality control and improving nutritional practices at the household levels.

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<sup>31</sup> [http://cms2.caricom.org/documents/11264-moa\\_agriculture\\_strategy\\_2013-2020\\_-\\_cd.pdf](http://cms2.caricom.org/documents/11264-moa_agriculture_strategy_2013-2020_-_cd.pdf)

<sup>32</sup> <http://theredddesk.org/countries/plans/low-carbon-development-strategy-guyana>

<sup>33</sup> [http://infoagro.net/programas/seguridad/politicas/regioncaribe/estrategia\\_guyana.pdf](http://infoagro.net/programas/seguridad/politicas/regioncaribe/estrategia_guyana.pdf)

## I. Donor assistance: programmes and projects

### Box 1 Donor assistance

IDB is Guyana's leading multilateral lender (with about 45 per cent of externally financed public investments in the country), with a 2012-16 program of around \$100 million focused on (a) sustainable energy, (b) natural resource management, (c) private sector development, and (d) public sector management. The IMF provides advice on macroeconomic issues through its Article IV reviews, as well as technical assistance to the Central Bank and the Ministry of Finance. UNDP activities in Guyana center on three thematic areas: (a) environment and sustainable development, (b) inclusive growth, and (c) inclusive governance. UNICEF has also an active program.

Other partners include the Caribbean Development Bank (CDB), Canada, the European Union (EU), DFID, and United States Agency for International Development (USAID). CDB focuses its activities on social and economic infrastructure (schools, roads, and water), building more disaster-resilient structures, community skills training, and support for SMEs. The EU is supporting the Low Carbon Development Strategy (LCDS) efforts on poverty reduction and climate change adaptation through key infrastructure for flood prevention, including river and coastal management. The USAID program focuses on health, economic growth, and democracy and governance. Canada and DFID support Guyana through their regional programs, which include activities in education, infrastructure, governance, and health. Technical assistance is also provided by Brazil and China, while Norway has provided considerable support for Guyana's LCDS through GRIF.

*Source World Bank Country Engagement Note*

## II. Donor projects and programmes

12. The following projects under formulation and or implementation are relevant for the proposed project:
13. **The Sustainable Agricultural Development Program.** This US\$ 15 million IDB funded programme, now being formulated aims at increasing the productivity of the agricultural sector while maintaining a sustainable and climate resilient use of natural resources. Impacts will be achieved through a combination of institutional strengthening, research, extension and support to farmers for technology adoption. It is expected that higher productivity will also reduce pressure on forest and fragile ecosystems, and at the same time, increase incomes for small and medium-sized farmers. Activities will be concentrated in Region 9 and Region 10. More than 3,500 farmers, including indigenous people's communities, which represent more than 89 per cent of the population of Region 9, will benefit from the Program. The Program will be organized in three components:
  - (a) **Component 1: Generating information for evidence – based policy making and natural resource management (US\$4 million).** This component will include the review and design of an appropriate Agricultural Information System (AIS), including the preparation and implementation of an Agricultural Census; a Light Detection and Ranging (LIDAR) survey of the North Rupununi (Region 9) and Region 10; strengthening of the Monitoring and Evaluation capabilities of the MoA; identification of buffer zones for sensitive wetlands (with potential to designate a RAMSAR site) in Region 9; and identification of water catchment sites for improved natural resource management and climate change adaptation in Region 9.
  - (b) **Component 2: Strengthening of the agricultural innovation and extension system (US\$7 million).** The program will finance the establishment of agriculture centers, to contribute to local and regional development, including technology transfer, demonstration and training. Two centers have been identified by the MoA: (i) Lethem / Manari (Region 9); and (ii) Ebini (Region 10). In both sites, the program will finance infrastructure (new and upgrades to existing buildings), equipment and technical assistance. Land will be provided by the MoA. Research / demonstration programs, identified through a prioritization exercise, will be implemented in collaboration with



national and international centers. These programs will identify specific beneficiary groups, technology packages and monitoring and evaluation mechanisms. Research activities will focus on reducing vulnerability to climate change through multiplication and conservation of genetic material, including drought resistant varieties and protection of traditional knowledge as local adaptation strategy.

- (c) **Component 3: Support for compliance with sanitary and phytosanitary standards (US\$2 million).** Access to markets and infrastructure will increase the value and sales volume of meat and dairy products. To this end, the program will finance: (i) the review and update of standards and codes related to products destined for export markets as well as local markets, both current and potential; (ii) the implementation of pilot facilities for meat and dairy processing to evaluate the feasibility and unit costs of complying with standards; and (iii) training and technical assistance for the GLDA and producers associations. 2.13 The operation will contribute to GCI9 targets and the CRF (GN-2727-6) in: (i) social inclusion and equality; and (ii) productivity and innovation. This operation will also contribute to two cross cutting themes, as described in the Update of the Institutional Strategy (2016 – 2019): (i) climate change and environmental sustainability; and (ii) gender equality and diversity. This operation is aligned with the Country Strategy (GN-2690) through the priority area “Natural resources management” and cross-cutting issues related to indigenous population in Guyana. This operation is also aligned with (i) the Food Security SFD (OP-2017), contributing to two sources of food security: (a) access; and (b) availability; (ii) the Agriculture and Natural Resources SFD (OP-2001); and (iii) Gender and Diversity SFD (GN-2800), promoting livelihood opportunities for indigenous peoples.
14. **The Amerindian Development Fund (ADF)** project has been established to provide support for the socio-economic and environmental development of Amerindian communities and villages, through the implementation of Community Development Plans (CDPs). The proposed projects cover agricultural production and processing, village infrastructure, tourism, manufacturing, village business enterprise, and transportation, among others.
15. Micro-capital grants will be made available through the LCDS GRIF for Amerindian Communities to pursue business ventures and village infrastructure development. These ventures are developed through a process that will culminate in the graduation of a Community Development Plan (CDP) to a full Business Plan. A variety of capacity strengthening exercises are to be undertaken to support the CDPs. Strategic partnerships to close market access gaps for targeted communities are to be established. In this regard, the creation and strengthening of a system of value chains is the mechanism through which the support to Amerindian communities will transform their village economies.
16. **The Amerindian Land Titling project (ALT)**<sup>34</sup> The objective of this US\$ 10.7 million project seeks to enable indigenous communities to secure their lands and natural resources with a view towards sustainable social and economic development. It is expected that titling of communities will strengthen land tenure security and the expansion of the asset base of communities while enabling improved long term planning for their future development.
17. The objective of this project is to facilitate and fast track the Amerindian Land Titling process seeking to facilitating issuance of land titles and demarcation processes strengthening existing mechanisms to deal with unresolved land issues, c) improve the communication and outreach efforts of the MIPA
18. **The Leveraging Natural Capital project.** The objective of this IDB Multilateral Investment Fund (MIF) project for a total budget of approximately US\$1,6 million is the Rupununi (Region

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<sup>34</sup> [http://www.guyanareddfund.org/index.php?option=com\\_content&view=article&id=92&Itemid=120](http://www.guyanareddfund.org/index.php?option=com_content&view=article&id=92&Itemid=120)

- 9) , while preserving its ecosystem. The specific objective is to create and strengthen environmentally-sustainable local-level business-led initiatives in the Region aimed at (a) demonstrating how natural resource-dependent local and indigenous communities can enhance and ensure sustainability of their livelihoods, while maintaining the capacity of the project area to provide environmental services such as carbon sinks and biodiversity habitat; (b) test assumptions and provide evidence about how Guyana's efforts to implement low carbon investments, in the context of the LCDS, could be envisaged and developed at the regional level—especially with remote rural communities located where a significant amount of Guyana's environmental assets and natural resource are located, and where there has been a history of unsustainable extractive mining and logging; and (c) provide lessons or insights on viable low carbon 'climate smart' strategies for alternative rural livelihoods for other countries of the region where forest resources are similarly threatened.
19. **ICT Access and E-services for Hinterland, Poor and Remote Communities project.** This US\$ 524 000 project is a GoC initiative in partnership with the UNDP funded under the GRIF, aimed at enabling access to high quality ICT infrastructure with a specific focus on enhancing connectivity and enabling the provision of training and e-services for individuals and communities with particular attention given to vulnerable groups and remote communities. The rationale for the project is based on the fact that Internet and broadband infrastructure is concentrated on the coastal region with sparse and expensive connectivity options in the hinterland. Private telecommunications companies have shied away from providing internet services and telecommunications to these areas due to the difficult and varying terrain, economic status of the majority of the residents, and the low return on investments.
20. The project will carry out a needs assessment study in order to identify the scope, costing, best technical solutions and revenue structures for providing, operating and maintaining ICT access and e-services. More specifically the project will: a) identify and collect data based on the current environment, and provide information on the number of households that have internet and telephony access; number of children accessing online education or enrolled in primary, secondary and tertiary education; poverty levels of communities, number of ICT literate persons, number of desktop computers and laptops as well as number of schools, medical facilities, and communal buildings; b) identify the existing ICT networks and infrastructure both public and private; c) assess current technologies available for the provision of internet access and telephony services considering the advantages and disadvantages of each; d) determine important risks and mitigation measures associated with each technology and their implementation; e) identify stakeholders, as well as institutions and institutional requirements for the successful implementation and operation of the identified technologies, f) determine the requirements, impacts, opportunities and risks associated with existing and impending legislation, g) examine the potential for strategic partnerships and utilization of public and private networks and infrastructure; h) propose renewable energy solutions to power the necessary systems; i) identify locations for infrastructure and networks; j) determine all legal, institutional, infrastructural, social, environmental and other requirements and considerations as well as all associated costs for implementation, including indicative costs for maintenance, and training of personnel and community members in installation, use and maintenance; allowing possible modifications and upgrades in the future and k) propose the best business model or models for implementation including realistic costs and revenue projections.

### **III. Institutional framework**

21. **Ministry of Agriculture (MOA).** Overall responsibility for agricultural development lies with the MOA. Its principle mandate is to ensure the formulation and implementation of policies and programmes which facilitate the development of agriculture including fisheries while contributing to the enhancement of rural life, sustainably improving incomes of producers and other participants in the agricultural production and marketing chain; and the maintaining a sound physical and institutional environment for present and future productive activities. (MOA)

22. Under its aegis are: i) the National Agricultural Research and Extension Institute (NAREI), the Guyana Livestock Development Authority (GLDA), the Guyana Marketing Corporation (GMC), the Hydro-meteorological Unit, and the National Drainage and Irrigation Authority (NDIA).
- (a) **The National Agricultural Research and Extension Institute (NAREI)** is responsible for agricultural research and extension activities including productivity enhancement and diversification of non-traditional crops such as fruits and vegetables, biofuel development and plant quarantine services. NAREI carries out adaptive research focused on improving crop production/ productivity for enhanced food security and rural development. Emphasis is placed on crop diversification enhancing agricultural productivity and quality of produce through generation and dissemination of newer and efficient technologies and services, reduced import of agricultural produce and products, malnutrition and environmental degradation.
  - (b) **Guyana Marketing Corporation (GMC)** is responsible for market and marketing information and providing a match-making service linking buyers and sellers. It provides a one-stop desk for export documentation of non-traditional agricultural produce as well as conducting market studies for local and overseas markets. The GMC ensures participation in trade fairs, and expositions to promote Guyana's fresh fruits and vegetables and agro-processed products. It further provides training for farmers, exporters and other stakeholders and supports the development of micro and small agri-businesses.
  - (c) **The Hydro-meteorological Service** is responsible for observing, archiving and understanding Guyana's weather and climate. It provides meteorological, hydrological, and oceanographic services, monitors and evaluates weather and water resources and supports government efforts in disaster risk management and aeronautical, water, agriculture, engineering and other agencies for socio-economic development.
  - (d) **Guyana Livestock Development Agency (GLDA).** Its mandate is to promote greater efficiency in the livestock product industry and provide enhanced services in livestock husbandry, livestock health and research administration and regulation of trade, commerce and export of livestock or livestock products delivers public services related to animal production, animal health, animal genetics, marketing, training and extension services as well as regulatory services. Techniques of artificial insemination and embryo transfer form part of our regular strategies. Superior genetics is supported by another programme designed to catapult our farmers into higher levels of animal husbandry through better nutrition, housing and access to authentic and validated information.
  - (e) **The National Drainage and Irrigation Authority (NDIA)** is charged with management, improvement, extension and provision of drainage, irrigation and flood control infrastructure and services ensuring that agricultural land is better protected against adverse weather related. NDIA undertakes rehabilitation of drainage structures and supports residential areas by clearing critical drains and canals and assist Water Users Association in the maintenance of secondary drainage and irrigation systems in key farming areas.
23. Other relevant government institutions include the, the Office of Climate Change and the Civil Defense Commission.
- (a) **The Office of Climate Change (OCC)**, housed within the Office of the President, the OCC was established to support work on climate adaptation, mitigation and Reducing Emissions from Deforestation and Forest Degradation (REDD+). It serves to co-ordinate efforts by multilateral and NGOs assisting Guyana's climate change agenda. The OCC has overall coordinating responsibility for ongoing national consultations on the LCDS.
  - (b) **The Civil Defense Commission (CDC)** The Commission is responsible for providing services to local authorities/communities while ensuring the promotion and development at national level of disaster planning and management and, in co-operation with local authorities, facilitating the implementation of disaster management measures for the purpose of emergency relief and support. It promotes the adoption of disaster loss reduction and mitigation policies and practices at the national and local authority level including adjusting normal development programmes to reduce losses as well as furthering introduction of certain varieties of crops that are more wind or flood resistant.

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The Commission has the responsibility for coordinating and monitoring Disaster Risk Management (DRM) in the country and implementation of the National Integrated Disaster Risk Management Plan and implementation Strategy (NIDRMP).

24. **The Ministry of Indigenous People's Affairs. (MIPA)** The Ministry is responsible for: (a) ensuring the preservation of indigenous cultural heritage, in particular Amerindian languages, (b) continuing and accelerating land titling and demarcation, (c) expanding community social services including construction of schools, dormitories, recreational and health facilities, d) installation of solar electricity in village homes, (e) supporting implementation of village community development plans aimed at achieving food security, generating employment and higher levels of income, (f) supporting the expansion and establishment of sustained value added and agro-processing initiatives including marketing, (g) expanding and upgrading the hinterland road network and increasing the availability of Information and Communication Technologies (ICT) training programmes and assets in hinterland communities.
25. **The Ministry of Communities (MoC)** created in June 2015 aims at promoting the development of strong, sustainable, cohesive communities integrating the functions previously carried out by the Ministry of Housing and Water, and the Ministry of Local Government and Regional Development. The new agency supports the government's commitment to decentralisation including devolution of political and administrative decision-making processes to sub-national levels of government and to enable effective local governance. Local Government organs will be empowered to operate autonomously, with freedom from external direction or undue influence in respect of those functions that have been designated as the responsibility of local government
26. **The Ministry of Natural Resources and the Environment** was established in 2012 to have responsibilities for forestry, mining, environmental management, wildlife, protected areas, land use planning and coordination, and climate change. It is the responsible for the Environmental Protection Agency, the Guyana Forestry Commission, the Guyana Geology and Mines Commission, the Guyana Gold Board, the Guyana Lands and Surveys Commission, Guyana Wildlife, the National Parks Commission and the Protected Areas Commission.
  - (a) The **Guyana Forestry Commission (GFC)** is responsible for the administration and management of all State forest land, developing and monitoring standards for forest sector operations, developing and implementing forest protection and conservation strategies, overseeing forest research and providing support and guidance to forest education and training.
  - (b) The **Guyana Lands and Surveys Commission (GLSC)** is charged with the responsibility to provide Government with land policy recommendations and draft land use plans in order to guide the orderly and efficient utilization of public land resources, administer lands effectively and efficiently and create and provide relevant geographic information for informed land decisions.
  - (c) The **Environmental Protection Agency (EPA)**, is responsible for Environmental Impact Assessments (EIA) to be prepared for any project that may significantly impact the environment, namely the projects of the logging and mining sectors, and large scale agricultural investments of more than 450 acres.
27. **The Protected Areas Commission (PAC).** The mandate of the Commission is to support implementation of Guyana's obligations under the United Nations Convention on Biological Diversity (UNCBD) and the ecologically sustainable development required for a green economy allowing for the protection and maintenance of unique natural and cultural heritage, whilst at the same time facilitating sustainable social, environmental and economic development. The Protected Areas (PA) Act 2011 provides the framework for the establishment and management of Guyana's NPAS. The PAC is a body corporate responsible for establishing, managing, maintaining, promoting and expanding the NPAS in Guyana.

## Appendix 2: Poverty, targeting and gender

### A. Characterization of the population in the project area<sup>35</sup>

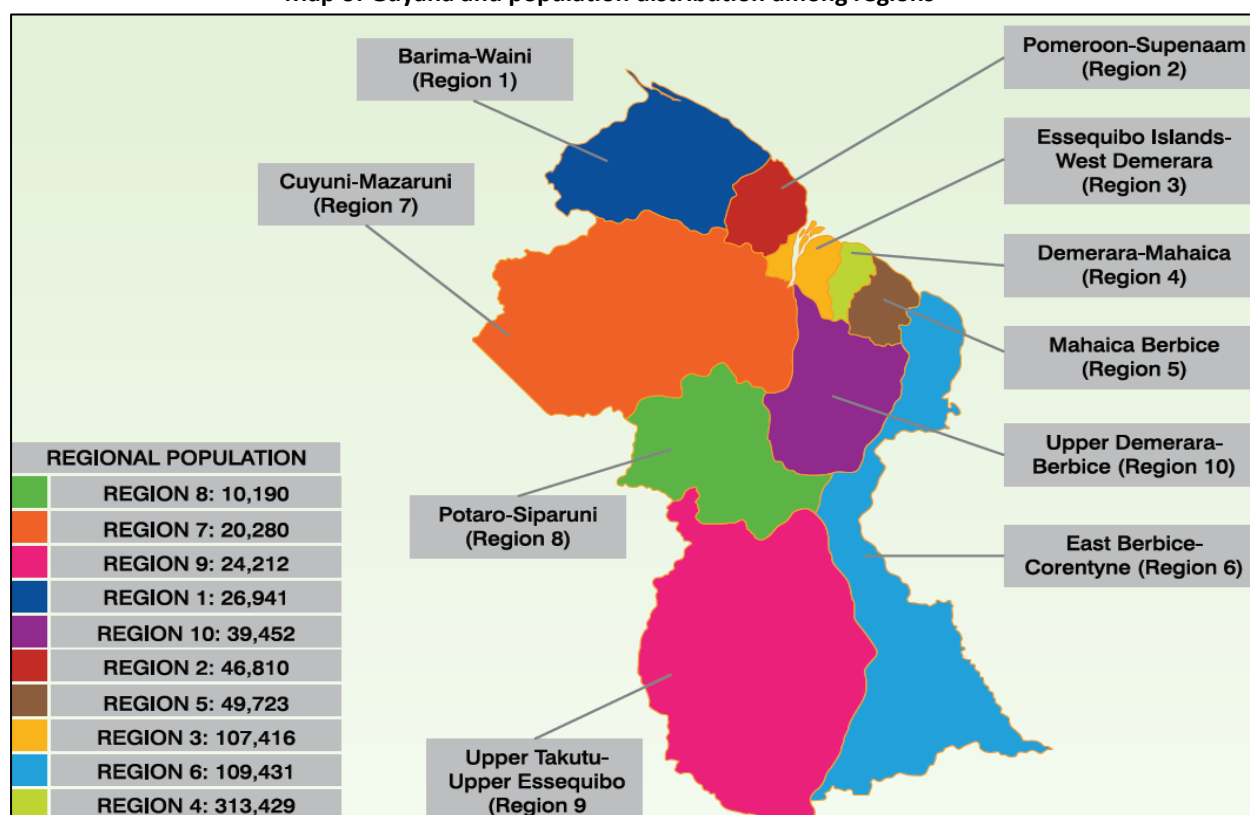
1. **Project area and population.** The project, to be implemented in Region 1 and 9, will focus its attention on poor indigenous and non-indigenous rural households in these areas. All sub regions from Region 9 are part of the Project area, whereas in region 1, the Project will focus on two sub-regions: Mabaruma and Moruca. A map of the project area is attached as Annex 1.
2. Both regions are also known as the hinterland areas of the country due to their physical and population characteristics. Region 1 covers 20,339 km<sup>2</sup> and Region 9, 57,750 km<sup>2</sup>, and have population densities of only 1.3 and 0.4 persons per km<sup>2</sup>, respectively.
3. The current population in Region 1 and Region 9 account for approximately 6.8 % of the country's population. The population in these two regions is mainly composed of indigenous people. In Region 1 the main tribes are the Arawak, Warau and Caribs, while in Region 9 the main tribes are the Makushi, Wapishana and Waiwai. Indigenous people comprise approximately 90% of the population of Region 9 and about two-thirds in Region 1. Mixed ethnicity comprises 33 percent and 9 percent in Regions 1 and 9, respectively.
4. The average household size is 5.5 and 4.9 persons in Regions 1 and 9, respectively, which is higher than the national average (3.6), the hinterland average (4.7), and the coastal regions (3.5). Between the 2002 and 2012, population growth in Regions 1 and 9 was 1.1 percent and 2.5 percent respectively, compared to -0.04 percent for the national population, 1.4 percent for the hinterland average, and -0.20 for coastal regions.
5. Young people, 19 years and less, constitute relatively high proportions of the population—58 percent and 57 percent in Regions 1 and 9, respectively. Moreover, between 8-9 percent of the youths in these regions are in the 15-19 age groups which, represent persons who might have completed primary and secondary education and are working or actively looking for jobs. Many of them migrate to Brazil, Guyana coastlands in search of jobs in logging and mining concessions. Some do return to their communities for vacation or send remittances to their parents. However, more than half of the youths who leave prefer to stay away from their communities. The issue of the out-migration of youths has implications for community development in general since vital human capital is lost to the communities when these youths leave (SOFA-Rupununi, 2015). Finally, 33 % and 28 % of the population in Regions 1 and 9 are in the 20-54 age groups. This group constitutes persons of prime working age, providing support for young children and older adults.

Table 1: Population by Region, by ethnicity and sex									
	African/ Black	Amer- indian	East Indian	Chinese	Mixed	Portu- guese	White	Other	Total
<b>Region 1</b>									
<b>Male</b>	434	8 833	274	9	4 552	26	5	1	14 134
<b>Female</b>	154	8 657	173	4	3 900	15	4	1	12 908
<b>Region 9</b>									
<b>Male</b>	179	10 648	144	6	1 172	44	13	4	12 210
<b>Female</b>	150	9 666	102	4	1 487	25	16	0	11 450
<b>Total (#)</b>	<b>917</b>	<b>37 804</b>	<b>693</b>	<b>23</b>	<b>11 111</b>	<b>110</b>	<b>38</b>	<b>6</b>	<b>50 702</b>
<b>Total (%)</b>	<b>2</b>	<b>75</b>	<b>1</b>	<b>0</b>	<b>22</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>100</b>

Source: Population Census, 2012. Preliminary results.

<sup>35</sup> The characterization of the population in the project area borrows heavily from Tijerjeet Ballayram "An analytical study of Conservation International's Environmentally Sustainable Economic Development Project in the Rupununi", 2016.

**Figure 1:**  
**Map of Guyana and population distribution among regions**



Source: Population Census, 2012. Preliminary results.

6. **Region 1.** Barima-Waini (Region 1) in the northwest of the country covers an area of 20,339 km<sup>2</sup>. It borders the Atlantic Ocean to the north, the region of Pomeroon-Supenaam to the east, Cuyuni-Mazaruni region to the south and Venezuela to the west. The northern and northeastern sections include thousands of acres of rich alluvial soil, of which its main crops include coffee, ground provisions (such as cassava, eddoes and yams), cabbage, beans, corn, peanuts, and citrus fruits.
7. Region 1 is inhabited by three different indigenous people's tribes: Lokono (Arawak), Carib, and Warau; constituting up for 67% of the population in the region. Most of the villages are isolated and located along the banks of the many rivers in the region. This area is covered with dense rainforest and only accessible by airplane or boat. There are 34 villages<sup>36</sup> (consisting of main and satellite communities) in the region's three sub-regions: Mabaruma, Matarkai, and Moruca.
8. While main activities are subsistence farming, fishing, and craft-production, many community members are involved in logging for coastal and multi-national sawmills, manicole palm harvesting for AMCAR, and gold-mining on the Barama and Barima Rivers. Most of the land in this region is licensed to the Barama Company (Barama has been allocated, since early 90's when Guyana was looking for foreign investors and new jobs, 1.6 million hectares, the biggest forest concession for any one company in Guyana) and Amazon Caribbean (Guyana) Ltd. (AMCAR was founded in 1986, and exports the heart of palm from the forested areas of the North West District.
9. In 2002, the population of Region 1 was 24,275 people, according to official final census data for 2012 showing an increase in population over a 10 year period to a total of 27,643

<sup>36</sup> In the 2012 Census, the Guyana Bureau of Statistics has recorded 67 villages and communities.

inhabitants (1,1% increase). Approximately 64% of the population is young (24 years and less) and 48% is female. The average household size is 5.47, which leads to 5,053 households in region 1 in 2012. Population data are presented in Annex 5.

10. Region 1 (like all hinterland regions), shows higher sex ratios, that is, more males than females in contrast to the Coastland regions with a 52.5% male ratio. The high sex ratio in the Hinterland may be explained due to male migration or other associated population factors. According to the 2012 Census (preliminary results), in Region 1 there are 743 female headed households, of which 6% are headed by women in the age group of 15 to 24 years of age (see Annex 8).

<b>Table 2: Population region 1, by age and by sex</b>			
<b>Age group</b>	<b>Male</b>	<b>Female</b>	<b>Total</b>
0-14	6 152	6 053	12 205
15-24	2 807	2 586	5 393
25-39	2 418	2 096	4 514
40 and older	3 073	2 458	5 531
<b>Total</b>	<b>14 450</b>	<b>13 193</b>	<b>27 643</b>

Source: Population Census, 2012. Official Final Results.

11. **Region 9.** Upper Takutu-Upper Essequibo (Region 9) is an administrative region of Guyana bordering the region of Potaro-Siparuni to the north, the region of East Berbice-Corentyne to the east and Brazil to the south and west. It is also the largest region of Guyana. It includes Aishalton, Lethem, Good Hope and Surama population centres. The main population center is Lethem, located on the Brazil-Guyana border, with an ethnically-diverse population. The surrounding communities all have as a minimum a government-built community center and primary school, with households spaced typically 100 m or more from each other (although some can be spaced closer, especially if they constitute close families).
12. The Rupununi of southern Guyana is situated on the Guiana Shield and represents part of the northern South American savannas and transition forest-savanna biome. The area is home to several groups of indigenous peoples which span southern Guyana, northern Brazil, and Venezuela: Macushi, Wapishana and Waiwai. This region is divided in 3 geographical areas: northern Savannah's, South-Central and Deep-South. The Makushi are located mainly in the north and central savannahs, the Wapishana in the south savannahs and the Waiwai in the headwaters of the Essequibo River at Gunn's Trip.
13. The Macushi, Wapishana and Waiwai primarily follow subsistence-oriented livelihoods, including small-scale swidden agriculture, with many households relying heavily on gathering, hunting and fishing. Fishing is an important source of protein, especially during the dry seasons when fish are concentrated in shallows and game animals are more dispersed. During the rainy seasons, when much of the lower areas are flooded, hunting becomes more important and easier as the animals are concentrated on higher ground. Domesticated animals also provide an occasional protein source for most households.
14. Farming areas, most ranging between 0.5-1 ha per household, are usually cleared from forest, with cassava, bananas, and, in some cases, peanuts as key crops. Hunters continue to rely primarily on the use of bows and arrows, though some hunting is done with firearms and traps for catching live birds for the pet trade. Area access is usually by foot, horse, or canoe, although the use of bicycles is now common. While government has recognized the majority of the communities with legal title to lands to date, communities have long had their own agreed-upon, or customary "rules" of land use that control where houses can be built, and where farming, logging, fishing, and hunting activities are permitted (adapted from "Space, Place, and Hunting Patterns among Indigenous Peoples of the Guyanese Rupununi Region", by Jane M. Read, José M. V. Fragoso, and Kirsten M. Silvius. Journal of Latin American Geography, Volume 9, Number 3, 2010, pp. 213-243).

15. In 2002, the population of Region 9 was 19,387 people, and the official final census data for 2012, shows an increase of population in a 10 year period, to a total of 24,238 inhabitants (1.25% increase). Approximately 63% of the population is young (24 years and less) and 49% is female. The average household size is 4.91, which leads to 4,936 households in region 9 in 2012. Population data are presented in Annex 6.
16. Like all Hinterland regions, Region 9 shows a higher sex ratio, that is, more males than females in contrast to the Coastland regions with a sex ratio of 51.3% male. According to the 2012 Census (preliminary results), in Region 9 there are 685 female headed households, of which 13% are headed by women in the age group of 15 to 24 years of age (see Annex 8).

Table 3: Population region 9, by age and by sex			
Age group	Male	Female	Total
0-14	5 608	5 381	10 989
15-24	2 123	2 195	4 318
25-39	2 046	1 840	3 886
40 and older	2 702	2 343	5 045
<b>Total</b>	<b>12 479</b>	<b>11 759</b>	<b>24 238</b>

Source: Population Census, 2012. Official Final Results.

17. **Historical background of Indigenous Peoples.** The indigenous people of Guyana are known locally as “Amerindians”. They are the descendants of the first people to inhabit the varied geographical zones in the northern part of South America. Some groups were coastal dwellers while others lived mainly in the rain forest, savannahs and mountains of the interior. The coastal Amerindians are the Kalihna, (Carib-Galibi), Lokono (Arawak-Taino) and Warau, whose names reflect the three indigenous language families. The interior Amerindians are classified into six groups: Akawaio, Arekuna, Patamona, Waiwai, Makushi and Wapishana. All of these interior groups originally spoke Carib with the exception of the Wapishana, who are within the Taino-Arawak linguistic family.
18. The original inhabitants of Guyana were the indigenous groups who lived in the coastal zones and the rainforests of the northern and used the areas large rivers and ocean as an effective trade and transportation network that stretched into the Caribbean Sea. The following description is taken from: Minority Rights Group International. Latest update 2016; <http://minorityrights.org/minorities/indigenous-peoples-3/>.
  - The Lokono (Arawak) of the Guyana Coast like their Caribbean counterparts were an agricultural people with settled matrilineal societies and complex social structures. They therefore placed a high value on peace and stability. In the long run therefore the Lokono (Arawak-Taino) of Guyana did not become involved in resistance like the Kalihna but accommodated to new realities. In Guiana<sup>37</sup> the Dutch employed the Lokono in their fishing and salting undertakings on the upper Orinoco and for recapturing fugitive slaves. Furthermore unlike the Arawak-Taino of the northern Caribbean islands the Lokono (Arawak) of mainland Guyana seemed to have been spared the diseases and enslavement that came with initial European contact. By 1771 the Spanish Governor of Guiana could report that the Lokono-Arawak of Guyana had already been working together with the Dutch for many years and had become well assimilated into their colonies in many ways including intermarriage. After the British took possession of the Dutch colonies, in the 1800s the Lokono of Guyana voluntarily sought employment as labourers, especially in the sugar plantations along the rivers. The Lokono-Arawak were therefore among the first indigenous groups in Guyana to come in contact with the African population who had been brought into the region to provide forced labour.

<sup>37</sup> The name of the country was spelled this way in colonial times.



- The Warau were the boat-building specialists of the region who hollowed out both the large and small canoes used by the indigenous people of the Guiana coast and rivers. The Warau spoke both Galibi-Carib and Arawak-Taino but their own language was not related to either. The Warau originally inhabited the swamps and islands of the huge delta region at the mouth of the Orinoco (today Venezuela). Their settlements also extended to the lower reaches of the Barima River all of which traditionally were also zones under Kalihna (Carib-Galibi) control. In 1767 having begun to experience increasing harassment and ill treatment from the Spanish colonizers, great numbers of the Warau migrated from the Orinoco region to the swamps of the Barima River of Guyana. At the time this was Dutch controlled territory but the Warau remained there even after the British took control in 1803. Under the British colonial government of Guiana, the Warau were encouraged to work on the estates and became much more involved in sugar plantation labour than any other indigenous group in the country. Like the coastal Lokono (Arawak) who were also drawn onto the colonial plantations it was in and around the sugar estates that Warau came into close contact with the African population.
  - All of the interior Amerindians originally spoke Carib languages, with the exception of the Wapishana, whose language is of the Arawak-Taino family. The Makushi and Wapishana live on the savannahs and the Waiwai in the southern lowland forests. The Makushi and Wapishana are also migrants into Guyana. They originally lived in the Rio Branco region of Brazil and began drifting into to the northern part of Rupununi savannahs of Guyana from the beginning of the eighteenth century. Like the Arekuna of Venezuela a decade before, Makushi and Wapishana fled to Guyana to escape colonial resettlement policies in Brazil in the 1780s. The Makushi ended up occupying the northern half Rupununi Savannah region and the Wapishana the southern half. Smaller groups from decimated tribes of the same region of Brazil also moved into Guyana around this time and subsequently joined up with either the Makushi or Wapishana.
  - Another the incoming group was the Waiwai. By 1837 the Waiwai had migrated to the Guyana Acarai Mountains most likely because of pressure for resettlement from Portuguese missionaries in the Rio Branco region of Brazil. The Waiwai moved to the far south of the country, in the lowland forest area of the interior near the headwaters of the large Essequibo River.
19. British colonial policy towards the indigenous population was largely one of benign neglect. For most of the 19th and early 20th century the British administration focused mainly on the lucrative coastal strip with its large sugar enclaves. The interior of Guyana was viewed by the colonial Government mainly as a source of mineral deposits and natural resources such as gold, diamonds, bauxite, manganese and timber. Whatever little health care or education reached Amerindian communities was left up to Christian mission stations.
20. The areas where Amerindians lived were considered to be state or Crown lands. The Amerindian Protection Ordinance of 1902, and subsequent regulations in 1903, 1905 and 1922 provided indigenous people with the right to use the fruits of the lands, but denied rights to the underground mineral wealth (sub-surface rights). The exploitation of gold and diamonds in the interior and the establishment of logging enterprises in the 19th and 20th century brought wealth to the investors and encouraged the movement of some Afro Guyanese to the hinterland making them the first coastland group to become familiar with the interior of the country. These activities only provided a few marginal low paying jobs for the indigenous population in some of the logging and mining camps. The only other income sources were the handful of large cattle ranches set up in the sparsely populated savannah areas mainly by British settlers.
21. The political turmoil of the 50s and 60s which mainly occurred on the coastal strip also had very little effect on indigenous life. Some notable efforts began to be made during the 1970s and 80s to better include and enhance the livelihoods of the indigenous population. This included the passage of an Amerindian Act in 1978, which allowed communities to obtain land titles. The 1978 Amerindian Act allowed for titling of land to both individuals and communities, but in practice little was carried out. Most indigenous communities in the interior remained unaware of the availability or the need for land titling and logging, and mining continued.

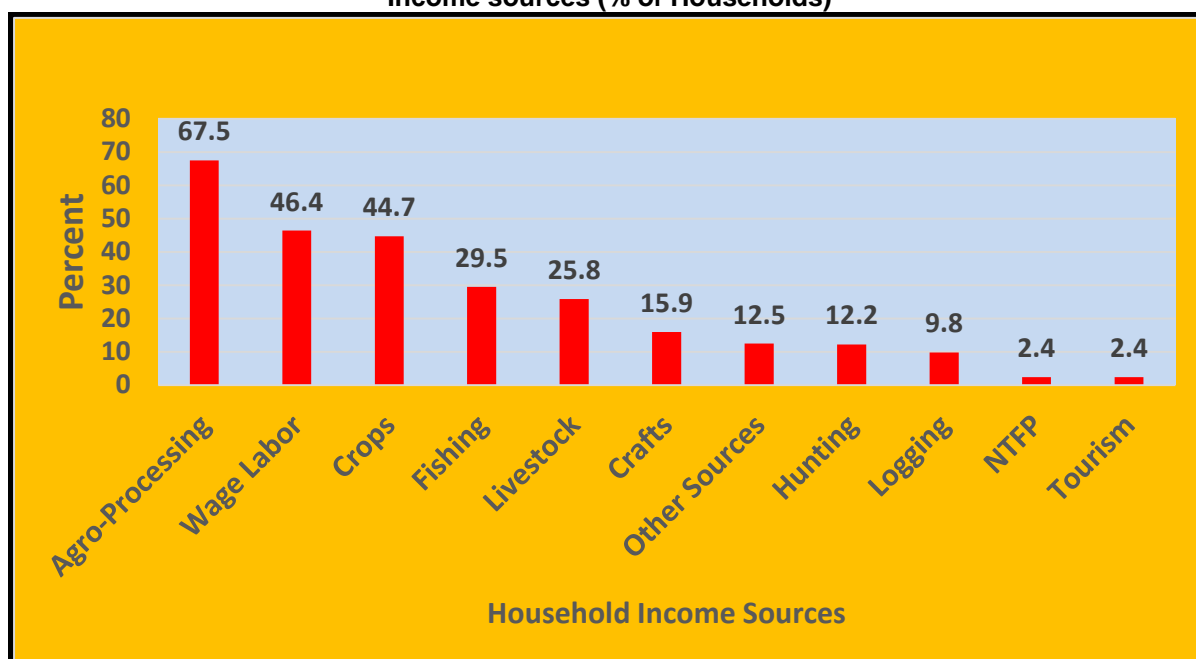
22. In 2003 a fourteen-member Parliamentary Select Committee was constituted to study and make recommendations for the revision of the 1978 Amerindian Act. Among other things this prompted the formation of the National Amerindian Council. A new Amerindian Act was passed in Parliament and signed by the president in March 2006.
23. **Livelihoods.** In general, households in indigenous communities engage in several activities to support their livelihoods, including: purely subsistence activities (farming, hunting and gathering), wage-labour, self-employment cash-based activities, logging, mining, craft-making, eco-tourism among others. The SOFA-Rupununi study reported that 92 percent of the population in Region 9 is engaged in four or less livelihood activities. Cassava production based on, swidden agriculture or shifting cultivation is the major farming activity in most indigenous communities. It was a source of food security (mainly food availability and access), but used for bartering and income-generation (Bynoe, 2009). Other crops grown include corn, bananas, watermelons, pineapples, papaws, cotton and peanuts. Evidence also exists that these communities are rapidly being transformed from subsistence/own-consumption and bartering to cash economies, a trend noted by Forte (1998) over a decade ago.
24. Table 4 shows the various sources of livelihoods in five communities in Region 9. "Mixed Farming" constitutes the main livelihood of most households. Mixed farming includes both crop and animal production but the combination, quantities and types of crops and animal production varies among the villages. Cassava and its main agro-processed by-products (farine and cassava-bread), are integral to mixed farming in all communities. Most households also produce *paracari* (*Marsypianthes Chamaedrys*), boiled cassava known as *casareep*, tapioca from cassava roots and starch mainly for own-consumption but also for barter and sales. Animal-rearing (chickens, cattle, goats and pigs), in small quantities is also included in mixed farming mainly for home consumption and sales in the community. Table 4 below provides information on livelihoods identified by participants in focus group discussions in five distinct villages during preparation of the SOFA study.

Table 4: Identified livelihoods in Region 9				
Aishalton	Sand Creek	Karasabai	Annai	Moco Moco
1. Mixed-farming	1. Mixed Farming	1. Mixed farming	1. Mixed farming	1. Mixed Farming
2. Gathering	2. Hunting/Fishing	2. Hunting/fishing	2. Peanut production	2. Fishing/hunting
3. Livestock	3. Gathering	3. Remittance	3. Mining	3. Wages/salaries
4. Hunting/fishing	4. Logging	4. Ranching	4. Ranching	4. Migrant labourers'
5. Logging	5. Mining	5. Brick-making	5. Hunting/Fishing	a. Work in Brazil
6. Mining	6. Ranching	6. Logging	6. Wage Labour	b. Mining
7. Ranching	7. Wage Labour	7. Wage Labour		5. Tourism: part time, seasonal work
8. Wage Labour				

Source: SOFA-Rupununi, 2015.

25. **Income sources.** Figure 2 below shows the main sources of household incomes in Region 9. Over two-thirds (67.5 percent) of households derive incomes from agro-processing, mainly farine from cassava production. Wage labour is the income source of 46.4 percent of households which is higher compared to crop production (44.7 percent), fishing (29.5 percent) and hunting (12.2 percent), activities that traditionally supported household livelihoods.

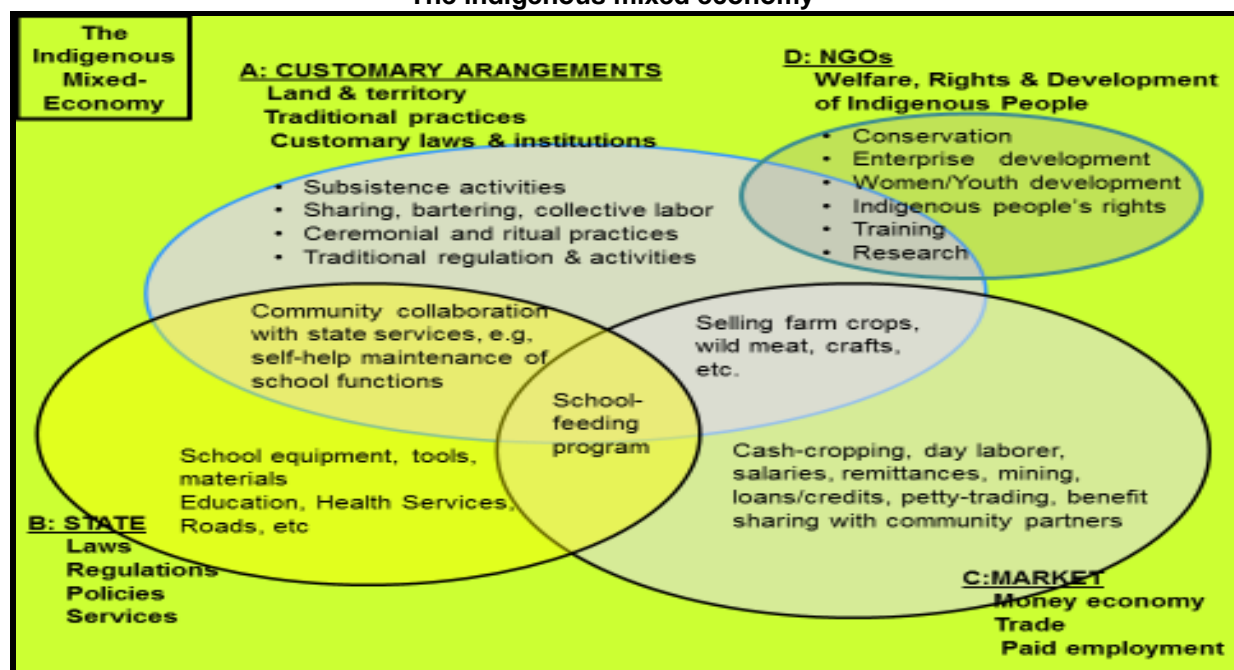
**Figure 2:**  
**Income sources (% of Households)**



Source: Survey Data (2014). Note: NTFP=Non-timber Forest Products.

26. Households in the Region 9 engage in several income-generating activities to support their livelihoods. Over 90 percent of households derive incomes from four sources or less, while 57.3 percent derive incomes from 2-3 sources and 0.3 percent had no income sources. Further disaggregation of the data in terms of number of income sources by sources of income shows that among households that derive incomes from four income sources or less the highest proportions were engaged in mixed crop production (18-20 percent of households), agro-processing (19-45 percent), and wage-earning activities (16-25 percent). Fishing, livestock and crafts are additional income sources for 10-15 percent of households when their livelihood support derives from 3 or more income sources. In effect, therefore, the available evidence strongly indicates that the main livelihoods in Region 9 are mixed farming, agro-processing and wage-labour.
27. **Indigenous economy.** The main components of the indigenous mixed economy are captured in Figure 3 below. The model shows four distinct spheres of influence or determinants of the indigenous mixed-economy, viz. customary, market, the state and Non-Governmental Organizations (NGOs). Over the years the market has expanded significantly albeit the customary way of life remains strong and discernible, has receded relative to the expansion/consolidation of government and NGO spheres of influence. NGOs, both local and international, have been working closely with communities in the socio-economic and political spheres to advance the welfare of the indigenous peoples of the region.

**Figure 3:**  
**The indigenous mixed economy**



Source: Adapted from Griffiths & Anselmo (2010) and Altman, (2006).

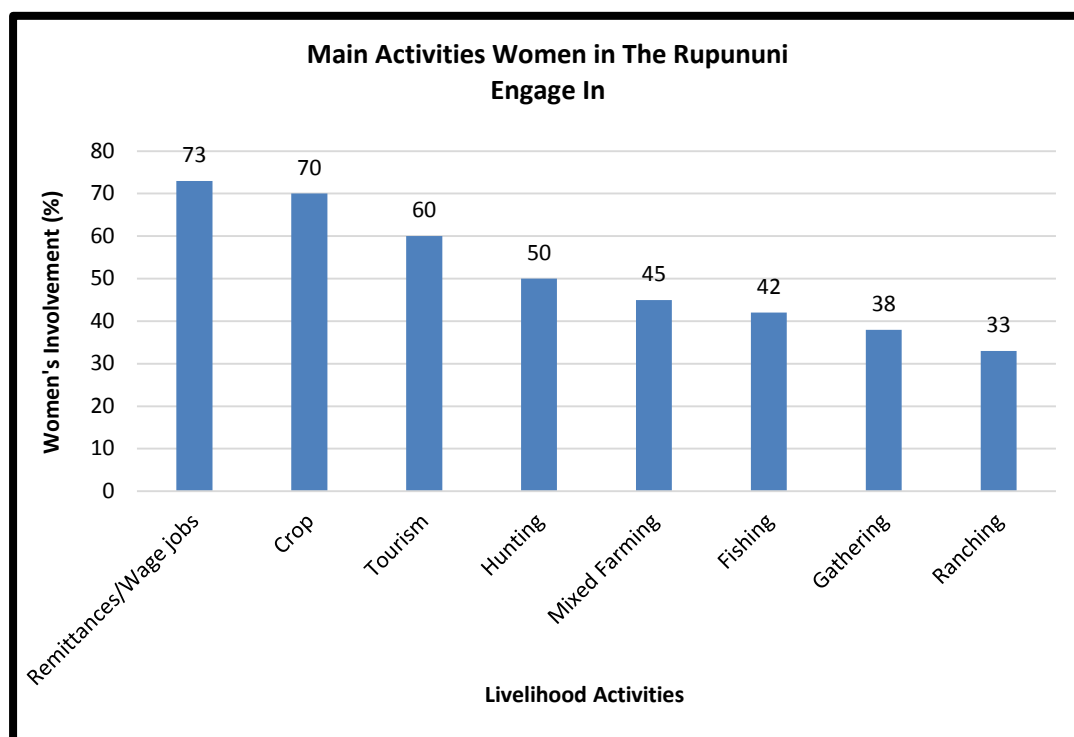
28. **Customs, traditions and culture.** The values, attitudes and expectations of indigenous people are often different from those of other sectors of the national society. The indigenous economy is typically founded on social relations, and is characterized by notions of reciprocity rather the values of the market. This is a sensitive and challenging area, and may imply a rather different notion of what is meant by “development”. While certain basic elements (good health, food security, justice, access to knowledge) are probably universal, others, particularly income or material wealth, may not be, especially if the trade-off implies significant changes in social relations, environment or loss of leisure. This is not to imply that indigenous societies are static, but it does demand more careful thought and discussion about the goals of indigenous development.
29. Customary systems of rotational farming coupled with hunting, fishing and gathering support food security and form the core of traditional ways of life among indigenous people. These customary systems also provided the staple crops (bitter cassava and ground provisions), fruits and other foods, cultivated spices, fibres, dyes, medicines and ritual crops like tobacco. In addition to providing vital crops, traditional farming grounds are an important cultural space for transmission of ancestral knowledge and skills. Subsistence farming, hunting, fishing and gathering activities are often underpinned by extensive tenure and customary land use systems along with traditions of sharing, reciprocity and self-help work parties that support indigenous food and livelihood security. Money income stems from private family and community enterprises, employment with the non-indigenous private sector, as well as jobs and economic activities directly or indirectly funded by government agencies. On average only 1 to 10 percent of households in indigenous people’s communities have members with full-time salaried jobs (teachers, health workers). In most cases, indigenous people work in a range of subsistence and cash-earning activities, including sales of raw and processed food crops, livestock and fish, forest products and crafts; petty trading; and occasional work as labourers, drivers, boatmen, tourist guides and NGO project workers.
30. In the North Rupununi—the traditional home of the Makushi, who are still the primary ethnic group in the area—many communities contain a mixture of indigenous groups and immigrants from the more populated coast. The primary livelihood activities in the area are subsistence farming and fishing, with some amount of hunting and gathering, trapping, brick making, and cattle ranching. The main local crop is cassava (*Manihot esculenta*), of which several varieties are grown to produce farine (roasted cassava grains), cassava bread, tapioca, and various

beverages. There is also some local commercial exploitation of wildlife for the meat and pet trades. Wildlife represents a major local food source in the North Rupununi. Mammals and fish in particular provide the majority of the protein intake for villagers and over 100 species of fish are eaten by the Makushi. As such, fishing is an extremely important subsistence activity. Aside from subsistence and economic value, the North Rupununi wetlands also feature prominently in indigenous culture and folklore, and have significant aesthetic value, serving as a primary place of recreation for local residents.

31. In the South Rupununi, Henfrey (2002) found that the Wapishana collectively occupied a variety of habitat types within the forest-savannah, mostly maintaining subsistence lifestyles with high levels of dependence on local biodiversity and ecological processes. They regulated human exploitation of the natural environment via symbolically encoded restrictions on behaviour. Hunters collectively demonstrated a broad and detailed knowledge of the ecology of several animal species and other aspects of the local ecology. However, the ethno-ecological data set included incomplete lists of food species for particular animals, and a shortage of useful information in subject areas such as population dynamics and social behaviour. The study found that the Wapishana had an interest in, and possessed a body of skills and knowledge that may be applied to biological conservation. Current patterns of subsistence activities entail an interest among the people in biological conservation and local attitudes demonstrated an interest in the utilitarian aspects of conservation, in a broad sense incorporating elements of cultural conservation, identity, independence, freedom of lifestyle choice and recreational and aesthetic criteria as well as realized and potential direct use.
32. **Women's participation in development activities.** Focus group discussions showed limited participation of women in training events, meetings, and workshops. Reasons why women report inactive participation include: (i) lack of confidence, shyness in large groups, (ii) discomfort/uncertainty in speaking in front of men, (iii) difficulty to understand technical jargon, and (iv) language barrier. Improved planning is essential for earlier notification and greater outcomes in participation. Late notification of workshops/meetings hinders women's ability to plan for participation and input into decision-making. The group discussions concluded that the causes for non-participation should be addressed through use of translators, staff that speaks local language, training in public speaking, confidence-building workshops already tested and used in Indigenous villages. Generally, women feel equally involved in decision-making within their households and feel that men consult with their partners. Women in one village reported that 90% of the time, women make decisions about children, schooling, and meals/nutrition (CI, 2014).
33. **Role of women and division of labour.** Women traditionally played a key role in conventional food supply and agriculture practices. In most communities women perform strenuous tasks such as planting crops, reaping and transporting the produce from the farm to the home which consumes a great deal of their time and energy because of the distance, and preparing cassava for processing. Fetching the catch from hunts, preparing and preserving it, is a common activity of Amerindian women. Additionally, they are tasked with fetching firewood and water. Meanwhile they maintain primordial tasks such as child-bearing, cooking, washing and other household chores. Men on the other hand, in addition to their roles as head of the household, prepare the land for planting (men who migrate often are back in the village during the period the land needs to be prepared) and hunt wild animals for food.
34. Despite the many years of being involved in agricultural production, outputs are rather low and with the introduction of a cash economy (change from a society based on bartering) at the end of the '90s, many Amerindian communities are now dependent on the remittances from migrant labour whereby mainly young men and in a lesser extend women leave their families for work in mining and logging for long periods of time. Especially gold mining has attracted many indigenous males from all parts of Guyana. The scale of Amerindian involvement in mining is causing consumer goods acquisition to become a measure of status and has negatively influenced the quality of nutrition, as well as has devalued subsistence agriculture and other socio-cultural practices. Another related outcome of this situation is the phenomena of a rise in the number of female-headed households, excessive burden on women and changes in the

traditional division of roles (see figure 4), as well as the implications for stability of the family unit and increased risk of neglect of children.

**Figure 4:**  
**Average Women's Involvement in Livelihood Activities**



Source: Final Gender Report (CI, 2014)

35. **Women's participation in decision making about her own earnings.** The Demographic and Health Survey (Ministry of Health, 2009), showed that with regard to the use of women's cash earnings, in Region 1 most decisions are made by the women (44.7%), whereas in Region 9 those decisions are in majority taken by the husband and wife together (63.7%). The women in Region 9 have much less to say about the use of their earnings than in Region 1, with 17.2% and 44.7% respectively.

Area	Wife	Joint	Husband	Other/missing
Region 1	44.7	41.0	13.0	1.3
Region 9	17.2	63.7	17.1	2.0
Total interior	41.8	48.6	8.4	1.4
Total urban	66.0	32.3	1.4	0.4

Source: DHS. (Ministry of Health, 2009)

36. **Food security and malnutrition.** The proportion of underweight (weight for age) children under the age of 5 is almost 12% in the Hinterland (region 1 15.5% and region 9 11.5%). Nearly 13% of children in the interior are stunted (height for age) compared to 3.3% in coastal areas and 5.4% in rural areas (Demographic and Health Survey. Ministry of Health, 2009).
37. Forests play a vital role in combating malnutrition in Rupununi communities (Egad, et al., 2000). Berdadi, et al. (2013) examined communities' resilience and viability through a series of in-depth consultations with three communities, Apoteri (isolated forest community), Rupertee (savannah community located close to the main road), and Fairview (a forest community lying within the Region's protected area). They found that forests are needed for food (hunting,

- gathering fruits), for health (medicinal plants), and for extracting wood for domestic use (firewood, construction wood for homes or canoes). Forests also provide farming areas for cultivating dietary staples such as cassava (and its many by-products).
38. Most communities collectively own, use and manage forests for their livelihood which has an impact on their food security and nutrition. Communities seek to ensure and improve their quality of life by engaging in participatory planning processes to ensure their means of livelihood are compatible with sustainable management of their natural resources. In order to further their development 10 villages in the Kanuku Mountains Community Representative Group (KMCRG) developed Village Resources Development Plans (VRDPs). In the planning process they examined the use, food value or economic potential of their resources, while also focusing on their livelihoods. Progress made by villages and communities with regard to mapping and elaborating a VRDP is presented in Annex 3 and 4.
  39. According to the Wapishana tribe, their settlements today consist of main villages, satellite villages, hamlets, homesteads, farm camps and hunting and fishing camps that are widely dispersed across the territory. The settlement pattern is a tripartite one, whereby most families occupy three different family dwellings: a permanent house in the main village, a house or hut on the family homestead or farm camp near to their farming grounds and a semi-permanent hunting and fishing camp in the bush. People spend between two to five days a week in the main village and stay at their farm houses in the weekend to carry out farm work. During school holidays, families may stay several weeks or a month at their farm.
  40. **Traditional organisational structure and land titling.** Amerindian villages have communal and legal ownership of the village lands, meaning that the land is owned by the Village, under administration of an elected Village Council, headed by a Toshao (chief). Each village (made up of a central and satellite communities) elects a Toshao and a Village Council to represent the Village. Out of the body of all 212 Tshaos, for a period of 3 years, a National Tshaos' Council of 20 members is elected as well as a chairperson to represent the Council. Nowadays, though still dominated by men, there are a few women elected as Tshaos and several women are village councillors, whereas in the past the leadership was completely managed by men (see Annex 7). In discussions with the Ministry of Indigenous People's Affairs it was found that both male and female Tshaos and Village Council members, could benefit from continued strengthening of their negotiation, accounting, reporting capacities, as well as from increased knowledge of rights and responsibilities, including the existing legislation pertaining indigenous people.
  41. The Village Council coordinates with the Village the allocation and use of the land to both residents and non-residents, including leases to non-residents and private companies. In their efforts to earn cash incomes some village leaders have reached contractual arrangements with loggers and saw millers to exploit timber on their reservations. Many of these arrangements however have been unequal exchanges. More often than not the outsiders have been the principal beneficiaries and the indigenous communities have gained very little (<http://minorityrights.org/minorities/indigenous-peoples-3/>). The Amerindian Act no. 6 of 2006, allows Village Councils to lease communal lands up to 10% of the titled area. The Village also decides on how much land will be used for mining, forestry, hunting, and as residential area. To date, Amerindians collectively own almost 14% of Guyana's land mass (Amerindian Land Titling Project Document. UNDP, 2013; see map Annex 2).
  42. **Human capital.** The human capital among indigenous people in the Rupununi varies. Generally, they have good skills in mixed-farming, processing cassava into by-products, hunting, fishing, logging and gathering. The SOFA-Rupununi study reported that nearly all heads of household had completed at least a primary education, 23 percent completed secondary schooling, 6.4 percent had some vocational or technical training and only 1 percent had a college degree. Primary educational achievement is fairly evenly distributed across the five sub-districts, while secondary school completion among heads of household is 5-6 percent lower in the North and Deep South sub regions compared to the other three sub-districts. The 1.4 percent of households that did not complete primary education corresponds exclusively to the Deep South sub region.

43. Information from community health workers suggests that household members in all sub-districts of Region 9 are in fairly good health. This may be as a result of the current demographic composition of the population with a significant proportion of persons in age groups that usually enjoy good health: 57 percent is below 20 years of age, 31 percent between 20 and 49 years, (together accounting for 87 percent of the region's population). Only 1.4 percent is above 75 years of age. Water-borne diseases (mainly *diarrhoea*), skin rashes (caused by mosquitos and other insects), and some infant and young child under-nutrition exist at the community levels. Many cases of dengue-fever have been reported, especially during the rainy seasons. However, the more serious health problem is the increasing prevalence of diabetes and hypertension among the adult population in the region, an issue that requires urgent attention.
44. **Social capital.** Traditionally, social capital—the level of social cohesion that exists and the livelihood support provided to community members in times of need— has been strong in indigenous people's communities. Focus group discussions indicated that generally while some social capital does exist, it is not as wide-spread as in the past. Rather, while the community will assist persons who are in urgent need, the more prevalent kinds of community support are among relatives, close friends, elderly and struggling single mothers. This is an aspect of culture and tradition that the Village Development Plans (VDPs) are targeting for revival, especially among the youths in the communities.
45. **Natural capital.** Indigenous people's livelihoods are essentially natural-resources based and all households make use of available natural capital—rivers, streams, forests, wild animals, open access public lands. Open access public lands are utilized mainly to support small ruminants and livestock, while rivers and streams are exploited for fishing, water for drinking and other household uses. Rivers and streams also drain excess water after floods. Forest resources are utilized for many purposes—hunting, gathering, logging, crop farming, and materials for building among others.
46. Waterways are also crucial for food (fish), for domestic use (such as washing), but also for transport. Two main themes emerged: (1) maintaining and passing on traditional practices and culture; (2) preserving the natural environment. Protection of the natural environment was indicated by existence of conservation areas on community territory, and having/known/implementing laws at national and local scales for protection and sustainable use of resources. Thus, the combined promotion of traditional practices/values and natural resource conservation was seen as bringing significant stability within a highly variable situation. Supporting system viability at the community level in a participatory way revealed strong specificities, strengths, vulnerabilities, needs, and most of all, strategies to cope with very specific contexts. Each of the communities is faced with different contexts, whether it is remoteness (Apoteri), growing under the wing of a strong ally (Fair View), or finding its place and identity in a relatively highly connected environment (Rupertee).
47. **Physical capital.** Physical capital includes both private and public physical capital. The private physical capital inventory of households includes own homes, land, crops in the ground (mainly cassava), rudimentary farming equipment, boats, tractor, engines, chain-saws, motor-cycles, bicycles and livestock. Farms are considered small-scale (average 1-1.75 acres of land). The public physical capital includes market-buildings/areas, roads, bridges, schools (nursery, primary and secondary), guest houses, health centres, clinics, hospitals, and community centres. Feedback from focus groups indicated that the main weakness in public physical capital is the absence of good roads to link the communities. This constrains mainly the distribution and sale of products produced in the villages as well as purchases of food and other commodities by outlying villages from the main trading centres in Lethem, Karasabai and Annai.
48. **Financial capital.** In terms of financial capital, the SOFA study indicated that 68 percent of households derived income from agro-processing, 46 percent from wages, 30 percent from fishing and 25 percent from livestock. Average annual income indicated that wage earners (46 percent of households), averaged US\$ 2,232 those engaged in tourism activities averaged US\$ 985, logging US\$ 5,823, agro-processing US\$ 730, and in livestock US\$ 978, annually. From the survey data it is estimated that economic activities generated about US\$11 million annually.



49. The SOFA study estimated the following financial indicators for Region 9:
  1. **Regional per capita** was estimated at US\$ 513.20 which, in terms of monetary income the Region is one of the poorest areas in the Americas, although this conclusion is relative because the natural resources found in the Region cover most of the population needs, especially food, housing and energy;
  2. **Gini index.** The Regional Gini coefficient was estimated at 0.23, compared to the national Gini coefficient of 0.42, implying a more equal regional income distribution compared to what exists at the national level;
  3. **Incomes by gender.** Men control 75 percent of incomes, while women head of household only 25 percent. This is more marked in the far south and far north of Region, while in the central and southern sub regions women control as much as 40 percent of incomes.
50. In 2016, Conservation International carried out a Gender Assessment of the Rupununi Innovation Fund, and found that women mainly earn income through the sale of farine, casareep, tapioca, kari etc., baking and cooking, craft, sewing, Hot Meal, fishing, government jobs and shops. Women in some villages were interested in re-activating their women's groups to help the women improve their livelihoods by generating more income but this was difficult due to a lack of coordination, low numbers of interested women and lack of finance. Access to finance was the main barrier for women who indicated their interest in starting a business or expanding a current one. Women stated that generally they would be able to get support from their family and other villagers through manor or mayu (self- help) to develop their enterprise. Women can provide food and drink to compensate villagers that provide support, but it would be difficult to provide money if persons want to be paid for their labour. Women from Sand Creek village, stated that they are relying on their own money and donations. Women were generally interested in the following types of enterprises: poultry, livestock, sewing, craft (e.g. cotton, tibisiri, balata), groceries, gardening/ farming, and snackettes.
51. Women stated that it is costly to travel to Lethem in terms of transportation and food, and some of them can't afford to do so. Distance became more of a barrier for communities that were further away from Lethem, and would become even more challenging during the rainy season. Women also stated that if they have young children it is hard to find a baby sitter for a few days.
52. In the document on "Gender Assessment of the Rupununi Innovation Fund" (CI, 2016), the Guyana Bank of Trade and Industry (GBTI) identified the following strengths of men and women with regard to lending. Strengths of men: are employed, are outspoken, command a lot more respect, men will have a better network because they are more exposed since they attend more workshops, trainings and meetings. Strengths of women: feel more responsible for the family's well- being and will work hard to ensure the business is a success and they have more knowledge about certain enterprises, and are able to make it more profitable. Women and men generally agree that they would need the approval of their spouse to get a loan: both husband and wife should be included in the decision, and support each other to make the enterprise successful. GBTI's Credit Officer stated that the bank tries to encourage either husband or wife to consult with their partner about a loan because the liability affects the entire family if the loan fails.
53. During consultation a number of recommendations were made regarding women's participation in enterprise development including: (i) building women's confidence and capacity by providing trainings in business planning, (ii) training sessions should be held in the villages, (iii) to increase women's access to finance younger women should be encouraged to access loans because they are more dependent on cash, and may be more interested in starting a business. In addition, the document on "Gender Assessment of the Rupununi Innovation Fund" (CI, 2016) presents several recommendations for the Financial Institution: (i) the bank should work with a translator, for both Macushi and Wapishana, during their outreach to help villagers better understand, and feel more comfortable in engaging in the discussions, (ii) communication materials should be translated into the local language, (iii) communities should liaise with the bank to identify persons who are interested in starting a business, and then invite the bank to meet with them (meetings with the banks should be done just before the villages' public

meetings so that the information can be shared with the entire village after), and (iv) villages recommended that the bank should invite women who have been through the RIF loan process successfully to share their experience with other women. This will also help to build women's confidence in themselves.

54. The Inter-American Institute for Cooperation on Agriculture (IICA) and the Small Business Bureau of the Ministry of Business support several of Women Producers Groups in regions 1 and 9; some of which are identified in Table 6.

<b>Table 6: Women's Producers Groups in regions 1 and 9</b>				
<b>Produced by</b>	<b>Product Type</b>	<b>Contact</b>	<b>Species</b>	<b>Description of product</b>
<b>Region 1</b>				
Waramarui Village Sewing Group	Sewing  Casreep making and Agriculture	Una James Waramarui Village	Cloth – Cotton & polyester  Cassava root	Table cloth, food towels, bed sheets  Local Cassava casreep
Ureukutan Women's Group	Embroidery & Sewing  Cassava Casreep	Stephanie Gomes Santa Rosa Moruca Region #1 771-9284/5	Cloth – Cotton & polyester  Cassava root	Hand Towels, pillow cases children clothing  Casreep
Mariaba Double Craft	Sewing, handicraft, & Agriculture	Dolores Rodrigues Santa Rosa Moruca Region #1 771-9284/5	Tibisiri & nibi	
Parakese Women Group	Handicraft & Agriculture Production	Denisia Hernandez Parakese Village Moruca Region #1 771-9284/5	Buck beads Tibisiri Nibi	Local beaded Chains Hand bags
Karaburi Women's Group Moruca	Peanuts, Soap Production	Christina Rodrigues 771-9284/5	Peanut Coconut	Peanuts Coconut & crab oil soap
<b>Region 9</b>				
Happy Wives Club	Fruit procession Cake, Jams, Jellies, sewing & fabric painting	Edna King Parashara Village, Region # 9 772-2233	Fruits, cotton,	Cakes, jams, jellies, fabric painting & quilt
Karasabai Women's Group	Sewing & Hand embroidery	Nurse Alberto C/o Karasabai Village	Polyester & brown cotton Yarn & crochet	Embroidery Hand towels, pillow cases and table & food towels Knitted products
Rising Star Handicraft	Sewing and Embroidery	Enid Watson South Amerlia's Ward 616-9117	Cotton, Polyester	Bed Sheets, pillow cases, aprons, hand towels,

Source: Ministry Business, Small Business Bureau, 2016.

55. **Livelihood vulnerabilities.** Several factors, singly or combined, contribute to the households' vulnerability to food insecurity in Regions 1 and 9. These factors are ecological/environmental, economic, and politico-social. Both Regions, relative to the population that resides there, are characterized by a large land mass, a wide range of resources, undeveloped markets, dependence on outside markets (coastal/Brazilian/Venezuelan) for a range of commodities, including food-stuffs and limited ability to exploit economies of scale.

56. Remoteness is also an enduring vulnerability and contributes immensely to economic disadvantages of the regions. In this respect, transportation costs are relatively high and entire sub-districts and their surrounding villages are excluded from air and even secondary road routes. Cargo delivery to these areas then becomes fragmented, slow and very expensive. This then translates into high per-unit costs thereby neutralizing any competitive economic advantages that may exist. Shocks from forces of change such as natural disasters such as floods, droughts have featured annually resulting in the population developing adaptive and mitigating measures to deal with them. Although traditionally the Regions have been less impacted by external economic shocks, this is not necessarily the case in the contemporary period. Notwithstanding their remoteness, communities in these Regions feel the full impact of rising food, fuel and other commodity prices.
57. A major concern related to food security is represented by long and extensive flooding in Region 9. Most communities are built on high spots on the savannah, however, during the floods livestock also retreat to the villages. In those times, food is scarce for both humans and animals. Access to un-flooded farms is usually difficult because of water and distance. In close-by fields, crops rot in the ground. There is very little storage of meat, fruits, vegetables and/or cassava products, so communities have had to rely on and are becoming reliant on shop bought rice and canned meats/fruits/vegetables.
58. According to the Millennium Development Goals Progress Report, the proportion of population living in extreme poverty in the whole of Guyana declined from 28.7% in 1993 to 18.6 percent in 2006 (GOG, 2011). The proportion of people living in poverty in Region 1 didn't improve in the period 1993 to 2006 (78.9 percent and 80.1 percent respectively); in Region 9, there has been some improvement for the same period: 93.3 percent in 1993 and 74.4 percent in 2006. Compared to the average percentage of population living in poverty (36.1 percent in 2006) the data show that hinterland regions are among the poorest regions in the country<sup>38</sup>. The SOFA-study reported that indigenous communities in Region 9 had shown some improvements over the years, but that the material conditions of life in these communities displayed features of food insecurity, poor education, vulnerability and social exclusion. The study further indicated that there were clear signs that the human conditions in many of communities displayed varying features of sustained deprivation of the effective use of resources, capabilities, choices, security and power necessary for the enjoyment of an adequate standard of living and other civil cultural, economic, political and social rights.
59. In addition, the Village Resource Development Plans (VRDPs) that were completed for eleven communities in Region 9 drew attention to a number of constraints that need to be addressed to enhance the livelihoods of indigenous peoples. Chief among those constraints were: (i) lack of employment; (ii) problems relating to enterprise development; (iii) risk of exploitation; (iv) institutional barriers to access natural resources, unregulated and overexploited common resources and (v) limited delivery of public services and, more often than not, an unresponsive local government.
60. The SOFA study concluded that investing for the future requires some radical thinking about agriculture and agricultural systems in the Rupununi savannahs. Griffiths and Anselmo (2010), suggested that there is no single silver bullet for indigenous communities to provide economic alternatives to damaging activities but at the same time, there is proven potential to generate useful income and part-time employment in the Region through the development of a package of different commercial activities within a community according to local priorities and available resources. They also indicated that past livelihood initiatives had often failed because they were not designed jointly with indigenous communities, were not based on prior feasibility studies, lacked adequate technical, financial and marketing support or suffered from weak organization and leadership.
61. **Coping strategies.** The SOFA study showed that households employed a range of coping strategies in the event of shocks, seasonality and other risks to food insecurity. Coping

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<sup>38</sup> It should be noted however that using the same consumption basket to calculate poverty lines in urban and rural areas may have led to the possibility of measurement errors in these data (GOG, 2011).

strategies were considered as actions people take to manage food shortage and other shocks to the household. Information from the SOFA-study indicated a range of coping strategies employed by households in the Region.

**Table 7**  
**Household coping strategies**

Type of Coping Strategy	Consumption Strategies	Livelihood Strategies
<b>Adaptive</b>	<ul style="list-style-type: none"> <li>Slight/moderate reduction in food intake: <ul style="list-style-type: none"> <li>✓ smaller portions</li> <li>✓ skip meals</li> </ul> </li> <li>Increased efforts at exploiting the natural-resources: <ul style="list-style-type: none"> <li>✓ Hunting, fishing, gathering</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>Borrow food or cash mainly from relatives and friends</li> <li>Purchase food on credit</li> <li>Engage in wage labour</li> <li>Increase storage of preserved (smoked/dried) meats, fish and farine</li> <li>Sale of livestock</li> <li>Change agricultural practices—better (quick-maturing) varieties, subsistence crops</li> </ul>
<b>Distress</b>	<ul style="list-style-type: none"> <li>Harvest young/immature crops</li> <li>Reduce food consumption</li> <li>Consume planting stocks</li> <li>Seek assistance from relatives/friends</li> <li>Purchase food-items from shops</li> </ul>	<ul style="list-style-type: none"> <li>Keep children from school</li> <li>Moderate to heavy sales of livestock or other assets</li> <li>Seek employment outside of the community</li> </ul>
<b>Survival</b>	<ul style="list-style-type: none"> <li>Drastically reduce food consumption—adults and even children: skip meals for entire day; reduce quality of meals.</li> </ul>	<ul style="list-style-type: none"> <li>Wide-spread migration in search of food</li> </ul>

Source: SOFA Rupununi, 2015.

62. **Gender equality issues.** In addition to several gender equality issues mentioned before, in discussions with different government institutions as well as several non-governmental organisations, it was found that Guyana, and the Hinterland in particular, faces a number of social issues, many of which have a specific gender equality element. The main issues are: (i) domestic violence, (ii) child abuse and incest, (iii) teenage pregnancies, and (iv) human trafficking. These issues are further developed in the following paragraphs.
63. **Domestic violence.** In spite of the established legal framework (Domestic Violence Act of 1996), domestic violence continues to be seen as personal, private or a family matter. Its purpose and consequences are often hidden, and domestic violence is frequently portrayed as justified punishment or discipline. Especially in the Hinterland, there is a high tolerance level regarding domestic violence. When men initiate violence against their female partners, it is sometimes possible to identify issues and circumstances that trigger—or are used to justify—the violence. These triggers vary between individuals and cultures, and can include: pregnancy, mothering, competence at work outside the home or in social relations, and household management. In Guyana, jealousy is a common theme in domestic violence scenarios. In addition, there is a high correlation between drugs and/or alcohol abuse and violence against women. Other common situations in which violence takes place are where the man is under financial pressure or other stress, where the woman is educated and/or in paid employment and where the woman has no family support because, for example, all her family have emigrated or they disapproved of her marriage (“Report on Domestic Violence in Guyana”. Prepared by Sarah Insanally for the Women’s Affairs Bureau, 2006).
64. **Child abuse and incest.** In the first 5 months of 2016, the Ministry of Social Protection received over 900 reported cases of abuse, of those, the majority were cases of neglect, followed by sexual abuse cases. Data for region 1 and 9 are not readily available. But speaking with personnel of the Ministry, it was found that there are sufficient and good laws for child protection in Guyana, however, there is a huge gap in the enforcement of these laws, especially in the Hinterland.

65. **Teenage pregnancies and single parents.** Five percent of females and 13 percent of males in Guyana have sex before 15 years of age. Disaggregated data by geographic region and ethnicity are not readily available (MICS<sup>39</sup> data from 2012, published by UNICEF, 2015). The percentage of women age 15-49 years whom were first married or in union before age 15 represent 4.4% of the female population; this percentage increases significantly looking at the percentage of women age 15-49 years whom were first married or in union before age 18 as they represent 27% of the female population. In the latter case the difference compared to men as men age 15-49 years whom were first married or in union before age 18 represent only 7% of the male population (MICS data from 2014, published by UNICEF, 2016).
66. According to the State of the World Population 2013 report (UNFPA, 2013), Guyana has the second highest rate of adolescent pregnancy in both the Caribbean and South America with 97 out every 1000 girls between the ages of 15-19 giving birth. The vast majority of teenage pregnancies, at least 82 per cent, are unintended, unplanned and unwanted pregnancies and lead to several problems in society: (i) teen mothers are more than likely to drop out of high schools than females who delay having children, resulting in social isolation from their peer group; (ii) only 41% of teens who gave birth before age 15 graduate from secondary school as compared to the 61% who delayed childbirth; (iii) with an incomplete education teenage mothers may lack necessary job skills and are more likely to live in poverty which can lead to a cycle of poverty for that child; (iv) teen mothers are more at risk for increased exposure to domestic abuse and violence; (v) children born to teenage mothers are at greater risk for abuse and neglect, increased risk of developmental delay and learning disabilities; (vi) girls born to teenage mothers are 22% more than likely to become teenage mothers.
67. For many years relevant authorities have been fighting against the high rate of teenage pregnancies and high school dropouts in the hinterland areas, especially as the numbers continue to climb in Guyana. In Region One (Barima-Waini), various communities continue to record more children, with each passing year, either leaving secondary school before completing the five-year stint or engaging in sexual activity which usually lead to teenage pregnancies. Another prevalent issue which continues to affect the development of children is substance abuse, particularly the abuse of alcohol. Many youths in today's society indulge in consuming alcoholic beverages at a young age and this affects their overall development. The Regional Democratic Council is working towards an action plan under the health and education programmes. (Guyana Times, January 16, 2016)
68. The life of a single parent is difficult and has many challenges, especially the female single parent, whose limited household income and scope of responsibility for the upbringing of a child or children make them especially vulnerable. In Guyana, over 75% of the women who have been placed on Public assistance (cash transfers for blocks of 6 months after which a review of the situation takes place), are still receiving the assistance after 4 years. In relative numbers, the percentage of female single parents from region 9 that receive public assistance is high, compared to other regions (personal communication Ministry of Social Protection); which is why the Ministry of Social Protection is looking for providing alternatives for income generation and has been expanding the micro credit facilities available to women in Guyana, through the Guyana Bank for Trade and Industries Ltd. (GBTI).
69. **Human trafficking.** Though Guyana adopted in 2005, the "Combating of Trafficking in Persons Act" and released its anti-trafficking action plan in June 2014, the country continues to be a source and destination country for men, women, and children subjected to sex trafficking and forced labour. In Guyana, groups particularly vulnerable to human trafficking include Amerindian females, runaways and poor children from rural families. Guyanese women and children are subjected to sex trafficking in mining communities in the interior and in urban areas. Trafficking victims are also subjected to forced labour in the mining, agriculture, and forestry sectors, as well as in domestic service and shops. Children are particularly vulnerable to sex trafficking and forced labour. Limited government presence in the interior renders the full scope of trafficking crimes unknown. Guyanese nationals are subjected to sex and labour trafficking in Suriname,

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<sup>39</sup> Multiple Indicator Cluster Surveys (MICS)

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Jamaica, and other countries in the Caribbean region. In 2013, the government reported identifying 23 victims of whom 10 children: 5 male labour trafficking victims, and 18 sex trafficking victims (USA Department of State, 2015).

70. In discussion with the Ministry of Social Protection, it was found that especially school drop-outs and people that have never attended schools from regions 1 and 9 are highly vulnerable to become the victims of human trafficking practices.

## **B. Institutional framework to support social inclusion and gender equality**

71. GoG programmes and policies impact heavily on the communities directly or indirectly. During focus group discussions there was general agreement that government's provision of solar panels, one-laptop per family, road and bridge maintenance, flood crisis management, public health, education, and social services, land survey and titling had made significant differences in the way of lives of the communities. Notwithstanding, they indicated that assistance had impacted individual values, including a welfare syndrome in some communities, loss of self-sufficiency, and increasing dependence on high energy (in some cases fossil fuel) and external inputs. Households in Region 9 reported that they had received general livelihood support from government, regional and international agencies, the private sector and NGOs. MIPA had provided grants/support/assistance for community development projects including funding for a rice project at Moco Moco and financial support for purchasing tractors and equipment in several villages and implementation of a solar panel project. MIPA had also resolved land issues and sponsored hinterland scholarships. Churches, faith-based organization (Church of Christ, the Roman Catholic Church as well as d NGOs such as Conservation International, Remote Area Medical (RAM) had also provide assistance to these communities.
72. **National Youth Policy.** The National Youth Policy 2015 was on June 30, laid in the National Assembly. The consultations for the National Youth Policy began under the previous administration. The data gathered was analysed and published in the Situational Analysis of Youth in Guyana 2015 and led to the development of the draft policy. The Policy list that youth unemployment is around forty percent, that youth entrepreneurship is in an initial state and that the education system has remained stagnant, youth are disproportionately affected by social problems including suicide, mental health issues and teenage pregnancy, among other findings. The document outlines five key priorities: Youth Identity and Empowerment, Youth Employment and Entrepreneurship, Education and Market-Driven Skills Development, Youth Leadership, Participation and Representation and Youth Health Safety and Well-being. The policy will pave the way for the subsequent development and implementation of a National Youth Empowerment Action Plan (NYEAP).
73. **Ministry of Social Protection.** The Ministry has four main units: Social Services Bureau, Child Protection Bureau; Labour Bureau, and an Administrative unit. The Ministry of Social Protection has Welfare Officers in all regions and tries to address before mentioned social issues by working at policy development and in the regions through schools, through working with the Community Development Officers of the Ministry of Indigenous People's Affairs (MIPA) and through the Regional Democratic Councils. The Ministry has a positive experience in training local leaders from 20 Amerindian villages on social issues (child labour and abuse, teenage pregnancies, and domestic violence) who then have become multipliers of awareness raising on these issues at village and community level as well as type of liaisons with the Ministry. To address the economic problems and dependency on welfare faced by teenage mothers, the Ministry has been expanding the micro credit facilities available to women in Guyana, through the Guyana Bank for Trade and Industries Ltd. (GBTI). The Ministry also leads a high level Taskforce on human trafficking.
74. **Ministry of Communities.** The Community Infrastructure Improvement Project (CIIP) started in August 2014 and is one of Government's projects aimed at transforming communities through the improvement of access to public facilities and infrastructure (footpath bridge, parapets, amongst other) to help create jobs for men and women at the grass root level. Since 2015, the Government of Guyana through the Ministry of Communities, has been implementing the SLED

initiative. The community-based livelihood support programme helps communities to sustainably use available resources to boost their local economy. SLED works by distributing cash grants, to registered groups and associations, needing the economic boost to improve their economic enterprises.

75. **Ministry of Public Health.** In addressing the issue of teenage pregnancy, the Public Health Ministry is in the process of: (i) develop supportive policies to strengthen strategies for the reduction of adolescent pregnancy; (ii) increase access to quality sexual and reproductive health services and contraceptive access for adolescents; (iii) strengthen surveillance and monitor systems for adolescent pregnancies between the age group of 10-15 and 16-19; (iv) disseminate knowledge and comprehensive sexual education via media and schools health clubs and peer educators, amongst others.
76. **Women of Worth Microfinance Program.** The Women of Worth (WoW) Microfinance program is a Public/Private initiative first launched in 2010 as a **partnership** between the Government and the Guyana Bank for Trade and Industry Ltd (GBTI). It was established with the aim of:
  - Removing the barriers single parent women face, enhance their self-esteem;
  - Empowering them to take advantage of the economic opportunities around them; and
  - Heightening their participation in society and at decision making process at local and national levels.
77. The main objective of the WoW Microfinance program is to improve the socioeconomic status of women in Guyana, promote their active participation and integration in national development and contribute towards poverty reduction; thereby stimulating micro and macro-economic growth. The GBTI has provided G\$500 million dollars and the Government of Guyana G\$50 million dollars per annum to administer the Program. Financing of enterprises ranges from a minimum of \$100,000 to a maximum of \$250,000, and is offered on an unsecured basis to individuals. The interest rate applicable to the loan is 6% per annum, not exceeding twenty-four (24) months; inclusive of a moratorium of three (3) to six (6) months as necessary. The eligibility criteria are:
  - Must be over 18 years but under 60 years of age;
  - Must be a single parent;
  - Must have some level of training and/or skills;
  - Must not be earning more than G\$35,000.00 (US\$175) per month.
78. The type of businesses that can be financed are: (i) Clothing/garment manufacturing, (ii) Poultry rearing; (iii) Grocery shops, (iv) Catering, (v) Cosmetology, (vi) Packaged spices, (vii) Bakery, (viii) Leather/general craft, (ix) Retail Clothes vending, (x) Natural Fruit Juices , (xi) Ground seasoning, (xii) Pre-school/Day Care, (xiii) Newspaper vending, (xiv) Phone cards retailing, and (xv) Beverage retailing. The results of the Program so far, include: (i) over 1200 households, 2000 female single parents and 5000 children have benefitted from program, (ii) there are 72 second time borrowers, 23 third time borrowers and 11 fourth time borrowers in the 30 months since the Program was launched, and (iii) more than 300 persons have been employed by the beneficiaries. There are many women in agriculture, who have applied for loans, through the WoW programme, and these are making a difference, in an area that was traditionally male dominated. It was found that there have been 2nd, 3rd and 4th time borrowers, who have actually grown above the category of the maximum loans.
79. **Board of Industrial Training.** As part of its mandate the Board is committed to provide training opportunities for youths, apprentices and single parents, thereby equipping them with marketable skills in a variety of occupations, in various sectors including engineering, building construction, electrical, home economics, information technology and clerical, medical and forestry. Progress has been made by single women through the Board of Industrial Training (BIT) who have started small businesses in cosmetology, hair dressing, garment making, and poultry rearing, after completing training. So far, amongst the graduates, region 1 and 9 are not equally represented in comparison to the other regions. The BIT has a budget of G\$ 245 million in 2016 from the national budget.

80. **Women's Affairs Bureau and Men's Affairs Bureau.** The Women's Affairs Bureau (WAB) established in 1981 as the gender and development unit originally within the Ministry of Labour Human Services and Social Security. Its mandate is "to work towards the removal of all forms of discrimination against women, to promote development of their full potential and to ensure their integration in the national development of the country." Throughout its existence, the WAB has had many administrative changes and has faced significant human and financial constraints. The Women's Affairs Bureau has been working in communities with women and counselling them in cases of domestic abuse, and as such has been able to help some of those women, who are victims, to gain employment to support themselves. In 2011 the Men's Affairs Bureau [MAB] was launched. The main objective of the Bureau is that of addressing the tensions between men and women, reducing and ultimately eliminating gender-based violence, and promoting a sense of purposefulness among men. A merger of the Men's Affairs Bureau (MAB) and Women's Affairs Bureau (WAB) into a Gender Affairs Bureau (GEB) is said to be underway. The work of the Women's Affairs and the work of the Men's Affairs is expected to continue simultaneously.
81. **Help & Shelter.** Help & Shelter is a national-level NGOs and its councillors work with men, women and children who come from Georgetown and from rural areas. Help & Shelter also maintains a shelter for women who require safe, temporary housing because they are abused or are victims of Trafficking in Persons (TIPs). The rate of occupancy of the shelter has typically reflected "a deep-seated cultural resistance to leaving abusive situations", but following its reopening in March 2006, there has been an increase in the number of women utilizing the facility, and particularly in the number of teenage girls referred to the shelter by the courts ("Report on Domestic Violence in Guyana". Prepared by Sarah Insanally for the Women's Affairs Bureau, 2006).
82. **Ministry of Indigenous Peoples' Affairs.** In October 2015, the Ministry launched the "Hinterland Employment Youth Service (HEYS) Program". The project addresses the needs of male and female youths by providing training and capacity building in several key areas including: hospitality management, tour guiding, plumbing, carpentry, sewing, wiring among many other vocational areas. Mathematics and English will also be taught to each participant in order to build their capacity in literacy and numeracy. Furthermore, monthly workshops will also be held to raise awareness on social issues such as "Trafficking In Persons" (TIP), "Gender Based Violence" (GBV), "Drug and Alcohol Addiction", among others. The Programme would run for one year (six months of in-house and practical training and another six months attachment to an office/ organisation relevant to the student's area of study). Following the one-year period, those who wish to start their own businesses will be assisted to do so. However, it must be noted that at the beginning of 2016, the services of the HEYS Program had not yet been able to reach out to young people in Regions 1 and 9.
83. **Bina Hill Institute.** The Youth Learning Centre of the Bina Hill Institute, established in 2001, is located in Annai in Region 9, and is an institution that focuses on training youth in Natural Resource Management, Forestry, Wildlife Management, Agriculture, Tourism, Business Studies, Life Skills, Traditional Skills, Basic Computer Skills, Mathematics and English. Youth also do leadership training. Agriculture is done theoretically and in a practical manner. At the end of the two year residential programme students are given a certificate detailing subjects and programs they have completed. The main objective of the Institute is to "build the capacity of the Youth of the North Rupununi and Guyana by developing leadership skills, fostering a love for the indigenous culture and the management of the environment, while expanding upon the existing social and cultural framework, thus preparing them for life in an ever-changing world".
84. At the end of the school year July 2011 sixteen students graduated from the centre after completing the two year programme. Of these, six students are now attending the Guyana School of Agriculture and pursuing **courses** in Forestry, Fisheries and the Certificate in Agriculture. Two have been employed by the Iwokrama International Centre as Tour Guides and another three as Interns on the Iwokrama/North Rupununi District Development Board Butterfly Project. One student from this batch has also been employed by the North Rupununi District Development Board as Assistant Farm Manager at the Bina Hill demonstration farm (source: <http://nrddb.org/bhiylc>). The Bina Hill Institute also supports adult and distance education and literacy programmes, as well as organisational skills development such as household and village financial management, governance and leadership.



85. **North Rupununi District Development Board.** The North Rupununi District Development Board (NRDDDB), established since 1996 and registered as a trust in 2001, is the umbrella organization of the North Rupununi communities, and recognized by Iwokrama as its community partner since 1996. The core membership of the **NRDDDB** consists of the legally elected village leaders (Toshaos) of the North Rupununi communities. The NRDDDB plays an important role in bringing together the Toshaos (Chiefs) and other authorities, as well as non-governmental local peoples' organisations / institutions and private enterprise initiatives. The NRDDDB is committed to improving the well-being and quality of life of the North Rupununi communities through social and economic development, paying special attention to women and youth, and through the affirmation of heritage, culture, traditional knowledge and Indigenous rights. The NRDDDB is likewise committed to the principles of sustainable community forestry and sees this as a means to achieving environmental sustainability and the wise conservation and use of its own forests (source: <http://nrddb.org/>). The objectives of the NRDDDB are:
- To facilitate and encourage short, medium and long-term community development initiatives within the North Rupununi and to ensure that such initiatives provide benefits for and serve the interests of its constituent communities.
  - To bring together its constituent communities so as to facilitate community development planning, assist in implementing policy, and encourage co-operation and coordination of activities of its constituent communities.
  - To encourage and facilitate a process of consultation, collaboration, collective planning and general networking amongst Regional and District authorities, local government bodies, NGOs and other organizations involved in the management and development of its constituent communities.
  - To create communication links among its membership and its constituent communities, and between these and all other relevant local and international organizations, and to network and establish relations with such organizations where possible.
  - To serve as a forum where its constituent communities can express concerns, find resolutions and implement actions.
  - To mobilize resources and generate income so as to facilitate and support community development initiatives as well as for the other objectives and activities of the NRDDDB.
  - To promote and encourage the involvement of women in decision-making and participation in all community plans and projects.
  - To encourage the development of youths within its constituent communities, and to secure and support opportunities for their advancement.
  - To monitor the impact and effects of all regional, national and international programmes and/ or initiatives upon its constituent communities.
86. **Makashi Research Unit.** The Makashi Research Unit (MRU) was formally established in May of 1995 with nine researchers to study the Makashi biodiversity, ethno-medicine and culture, within a project sponsored by the Global Environmental Facility (GEF), and administered by the Iwokrama project. The MRU represents 16 communities in the North Rupununi. The main objective of the MRU is to study while reviving, the traditional way of life/lifestyle of the Makashi people focusing on their language, food, craft and biodiversity (ethno-medicine, hunting, fishing and farming). This is a first for any such programmes for Amerindian women within Guyana. The MRU is involved in teaching oral Makashi language in schools, promoting HIV/AIDS education, awareness of domestic violence, and promoting traditional culture in schools and communities.
87. **Rupununi Livelihoods Project.** The Rupununi Livelihoods Project is funded by the Inter-American Development Bank (IDB) and Conservation International (through the Swift Family Foundation) and has an execution timeline of 36 months (2016 completion year). The project directly benefits 23 community-based enterprises (CBEs) and indirectly benefit roughly 42 percent of the Rupununi's Region's population (approximately 7500 people). The project aims to develop healthy and sustainable economic development of the Region through strengthening and creating environmentally-sustainable business models for CBEs focused on nature-based tourism and agriculture.

88. **Amerindian Land Titling Project.** The Amerindian Land Titling (ALT) Project seeks to enable Amerindians to secure their lands and natural resources with a view towards sustainable social and economic development. It is expected that titling of communities will strengthen land tenure security and the expansion of the asset base of Amerindians, enabling improved long term planning for their future development. The Amerindian Land Titling Project Document was signed at the National Tshaos Council meeting on the 21st October 2013 and will be implemented by the Ministry of Indigenous People Affairs. The objective of this Project is to facilitate and fast track the Amerindian Land Titling process; historically, high cost has been a barrier to achieving this policy objective. The Project seeks to: (i) have land titles issued and demarcation process completed for all Amerindian villages that submit requests, including those that request extensions, (ii) strengthen existing mechanisms to deal with unresolved land issues, and (iii) improve the communication and outreach efforts of the Ministry of Amerindian Affairs ([http://www.guyanareddfund.org/index.php?option=com\\_content&view=article&id=92&Itemid=120](http://www.guyanareddfund.org/index.php?option=com_content&view=article&id=92&Itemid=120)).

### C. The target population, target group and project beneficiaries

89. **Targeting.** IFADs focus is on "Rural people who are living in poverty and experiencing food insecurity who have the potential to take advantage of improved access to assets and opportunities for agricultural production and rural income-generating activities ("productive poor"). Targeting is important as it wants to ensure that project implementation is executed in such a way that a specific target group (part of the target population) will have ownership of the project, can fully contribute and participate in project activities, and will have access to project services and benefits.
90. IFAD's special targeting efforts are based on the recognition that rural poverty reduction and food security will not happen simply as a result of macroeconomic or sectoral growth, although growth is necessary. Poverty is not just a condition of low income. It is a condition of vulnerability, exclusion and powerlessness. It is the erosion of people's capability to be free from fear and hunger and to have their voices heard. Poverty reduction is about enabling poor women and men to transform their lives and livelihoods, and supporting governments and civil society in creating and maintaining the conditions that allow them to do so (IFAD, 2014; pg. 2). The project's outreach strategies focus on proactively including the identified target group.
91. **Target population.** The project will follow IFAD's geographic targeting approach as it will address the needs of the indigenous and non-indigenous rural and poor men and women and their households living in regions 1 and 9. The incidence of poverty and food insecurity in these regions, also known as the hinterland, is high as is the proportion of indigenous population. The target population includes the indigenous people's tribes of both regions, who make up for the majority of the population. The tribes in region 1 and 9 are presented in table 8. The 2012 Census doesn't provide for disaggregated data by tribe, but the total Amerindian population in Region 1 makes up for 65%<sup>40</sup> of the total population in the region; whereas in Region 9, the Amerindian population is 86%<sup>41</sup> of the total population in the region.

Table 8 Amerindian tribes by region	
Geographic area	Amerindian Tribes
Region 1	<ul style="list-style-type: none"> <li>• Lokono (Arawak)</li> <li>• Carib</li> <li>• Warau</li> </ul>
Region 9	<ul style="list-style-type: none"> <li>• Macushi located mainly in the north and central savannahs.</li> <li>• Wapishana located in the south savannahs.</li> <li>• Waiwai in the headwaters of the Essequibo River at Gunn's Trip.</li> </ul>

<sup>40</sup> Amerindian population region 1: 17,490 (8,833 men and 8,657 women).

<sup>41</sup> Amerindian population region 9: 20,314 (10,648 men and 9,666 women).

92. Using final official 2012 Census data (Population & Housing Census 2012 - Final Population Count. Guyana National Bureau of Statistics, 2016), the target population is a total of 51,881 men and women (table 9); this is equivalent to 5,053 households in Region 1, and 4,936 households in Region 9.

<b>Table 9: Project Target population</b>	
<b>Region 1</b>	
Male	14 450
Female	13 193
<b>Region 9</b>	
Male	12 479
Female	11 759
<b>Total</b>	<b>51 881</b>

Source: Official Final 2012 Census data.

93. In the 2012 Census report (preliminary data), the Guyana National Bureau of Statistics makes mention of a total of 67 villages and communities for Region 1 and 61 villages and communities in Region 9. The total of 128 villages and communities make up the target population. Table 10 shows that the target population is made up of a majority of young people with 45% in the age group 0-14 years old, 18% in the age group 15 to 24 years old, 21% in the age group 25 to 44 years old, 12% in the age group 45 to 64 years old and 4% 65 years old and over.

<b>Table 10: Population by age group and sex, regions 1 and 9</b>					
	<b>0-14 years old</b>	<b>15 to 24 years old</b>	<b>25 to 44 years old</b>	<b>45 to 64 years old</b>	<b>65 and over</b>
<b>Region 1</b>					
Male	6 035	2 714	3 006	1 751	628
Female	5 924	2 501	2 572	1 394	517
<i>Sub total</i>	<i>11 959</i>	<i>5 215</i>	<i>5 578</i>	<i>3 145</i>	<i>1 145</i>
<b>Region 9</b>					
Male	5 483	2 053	2 563	1 595	516
Female	5 223	2 094	2 257	1 320	556
<i>Sub total</i>	<i>10 706</i>	<i>4 147</i>	<i>4 820</i>	<i>2 915</i>	<i>1 072</i>
<b>Total</b>	<b>22 665 (45%)</b>	<b>9 362 (18%)</b>	<b>10 398 (21%)</b>	<b>6 060 (12%)</b>	<b>2 217 (4%)</b>

Source: Preliminary 2012 Census data.

94. In Region 1 there are 743 female headed households (15% of all households in region 1), of which 6% are headed by women in the age group of 15 to 24 years of age and in Region 9 there are 685 female headed households (14% of all households in region 9), of which 13% are headed by women in the age group of 15 to 24 years of age (annex 8).
95. In the sub regions Marabuma and Moruca in Region 1 there is a total of 1,705 households and a total of 4,936 households in region 9 according to preliminary data of the 2012 Census (annex 5 and 6). The proportion of people living in poverty<sup>42</sup> in Region 1 was 97 per cent and in Region 9 this was almost 96 per cent according data from the MICS5 study, 2014 (published by UNICEF in 2016). This results in 1,654 poor households in the sub-regions Mabaruma and Moruca from Region 1 and 4,739 poor households in Region 9. The target population in the project area is therefore made up of 6,393 poor households.

<sup>42</sup> Belonging to the poorest and second poorest quintiles.

**Table 11: Total and target population in project area**

	Total population (approx.)	Total number households	Total poor households (target population)
Region 1: Sub regions Mabaruma and Moruca	9,238	1,705	1,654
Region 9	24,238	4,936	4,739
Total	33,476	6,641	6,393

	Total population (approx.)	Total number households	Total poor households (target population)
Region 1: Sub regions Mabaruma and Moruca	9,238	1,705	1,654
Region 9	24,238	4,936	4,739
Total	33,476	6,641	6,393

Source: prepared by Final Design Mission, 2016.

96. **Target group and project beneficiaries.** The Project's targeting strategy takes into consideration the following facts:
- Incidence of poverty and food insecurity is higher amongst the indigenous population;
  - The rural and indigenous poor in region 1 and 9 are almost all subsistence farmers, gatherers and hunters and fisher folks (diversified livelihood);
  - The rural and indigenous households face insecure livelihoods and are highly vulnerable to economic (changes in price of agricultural inputs), and natural shocks (floods or droughts);
  - Many young men and into a lesser extend women, migrate in order to find employment;
  - Households headed by women, especially amongst young age groups (teenage pregnancies) are especially vulnerable;
  - A large proportion of communities in which the indigenous people live (but not all) have secured their land tenure as they own (as a village) a land title;
  - Most rural and indigenous households in region 1 and 9 have limited access to rural financial services;
  - Most rural and indigenous households in region 1 and 9 face an absence of support services to encourage and assist them to adopt improved practices to increase production while maintaining their diversified livelihoods, productivity, integration in small value chains, and access to (local and regional) markets.
97. The use of geographic targeting allows for identifying the project's target group to include:
- (a) Men and women of poor rural and/or indigenous households in Region 1, that face risks associated with sea level rise, storm surges causing flooding, salinization of water and soil resources.  
For both regions 1 and 9:
  - (b) Men and women of poor rural and/or indigenous households, that face more frequent and intense floods and droughts as consequence of climate change.
  - (c) Men and women of rural and/or indigenous households living in extreme poverty and poverty with fewer assets and opportunities;
  - (d) Men and women of rural and/or indigenous households whose food security has been compromised;
  - (e) Men and women of rural and/or indigenous households vulnerable to external shocks (whose present relative wealth or non-poverty situation can rapidly change);
  - (f) Rural and/or indigenous young and adult men and women (age group 15-44, equivalent of 39% of the population in regions 1 and 9); and

- (g) Rural and/or indigenous female headed households (average 14% of households in region 1 and 9).
98. The target group would be made up by 6,000 poor households that would be receiving project services, which is equivalent to 94 per cent of the existing poor households in the project area. At least 15 per cent of these households (900 households) would be female headed households as this reflects the reality in the project area.
99. The 6,000 households represent a total number of direct and indirect beneficiaries of approximately 30,000 men and women of different age groups. At least 75 per cent of the project beneficiaries would be from Amerindian tribes. At least 30 per cent would be from the age group 15-44 years old and at least 50 per cent would be women.
100. **Self targeting.** Self-targeting has the purpose of including those who are often excluded (or self-excluded). This is foreseen in the Project through specific affirmative actions, activities and investments oriented towards young males and females, local leaders (especially women), amongst others. Proactive measures designed to build the capacity of these groups have been included in project design (see section D. Strategy for Social Inclusion and Gender Equality).
101. **Direct targeting.** Direct targeting is foreseen in the Project, especially through the eligibility criteria for accessing the Investment Fund (this will be further developed in the Project Implementation Manual).
102. **Phasing-in of villages and communities.** The direct beneficiaries will come from approximately 80 of the 128 existing villages and communities in region 1 and 9 (60 communities in Region 9 and 20 communities in Region 1).
103. In region 9, all villages and communities are eligible for project implementation<sup>43</sup>, whereas in region 1, communities from the sub-regions Mabaruma and Moruca will participate in the Project (these will be identified during Y1 of project implementation). During implementation the exact names of villages and communities will be decided upon on the basis of: (i) concentration of men and women who fit the targeting criteria and (ii) interest expressed in implementing activities with support of the Project.
104. During the first 2-years of project implementation, the Project Management Unit (PMU) will give priority to supporting the development of Public/Collective Investment Plans and Business Plans for those villages and communities in Region 9 that already have elaborated their Village Resource Development Plan (CI methodology) and to assisting other villages and communities in Region 9 with mapping and in developing Community Production Development Plans and related Public/Collective Investment Plans and Business Plans. The first 2-years of implementation will also focus on the formulation of the Value Chain Action Plans for region 1 and start-up of their implementation.
105. The purpose of reaching the end of Year 2 with all selected villages and communities in Region 9 having their Community Production Development Plans and related Public/Collective Investment Plans and Business Plans and the Value Chain Action Plans for region 1, is to ensure there is sufficient time to assist villages, communities, and producer groups with the implementation of their Investment and Business Plans.
106. Monitoring of targeting performance is essential and all people-related indicators would be disaggregated so that the PMU can monitor differential participation and impact by ethnicity, sex and age group. Compliance during implementation with the targeting criteria and is also a key issue for analysis during the Mid-term evaluation.

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<sup>43</sup> All of Region 9 villages and communities are part of the project area: South Rupununi – eight (8) villages and two (2) satellite communities; South Central Rupununi – eight (8) villages and four (4) satellite communities; Central Rupununi –four (4) villages and eight (8) satellite communities; North Rupununi – six (6) villages and five (5) satellite communities; and, South Pakaraimas – six (6) villages and seven (7) satellite communities.

## D. Strategy for Social Inclusion and Gender Equality

107. Social inclusion is the process of improving the terms for individuals and groups to take part in society. Project design has ensured that marginalized groups can take advantage of Project development activities and have access to its services; as such it refers to the empowering and participation of indigenous peoples, youth, and women. Gender equality is part of social inclusion and will be mainstreamed in overall Project implementation and through specific affirmative actions. Project implementation will take into consideration, amongst others: (i) knowledge of gender equality and indigenous peoples would be included in the Terms of Reference of all project staff and contracts and MOUs with service providers; (ii) provisions would be made for the participation of male and female representatives of beneficiaries in the National Steering Committee and Regional Management Committees; (iii) service providers should hire field staff who speak the local languages (or provide translation where required); (iv) gender specific eligibility criteria would be established in the Project Implementation Manual for the selection of investment plans (Public/Collective Investment Plans and Business Plans); (v) social inclusion would be mainstreamed in the Value Chain Action Plans for region 1; (vi) monitoring and evaluation would use disaggregated data (registration, collection, analysis and reporting) and the project implementation strategy will be adjusted if gender and youth targets are not met; (vii) provisions would be made for training to be implemented as much as possible in villages/communities (to make them more accessible to women); (viii) provisions would be made to facilitate women's and youth participation in exchange visits organized or financed by the Project; (ix) preparation of awareness raising and training materials would be adequate and understandable for its specific audiences; and (x) participation of project staff, GoG project related staff and beneficiaries in a regional or international exchange visit or learning route on social inclusion and gender equality.
108. Affirmative actions are specific activities designed to address inequities in a society and help members of a disadvantaged group or a more vulnerable group to overcome obstacles to equal access to development opportunities. In the previous chapter a number of social problems in regions 1 and 9 have been discussed that need to be addressed by the Project directly and through alliances with specialized organizations for the Project to be successful in reaching its expected outcomes and objectives. This way, the affirmative actions included in Project design have the purpose of empowering the more vulnerable groups and creating an enabling environment for its two technical components to be successful. They include: (i) Vocational and Technical Skills Training, (ii) Life skills Training, (iii) Leadership training, and (iv) Labour-saving technologies and practices.
109. **Vocational and Technical Skills Training.** The project would provide vocational and skills training for project beneficiaries, especially oriented towards young men and women with the purpose of increasing their possibilities to become employed or self-employed and start a business. The creation of income generating opportunities in regions 1 and 9 is crucial for the youth to have access to more dignified job opportunities, improve their economic situation, and at the same time address social problems such as low self-esteem and teenage pregnancies. It is important to note here that training provisions for young men and women would be based on market opportunities, not on the traditional division of labour. Both regions 1 and 9 have Technical Institutes and there are several governmental and non-governmental vocational and skills training programmes that the Project could tap into and through scholarships make these training programmes accessible to the project's target group. Also, the Mission was informed by the MOA that the Guyana School of Agriculture (GSA) will have presence in regions 1 and 9 by the end of 2016.
110. The project will support skills development and vocational training of young women and men in areas including but not limited to:
- a. processing and marketing of agricultural produce;
  - b. renewable energy technologies and their maintenance;
  - c. information and Communication Technologies (ICT);
  - d. small business administration and basic accounting.

111. **Life skills Training.** The social problems and issues affecting the quality of life among the targeted rural men and women, households and villages/communities cannot be overlooked and addressing these issues are a key element of the affirmative actions. The purpose of life skills training is to identify, discuss and equip participants to address the crucial human relationship issues, challenges, abuses and constraints that impact on the individual, household, community, and consequently, the nation. These include but are not restricted to positive life skills, confidence-building and public speaking, motivation and self-esteem, gender sensitization (how gender equality creates a better family relation and living environment), traditional gender roles and development, alcoholism, domestic violence, consequences of teenage pregnancies and responsible fatherhood, Trafficking in Persons (TIP), and HIV/AIDS prevention. A series of training sessions, thematic workshops, public and community awareness and education programmes, and other creative approaches would be utilised.
112. In addition, the Project would create capacity amongst local leaders (Toshaos, Councillors, amongst others) to understand and identify social problems in their villages and communities and know where to go for further assistance. They would be key as multipliers of knowledge on social issues and raise awareness amongst village/community members. The Ministry of Social Protection has experience with the training of local leaders in social related issues and has Welfare Officers in regions 1 and 9. The Project could consider a strategic alliance (MOU) with the Ministry to strengthen the capacity of the Welfare Officers and for the Ministry to expand its training programme in social issues to local leaders of villages/communities in region 1 and 9 that are part of the Project. Liaising with the Ministry of Indigenous People's Affairs and its Community Development Officers on these topics to be effective in creating local expertise and addressing social issues in the cultural context of the different tribes of region 1 and 9 is crucial.
113. **Leadership training.** The traditional organizational structure in indigenous villages and communities is still the leading structure nowadays and is respected not only by community members but also more and more so by regional and national decision making entities. In the continuously changing socioeconomic context and with more development opportunities opening up in regions 1 and 9 however, Toshaos and Village Councillors need to be strengthened in negotiation skills, rights and responsibilities (legal framework for indigenous peoples), reporting and basic accounting. These skills are required to ensure that local leaders have the capacity to be in charge of and implement locally, development programmes from national and regional government, NGOs, and the donor community.
114. Whereas the participation of women in leadership positions is slowly growing, this is still incipient and requires strengthening through: (i) awareness raising amongst community members of women's and young people's potential as leaders, and (ii) strengthen their capabilities and leadership skills. The Project would identify in the villages and communities the need for leadership skills for men, for women and for youth and develop and implement differentiated training programmes according to the needs of each group. Liaising with the Ministry of Indigenous People's Affairs and its Community Development Officers on these topics is crucial.
115. To further strengthen indigenous leadership, linkages could be sought with the International Indigenous Women's Forum (FIMI). FIMI is a network of Indigenous women leaders around the world. FIMI's mission is amongst others to develop leadership and advocacy skills and increase Indigenous women's role in international decision-making processes. FIMI's purpose is to strengthen Indigenous women's networks, increase their participation and visibility in the international arena, and build capacity.
116. **Labour saving technologies and practices.** The Project would support villages/communities with labour-saving technologies and practices that would have as a co-benefit the reduction of women's workload. This relates mainly to public/collective good investments in increased access to improved water sources. Eventually, other investments such as for improved food processing and preparation or cookstoves using renewable energy sources, could be part of business plans. This would increase the time available to women to participate in leadership positions, training and technical assistance, vocational and skills training, and engage in new or existing productive and income earning activities. These technologies and practices need to be proposed and accepted not only by the users (women) but the household budget owners as

well, who are often men. It is also important to access how women's and men's roles and workloads may shift as a result of labour-saving techniques and how this change is accepted. Particular attention would be paid to see if any negative behaviour changes arise, and if some people experience a loss of livelihoods; if so, mitigation measures may be required (IFAD, 2016).

## **E. Implementation Arrangements and Human Resources**

117. Whereas social inclusion and gender equality are obviously mainstreamed throughout the project objectives, activities and resources, funds for social inclusion and gender equality have also specifically been catered for in the project budget.
118. Effective team-work amongst the Project staff is key for the efficient implementation of the technical components and the mainstreaming of gender equality. The responsibility of the implementation of the overall project gender equality considerations (paragraph 107) lie therefore with the Project Manager and PMU staff. They would receive technical support from the Social Inclusion and Gender Equality Specialist who is also responsible for the implementation of the specific affirmative actions that are part of the Project's Social Inclusion and Gender Equality Strategy. He/she would also be providing PMU staff and service providers with tools to mainstream gender equality and social inclusion in their work and field activities. The Specialist would be located in the Regional Office in Region 9, but would provide services to both regions. The Terms of Reference of the Specialist are presented in Annex 11.



## Annex 1:

### Map of Project area (highlighted areas are region 1 and region 9)



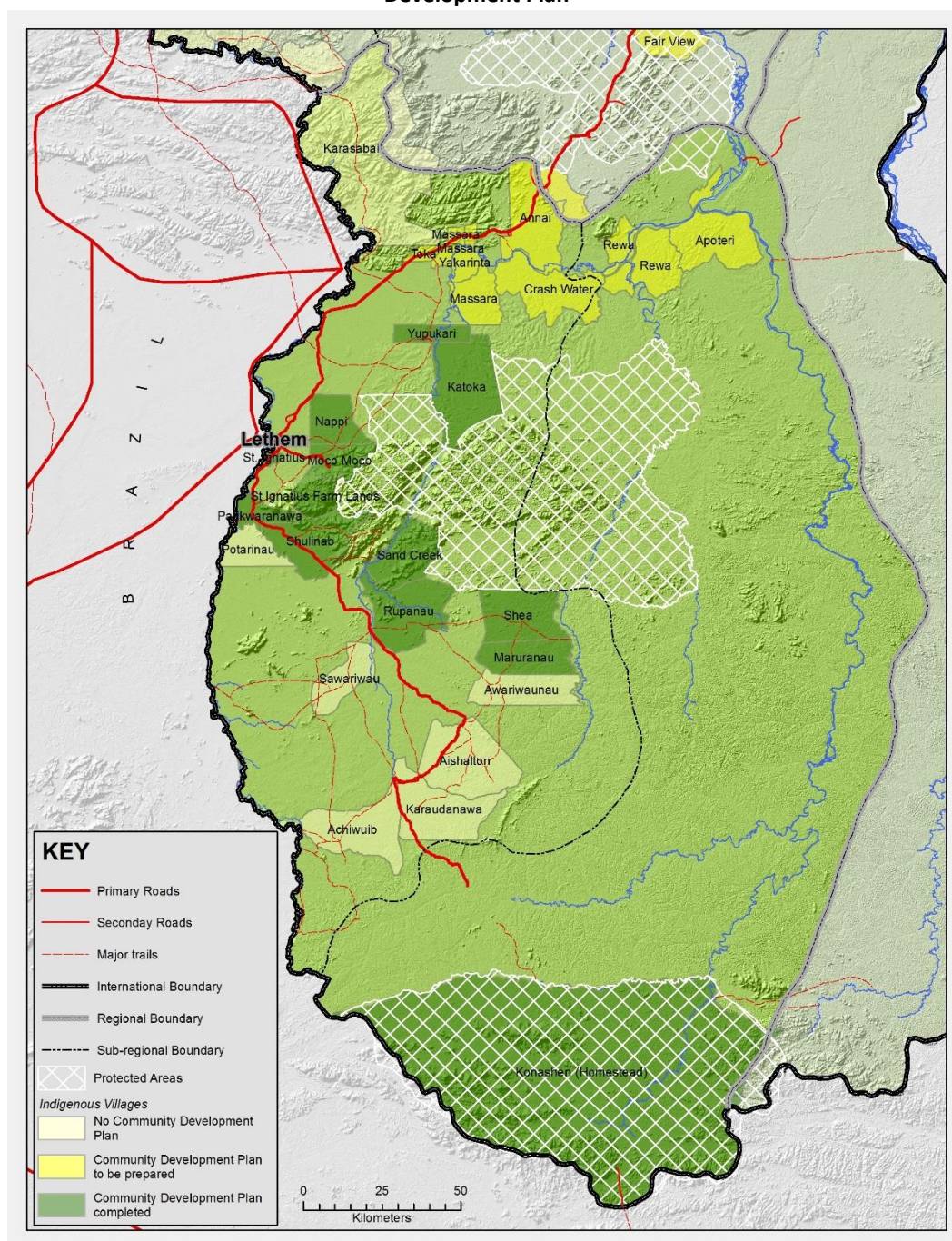
The designations employed and the presentation of the material in this map do not imply the expression of any opinion whatsoever on the part of IFAD concerning the delimitation of the frontiers or boundaries, or the authorities thereof.  
Map compiled by IFAD | 12-04-2016





### Annex 3:

**Map of region 9 showing indigenous villages with a Village Resource Development Plan prepared and in preparation, and those without a Village Resource Development Plan**



Source: Conservation international, 2016.

**Annex 4:**

**Sub regions of region 9 showing indigenous villages, their communities, landtitling status and Village Resource Development Plan status**

Sub Region	Village	Communities/ Satellites	Status	Village Resource Development Plan Status
South Central	Katoka	Katoka	TITLED VILLAGE	Complete
		Semonie		
		Yupukari		
	Yupukari	Fly Hill	TITLED VILLAGE	Complete
		Quatata		
		Kaicumbay		
	Shulinab	Shulinab	TITLED VILLAGE	Complete
		Quiko		
		Meriwau		
	Potarinau	Potarinau	TITLED VILLAGE	
		Katuur		
		Shriri		
		Baitoon		
	Parikwarwaunau		TITLED VILLAGE	Complete
	St. Ignatius	St. Ignatius	TITLED VILLAGE	Complete
		Kumu		
		Quarrie		
	Nappi	Nappi	TITLED VILLAGE	Complete
		Hiowa		
		Parishara		
	Moco Moco		TITLED VILLAGE	Complete
North Rupununi	Yakarinta		TITLED VILLAGE	To be completed
	Massara	Massara	TITLED VILLAGE	To be completed
		Kwaimatta		
	Toka		TITLED VILLAGE	To be completed
	Aranaputa		COMMUNITY DEVELOPMENT COUNCIL	
	Annai	Annai (Central)	TITLED VILLAGE (District)	To be completed
		Wowetta		
		Rupetee		
		Kwatamang		
		Surama		
	Fairview		TITLED VILLAGE	
	Rewa		TITLED VILLAGE	To be completed
	Crashwater		TITLED VILLAGE	To be completed

	Apoteri	TITLED VILLAGE	To be completed
Karasabai (South Pakaraimas)	Karasabai	TITLED VILLAGE (District)	
	Taushida		
	Rukumuta		
	Rukumuta Pai Pang		
	Tiger Pond		
	Yurong Paru	TITLED VILLAGE	
Deep South	Aishalton	Aishalton Churikadarnau	TITLED VILLAGE
	Shea	TITLED VILLAGE	Complete
	Karadarnau	TITLED VILLAGE	
	Achiwib	Achiwib Bashaizon	TITLED VILLAGE
	Mururanau		Complete
	Awarewaunau	TITLED VILLAGE	
	Rupunau	TITLED VILLAGE	Complete
	Sand Creek	TITLED VILLAGE	Complete
	Katoonarib	UNTITLED	
	Sawariwau	TITLED VILLAGE	
	Parabara	UNTITLED	
	Konashen	TITLED VILLAGE	Complete (Protected Area)

Total	34	55
Completed	12	22
To be Completed	8	13
Remaining	14	20

**Annex 5:**

**Population by age group and average number of households, Region 1**

Population by Village and Age Group for Region 1 and Average Number of Households (Bureau of Statistics - Population & Housing Census - 2012 (Preliminary))																				
Population by Age Group																				
Village Names	Under 5	5 - 9	10 - 14	15 - 19	20 - 24	25 - 29	30 - 34	35 - 39	40 - 44	45 - 49	50 - 54	55 - 59	60 - 64	65 - 69	70 - 74	75 - 79	80 - 84	85+	Total Population	House-holds
Mora Passage - Punta Playa (Imbotero)	35	21	33	21	12	7	13	9	3	8	3	1	1	2	2	4	1	1	177	32
Morawhanna	32	37	29	15	17	19	7	9	7	8	11	0	3	4	1	3	1	0	203	37
Mabaruma Road (Barima End)	160	178	219	140	73	59	60	43	59	65	39	42	30	27	23	15	14	8	1254	229
Mabaruma, Kokorital Hill	59	68	98	63	40	30	30	25	27	31	22	17	16	16	12	6	6	3	569	104
Kobarina Hill, Barrabina Hill	133	140	165	97	62	52	53	50	34	26	37	24	21	9	17	10	3	2	935	171
Hosororo	81	84	134	79	46	37	39	33	37	32	32	18	22	9	11	16	7	6	723	132
Bumbury Hill, Tobago Hill, Yarakita Road	44	49	57	43	21	23	14	20	10	15	6	7	5	7	4	2	5	5	337	62
Wauna & Whitewater	153	185	220	153	98	54	54	58	58	33	48	22	19	24	13	13	2	7	1214	222
Yarakita Village	42	38	36	27	11	8	11	14	5	6	8	3	3	2	0	0	1	3	218	40
Amakura River	11	16	12	6	3	7	3	3	0	3	2	1	1	2	0	0	0	0	70	13
Yarakita to Korosaima Creek (White Creek Vill.)	4	6	2	8	3	1	2	2	1	0	2	1	1	2	0	0	0	0	35	6
Kumaka, Aruka River	61	68	73	65	32	24	25	32	20	26	26	15	11	6	5	3	3	2	497	91
Aruka River	21	26	22	13	7	9	5	8	8	3	4	2	2	2	3	3	0	4	142	26
Koriabo River, Kamwatta	74	89	101	66	34	21	27	24	19	30	24	18	11	13	5	1	2	6	565	103
Koriabo to Hanaida River	29	13	21	20	13	6	7	3	5	10	6	3	3	1	2	0	1	0	143	26
Hanaida to Aruau River	19	15	17	12	4	4	7	5	6	2	4	3	2	0	1	3	0	0	104	19
Aruau River	64	74	66	58	19	26	32	13	16	21	17	15	6	4	8	4	2	1	446	82
Aruau to Naboni River (Hotoqual)	42	49	61	42	23	16	15	16	15	22	10	7	7	9	6	4	2	0	346	63
Naboni to Source (Hobediah) Hobodia	60	56	54	26	18	9	16	19	15	10	10	4	3	9	5	1	1	0	316	58
Morawhanna to Aruka River	18	11	19	18	16	10	7	9	2	4	8	5	0	0	2	0	0	0	129	24
Aruka to Quiana Creek (Barima River)	18	22	20	14	10	4	3	3	3	4	4	2	3	1	0	0	0	0	111	20
Quiana Creek to Mahaina Creek (Barima River)	35	33	33	13	8	13	11	8	3	8	3	5	3	3	1	0	0	0	180	33
Mahaina Creek to Anaida River (Barima River)	19	24	20	13	8	7	7	8	6	3	1	2	2	1	2	1	0	0	124	23
Anaida River to Morabaka Creek	41	33	25	39	24	8	6	9	10	12	10	5	4	1	2	2	0	0	231	42
Morabaka Creek to Mt. Everard (Barima River)	73	90	69	32	26	30	23	22	9	6	8	4	13	8	3	3	1	1	421	77
Mt. Terminus, Mt. Everard (Barima River)	0	0	0	0	0	0	0	1	0	1	0	0	0	1	1	0	0	0	4	1
Mt. Everard to Koriabo (Barima River)	25	32	25	13	13	5	9	8	6	2	1	2	1	1	2	0	0	0	145	27
Koriabo River to Manari River (Barima River)	48	37	34	25	15	18	11	8	4	8	11	4	0	0	0	0	2	0	225	41
Manari River (Barima River)	5	4	6	3	1	1	1	0	1	3	1	0	0	1	0	1	0	2	30	5
Five Star Landing to Source	4	3	3	15	16	20	22	20	25	24	10	2	0	2	0	1	1	0	168	31
Matthews Ridge	55	57	60	48	26	24	20	29	18	23	18	12	7	5	3	2	1	1	409	75



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Pakera Village	18	16	13	12	10	5	6	4	5	5	5	8	0	2	0	3	1	2	115	21
Arakaka-Matthews Ridge Railway	20	5	14	40	66	54	67	34	53	28	20	10	5	5	0	1	0	1	423	77
Arakaka	28	19	21	11	19	30	28	13	6	11	4	0	3	1	2	0	0	0	196	36
Matthews Ridge - Kaituma Railway	221	191	201	183	96	84	89	78	85	64	36	29	30	11	12	12	5	6	1433	262
Port Kaituma	161	138	173	153	103	67	73	66	55	61	45	31	10	9	3	1	1	2	1152	211
Barima River to Kamuama River (Kaituma River)	20	15	16	11	4	9	1	6	6	7	1	3	2	3	1	1	0	0	106	19
Kamuama River to Tokonia River (Kaituma River)	21	11	23	21	14	9	11	10	6	6	5	2	3	3	3	1	0	0	149	27
Tokonia River to Surprise Hill (Paiwakuru Village)	18	17	23	11	8	2	7	8	4	4	3	1	0	0	1	0	0	59	166	30
Sebai Mission	77	81	67	51	28	18	21	12	16	21	8	9	8	3	3	1	0	1	425	78
Surprise Hill	1	2	0	3	1	0	2	0	2	1	0	0	0	0	0	0	0	0	12	2
Anabisi River	129	122	107	84	81	53	43	34	38	34	21	12	14	12	7	4	1	1	797	146
Holarina River to Mission Landing	2	6	4	4	2	2	1	2	0	1	1	1	1	0	1	0	0	0	28	5
Mission Landing to Source	35	29	17	15	10	4	10	8	4	10	2	0	1	1	4	0	0	3	153	28
Waini Point to Baramanni River (Waini River)	45	47	48	27	20	11	11	9	15	12	8	4	2	1	0	0	0	2	262	48
Baramanni River	53	44	37	42	20	17	5	13	14	7	11	4	4	2	1	5	1	0	280	51
Baramanni River to Santa Cruz (Waini River)	77	76	72	65	38	26	28	30	25	20	10	8	8	8	3	2	3	0	499	91
Santa Cruz - Kumanaballi Creek	48	60	40	33	19	15	20	16	11	14	14	3	5	2	3	1	0	0	304	56
Waini Mouth to Moruka River	15	19	13	13	4	6	5	4	3	3	4	6	3	1	1	1	0	0	101	18
Moruka River to Waramuri Mission	2	9	6	6	3	4	4	1	1	4	2	5	1	0	0	1	0	1	50	9
St. Nicholas Mission , Manawarin River	91	121	126	66	43	33	35	31	21	22	12	17	7	5	4	0	0	1	635	116
Marmorakabra River	120	137	159	100	76	46	47	45	30	26	25	25	13	16	8	9	7	1	890	163
Waramuri Mission	77	87	120	86	68	44	48	45	20	24	25	29	16	11	6	4	3	4	717	131
Waramuri Mission to Akwero & Santa Rosa	66	66	89	56	37	25	22	24	22	20	9	15	13	6	7	7	2	1	487	89
Santa Rosa Mission	57	50	53	52	38	29	29	18	10	22	21	11	16	7	4	6	2	1	426	78
Akwero	156	159	173	165	99	60	62	53	59	44	27	29	17	24	9	20	9	9	1174	215
Kumaka	69	71	81	64	57	41	27	27	25	23	19	17	10	8	6	8	1	2	556	102
Kumaka, Kwabanna Road	196	208	220	143	96	74	60	60	43	37	35	31	23	17	12	10	4	1	1270	232
Kwebanna	98	115	100	77	51	41	31	20	31	35	15	17	8	6	7	2	4	0	658	120
Santa Rose & Kumaka to Source	163	157	169	142	110	66	67	58	55	44	33	26	21	29	12	8	7	2	1169	214
St. Bedes	39	33	40	14	16	7	15	6	6	4	4	3	2	2	0	2	0	0	193	35
St. Bedes to Kokerite (Chinese Landing)	12	17	16	12	9	4	4	8	3	7	2	5	0	0	0	0	0	0	99	18
Kokerite	56	63	71	56	28	22	21	22	24	12	18	9	7	12	4	6	1	16	448	82
Kokerite to Karakau	21	20	17	10	13	3	5	6	3	10	2	2	0	1	0	0	0	0	113	21
Karakau	89	78	60	47	39	22	23	23	23	22	22	12	8	5	1	3	0	2	479	88
Karakau to Mazawini	3	3	3	2	5	2	3	4	1	4	4	2	0	0	0	0	0	0	36	7
Mazawini Landing to Source Barimita, Old World	76	80	58	74	47	44	44	37	29	33	26	14	2	5	0	1	0	0	570	104
<b>Grand Total</b>	<b>3,845</b>	<b>3,930</b>	<b>4,184</b>	<b>3,138</b>	<b>2,077</b>	<b>1,531</b>	<b>1,515</b>	<b>1,346</b>	<b>1,186</b>	<b>1,151</b>	<b>885</b>	<b>646</b>	<b>463</b>	<b>390</b>	<b>259</b>	<b>218</b>	<b>108</b>	<b>170</b>	<b>27,042</b>	<b>4,944</b>

Source: Bureau of Statistics. 2012 Census (preliminary results).

**Annex 6:**

**Population Region 9**

Population by Village and Age Group for Region 9 and Average Number of Households (Bureau of Statistics - Population & Housing Census - 2012 (Preliminary))																					
Village Names	Population by Age Group																			Total Population	Total Households
	Under 5	5 - 9	10 - 14	15 - 19	20 - 24	25 - 29	30 - 34	35 - 39	40 - 44	45 - 49	50 - 54	55 - 59	60 - 64	65 - 69	70 - 74	75 - 79	80 - 84	85+			
Yarong Paru	50	42	44	31	23	15	14	16	9	11	8	8	9	7	1	0	1	0	289	59	
Tipuru, Rukumuta	71	56	62	47	21	22	14	22	24	18	12	17	13	11	6	2	1	1	420	86	
Karasabai, Cracrana	143	154	155	107	80	67	52	62	36	41	34	26	20	19	13	10	3	2	1024	209	
Tiger Pond	35	34	47	33	33	22	16	11	13	17	10	10	3	8	4	0	1	0	297	60	
Pipang (Taipong )	9	21	23	14	5	6	7	7	5	4	4	2	2	2	1	2	0	0	114	23	
Toka	33	34	35	31	23	17	12	11	8	14	7	1	4	3	6	1	1	0	241	49	
Yakarinta	64	74	69	40	23	19	24	17	18	19	8	21	19	11	6	4	1	1	438	89	
Massara	49	72	56	40	33	26	28	16	7	14	12	6	10	10	6	1	0	2	388	79	
Aranaputa	41	57	49	35	22	18	27	17	15	15	19	12	5	7	6	2	2	4	353	72	
Annai	66	62	68	58	39	28	28	20	19	11	26	18	15	6	4	8	3	2	481	98	
Ruperttee	47	57	41	36	21	18	23	9	9	12	11	8	11	2	3	1	3	1	313	64	
Kwatamang	78	78	57	46	33	29	31	14	15	10	13	13	5	5	2	3	0	1	433	88	
Crashwater	40	35	29	25	12	14	7	10	5	8	5	10	4	2	1	0	0	1	208	42	
Wowetto	43	56	56	37	23	16	19	24	12	7	15	8	6	4	0	3	2	1	332	68	
Surama	41	44	48	24	13	22	15	21	10	8	9	5	6	1	3	3	1	0	274	56	
Kwaimatta	27	28	22	16	12	7	6	6	8	2	0	2	4	2	1	2	0	0	145	30	
Karanambo	4	1	2	2	4	0	0	1	1	0	0	1	1	0	0	1	1	0	19	4	
Simoni, Katoka, Capybara	154	155	130	76	58	43	48	39	38	28	13	16	15	8	3	2	5	2	833	170	
Morerio, Touthido	47	48	42	17	14	14	12	12	16	7	6	2	8	5	2	1	0	1	254	52	
Good Hope, Velami	3	2	1	0	1	0	4	3	1	0	1	0	1	1	0	0	0	0	18	4	
Piarara, Methizere	1	0	0	4	10	2	4	2	3	2	3	0	0	1	0	0	0	0	32	7	
Marakinatha	6	5	7	6	3	4	3	1	3	2	1	3	1	0	0	0	0	0	45	9	
Yupukari	90	76	71	63	41	33	24	18	14	22	11	13	9	4	1	1	2	0	493	100	
Kwatata, Kicumbay	110	84	85	59	52	28	25	25	36	11	15	3	9	10	3	0	2	3	560	114	
Parishara	58	72	70	50	41	17	21	22	15	15	14	8	6	5	3	1	2	1	421	86	
Nappi	120	113	104	69	41	43	41	30	18	27	15	13	11	10	9	6	2	5	677	138	
Hiawa	78	66	58	34	24	16	20	19	12	10	8	5	4	3	2	1	2	1	363	74	
Manari	5	2	0	3	6	1	2	1	1	3	0	1	1	0	1	0	0	0	27	5	
Tabatinga	157	108	106	69	65	82	65	44	40	32	27	17	12	14	6	3	1	0	848	173	
Lethem	210	184	201	170	165	156	128	95	73	78	65	64	48	30	10	9	6	10	1702	347	
Culver City	38	27	20	26	35	18	25	13	6	6	9	10	9	5	3	3	4	0	257	52	
St. Ignatius	155	159	187	159	115	90	83	68	57	44	38	39	36	19	15	8	0	4	1276	260	
Kumu	47	44	47	42	24	20	13	16	15	16	11	9	6	2	4	0	3	0	319	65	
Moco Moco	65	63	75	44	39	18	26	25	12	23	10	7	13	9	2	7	2	0	440	90	



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Appendix 2: Poverty, targeting and gender

Paraquarinau	32	22	15	18	12	15	6	5	6	3	9	6	5	1	0	0	1	0	156	32
Quarry	37	36	32	28	22	16	22	9	10	8	2	7	6	6	0	1	0	1	243	49
Potarinau	89	97	90	71	38	32	31	31	23	20	18	18	15	9	8	5	4	4	603	123
Katuur	23	27	22	16	5	5	5	8	8	9	5	6	4	2	3	5	1	0	154	31
Baitoon	40	26	31	24	28	17	16	11	11	12	6	6	7	2	4	5	1	2	249	51
Shiriri	6	9	7	11	3	5	5	1	4	3	2	6	6	1	0	1	1	0	71	14
Sourab,Quiko	14	22	17	11	2	7	7	3	3	4	9	3	3	2	1	0	1	0	109	22
Shulinab,Meriwau,	121	115	105	76	67	46	41	23	42	28	21	15	14	21	10	5	6	8	764	156
Sand Creek (Santa Cruz)	47	51	48	27	12	10	12	10	9	11	9	12	7	8	8	1	0	2	284	58
Sand Creek (Kumarau)	57	52	45	27	18	19	14	13	15	19	9	10	9	6	7	4	1	1	326	66
Rupunau	44	42	52	21	13	7	15	10	14	9	12	6	6	7	6	2	3	3	272	55
Bashaidrun, Bashizo	27	16	15	5	6	8	6	5	3	3	2	3	1	2	3	0	1	1	107	22
Wichibai	0	0	0	1	0	0	0	0	0	0	0	1	0	1	0	0	0	0	3	1
Dadanawa, Catunarib	61	68	59	37	32	17	25	18	13	10	17	7	6	8	5	3	2	3	391	80
Wariwau	0	0	0	1	0	1	0	0	0	0	0	2	0	0	0	1	0	0	5	1
Sawariwau	74	73	76	35	12	15	20	22	24	18	18	23	9	12	4	7	0	2	444	90
Shea	62	63	66	18	11	13	15	18	15	10	19	13	15	8	15	6	2	3	372	76
Mauruwarunau	101	123	108	59	44	28	35	28	27	34	27	20	29	18	18	10	4	5	718	146
Awaruwanau	83	102	89	63	36	17	18	19	29	39	13	14	15	13	14	5	3	3	575	117
Aishalton	138	175	165	105	63	54	64	44	45	41	40	34	28	28	20	8	11	6	1069	218
Karaudanau, Lumidpau	150	150	144	84	45	51	43	35	35	38	38	28	27	9	13	5	10	4	909	185
Achiwib	99	82	93	63	38	21	21	27	39	28	19	10	12	11	8	10	5	0	586	119
Parabara, Kuyuwini	24	22	21	21	10	9	7	9	8	8	7	1	3	2	2	0	0	0	154	31
Konashen-Masakenari	34	31	28	22	17	12	10	7	10	6	8	6	3	3	2	0	2	0	201	41
Marudi	0	0	0	7	10	3	4	6	2	9	3	5	1	1	2	0	0	0	53	11
Rewa	51	43	19	20	20	16	14	15	12	8	1	4	7	5	1	0	1	0	237	48
Apoteri	42	51	40	27	18	15	12	11	9	12	9	11	6	3	3	0	2	0	271	55
Grand Total	3,641	3,611	3,454	2,411	1,736	1,390	1,335	1,105	990	927	763	655	570	415	284	169	113	91	23,660	4,819

Source: Bureau of Statistics. 2012 Census (preliminary results).



### Annex 7:

#### Women's participation in village leadership positions, region 9

Region	Sub District	Villages	Designation	Names	Sex	Population
9	South Central	Katoka	Toshao	Desmond Michael	M	800
9		Semonie	Senior Councillor	Samuel Jacobs	M	296
9		Yupukari	Toshao	Russian Dorrick	M	850
9		Fly Hill	Senior Councillor	Euriel Charles	M	200
9		Quatata	Senior Councillor	Joseph Dorrick	M	275
9		Kaicumbay	Senior Councillor	Macitosh Dorrick	M	200
9		Shulinab	Toshao	Nicholas Fredericks	M	451
9		Quiko	Senior Councillor	Dereck Adolph	M	276
9		Meriwau	Senior Councillor	Dominic Charlie	M	234
9		Potarinau	Toshao	Paulinaus Albert	M	623
9		Katuur	Senior Councillor	Liston Joseph	M	172
9		Shriri	Senior Councillor	Christopher Duncan	M	82
9		Baitoon	Senior Councillor	Pugsley Kintino	M	280
9		Parikwarwaunau	Toshao	Cyril Anthony	M	211
9		St. Ignatius	Toshao	Yusa Xavier	F	1,008
9		Kumu	Senior Councillor	Emeric Francis	M	380
9		Quarrie	Senior Councillor	Levi Marare	M	196
9		Nappi	Toshao	Walter Henrico	M	654
9		Hiowa	Senior Councillor	Ian David	M	275
9		Parishara	Senior Councillor	Edward Buckley	M	466
9		Moco Moco	Toshao	James George	M	457
9	North Rupununi	Yakarinta	Toshao	Wilson Benjamin	M	574
9		Massara	Toshao	Lenny Moses	M	440
9		Kwaimatta	Senior Councillor	Merinda Stephen	F	143
9		Toka	Toshao	Delano Davis	M	207
9		Aranaputa	CDC Chairman	Adon Jacobus	M	563
9		Annai	Toshao	Mark George	M	
9		Annai	Senior Councillor	Zalita Moses	F	456
9		Wowetta	Senior Councillor	Marcus Moses	M	319
9		Rupetee	Senior Councillor	Ricky Allicock	M	343
9		Kwatamang	Senior Councillor	Lakeram Haynes	M	408
9		Surama	Senior Councillor	Anthony Andries	M	292
9		Fairview	Toshao	Lucy Marslowe	F	
9		Rewa	Toshao	Garner Edwards	M	271
9		Crashwater	Toshao	Silas Thomas	M	226
9		Apoteri	Toshao	Nigel John	M	283
9	Karasabai	Karasabai	Toshao	Elvis Edwards	M	1,151
9		Taushida	Toshao	Paul Isaacs	M	260
9		Rukumuta	Toshao	Vanicia Edwin	F	260

9		Pai Pang	Senior Councillor	Kendell Francis	M	182
9		Tiger Pond	Toshao	Simone Davis	F	354
9		Yurong Paru	Toshao	Rovain Francis	M	340
9	Deep South	Aishalton	Toshao	Douglas Casimero	M	1,018
9		Churikadarnau	Senior Councillor	Clive Croft	M	91
9		Shea	Toshao	John Augustus	M	370
9		Karaudarnau	Toshao	Ernest Thompson	M	1,053
9		Achiwib	Toshao	Leonard Johnson	M	617
9		Bashaizon	Senior Councillor	Raymauld Mandook	M	112
9		Mururanau	Toshao	Patrick Gomes	M	830
9		Awarewaunau	Toshao	Genevieve Thomas	F	540
9		Rupunau	Toshao	Laurintino Herman	M	308
9		Sand Creek	Toshao	Dereck David	M	834
9		Katoonarib	Toshao	Marcus Alexander	M	402
9		Sawariwau	Toshao	Gregory Thomas	M	623
9		Parabara	Toshao	Ekufa Mewasha	M	131
9		Konashen	Toshao	Paul Chekema	M	224

# Annex 8:

## Female headed households region 1 and 9 (Bureau of Statistics. Census, 2012. Preliminary report)

Bureau of Statistics Population & Housing Census - 2012 (Preliminary) Number of Female Headed Households for Region 1																
Village Names	Number of Households Headed by Females															
	15 - 19	20 - 24	25 - 29	30 - 34	35 - 39	40 - 44	45 - 49	50 - 54	55 - 59	60 - 64	65 - 69	70 - 74	75 - 79	80 - 84	85+	Total
Mora Passage - Punta Playa (Imbotero)	0	0	2	1	0	0	2	0	0	0	1	0	0	0	0	6
Morawhanna	0	1	1	0	0	0	0	2	0	0	0	1	1	0	0	6
Mabaruma Road (Barima End)	0	0	2	4	3	2	4	2	5	7	8	4	6	5	2	54
Mabaruma, Kokorital Hill	0	2	2	2	3	4	5	3	2	2	0	5	2	4	1	37
Kobarina Hill, Barrabina Hill	0	2	3	3	3	3	4	5	2	2	0	3	2	1	1	34
Hosororo	0	0	1	1	3	5	7	1	1	4	0	1	4	1	1	30
Bumburg Hill, Tobago Hill, Yarakita Road	1	1	2	1	3	1	1	0	0	2	0	0	0	0	2	14
Wauna & Whitewater	0	2	1	2	1	6	2	7	3	3	1	3	2	0	1	34
Yarakita Village	0	0	0	0	0	2	0	1	0	1	0	0	0	0	0	4
Yarakita to Korosaima Creek (White Creek Vill.)	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1
Kumaka, Aruka River	1	0	3	1	0	4	1	5	2	0	1	0	3	0	0	21
Koriabo River, Kamwatta	1	0	0	0	0	0	0	1	3	0	3	0	1	0	1	10
Koriabo to Hanaida River	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1
Hanaida to Aruau River	0	0	0	1	2	0	0	0	0	0	0	0	0	0	0	3
Aruau River	0	0	0	0	1	0	0	2	0	0	0	2	0	0	0	5
Aruau to Naboni River (Hotoquai)	0	0	1	0	0	1	1	0	1	0	1	0	0	0	0	5
Naboni to Source (Hobediah) Hobodia	0	0	0	1	0	0	0	0	0	1	0	0	0	0	0	2
Morawhanna to Aruka River	1	0	0	0	0	0	0	1	1	0	0	0	0	0	0	3
Aruka to Quiana Creek (Barima River)	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0	3
Mahaina Creek to Anaida River (Barima River)	0	0	0	1	0	0	0	0	0	0	0	1	0	0	0	2
Anaida River to Morabaka Creek	0	0	0	1	0	0	1	0	1	0	0	0	0	0	0	3
Morabaka Creek to Mt. Everard (Barima River)	0	0	0	3	2	0	0	2	0	2	0	1	0	0	1	11
Koriabo River to Manari River (Barima River)	0	0	0	1	0	0	0	1	0	0	0	0	0	1	0	3
Five Star Landing to Source	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1
Matthews Ridge	0	0	2	1	4	2	2	5	2	2	1	3	1	1	0	26
Pakera Village	0	2	0	1	1	0	0	1	0	0	0	0	1	0	0	6
Arakaka-Matthews Ridge Railway	0	1	1	0	2	1	1	1	0	0	0	0	0	0	0	7
Arakaka	0	0	3	5	1	1	2	1	0	0	0	0	0	0	0	13
Matthews Ridge - Kaituma Railway	3	3	8	8	7	8	3	4	4	3	0	3	1	0	0	55
Port Kaituma	0	8	2	9	7	8	16	9	4	0	1	1	1	0	0	66
Kamuama River to Tokonia River (Kaituma River)	0	1	0	0	1	1	0	1	0	1	0	1	0	0	0	6
Tokonia River to Surprise Hill (Paikakuru Village)	0	0	0	0	1	1	1	0	0	0	0	0	0	0	1	4
Sebai Mission	0	0	0	2	0	0	1	0	0	1	0	1	0	0	0	5
Anabisi River	0	3	2	2	2	3	1	0	1	2	2	1	1	0	0	20
Holarina River to Mission Landing	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1
Waini Point to Baramanni River (Waini River)	0	1	0	0	0	1	0	2	0	0	1	0	0	0	0	5
Baramanni River	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1
Baramanni River to Santa Cruz (Waini River)	0	0	1	0	1	1	0	0	3	0	1	0	0	0	0	7
Santa Cruz - Kumanaballi Creek	0	0	0	2	0	1	1	0	0	1	1	0	1	0	0	7
Waini Mouth to Moruka River	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
Moruka River to Waramuri Mission	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
St. Nicholas Mission, Manawarin River	0	1	0	1	0	0	0	0	0	0	0	1	0	0	0	3
Marmorakaba River	0	1	0	1	1	2	0	1	3	2	1	2	0	0	0	14
Waramuri Mission	0	1	1	1	3	0	2	2	4	0	1	1	1	1	0	18
Waramuri Mission to Akwero & Santa Rosa	1	0	1	0	0	0	3	1	2	2	0	1	0	0	1	12
Santa Rosa Mission	0	1	1	2	1	0	2	4	3	1	2	2	1	0	0	20
Akwero	0	2	0	2	2	2	2	3	4	4	1	1	4	4	1	32
Kumaka	2	2	0	1	4	0	3	1	2	4	0	2	5	0	0	26
Kumaka, Kwabanna Road	0	2	1	0	3	1	3	1	1	0	1	0	1	0	0	14
Kwebanna	0	0	3	1	0	3	2	1	0	2	1	2	0	1	0	16
Santa Rose & Kumaka to Source	1	0	0	0	0	1	2	0	1	4	3	2	1	1	0	16
St. Bedes	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1
St. Bedes to Kokerite (Chinese Landing)	1	0	1	0	1	0	0	1	1	0	0	0	0	0	0	5
Kokerite	0	0	2	1	1	1	0	2	0	2	0	2	0	0	0	13
Kokerite to Karakau	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	2
Karakau	0	1	0	0	0	2	0	0	0	0	0	0	0	0	0	3
Mazawini Landing to Source Barimita, Old World	1	2	3	5	2	3	3	5	0	0	0	0	0	0	0	24
<b>Grand Total</b>	<b>13</b>	<b>40</b>	<b>50</b>	<b>70</b>	<b>67</b>	<b>73</b>	<b>79</b>	<b>82</b>	<b>58</b>	<b>53</b>	<b>37</b>	<b>45</b>	<b>42</b>	<b>20</b>	<b>14</b>	<b>743</b>

Bureau of Statistics Population & Housing Census - 2012 (Preliminary) Number of Female Headed Households for Region 9																	
Village Names	Number of Households Headed by Females																
	15 - 19	20 - 24	25 - 29	30 - 34	35 - 39	40 - 44	45 - 49	50 - 54	55 - 59	60 - 64	65 - 69	70 - 74	75 - 79	80 - 84	85+	Total	
Yarong Paru	0	0	1	1	0	0	0	1	0	0	0	0	0	0	0	0	3
Tipuru, Rukumuta	0	0	0	1	0	0	0	0	0	0	0	1	2	0	0	0	4
Karasabai, Cracana	1	2	1	5	4	1	0	5	3	0	2	8	1	0	0	0	33
Tiger Pond	0	0	0	4	0	0	2	1	0	1	3	1	0	0	0	0	12
Pipang (Taipong)	0	0	1	0	0	0	0	0	0	0	1	0	1	0	0	0	3
Toka	0	0	0	0	0	1	1	2	0	0	0	1	1	0	0	0	6
Yakarinta	0	0	0	1	0	0	0	0	0	1	2	0	1	0	0	0	5
Massara	0	1	1	0	0	0	0	0	0	3	1	0	0	0	0	2	8
Aranaputa	0	1	1	0	1	1	1	0	0	1	2	0	0	0	0	1	9
Annai	1	3	2	1	1	0	0	2	2	0	1	0	3	0	1	17	
Rupertee	0	1	1	2	0	2	0	0	0	1	1	1	0	0	0	0	9
Kwatamang	1	2	1	1	0	0	1	1	2	1	1	0	3	0	1	15	
Crashwater	0	0	1	0	0	0	0	0	0	1	0	0	0	0	0	0	2
Wowetto	0	0	0	0	2	1	0	1	0	2	1	0	0	0	0	0	7
Surama	0	0	1	0	1	0	0	2	0	0	0	0	1	0	0	0	5
Kwaimatta	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
Karanambo	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
Simoni, Katoka, Capybara	0	2	0	1	0	0	1	0	1	0	1	0	0	3	1	10	
Moreiro, Touthido	0	0	0	0	1	0	0	0	0	1	1	0	0	0	0	0	3
Marakinatha	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
Yupukari	0	0	1	2	0	1	0	0	1	0	1	0	0	0	0	0	6
Kwatata, Kicumbay	0	0	0	1	0	0	0	0	0	0	1	0	0	0	0	0	2
Parishara	0	2	1	0	0	0	0	0	0	1	1	0	0	0	0	0	5
Nappi	0	1	0	0	0	0	2	1	0	1	0	1	1	0	1	8	
Hiawa	0	0	0	0	0	0	1	1	2	0	0	0	1	1	1	7	
Manari	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
Tabatinga	1	4	4	10	3	4	3	3	2	1	3	1	0	0	0	0	39
Lethem	5	12	16	15	13	9	13	18	11	11	8	1	1	2	1	136	
Culver City	1	3	0	3	0	1	0	0	3	3	0	1	0	0	0	0	15
St. Ignatius	3	7	1	7	11	6	4	6	5	5	4	4	0	0	1	64	
Kumu	0	0	0	0	0	1	1	1	0	0	0	1	0	0	0	0	4
Moco Moco	1	1	1	1	0	0	3	1	1	0	2	1	0	1	0	13	
Paraquarinai	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Quarry	0	0	0	1	0	2	0	0	0	0	3	0	0	0	0	0	6
Potarinau	0	0	1	0	1	0	0	1	0	0	0	0	0	0	0	0	3
Katuru	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	2
Baitoon	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	2
Sourab, Quiko	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1
Shulinab, Meriwau	0	3	2	1	4	0	3	2	0	1	4	1	1	1	0	23	
Sand Creek (Santa Cruz)	0	1	0	1	2	0	2	1	0	1	2	0	0	0	0	1	11
Sand Creek (Kumarau)	1	1	2	0	2	2	2	2	1	1	3	1	2	0	0	20	
Rupunau	0	0	0	1	0	0	0	0	0	0	2	0	0	1	0	4	
Bashaidrun, Bashizo	0	0	0	0	1	0	0	0	0	0	0	1	0	0	0	0	2
Dadanawa, Catunarib	0	1	0	2	0	0	0	1	0	1	1	1	1	0	0	8	
Sawariwau	1	1	0	2	0	0	0	0	2	1	3	0	0	0	0	10	
Shea	2	1	0	1	1	0	1	0	1	0	1	3	0	0	2	13	
Mauruwarunau	1	6	2	3	0	1	0	3	0	2	0	3	1	0	0	22	
Awaruwanau	0	1	1	2	0	0	2	0	2	2	0	3	1	1	0	15	
Aishalton	1	1	5	4	3	3	3	2	5	3	5	4	3	2	0	44	
Karaudanau, Lumidpau	0	0	1	1	1	1	2	0	1	1	0	2	2	1	1	14	
Achiwib	0	0	2	0	0	0	0	0	0	2	0	3	1	2	0	10	
Parabara, Kuyuwini	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	2	
Konashen-Masakenari	0	1	0	0	0	1	0	1	0	0	1	0	0	0	0	4	
Marudi	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	2	
Rewa	0	3	0	1	2	1	0	1	0	0	0	0	0	0	0	8	
Apoteri	0	0	1	1	1	0	0	0	0	0	1	0	0	0	0	4	
Grand Total	21	63	53	80	57	41	48	61	46	49	63	45	28	16	14	685	

**Annex 9:**  
**IFAD'S targeting policy - Design checklist**

Questions Design Issues	Recommendations
<b>1)</b> Does the <b>main target group</b> - those expected to benefit most- correspond to IFAD's target group as defined by the Targeting Policy (the extremely poor and food insecure)	Yes. The target group comprises of poor and extremely poor rural and indigenous households in region 1 and 9.
<b>2)</b> Have <b>target sub-groups</b> been identified and described according to their different socio-economic characteristics, assets and livelihoods - with due attention to gender differences	Yes. Both youth and female headed households have been identified as specific target group.
<b>3)</b> Is evidence provided of <b>interest in and likely uptake of the proposed activities</b> by the identified target sub-groups (self-targeting)?	Yes. Project design took into consideration existing amongst others Village Resource Development Plans (VRDPs) that were completed for communities in Region 9 in which the target population expresses constraints that need to be addressed to enhance their livelihoods as well as their interests. Also, the SOFA Rupununi study which is rich in presenting results of focus groups with members of the (sub)target groups was a key input to project design.
<b>4)</b> Does the design document describe a feasible and operational <b>targeting strategy</b> in line with the Targeting Policy? The targeting strategy will involve either all or some of the following measures and methods	The targeting strategy starts with geographic targeting; describes targeting criteria; includes in design affirmative actions for gender equality and specific activities oriented towards youth and indigenous leaders (male/female); and describes direct targeting as a feature that is key to the functioning of the Investment Fund (eligibility criteria).
<b>4.1) Geographic targeting</b> – based on poverty data or proxy indicators to identify, for area-based projects or programmes, geographic areas (and within these, communities) with high concentrations of poor people	On the basis of data on poverty and concentration of rural poor, regions 1 and 9 were identified (paragraph 58, Appendix 2). Within these regions there are aprox. 128 indigenous villages/communities all poor (of these approx. 80 will receive project benefits).
<b>4.2) Enabling measures</b> – These include measures to strengthen stakeholders' and partners' attitude and commitment to poverty targeting, gender equality and women's empowerment, including policy dialogue, awareness-raising and capacity-building, and appropriate project/programme management arrangements (references in ToR, PCU composition); language in describing staff positions (s/he; masculine/feminine).	Specific affirmative actions, activities and investments oriented towards young males and females, local leaders (especially women), and proactive measures designed to build the capacity of these groups have been included in project design. Paragraph 107 of Appendix 2, describes ten general project gender equality considerations. Activities have been included in the budget.
<b>4.3) Empowerment and capacity-building measures</b> including information and communication, focused capacity- and confidence-building measures, organisational support, in order to empower and encourage the more active participation and inclusion in planning and decision making of people who traditionally have less voice and power	Project design has ensured that marginalized groups can take advantage of Project development activities and have access to its services; as such it refers to the empowering and participation of indigenous peoples, youth, and women. See paragraph 113, 114 and 115 in Appendix 2. Activities have been included in the budget.
<b>4.5) Attention to procedural measures</b> that could militate against participation by the intended target groups (such as, excessive beneficiary contributions; cumbersome legal requirements, etc	Beneficiary contribution will be in kind to facilitate access to project services of more vulnerable groups. Opening a bank account for villages/communities or hh/groups to participate in the Investment fund is a legal requirement and said to be cumbersome. Fortunately, through the experience of the Ministry of Indigenous People's Affairs "Amerindian Development Fund" almost 100% of villages/communities have gone through this process and now have a bank account. Project design also draws upon CI experience in delivering services to the target group and

	has taken lessons learned into account.
<b>5) Monitoring targeting performance.</b> Does the design document specify that targeting performance will be monitored using participatory M&E, and also be assessed at Mid-term review	Yes. Paragraph 106 of Appendix 2 refers to this: Monitoring of targeting performance is essential and all people-related indicators would be disaggregated so that the PMU can monitor differential participation and impact by ethnicity, sex and age group.



**Annex 10:**  
**Features of gender sensitive design**

Questions Design Issues	Recommendations
1. The project design document contains – and project implementation is based on – gender-disaggregated poverty data and analysis of gender differences in the activities or sectors concerned	Project design takes into consideration gender disaggregated data where available (poverty data disaggregated by sex are not readily available). Design makes mention of female headed households. Targeting includes gender considerations and specifies targets by sex and by age group.
2. The project design report articulates – or the project implements actions with aim to: <ul style="list-style-type: none"> <li>• Expand women’s economic empowerment through access to and control over fundamental assets ;</li> <li>• Strengthen women’s decision making role in community affairs and representation in local institutions; and</li> <li>• Improve women’s knowledge and well-being and ease their workloads by facilitating their access to basic rural services and infrastructure.</li> </ul>	In the analysis of the present situation the design document (PDR and Appendix 2) include information about the role of women, distribution of work, their participation (and constraints) in development activities and access to support services. In the PDR and Appendix 2 a proposal is presented with overall activities for project implementation to ensure access to projects services (includes access to investment fund) by women (gender in ToR, translation, adequate training methods and materials, etc) and specific affirmative actions: vocational and skills training, life skills training, leadership training (to increase their participation in decision making bodies), and practices and technologies to reduce workload.
3. <i>The design document describes - and the project/programme implements - <b>operational measures</b> to ensure gender- equitable participation in, and benefit from, project activities. These will generally include:</i> <p>3.1 Allocating adequate resources to implement the gender strategy;</p> <p>3.2 Ensuring and supporting women’s active participation in project related decision-making bodies and committees;</p> <p>3.3 Ensuring that project/programme management arrangements (composition of the project management unit/programme coordination unit, project terms of reference,) reflect attention to gender equality and women’s empowerment concerns; and</p> <p>3.4 Ensuring direct project/programme outreach to women (for example through appropriate numbers and qualification of field staff), especially where women’s mobility is limited.</p>	Life skills training (includes gender equity sensitization), leadership training and practices and technologies to reduce workload have been included in the project budget. The Project will have a Social inclusion and Gender Equality Specialist (draft ToRs in Annex 11). Also, funds have been allocated for participation in a regional or international exchange visit or a learning route on social inclusion and/or gender equality (IFAD-supported project or other) for Project staff, MOA and MOIPA project related staff and male and female representatives of beneficiaries. Paragraph 107 of Appendix 2, describes overall project gender equality considerations, eg.: include knowledge of gender equality and indigenous peoples in the Terms of Reference of all project staff and contracts/MOUs with service providers; participation of male and female beneficiaries’ representative from beneficiaries in National Steering Committee and Regional Management Committees; hiring of field staff who speak the local languages (or provide translation where required); gender specific eligibility criteria for the selection of investment plans; training will be carried out as much as possible in the villages and communities as this facilitates access of women.
4. The project’s logical framework and monitoring and evaluation (M&E) system specify in design – and project M&E units collect – gender disaggregated performance and impact data.	Monitoring (registration, collection, analysis and reporting) and evaluation will use disaggregated data by sex, age group and ethnicity. The Logframe includes targets specifically for female-headed households.

**Annex 11:**  
**Terms of Reference**  
**Social Inclusion and Gender Equality Specialist**

**A. Objective**

The Specialist is to be responsible for the effective and timely implementation of the HINTERLAND PROJECT's social inclusion and gender equality strategy in Regions 9 and 1.

**B. Characteristics of the Appointment**

**Type of Appointment:** Individual

**Duration:** 1 year, renewable on the basis of performance.

**Place of Work:** Hinterland Environmentally Sustainable Agriculture Development Project Office, Lethem, Region 9, Guyana.

**Reporting:** The Specialist will report to the Project Manager, and will work closely with both Regional Project Coordinators, other PMU staff, and service providers.

**C. Qualifications:**

The **Specialist** should have:

- 1) University Degree, preferably in social studies;
- 2) At least ten years of experience in international rural development projects;
- 3) At least 5 years of experience with gender mainstreaming in rural development projects (experience with working in hinterland regions is preferable);
- 4) At least 3 years of experience in working with indigenous villages or communities;
- 5) Experience with the development of training materials, planning and implementation of training programmes;
- 6) Experience with writing of technical and progress reports;
- 7) Demonstrated evidence of being an excellent communicator;
- 8) Sensitivity to gender equality and ethnic issues;
- 9) Rural area grass roots experience.

**D. Position Responsibilities**

The **Specialist** will:

- Provide technical support in order to strengthen the PMU staff's, project partners' and service providers' understanding of gender equality, youth participation and how to work in the cultural context of the different indigenous tribes.
- Provide staff, partners and service providers with tools to mainstream gender equality and social inclusion in their work and field activities.
- Provide support to service providers in charge of facilitating the mapping and investment planning process with village and community members and producers groups. Specifically, ensuring that women and men, as well as male and female youth can participate fully in this process.
- Provide support to service providers in charge of coaching business plan implementation, specifically ensuring gender equality as part of the strengthening of producers groups and that women and men, as well as male and female youth can participate fully in business coaching and the foreseen benefits from business development.

- Assist the two Regional Project Coordinators in their responsibility for the mainstreaming of social inclusion and gender equity in project implementation and ensuring that the target group is reached as foreseen and defined in the project design documents and Logframe.
- The Specialist will assist with:
  - a) Coordination and successful implementation (through service providers and/or strategic alliances) of the following programmes:
    - Vocational and Technical Skills Training.
    - Life skills Training.
    - Leadership training.
  - b) Subscribing and monitoring of the implementation of MOUs with specialized organizations to address social problems in regions 1 and 9 as they are key for the Project to successfully reach its expected outcomes and objectives.
  - c) Supervision and orientation of service providers to ensure that social inclusion and gender equality is mainstreamed in their activities and reporting.
  - d) Assist representatives from beneficiaries (male, female and youth representative) in the National Steering Committee and Regional Management Committees in understanding their role (rights and responsibilities) and assist them in overcoming obstacles to participate fully in these bodies.
  - e) Support service providers in developing adequate and understandable for specific audiences (indigenous peoples, women, and youth) awareness raising and training methods and materials in different topics: nutrition, participatory mapping, investment planning, natural resource management, climate change adaptation, organization of producers groups, business coaching, amongst others.
  - f) Work with the M&E Specialist and Field Facilitators to ensure that monitoring and evaluation will use disaggregated data (sex, age, ethnicity-tribes), and analysis and reporting include sections on gender equity and outreach to the target group.
  - g) Support the PMU in developing gender specific criteria for the selection of investment plans.
  - h) Support the PMU in the fine tuning of the Project Implementation Manual in that gender equity and youth participation is reflected in the relevant sections.

#### **E. Compensation Package**

The contract will be for one year duration but is subject to annual renewal. The compensation package is negotiable but cannot exceed specific scales currently in place for projects funded by IFAD.

## **Annex 12:**

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## Appendix 3: Country performance and lessons learned

### 1) IFAD's Programme in Guyana

1. IFAD has worked in Guyana since 1987, providing over US\$22 million in financing for three rural development initiatives which benefited some 12,000 poor rural households, namely the Rural Enterprise and Agricultural Development Project, the Poor Rural Communities Support Services Project and the East Bank Essequibo Development Project.

Number of the project	Project name	IFAD USD	Co-financing	Total
1415	Rural Enterprise and Agricultural Development Project	US\$ 5.8 million	USD 1,1 million	US\$ 6.9 million
1009	Poor Rural Communities Support Services Project	US\$ 10.5 million	US\$ 2,6 million	US\$ 13.1 million
190	East Bank Essequibo Development Project	US\$ 5.8 million	US\$ 3.2 million	US\$ 9.0 million
Total		US\$ 22.1 million	US\$ 6.9 million	US\$ 29.0 million

2. Projects supported by IFAD in Guyana were designed to expand market opportunities for small-scale rural producers and strengthen their capacity to develop small-scale enterprises. The projects have also aimed to expand smallholders' access to services – including financial ones – that enable them to increase their productivity and reduce their vulnerability. Moreover, IFAD has invested in human and social capital to build self-reliance in rural communities facing challenges of sustainable development.
3. Regarding the READ activities they have been mainly implemented in the coastal areas (region II, region III, region V, region VI) and, as for the hinterland, in region X. The Poor Rural Communities Services Project was carried out in Region II and III, while the East Bank Essequibo Development Project was implemented in region III, in the areas surrounding Georgetown. All the above mentioned shows a gradual expansion over the time of the geographical areas in which the Fund has operated in the country. Therefore, the conceptualisation and implementation of Hinterland Project have to be framed in this context of progressive enlargement of IFAD geographical scope in Guyana, by now including also the hinterland as an area of intervention.
4. IFAD lending terms for Guyana changed over the time:

Project name	Duration (approval and closing )	Lending terms
East Bank Essequibo Development Project	1986-1996	Intermediary
Poor Rural Communities Support Services Project	1996-2008	Highly concessional
Rural Enterprise and Agricultural Development Project	2007-2015	Highly concessional + DSF grant

5. It is worth mention that in 2014 lending terms changed again, from highly concessional to blend, according to IDA-WB classification.

Appendix 3: Country performance and lessons learned

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6. As the country has never had a Results-based Country Strategic Opportunities Programme (COSOP). Therefore, LAC decided to proceed with the elaboration of a Country Strategy Note (CSN) due to the limited knowledge of the country due to a long period of limited engagement by the Fund.<sup>44</sup> The CSN was approved in March 2016.
7. According to the CSN, the overall strategic goal of IFAD in Guyana is to contribute towards the achievement of the programmatic objectives of the Government of Guyana for the reduction of rural poverty. More specifically, as for the hinterland regions, IFAD aims to:
  - (a) improve farm income and develop non-agricultural market linkages of rural families
  - (b) improve livelihoods of rural families
  - (c) promote adaptation to climate change through proper natural resource management.

#### **IV. Summary of the Poor Rural Communities Support Services Project (PRCSSP)**

8. The PRCSSP aimed to contribute to the overall objective of reducing rural poverty in Guyana by increasing rural household incomes, by expanding the production and productivity of small farmers of rice, non-traditional crops and livestock through fostering the promotion of rural micro-enterprises. The general objective of the project was to provide efficient and sustainable support services to rural communities in selected regions of the country with particular focus on rural households headed by women. The project specific objectives were: (i) to rehabilitate selected drainage and irrigation systems and related roads used by eligible small farmers; (ii) to foster small farmers' organizations such as production groups and Water Users' Associations to enhance their self-reliance and facilitate the provision of sustainable rural support services; (iii) to provide efficient and sustainable Technical Services including applied research, training and extension; (iv) to provide adequate credit for small farmers and small rural entrepreneurs; (v) to provide financial resources for the establishment and development of rural communities development initiatives; and (vi) to strengthen both public sector and private suppliers of rural support services in order to enhance their capacity for dealing with rural poor communities.
9. Approximately 5 000 rural poor households in the project area were direct beneficiaries of the project and that the target group were small farmers engaged in rice or other crop production, rural micro-entrepreneurs and Amerindian communities. Among the eligible beneficiaries, priority was to be given to households headed by women.
10. The PRCSSP achieved good results particularly as related to the provision of rural credit in the form of loans) to the rural poor: 6,507 loans were delivered to 1,864 borrowers (being 41 per cent women). The most remarkable success of this credit operation was the quality of the loan portfolio: the non-performing loans represented around the 3 per cent of the total loans disbursed.
11. But it is above all in terms of innovation, replication and promotion of policy dialogue where the project obtained the most significant results. It developed a valuable experience in the promotion of Water Users Associations and in the application of a demand-led approaches. Particularly, in relation to this point good results have been produced. An Assessment by the Caribbean Development Bank (co-financer in this initiative) pointed out that the experience of the PRCSSP undoubtedly contributed to the evolution of policies on water management. This was certainly an innovation on a matter of crucial importance to the country. Agricultural Support Services Project (ASSP) funded by IDB,<sup>45</sup> used the lessons learned in the PRCSSP.
12. However, the project suffered from problems relating to weak project management which resulted in delays between the identification of the initiatives and the effective implementation.

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<sup>44</sup> IFAD, 2016. Cooperative Republic of Guyana: hinterland Environmentally Sustainable Agricultural Development Project (Hinterland Project) OSC Issue Paper.

<sup>45</sup> IDB financing

## **V. Summary of the Rural Enterprise and Agricultural Development (READ) Project.**

13. The overarching goal of the READ project was to improve the living conditions of poor rural households, especially small-scale producers and vulnerable groups, by strengthening their human, social and financial assets. Its specific objectives were to: i) increase the market opportunities available to small rural producers (including women); ii) increase rural people's capacity to produce and market non-traditional products efficiently and effectively and to develop small-scale enterprises; iii) strengthen rural services available to small producers; iv) increase access to financial and other capital services; v) build human and social capacity at the community level
14. The strategy and approach of the READ project was integrated and results oriented. The integration took place in three different domains: first through the adoption of a value chain approach starting with the market and addressing weaknesses or inefficiencies at every point along the market chain; secondly, through the acknowledgement of the existing linkages between human/social development and economic advancement; and finally through the recognition of the importance of targeting, by devoting particular attention to Amerindian communities, women-headed households (and women in general) and youths. Implementation of the READ project effectively complied with this strategic approach. The PCR underlined a number of strengths, e.g. the capacity of the project to facilitate technical knowledge transfer and know-how. The latter resulted in improved productivity of farmers and enterprises and the promotion of the establishment of financial facilities operating exclusively for poor rural farmers.
15. Significant achievements were produced in terms of reach, benefits and outputs and outcomes. In addition, the provision of technical assistance, the delivery of advisory support and training from service providers led to substantial productivity gains in land preparation, soil testing, animal nutrition, crop production and diversification. Moreover, evidence from project documentation points out that grants provided through ad hoc funds yielded substantial productivity gains to the target group in relation to land preparation, soil testing, animal nutrition, crop production and diversification, harvesting equipment and techniques, more timely transport to markets through the transfer of knowledge, purchase of vehicles, tractors and boats.
16. Even though, it was not possible to statistically verify that 5,200 rural households –as targeted– experienced 30 per cent income increase, there is strong evidence that 5,000 households experienced improved living conditions. As a result of project implementation, changes in terms of access to employment and to increase in households assets were registered, namely 2,937 individuals (against a target of 2,960) increased financial economic and social assets while 200 jobs (against a target of 225) were generated by non-agricultural business supported by the project.
17. The strategy of incorporating into the project a rural facility with dual modalities (e.g. Enterprise Development Fund and Productive & Social Investment Fund) was especially effective and can be considered a major success factor by simultaneously enabling both business/enterprise development as well as human/social development in the dozens of target communities. Satisfaction from beneficiaries was extremely high and, considering the wide range of projects, benefits and outcomes, the funding facility achieved enormous value chain for money (the total investment from the RED project into the facility amounted to approximately USD 1,3 million or more or less 21 per cent of the total program financing).



18. Also in terms of outreach, results produced by the implementation of the READ project are encouraging as showed by the below table from the last RIMS report:

Results	Unit	Period ending:	31-Mar		Cumulative		
		AWP&B	Actual	per cent of AWPB	Appraisal	Actual	per cent of Appraisal
People receiving project services	Number	3 000	2 416	81 per cent	13 000	2 416	19 per cent
People receiving project services	Male	1 650	1 058	64 per cent	6 880	1 058	15 per cent
People receiving project services	Female	1 650	1 358	82 per cent	6 120	1 358	22 per cent
Groups receiving project services	Number	36	62	172 per cent	80	220	275 per cent
Communities receiving project services	Number	60	62	103 per cent	80	220	275 per cent

## VI. Opportunities and risks

19. Both on the basis of the results from previous projects and on a preliminary analysis of the national context significant opportunities and risks have been identified.
20. **Opportunities.** The main opportunity represented by the implementation of this operation is the possibility for IFAD to engage in areas which have never been targeted by IFAD, thus following up to the intent shared by both the Government of Guyana and IFAD to work more closely with the small-scale agricultural producers in the isolated and hinterland region of the country.
21. Up to now the focus on IFAD operation was mainly the coastal region. This new engagement will allow IFAD to fully comply with its mandate since poor people live principally in marginal and low potential areas such as the hinterland. Furthermore, most of these people belong to indigenous people communities, thus allowing the Fund to fully comply also with its Policy on Engagement with Indigenous peoples.
22. Knowledge available on the rural development projects in the hinterland of Guyana makes reference mainly to the lessons learned by Conservation International-Guyana under a pilot project targeting Guyana's Region 9, which is to be completed in 2017 (see section C below)
23. In this respect, the main opportunity represented by the implementation of this new operation is the possibility to replicate relevant lessons learned regarding sustainable agriculture and non-agricultural activities acquired up to now by Conservation-International Guyana in Region 9. This will contribute towards achieving Government programmatic objectives to reduce poverty levels of rural men and women in isolated communities mainly in: (i) reducing poverty levels of both men and women, (ii) addressing the divide between the hinterland and coastal development, (iii) supporting indigenous communities in pursuing their own development

### Appendix 3: Country performance and lessons learned

- through implementation of viable community development projects, (iv) furthering access to markets of agricultural and livestock outputs, (v) expanding the introduction and use of Information, Communication Technologies (ICT) and, (vi) ensuring national and regional food security and nutrition in the context of enhancing diversified agriculture in the hinterland and savannahs while addressing infrastructure constraints, climate change and mitigation of natural disasters.
24. In this context, a potential entry point could be represented also by meeting the needs of the youth which represent a high percentage of the population in the proposed project area. Also, the long lasting and successful expertise gained by the Fund in dealing with Indigenous Peoples issues can represent a golden opportunity in addressing key themes such as the sustainability of indigenous farming and livelihood strategies as well as the promotion of access to land by Amerindian communities.
  25. **Risks.** In terms of risks, they are mostly related to: a) environmental impacts and vulnerability to natural disasters, b) stakeholder participation and commitment and, c) implementation constraints.
  26. To act on environmental and climate change vulnerability, the project will promote the identification of local value chains and will acknowledge local communities capacity to respond to market and climatic risks. The analysis of local value chains will include a thorough assessment of how the latter are linked to other interventions aimed to mitigate climate-related risks and which are carried out at the household level. Target commodities/ activities for local value chain development will be identified through participatory village- or community-based planning processes to ensure that: (i) new income-generating activities are integrated in households' and communities' diversified livelihood strategies and based on sustainable use of natural resources; (ii) the development of local value chains will contribute to increasing community- and household-level resilience to climate change.
  27. To foster stakeholders commitment, project activities will adopt -already from the start up- a strong participatory focus by also providing training and assistance for the participatory planning process so as to ensure full participation of intended project beneficiaries (many of whom live in isolated conditions and have limited knowledge in managing small scale business enterprises).
  28. Finally implementation constraints (start-up difficulties, continuous personnel changes and poor monitoring and evaluation processes) will be addressed by: i) providing technical assistance along the whole implementation process and; ii) strengthening monitoring and evaluation capacity, particularly as for the preparation of baseline studies and assessments.

## VII. Lessons learned

29. There are two types of lessons learned which have been taken into account, namely the ones drawn from IFAD's experience and the ones from Conservation International-Guyana's experience.
30. **IFAD. Importance of a careful assessment of the needs of the most vulnerable individuals**  
Taking into account the high ethnical heterogeneity of the target group ( Amerindian, coastal and riverine men, women and youth) participatory assessment has to be carried out so as to ensure that the project's instruments provide opportunities, goods and services tailored to their needs. Experience from the past projects has shown that this has frequently resulted in challenges in ensuring consistent targeting.
31. *Participatory approach to capacity building as one of the main strengths.* Particularly as for the READ case, training and capacity building activities were particularly successful in reaching the most vulnerable segments of the population (Amerindian, women, youth). This was possible due to needs assessments undertaken together with CBOs prior to project implementation. The results of these assessment were incorporated into decision on training topics, for instance and taken into account in the ultimate design of the financing facilities.
32. *Strong project management.* The necessity to establish a sound PMU from the start-up of the activities is one of the major lessons which can be drawn from the implementation of the past

operations (both READ and the Poor Rural Communities Support Services Project). This should include the limitation of turnover in the PMU, the adoption of appropriate management practices from start up, and a constant connection with the field. To avoid this problem, project activity work plans have to be developed to reflect realistic time lines – relevant to country conditions and capacity. Also, procurement has to be managed by professional staff.

33. *Establishment of a sound M&E.* M&E must be developed and functioning early in the project cycle and be prioritized as fundamental cornerstone to project planning and implementation. Experience shows that delays in designing an appropriate monitoring and evaluation system and the lack of a well-functioning M&E was one of the weakest aspects of all the projects implemented so far. Despite increasingly useful sets of data, the absence of comprehensive baseline data and well integrated M&E and knowledge management system affected project effectiveness and decision making and hampered the ability to conduct benchmark assessment and overall evaluation of project result.

## **VIII. Conservation International- Guyana.**

34. Conservation International –Guyana is a non-profit, non-governmental organization working in Guyana for more than twenty years. Its main objective is to link human development to the conservation of the natural environment. Currently, CI-Guyana is implementing a 3-year pilot project, entitled "Leveraging Natural Capital in Guyana's Rupununi Region", financed under an IDB Multilateral Investment Fund".
35. The project has a total budget of US\$1,630,254 with a contribution from the IDB-MIF of US\$ 1,181,329 and a contribution from Ci-Guyana for US\$ 448,925. Its goal is to contribute to the economic development of the Rupununi while preserving its ecosystem. The specific objective is to create and strengthen environmentally-sustainable local-level business-led initiatives in the Rupununi.
36. The project consist of six components aimed to strengthen environmentally sustainable initiative and assisted beneficiary Community Based Enterprises (CBEs) in the Region. Specifically, CI-Guyana work in leveraging natural capital for sustainable livelihoods has produced several outputs, including: i) establishment of baseline conditions and identification of specific areas for intervention: ii) engagement of communities in the description of key agricultural commodity chains essential for sustaining climate-resilient traditional lifestyles and stable agro-ecological development: iii) elaboration of a climate-change vulnerability assessment and design of adaptation actions for key agricultural commodity chains; iv) facilitation of networking and relationships between owners and users of natural resources (i.e. development of joint responsibilities, opportunities for sharing costs); v) development of business plans which strengthen ecosystem services, natural resource value, and enterprise value; vi) development of linkages between agricultural production and tourist industry needs; vii) establishment of a loan fund aimed at promoting synergies between low-carbon development, maintenance of ecosystems and good business practice through the Guyana Bank of Trade and Industry, including the establishment of specific modalities for lending to women clients; viii) design of a monitoring and evaluation system: xix) advancement in compiling knowledge on project results and lessons learned.<sup>46</sup>
37. To achieve these results CI-Guyana has adopted a participatory approach to support communities in their efforts to contextualise the relationships between ecosystems of their titled lands, their traditions and aspirations. This allowed the communities to be very systematic in making changes along the development path, as well as in maintaining the resiliencies and productivity of natural ecosystem.
38. The landscape level of analysis embedded in such a process is in line with CI-Guyana's mandate of helping to promote sustainable use of natural capital, agriculture, livestock, forests and fisheries) .

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<sup>46</sup> Ballayram T, 2016. An Analytical Study of Conservation International Environmentally Sustainable Economic Development project in the Rupununni, p.1-2

39. Many are the factors which contributed to the success of the Leveraging Natural Capital in Guyana's Rupununi Region. These can provide good lessons also for the design and implementation of future interventions in the area.
40. *Necessity to draw on a theory of change in the targeted areas.* A clear theory of change can ensure the sustainability of the results produced by the implementation of the project. Thanks to a clear theory of change the IDB funded project could achieve its objectives. However such a theory has to reflect a participatory approach to managing the major challenge faced by indigenous communities in Guyana, namely the desire to maintain culture and tradition while at the same time being able to respond to an increasingly more competitive environment.
41. According to CI-Guyana's theory of change, one of the features of a community is the way in which it understands and acts as a single unit, making trade-off decisions to maximise benefits for itself and for its membership. Such decision-making becomes more complex as the community has to increasingly respond to competing demands from external sources. In this respect, the community should be supported in managing their vulnerability to external social, economic and environmental shocks.<sup>47</sup>
42. *Adoption of landscape level of analysis.* This approach explicitly recognizes the inter-connectedness of all components of natural capital (agriculture, livestock, forests, and fisheries land, and living organisms), and endogenous and exogenous forces that impact on them. It revolves around three dimensions: i) horizontal: it entails the most efficient management possible of the activities across different decision makers. This allows that synergies are captured and trade off minimized across space; ii) vertical: this implies the necessity to take in due consideration exogenous forces (higher level institutions, policies, market, climate, etc) that continuously shape the diverse activities within the landscape; iii) time scale: it entails that decision making processes can respond quickly to internal and external changes in the landscape. The landscape level of analysis allows to set up a clear strategy for the promotion of local development in the communities. This strategy has also a sufficient level of flexibility to respond to external challenges which could potentially arise during project implementation.
43. *Use of community participatory mapping techniques.* Apart from gathering spatial information, this type of mapping supports communities to learn, discuss and make decisions about their communities and associated resources. In addition to the physical features portrayed in the traditional maps, these participatory maps identify and spatially display everything valued by the community including social, cultural and economic features. Such a process allow to meet the main challenge currently faced by indigenous communities in the targeted area, namely the possibility to promote competitive business activities while maintaining their own traditional culture and values.
44. *Constant presence on the field.* Considering the complexity of the context where the development intervention are to be carried out, particularly related to characteristics both of the target group and of the geographical area (i.e isolated communities in remote areas of the country) the constant presence on the field is an essential condition for the success of the operation so as to better mentor beneficiaries, to better monitor progress, to better provide support and make adjustments where necessary. This has been done in the case of "Leveraging Natural Capital in Guyana's Rupununi Region" and demonstrated to be a key factor for the achievement of its major outcomes.
45. *Village Resource Development Planning (VRDP) toolkit as a successful and tested method to assist the hinterland communities in their progress towards achievement of development objectives.* Village Resource Development Plans (VRDP) are the major output of the Leveraging Natural Capital in Guyana's Rupununi Region.<sup>48</sup>

They represent the main tool to implement a theory of change which seeks to promote the local development and empowerment of the communities in the hinterland regions of Guyana (by also preserving both the natural resources and their culture and customs). They entail a process which allow each community to work collectively to decide on what development path it

<sup>47</sup> Ibid.

<sup>48</sup> Ibid.

Appendix 3: Country performance and lessons learned

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should take over. This helps the community to better understand the potential of resources or assets existing in their environment.



## Appendix 4: Detailed project description

### I. Description of the project area

- 1. Project intervention area.** The project will focus on indigenous and non-indigenous rural households in all sub-regions of Region 9 and in Mabaruma and Moruca sub-regions in Region 1. Both regions are part of the hinterland of the country due to their physical and population characteristics. Region 1 covers 20 339 km<sup>2</sup> with a population density of 1.3 persons per km<sup>2</sup>, while Region 9 covers 57 750 km<sup>2</sup> with a population density of only 0.4 persons per km<sup>2</sup>. The current population in Region 1 and Region 9 account for approximately 6.8 per cent of the country's population; the population in both regions is mainly composed of indigenous people. The average household size is 5.5 in Region 1 and 4.9 persons in Region 9, which is higher than the national average (3.6) and the hinterland average (4.7). Between 2002 and 2012, population growth in Regions 1 and 9 was 1.1 per cent and 2.5 per cent respectively, compared to -0.04 per cent for the national population, 1.4 per cent for the hinterland average, and -0.20 per cent for coastal regions.
- 2. Region 9 (Upper Takutu-Upper Essequibo – Rupununi)** is the largest region of Guyana. The Rupununi is situated on the Guiana Shield and represents part of the northern South American savannas and transition forest-savanna biome, being one of the headwater tributaries to the Amazon basin. According to official final census data for 2012, the population of Region 9 was 24,238 inhabitants; approximately 63 per cent of the population is young (24 years and less) and 49 per cent is female. In Region 9 there are 685 female headed households, of which 13 per cent are headed by women in the age group of 15 to 24 years of age. The main population center is Lethem, located on the Brazil-Guyana border. The surrounding communities all have as a **minimum** a government-built community center and primary school, with households spaced typically 100m or more from each other (although some can be spaced closer, especially if they constitute close families).
- 3. Region 1 (Barima-Waini)** is located in the northwest of the country. The northern and north-eastern sections include thousands of acres of rich alluvial soil; the main crops include coffee, ground provisions (such as cassava, eddoes and yams), cabbage, beans, corn, peanuts, and citrus fruits. According to official census data for 2012, the population was 27,643 inhabitants. Approximately 64 per cent of the population is young (24 years and less) and 48 per cent is female; there are 743 female headed households, of which 6 per cent are headed by women in the age group of 15 to 24 years of age.
- 4. Poverty, nutrition and food security.** The 2009 HIES referenced in Guyana's PRSP 2011-2015<sup>49</sup> indicates that, based on consumption, poverty was highest in Region 1, Region 8 and Region 9. The proportion of people living in poverty in Region 1 didn't improve between 1993 and 2006 (78.9 per cent and 80.1 per cent respectively). In Region 9, there has been some improvement for the same period: 93.3 per cent in 1993 and 74.4 per cent in 2006. Compared to the **average** percentage of population living in poverty (36.1 per cent in 2006) the data show that hinterland regions are among the poorest regions in the country<sup>50</sup>. The SOFA study reported that indigenous communities in Region 9 had shown some improvements over the years, but that the material conditions of life in these communities displayed features of food insecurity, poor education, vulnerability and social exclusion.
- 5.** A recent report by the Food and Agriculture Organization of the United Nations (FAO)<sup>51</sup> indicates that "in Guyana, one or more of the multiple forms of malnutrition remain significant public health concerns and a threat to human and national development". Protein-energy malnutrition (PEM), anaemia, and overweight/ obesity are the most common nutrition-related disorders. A significant proportion of children under five years of age suffer from malnutrition (14 per cent were underweight for age); persistently high levels of iron-deficiency anaemia affect about 48 per cent of young children, 57 per cent of school age children, 41 per cent of adults and 52 per cent of pregnant women (Pan American Health Organization (PAHO)/Caribbean Food and Nutrition Institute (CFNI), 1997). Finally, about 40 per cent of adults are overweight, with the prevalence of obesity increasing with age;

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<sup>49</sup> <https://www.mindbank.info/item/6053>

<sup>50</sup> It should be noted however that using the same consumption basket to calculate poverty lines in urban and rural areas may have led to the possibility of measurement errors in these data (GOG, 2011).

<sup>51</sup> <http://www.fao.org/food/nutrition-assessment/nutrition-country-profiles/latin-america-the-caribbean/guyana/en/>

nutrition and obesity related diseases such as diabetes, hypertension, and heart disease are among the ten leading causes of death. The report concludes that economic access to food may be a major cause of the nutritional problems in the country and that a significant number of persons, especially among indigenous peoples are likely to be vulnerable to insufficient nutrient intake and hence malnutrition.

6. The proportion of underweight (weight for age) children under the age of five is 15.5 per cent for Region 1 and 11.5 per cent in Region 9. Nearly 13 per cent of children in the interior are stunted (height for age) compared to 3.3 per cent in coastal areas and 5.4 per cent in rural areas (Demographic and Health Survey, Ministry of Health, 2009). The “Rupununi Economic and Environmental Baseline Report” by Conservation International - Guyana (2015)<sup>52</sup> provides further evidence that households’ food security in hinterland Region 9 is compromised, and that the situation worsens during drought and flood seasons.<sup>53</sup> Additionally, discernible changes in the Amerindian diets (increasingly in favour of refined carbohydrates, processed foods, and sweetened and calorie-dense foods), may be indicted for the rise in chronic diseases in this Region.

7. **Environmental sustainability and adaptation.** Region 9 presents a unique combination of natural and cultural capital. A broad belt of thick forest separates the Rupununi from the coast, the most densely populated part of the country. This has contributed to maintaining a relatively intact and fully functional ecosystem in the Rupununi. Currently about 1.1 per cent of the forest in the region is actively used for subsistence shifting agriculture with a 10-20 years cycle for returning to the same plot, which in general means the practice is sustainable. A total of 67.5 per cent of the 45,71 hectares of arable lands are under mixed forest cover and the other 32.5 per cent, are in pockets of the savannahs. Besides, Region 9 has the highest acreage and percentage of land set aside for conservation purposes, including the conservation areas identified by Amerindian communities in their titled lands<sup>54</sup> along with 59 sites of spiritual importance located in the forest throughout the region<sup>55</sup>. There is evidence that increased access (e.g. roads) has already resulted in indiscriminate and at times illegal collection, hunting and fishing<sup>56</sup>. Based on their access to the natural resources and ownership of forestlands, Amerindian Communities are optimally placed to enable conservation of standing forests while improving their livelihoods, in this way linking local wealth creation and sustainable NRM.

8. **Climate Change vulnerability.**<sup>57</sup> Guyana's weather and climate are primarily influenced by the Inter Tropical Convergence Zone (ITCZ) and are sensitive to El Nino Southern Oscillation (ENSO). The second National Communication to the United Nations Framework Convention on Climate Change (UNFCCC) (2012) states that Guyana has a tropical climate, that has experienced **significant** changes since the 1960s (e.g. increase in temperature). Climate models indicate that these changes will exacerbate over the forthcoming century, affecting Guyana's principal vulnerabilities to climate-specific risks that include droughts, floods and sea level rise/saltwater intrusion in the coastal plain. Climate model projections predict that temperatures can increase by up to 4°C and weather patterns will become more extreme. Sea level is projected to rise at a rate of 1cm/year, about 40cm-60cm by the end of the 21st century, with significant impacts on the coastal areas and the attendant reductions in agricultural productivity. Guyana was ranked 13 out of 162 countries for flood risk by the United Nations Office for Disaster Risk Reduction. At the same time, stresses on Guyana's internal water resources, aquifers and rivers are growing due to increases in the number of dry spells, drought conditions and changing rainfall patterns. The problem will worsen under the projected CC scenarios.

9. A major concern related to food security is extensive flooding followed by prolonged dry periods in Region 9. Most communities are built on high ground within the savannah; however, during the floods **livestock** also retreat to the villages. During the floods, food is scarce for both humans and

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<sup>52</sup> Conservation International-Guyana, 2015. The Rupununi Economic and Environmental Baseline Report.

<sup>53</sup> The climate of the Rupununi is characterized by a well-marked wet season (April to August) during which the Region receives more than 80 per cent of 1600 mm of rainfall. The unimodal rainfall pattern effectively facilitates only a single crop per annum; and the combination of low water infiltration rate, drought conditions and changing water patterns is affecting the agricultural production.

<sup>54</sup> FAO, CI, IDB, MIF. 2015. The State of Food and Agriculture in the Rupununi, Guyana.

<sup>55</sup> CI, IDB, MIF, Practical Action. 2015. Rupununi Ecosystem Baseline.

<sup>56</sup> IDB. 2012. Leveraging Natural Capital in Guyana's Rupununi. Donors Memorandum.

<sup>57</sup> See the Appendix 14 SECAP Note for detailed data and assessment of environmental issues affecting Guyana.



animals. Access to un-flooded farms is usually difficult because of water and distance. In close-by fields, crops rot in the ground. There is very little storage of meat, fruits, vegetables and/or cassava products, so communities have had to rely on and are becoming reliant on shop-bought rice and canned meats, fruits and vegetables.

10. **Indigenous people.** The population in Region 1 and Region 9 is mainly composed of indigenous people. Indigenous people comprise approximately 90 per cent of the population of Region 9 and about 67 per cent of the population in Region 1. Mixed ethnicity comprises 33 per cent and 9 per cent in Region 1 and Region 9, respectively. Many settlements today consist of main villages, satellite communities, farm camps and hunting and fishing camps that are widely dispersed across the territory. The settlement pattern is a tripartite one, whereby most families occupy three different family dwellings: a permanent house in the main village, a house or hut on the family homestead or farm camp near to their farming grounds and a semi-permanent hunting and fishing camp in the bush. People spend between two to five days a week in the main village and stay at their farm houses in the weekend to carry out farm work. During school holidays, families may stay several weeks or a month at their farm.

11. The indigenous people of Region 9 (the Macushi, Wapishana and Wai Wai) primarily follow subsistence-oriented livelihoods, including small-scale shifting farming in the foothills of the mountains **where** the soil fertility benefits from the organic material generated by the forest in contrast to the little fertile and saline savannah soil. Many households relying heavily on gathering, hunting and fishing. Fishing is an important source of protein, especially during the dry seasons when fish are concentrated in shallows and game animals are more dispersed. During the rainy seasons, when much of the lower areas are flooded, hunting becomes more important and easier as the animals are concentrated on higher ground. Domesticated animals also provide an occasional protein source for most households. Farming areas, most ranging between 0.5-1 ha per household, are usually cleared from forest and cultivated with cassava, bananas, and, in some cases, peanuts as key crops. Other crops grown include corn, watermelons, pineapples, papaws, and cotton. Evidence also exists that these communities are rapidly being transformed from subsistence/own-consumption and bartering to mixed subsistence and cash economies. Area access is usually by foot, horse, or canoe, although the use of bicycles is now common.

12. Region 1 is inhabited by three different indigenous people's tribes: Lokono (Arawak), Carib, and Warau. This area is covered with dense rainforest and only accessible by airplane or boat; most of the villages are isolated and located along the banks of the many rivers in the region. There are 34 villages<sup>58</sup> (consisting of main and satellite communities) in the region's three sub-regions: **Mabaruma**, Matarkai, and Moruca. While the main activities are subsistence farming, fishing, and craft-production, many community members are involved in logging for coastal and multi-national sawmills, manicole palm harvesting for AMCAR, and gold-mining on the Barama and Barima Rivers.

13. Each village (made up of a central and satellite communities) elects a Toshao and a Village Council to represent the Village. Out of the total body of 212 Tshaos, for a period of 3 years, a National Tshaos' Council of 20 members is elected as well as a chairperson to represent the Council. Nowadays, though still dominated by men, there are a few women elected as Tshaos and several women are village councillors, whereas in the past the leadership was completely managed by men.

14. To date, Amerindians collectively own almost 14 per cent of Guyana's land mass. The Amerindian villages in the northern Rupununi all have titles to their demarcated land. Amerindian villages have communal and legal ownership of the village lands, meaning that the land is owned by the Village, under administration of an elected Village Council, headed by a Toshao (chief). Also in the deep south the land titling process have almost been fully completed, while in the south center processes with all 19 Village Councils, whom have submitted their request, is under way. The land demarcation and titling situation in the center of Region 9 **is** more complex because of a wider mix of big investor farms, private cattle ranges, Amerindian communities and the urbanization of Lethem.

15. While government has recognized the majority of the villages with legal title to lands to date, **communities** have long had their own agreed-upon, or customary "rules" of land use that control where houses can be built, and where farming, logging, fishing, and hunting activities are permitted.

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<sup>58</sup> In the 2012 Census, the Guyana Bureau of Statistics has recorded 67 villages and communities.

The Village Council coordinates with the Village the allocation and use of the land to both residents and non-residents, including leases to non-residents and private companies.

**16. Livelihoods and coping strategies.** Households in the project area engage in several income-generating activities to support their livelihoods. On average only 1 to 10 per cent of households in indigenous people's communities have members with full-time salaried jobs (teachers, health workers). The SOFA study for Region 9 showed that households employed a range of coping strategies in the event of shocks, seasonality and other risks to food insecurity of the households (see Appendix 2, Table 4); 92 per cent of the population in Region 9 is engaged in four or less livelihood activities. In most cases, indigenous people work in a range of subsistence and cash-earning activities, including sales of raw and processed food crops, livestock and fish, forest products and crafts; petty trading; and occasional work as labourers, drivers, boatmen, tourist guides and NGO project workers. Cassava production based on swidden agriculture or shifting cultivation is the major farming activity in most indigenous communities. Other crops grown include corn, bananas, watermelons, pineapples, papaws, cotton and peanuts. The values, attitudes and expectations of indigenous people are often different from those of other sectors of the national society. The indigenous economy is typically founded on social relations, and is characterized by notions of reciprocity rather than the values of the market. Evidence however exists that these communities are rapidly being transformed from subsistence/own-consumption and bartering to cash economies, a trend noted by Forte (1998) over a decade ago.

**17. Youth.** Young people, 19 years and less, constitute relatively high proportions of the population—58 per cent and 57 per cent in Regions 1 and 9, respectively. Moreover, between 8-9 per cent of the youths in these regions are in the 15-19 age groups which, represent persons who might have completed primary and secondary education and are working or actively looking for jobs. Many of them migrate to Brazil, Guyana coastlands in search of jobs in logging and mining concessions. Some do return to their communities for vacation or send remittances to their parents. However, more than half of the youths who leave prefer to stay away from their communities. The issue of the out-migration of youths has implications for community development in general since vital human capital is lost to the communities when these youths leave (SOFA-Rupununi, 2015). Finally, 33 per cent and 28 per cent of the population in Regions 1 and 9 are in the 20-54 age groups. This group constitutes persons of prime working age, providing support for young children and older adults.

**18. Women and gender issues.** Women traditionally played a key role in conventional food supply and agriculture practices. In most communities, women perform strenuous tasks such as planting crops, reaping and transporting the produce from the farm to the home which consumes a great deal of their time and energy because of the distance, and preparing cassava for processing. Fetching the catch from hunts, preparing and preserving it, is a common activity of Amerindian women. Additionally, they are tasked with fetching firewood and water. Meanwhile they maintain primordial tasks such as child-bearing, cooking, washing and other household chores. Men on the other hand, in addition to their roles as head of the household, prepare the land for planting (men who migrate often are back in the village during the period the land needs to be prepared) and hunt wild animals for food.

**19.** In addition to the several gender equality issues mentioned before, in discussions with different government institutions as well as several non-governmental organisations it was found that Guyana, and the hinterland in particular, faces a number of social issues, many of which have a specific gender equality element. The main issues are: (i) domestic violence, (ii) child abuse and incest, (iii) teenage pregnancies, and (iv) human trafficking. These issues are thoroughly addressed in Appendix 2. As discussed below, these issues have been considered in the design of the targeting strategy to promote the social inclusion of marginalized groups.

**20. Migration and remittances.** Despite the many years of being involved in agricultural production, outputs are rather low and with the introduction of a cash economy (change from a society based on bartering) at the end of the '90s, many Amerindian communities are now dependent on the remittances from migrant labour whereby mainly young men and in a lesser extent women leave their families for work in mining and logging for long periods of time. Especially gold mining has attracted many indigenous males from all parts of Guyana. The scale of Amerindian involvement in mining is causing consumer goods acquisition to become a measure of status and has negatively influenced the quality of nutrition, as well as has devalued subsistence agriculture and other socio-cultural practices. Another related outcome of this situation is the phenomena of a rise in the number of

female-headed households, excessive burden on women and changes in the traditional division of roles.

## II. Rationale

21. **The political framework and national priorities.** The proposed project would contribute towards achieving the overall objectives of the National Strategy for Agriculture of furthering sustained agricultural growth for uplifting living standards while enhancing provision of safe and high quality food. Among the strategy's 25 priorities the proposed project would support: (i) increasing production and improving quality of traditional crops, (ii) facilitating and supporting efforts to link small farmers to dynamic markets, (iii) maximizing farmer-to-farmer education in order to develop knowledge and skills, (iv) increasing adaptation to a changing climate in a low carbon development pathway; (v) deepening ownership and access to land by small farmers and indigenous communities; and (vi) strengthening the participation of farmers and farming communities in the management of drainage and irrigation systems including support to Water Users' Associations.

22. In relation to the LCDS, the project would contribute towards the objectives of creating new economic opportunities for indigenous people's communities and protecting productive land from changing weather patterns. In terms of the FNSS the project would contribute towards Improving livelihood resilience through income generation, access to assets, improved nutrition, and adaptation to climate variability.

23. The project will also contribute to the achievement of the strategic goals of the Integrated Agriculture Development Strategy for Region 9 2015-2020 including: (i) Improve food and nutrition security, reduce poverty, and enable sustainable and integrated development of local communities; (ii) Strengthen coordination between agricultural related institutions to improve public and private sector linkages and promote a business-like approach to agriculture; (iii) Enhance food systems production, diversification, efficiency and profitability; (iv) Enhance the growth, competitiveness and efficiency of marketing systems and agro-food enterprises both in the domestic and international markets; and (v) Develop Infrastructure and Services in support of Agricultural expansion.

24. **Rural poverty persistence and concentration.** The 2009 HIES referenced in Guyana's PRSP 2011-2015<sup>59</sup> indicates that, based on consumption, poverty was highest in Region 1, Region 8 and Region 9. In the rural interior region of the country, where indigenous peoples are concentrated, three out of four people are poor. The poverty gap and poverty severity also suggested that poverty was deepest in the rural interior. The "Rupununi Economic and Environmental Baseline Report" by Conservation International - Guyana (2015)<sup>60</sup> provides further evidence that households' food security in hinterland Region 9 is compromised, and that the situation worsens during drought and flood seasons.<sup>61</sup> The dependence on one main crop, cassava, is one of the main driver of climate vulnerability. Additionally, discernible changes in the Amerindian diets (increasingly in favour of refined carbohydrates, processed foods, and sweetened and calorie-dense foods), may be indicted for the rise in chronic diseases in this Region. While these nutritional and epidemiological transitions are in the incipient stages, they could become the main burden of public health, concurrently eroding the human capital that is vital to the future development of the Region.

25. **Climate Change vulnerability.**<sup>62</sup> Guyana's weather and climate are primarily influenced by the Inter Tropical Convergence Zone (ITCZ) and are sensitive to El Nino Southern Oscillation (ENSO). The second National Communication to the United Nations Framework Convention on Climate Change (UNFCCC) (2012) states that Guyana has a tropical climate, that has experienced significant changes since the 1960s (e.g. increase in temperature). Climate models indicate that these changes will exacerbate over the forthcoming century, affecting Guyana's principal vulnerabilities to climate-specific risks that include droughts, floods and sea level rise/saltwater intrusion in the coastal plain. Climate model projections predict that temperatures can increase by up to 4°C and weather patterns

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<sup>59</sup> <https://www.mindbank.info/item/6053>

<sup>60</sup> Conservation International-Guyana, 2015. The Rupununi Economic and Environmental Baseline Report.

<sup>61</sup> The climate of the Rupununi is characterized by a wet season (April to August) during which the Region receives more than 80 per cent of 1600 mm of rainfall. The unimodal rainfall pattern effectively facilitates only a single crop per annum; and the combination of low water infiltration rate, drought conditions and changing rainfall patterns is affecting the agricultural production.

<sup>62</sup> See the Appendix 14 SECAP Note for detailed data and assessment of environmental issues affecting Guyana.

will become more extreme. Sea level is projected to rise at a rate of 1cm/year, about 40cm-60cm by the end of the 21st century, with significant impacts on the coastal areas and the attendant reductions in agricultural productivity. Guyana was ranked 13 out of 162 countries for flood risk by the United Nations Office for Disaster Risk Reduction. At the same time, stresses on Guyana's internal water resources, aquifers and rivers are growing due to changing rainfall patterns, increases in the number of dry spells and drought conditions. The problem will worsen under the projected CC scenarios.

26. **Main economic constraints in Region 9 and 1.** The remoteness of project areas in both Region 9 and Region 1 remains a persistent challenge for the development of business and income-generating opportunities. The lack of infrastructure (in particular, poor transportation and telecommunication networks) significantly limits access to markets and hinders the integration of local activities in the national economy due to high transportation costs combined with low volumes, low productivity and high production costs. Similarly limited is the access to information, technology and energy that are needed to support investment in productive activities and to promote adaptation to the changing economic and environmental context.

27. **Main natural resources constraints for the development of the agricultural and rural sector in Region 9 and 1:** Agriculture and rural livelihoods in both Region 9 and Region 1 are affected by increased variability in rainfall patterns. The effects of such variability are more severely felt in Region 9 where severe floods and prolonged dry spells, coupled with the lack of adequate water management technologies, represent major challenges for the development of agriculture and the livestock sector. The low fertility of the savannah soil poses a further constraint to agriculture in Region 9. In Region 1, salt water intrusion is an important impact of climate change which by time will affect arable land and freshwater resources in coastal areas. Notwithstanding these differences, climate change is affecting the sustainability of established production patterns and in particular the transition to new more settled production patterns in both regions where traditional coping strategies are no longer an option. The transition to new production patterns therefore need to incorporate better adaptability to changing climate and economic conditions. This will require access to knowledge, investment and technologies for natural resource management that at the moment are lacking.

28. **Main challenges:** within a context characterized by persisting poverty and affected by climate change, the identified constraints are posing a severe strain on the resilience and social cohesion of the target group. The capacity of hinterland communities to respond to new economic and environmental challenges is further limited by the lack of incentives for investments able to reduce economic and climate risks. The main consequences of this situation on the agricultural sector and on the livelihoods of rural households in the project area are twofold:

- (a) As agriculture keeps losing competitiveness against other sectors such as mining, which continues to attract the flows of capital and labour in the region to the detriment of other rural sectors, agricultural production remains largely dominated by uncoordinated small producers that do not have the capacity to undertake joint investments in common goods (technology, knowledge) required to upgrade the quality, competitiveness and reliability of local production so as to access distant markets or attract VC drivers to the area.
- (b) Traditional response strategies to climate variability and existing production patterns are threatened while rural livelihoods are becoming increasingly dis-embedded from the territory. The lack of income opportunities in the local economy and the presence of better employment opportunities in the mining sector are discouraging people (and particularly young people) from participating in the household economy and in agriculture. Temporary or permanent migration is leading to the disintegration of the traditional household structure with ensuing social problems, while the increasing dependence on external income sources and the de-legitimation of the traditional household economy is enhancing the complexity of nutritional problems, including an incipient transition to unhealthy diets, decreased food security and the loss of traditional knowledge and the use of a diversity of crops and wild species as food sources.

29. **Opportunities to improve livelihoods of indigenous people and small farmers in the project area.** Project areas in both Region 9 and Region 1 offer however favourable conditions that

can be exploited to improve the livelihoods of the target group and increase income-generation opportunities in agriculture and related activities.

30. *In the long and medium term*, the MOA, which will be the main implementing agency for the project, is interested in strengthening agricultural value chains in the hinterland within the general objectives of re-balancing agricultural production away from traditional export products, such as sugar and rice, that are vulnerable to global market risks; and away from traditional coastal agricultural areas that are vulnerable to salinization and other adverse effects of climate change. The availability of state land, low population pressure and the availability of labour (particularly youth) in the hinterland offer long-term opportunities for strengthening the national agricultural sector by increasing production and market linkages in the hinterland to serve national and international markets. The building of market-oriented production capacity in the hinterland is seen as complemented by long-term infrastructural investment in key regional centers (Lethem in Region 9 for example) that will aim to build roads and energy supply for large-scale processing and cold storage facilities that will serve as regional hubs for linking regional value chains to national and international markets. These conditions can generate viable opportunities for linking small farmers and indigenous people in project areas with commercial agriculture and increasing their participation in national and international markets.

31. *In the short term*, consultations and field visits in Region 9 and Region 1 confirmed the presence of promising conditions that can be leveraged to improve the resilience of rural livelihoods in project areas: (a) the government is placing high priority on the development of the hinterland and its integration in the national economy; (b) high levels of human capital as expressed in education, skills and motivation and incipient entrepreneurial attitude; (c) widespread and acute awareness of the need to improve livelihood strategies to adapt to economic and environmental challenges and to increase resilience in the face of climate change, coupled with a diffused appreciation for the value of ecosystems and biodiversity; (d) most villages in the project area have common land titles and a strong community governance supported by social capital bridging across ethnic and socio-economic groups and they have some familiarity with participatory planning approaches as the result of previous activities supported by government agencies, international cooperation agencies and local NGOs; (e) local markets and local public procurement offer an accessible and still unsaturated opportunity for small- and medium-scale agricultural producers with little competition from large businesses; (f) project areas host an incipient network of producers' groups (including women's associations) that have established positive collaborations with NGOs and local government agencies. The project will stimulate synergies between these factors by rooting local value chains development in a strengthened participatory planning approach.

32. The conditions highlighted above provide an opportunity for the project to support rural households and communities in the identification and development of local value chains that can provide new income opportunities and contribute to rural livelihood diversification. Both regions offer viable opportunities to increase the competitiveness, inclusiveness and sustainability of local value chains through improvements in natural resources management, production, processing, storage and quality-enhancing technologies and through the strengthening of market access for small-holders. These include cassava and its main by-products (farine and cassava bread), peanuts, fruit and livestock in Region 9; and spices (ginger, turmeric, black pepper, nutmeg) in Region 1.

**Table 1: Commodities identified for local value chains development**

Region 9	Region 1
<ul style="list-style-type: none"> <li>• Cassava and its by-products (farine and cassava bread)</li> <li>• Peanuts</li> <li>• Fruit</li> <li>• Livestock</li> </ul>	<ul style="list-style-type: none"> <li>• Ginger</li> <li>• Turmeric</li> <li>• Black pepper</li> <li>• Nutmeg</li> </ul>

33. In Region 1, the MOA has identified promising opportunities for the development of the spices value chains and for their linkage to national and international markets. To support the upgrading of the local value chain and promote market linkages, the MOA has built a ginger processing factory in Mabaruma that is expected to start its operations in the course of 2017. Preliminary consultations

undertaken by the MOA in relation to the establishment of the ginger and turmeric processing factory have shown that private agri-food companies operating in the region (such as Beharry Group and Continental Group) have to import roughly 1 mln USD worth of raw material for serving the national market and that 140 acres (far above current production capacity) would need to be devoted to turmeric production alone to serve the internal market. Beharry will start buying ginger from the factory in Mabaruma as soon as it starts operations and will assist with quality improvement and monitoring. At the international level, drink companies from Suriname are similarly interested in buying dried ginger from Guyana. Although informal consultations have been held with buyers, a detailed value chains study for ginger and other spices has not yet been undertaken. It has been agreed that a detailed value chains study for spices in Region 1 will have to be completed as a condition for first IFAD disbursement and will be reimbursed as a retroactive expense.

34. Opportunities for greater national and international market integration also exist for other agricultural products in Region 1. The meeting with the Blue Flame womens' agro-processing group in Mabaruma has shown that, through the support of the Womens' Agro-processors Development Network, the Blue Flame group has been able to identify and consolidate a growing market in Georgetown for its cocoa products. Through its participation in urban markets, the Blue Flame group has also been able to diversify its production through a line of natural coconut oil products that are currently being sold in Georgetown. Trinidad and Tobago would also appear to be an accessible and potentially significant market for local agricultural products. According to the Regional Chairman of Region 1, negotiations were underway for the provision of local agricultural products for the T&T prison system, but they stalled because of difficulties in securing quantities and delivery times given the currently weak level of local producers' coordination in Region 1.

35. In Region 9, given the persistence of logistic and transportation problems, actions for value chains development mostly concentrate on increasing access to local and regional markets; opportunities are however also linked to short-range cross-border trade with Brazil. Preliminary indications on the commodities and sectors that hinterland communities have identified as possible targets for local value chains development in Region 9, and on the main obstacles to be addressed for their development, come from the participatory value chains analysis performed as part of the IDB-MIF "Leveraging Natural Capital in the Rupununi" project, (see Appendix 4, Box I). Peanuts and cassava were identified (along with eco-tourism), as suitable candidates for local value chains development. Rupununi cassava farine has still untapped market opportunities at the regional level, driven by demand from labourers in the mining sector and mining companies. The wholesomeness of Rupununi farine is an asset that can also be exploited to develop short-range cross-border trade with Brazil, due to the presence in border areas of Amerindian groups that appreciate the traditional quality of farine produced in Rupununi. Concerning the peanut value chain, peanut butter is currently sold locally through state procurement channels (including school breakfast programs and Guyana defense forces). Valuable regional niche markets for naturally produced peanut butter are however available thanks to the growth of eco-tourism, with the primary buyers being eco-lodges, restaurants and hotels. Furthermore, consultations with the Industry Department of the Ministry of Business (MOB) has shown that opportunities for increasing access to regional markets for smallholders in Rupununi will come from the development of the new Industrial Park in Lethem, where agri-business processors have already submitted applications for operations related to the production of jams and jelly and for the processing of nuts produced in the region. The CI value chain study suggests that gradual market development is key to economic viability, and that intercultural training is needed for Amerindian communities to familiarize with the logic of the market.

36. **Environmental sustainability and adaptation.** Region 9 presents a unique combination of natural and cultural capital. A broad belt of thick forest separates the Rupununi from the coast, the most densely populated part of the country. This has contributed to maintaining a relatively intact and fully functional ecosystem in the Rupununi. Currently about 1.1 per cent of the forest in the region is actively used for subsistence shifting agriculture with a 10-20 years cycle for returning to the same plot, which in general means the practice is sustainable. A total of 67.5 per cent of the 4,571 hectares of arable lands are under mixed forest cover and the other 32.5 per cent, are in pockets of the savannahs. Besides, Region 9 has the highest acreage and percentage of land set aside for conservation purposes, including the conservation areas identified by Amerindian communities in their

titled lands<sup>63</sup> along with 59 sites of spiritual importance located in the forest throughout the region<sup>64</sup>. There is evidence that increased access (e.g. roads) has already resulted in indiscriminate and at times illegal collection, hunting and fishing<sup>65</sup>. Based on their access to the natural resources and ownership of forestlands, Amerindian Communities are optimally placed to enable conservation of standing forests while improving their livelihoods, in this way linking local wealth creation and sustainable NRM.

#### **BOX I: Results of participatory value chains analyses undertaken by CI in Region 9**

Practical Action Consultants were contracted by Conservation International-Guyana (CI) to assess the potential for income-generating agricultural activities in the Rupununi (Region 9) through a participatory value chains approach based on the Participatory Market System Development (PMSD) methodology. The participatory value chains study was part of the “Leveraging Natural Capital in Guyana’s Rupununi Region” project, a three-year pilot project implemented by CI and funded by the IDB-Multilateral Investment Fund (MIF) for US\$ 1.6 million; the project will be completed in 2017. The PMSD brings together all the key market actors of a particular market, and helps them to collectively identify obstacles and opportunities affecting their market system. Support for the group is provided so it can craft joint strategies and action plans that will overcome obstacles, and take advantage of potential opportunities to improve market conditions for everyone. Through this process, communities involved in the study were able to identify two key agricultural products (peanuts and cassava farine) as having economic viability for advancing local livelihoods.

**The farine value chain.** According to the economic baseline study, farine provides monetary income for about 70 per cent of the population. Although it only generates US\$ 735 per household annually, these sales are surplus after own consumption has been met and hence represent net income, particularly for women. The farine value chain in the Rupununi faces several bottle-necks including limited technical assistance and inefficient and costly transportation. The study recommended starting from a limited number of communities with existing farine production initiatives and comparative advantage of in reaching new markets. Training of farine producers will be necessary to build technical and financial capability as well as confidence to negotiate pricing with intermediaries. Given the basic stage at which this activity currently is, expanding output on a sustained commercial scale will require full-time facilitators.

**The peanuts value chain.** Peanut production in Region 9 is undertaken in family farms cultivating an average one to two acres. One of the disincentives to increased peanut production is that it is very labour-intensive; furthermore, peanut crops are seasonal and this means that peanut butter processors have to face high front-end financial cost to secure supply for the year. This would require strategic product development and marketing strategy driven by an inter-institutional group to provide support to small farmers in Rupununi. The analysis recommended that the roundtable should work on several aspects of agriculture: food security, income generation, climate change. Peanut farmers face several bottle-necks, including limited technical advice, inappropriate finance services, high cost of labour, high production costs, strong competition in peanut butter. It is for this reason important to gradually generate a niche market for a “healthy nut product” at the national level in order to develop the peanut sector in Rupununi.

With regard to both value chains, the study noted that the experience of business management is new among Amerindian communities, and this requires that the training and extension programs must be adapted to the times and priorities of these communities. It is also necessary to incorporate basic training in intercultural issues for communities to better understand the logic of the market.

37. **IFAD strategy in the country. Consolidation, replication and scaling-up.** Previous IFAD projects in Guyana mainly operated in the coastal region and focused on expanding opportunities for small-scale rural producers and strengthening their capacity to develop small-scale enterprises. The proposed project offers the opportunity to apply the experience matured in promoting the sustainable development of agricultural and non-agricultural activities to remote hinterland regions largely populated by Amerindian people. Through this strategy, IFAD is therefore supporting the GoG in its intention to reduce the divide between the hinterland and the coast and in its attempts to reduce poverty levels of rural men and women in isolated communities. The proposed project is aligned with IFAD's strategy for Guyana, as defined in the Country Strategy Note.

38. **Strategic alliances.** The proposed project will be implemented under the leadership of the MOA, in this way ensuring close cooperation with relevant MOA agencies with an established presence at the local level such as NAREI, GLDA, GMC, Hydromet and NDIA. Also MIPA will be closely involved in project implementation, in particular in relation to the project's emphasis on strengthening the planning, budgeting and management capacity of villages, communities and community-based organizations. This emphasis is aligned with current government decentralization strategies involving local governments and Amerindian community institutions. Efforts for strengthening the role of local government levels (Regional Development Councils and Neighbourhood Development Councils) are taking place through the recently established MOC, while a sustained emphasis on Village- and District-level Development Planning in Amerindian villages and communities is underpinned by several initiatives and projects implemented by the MIPA, often in partnership with international donors and local NGOs. Close cooperation with these agencies and organizations will be sought throughout the project, so as to favour synergies and promote a widespread and lasting diffusion within both the government and civil society of the capacities for natural resources, nutrition and climate resilience-aware planning that will be built during the project.

39. In Region 9, the Hinterland Project will harness complementarities with the activities that will be undertaken by the IDB Sustainable Agricultural Development Project. The main objective of the IDB financed Program is to increase the productivity of the agricultural sector while maintaining a sustainable and climate resilient use of natural resources in Guyana; its areas of operation are Regions 5, 9 and 10. The IDB Program will support MOA agencies in the preparation and implementation of an extension strategy that will include incentives to small farmers for the adoption of technology packages for cassava, peanuts, orchards, livestock and pastures. To enhance synergies between both investments and improve coordination at the national and regional level, the two project will use the same National Steering Committee (NSC) and Regional Management Committee (RMC) in Region 9. Collaboration will also be sought with IDB initiatives for the use of information and communication technologies in rural areas.

40. The proposed project would also be harmonised with approaches under the IDB-MIF "Leveraging Natural Capital in the Rupununi Region" (Region 9) project, aimed at creating and strengthening environmentally sustainable local-level initiatives and assisting beneficiary community-based enterprises in accessing markets for their products. It would be harmonised also with Guyana's Reducing Emissions from Deforestation and Forest Degradation REDD Plus Investment Fund (GRIF)<sup>66</sup> that aims to align national economic development with climate resilience and low-deforestation, low carbon growth by investing in low-carbon strategies identified in the LCDS. Collaboration would be sought with FAO in order to adapt and scale up the SOFA study undertaken in Region 9 to Region 1, and support the implementation of the Integrated Sustainable Agriculture Development Strategy for Region 9 2015-2020 developed in collaboration between MOA, FAO and CI-Guyana.

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<sup>66</sup> <http://fs-unep-centre.org/sites/default/files/publications/grifcasestudy2012final.pdf>



### III. Project area and target group

41. **Project area.** The project will focus on indigenous and non-indigenous rural households in all sub-regions of Region 9 and the Marabuma and Moruca sub-regions of Region 1. With regard to Region 1, current knowledge about the contextual and baselines conditions in the area is extremely limited. In order to fill this gap and to guide the selection of one sub-region for project implementation in Region 1, a SOFA study will be undertaken in this region during the first year of the project. The SOFA study will be conducted under the supervision of the MOA, that will seek adequate technical support for the design and implementation of the study. The SOFA study will largely replicate the approach and methodology previously applied in Region 9; its aims will be to identify the socio-economic and ecological characteristic of the territory, to assess the status of nutrition and to map the livelihood strategies and vulnerabilities of rural households in the area.
42. **Target Population.** Using official 2012 Census data (Population & Housing Census 2012, Final Population Count), the total population in Region 1 and Region 9 comprises 51,881 men and women. The population is made up of a majority of young people with 45 per cent in the age group 0-14 years old, 18 per cent in the age group 15 to 24 years old, 21 per cent in the age group 25 to 44 years old, 12 per cent in the age group 45 to 64 years old and 4 per cent 65 years old and over.
43. In the sub regions Marabuma and Moruca in Region 1 there is a total of 1,705 households and a total of 4,936 households in region 9 according to preliminary data of the 2012 Census (annex 5 and 6). The proportion of people living in poverty<sup>67</sup> in Region 1 was 97 per cent and in Region 9 this was almost 96 per cent according data from the MICS5 study, 2014 (published by UNICEF in 2016). This results in 1,654 poor households in the sub-regions Mabaruma and Moruca from Region 1 and 4,739 poor households in Region 9. The target population in the project area is therefore made up of 6,393 poor households.

Table 2: Total and target population in project area

	Total population (approx.)	Total number households	Total poor households (target population)
Region 1: Sub regions Mabaruma and Moruca	9,238	1,705	1,654
Region 9	24,238	4,936	4,739
Total	33,476	6,641	6,393

Source: prepared by Final Design Mission, 2016.

44. **Target group.** The target group would be made up by 6,000 poor households that would be receiving project services, which is equivalent to 94 per cent of the existing poor households in the project area. At least 15 per cent of these households (900 households) would be female headed households as this reflects the reality in the project area.
45. The 6,000 households represent a total number of direct and indirect beneficiaries of approximately 30,000 men and women of different age groups. At least 75 per cent of the project beneficiaries would be from Amerindian tribes. At least 30 per cent would be from the age group 15-44 years old and at least 50 per cent would be women.
46. **Phasing-in of villages and communities.** The direct beneficiaries will come from approximately 80 of the 128 existing villages and communities in region 1 and 9 (60 communities in Region 9 and 20 communities in Region 1).
47. In region 9, all villages and communities are eligible for project implementation<sup>68</sup>, whereas in region 1, communities from the sub-regions Mabaruma and Moruca will participate in the

<sup>67</sup> Belonging to the poorest and second poorest quintiles.

<sup>68</sup> All of Region 9 villages and communities are part of the project area: South Rupununi – eight (8) villages and two (2) satellite communities; South Central Rupununi – eight (8) villages and four (4) satellite communities;

- Project (these will be identified during Y1 of project implementation). During implementation the exact names of villages and communities will be decided upon on the basis of: (i) concentration of men and women who fit the targeting criteria and (ii) interest expressed in implementing activities with support of the Project.
48. During the first 2-years of project implementation, the Project Management Unit (PMU) will give priority to supporting the development of Public/Collective Investment Plans and Business Plans for those villages and communities in Region 9 that already have elaborated their Village Resource Development Plan (CI methodology) and to assisting other villages and communities in Region 9 with mapping and in developing Community Production Development Plans and related Public/Collective Investment Plans and Business Plans. The first 2-years of implementation will also focus on the formulation of the Value Chain Action Plans for region 1 and start-up of their implementation.
49. The purpose of reaching the end of Year 2 with all selected villages and communities in Region 9 having their Community Production Development Plans and related Public/Collective Investment Plans and Business Plans and the Value Chain Action Plans for region 1, is to ensure there is sufficient time to assist villages, communities, and producer groups with the implementation of their Investment and Business Plans.
50. **Ensuring targeting is achieved.** The project will pursue its targeting strategy through both self-targeting and direct targeting. Self-targeting has the purpose of including those who are often excluded (or self-excluded). This is foreseen in the Project through specific affirmative actions, activities and investments oriented towards young males and females, local leaders (especially women), amongst others. As discussed above, proactive measures designed to build the capacity of these groups have been included in project design. Direct targeting is foreseen in the Project, especially through the eligibility criteria for accessing the Investment Fund; this will further developed in the Project Implementation Manual.

#### IV. The approach

51. **Strategy of the project.** The aim of this project' strategy is to improve the livelihood resilience of the target group by addressing major risks arising from the contextual challenges that the households in the project area have to confront. The principal components of the strategy are:
- (a) Promoting access to local markets through short value chains and exploitation of the ensuing opportunities for increasing income.
  - (b) Addressing the economic and climate change-related risks deriving from the lack of capacities, knowledge, investment and technologies necessary to promote the sustainable transformation of livelihoods and production patterns.
  - (c) Promoting a participatory governance of the current productive transformation process.
52. As mentioned above, major challenges for the development of the agricultural and rural sector in the project area are related to economic and natural resources constraints. Both challenges increase the vulnerability of the target group and reduce the incentives for private sector investment.
53. The government's interest to create a favourable environment for private investments, particularly in Region 9, and to include in economic development indigenous peoples and small farmers will certainly bring benefits to the target population. But the productive transformation potentially set in motion by government incentives may originate risks that the project should mitigate, in order to support an inclusive and informed participation of local communities.
54. Productive specialization driven by market access could displace traditional diversification strategies and result in greater vulnerability to economic and climate-related challenges. Similarly,

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Central Rupununi –four (4) villages and eight (8) satellite communities; North Rupununi – six (6) villages and five (5) satellite communities; and, South Pakaraimas – six (6) villages and seven (7) satellite communities.

excessive specialization and the loss of traditional knowledge, food culture and of the use of a diversity of crops and wild species as food sources may impoverish local food systems and affect the increasingly complex nutritional problems of the target population. In addition a sudden change of the traditional productive system may put further pressure on the social and governance structures of the local communities.

55. In order to mitigate these risks the project strategy will facilitate adequate access to knowledge, information and technology for improved natural resource management; support an inclusive and informed participation to market opportunities that improve household income; increase awareness of nutritional issues and support an inclusive participatory process, so as to strengthen the organizational capacities of communities and producers' groups, as well the inter-institutional coordination at national and local level.

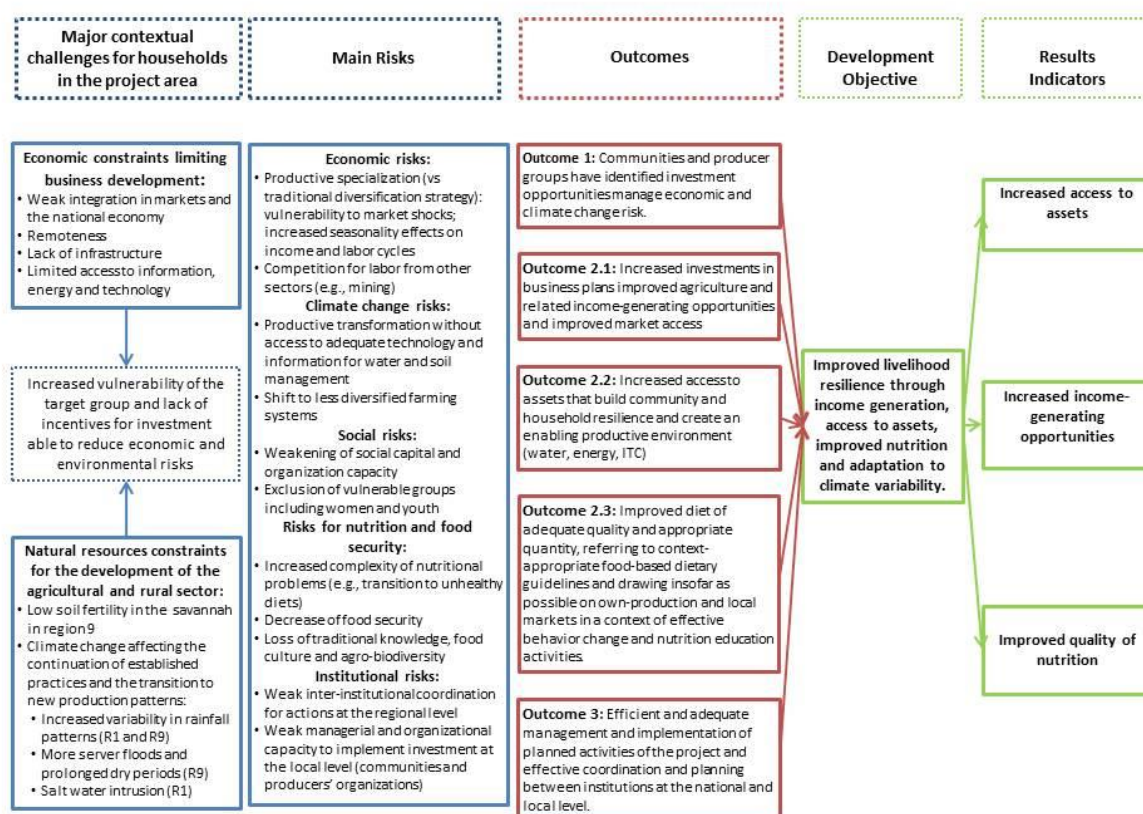
56. Livelihood resilience will be strengthened by increasing income-generating opportunities and access to assets and improving food and nutrition sustainability as described below:

- (a) **Income-generating opportunities** will be increased through the identification of key commodities that can act as drivers for the inclusion of small farmers in the market and increase the local demand for services and labour;
- (b) **Access to public goods and knowledge and technologies assets will be improved** in order to build community resilience and create an enabling productive environment, through: technology, knowledge and information for better territorial planning and natural resource management; improved water availability for agriculture and human consumption; better soil management practices, ICT diffusion, adoption of renewable energy and valorization of agrobiodiversity.
- (c) **Food and nutrition sustainability will be enhanced** by identifying and promoting crops that improve the nutrition quality of the household and by increasing awareness on nutritional issues and dietary guidelines, to ensure that target households can benefit from an improved and consistent access to foods with adequate nutritional quality through self-provision and markets.

57. Taking into account that natural resources and local governance systems are threatened by the current economic and environmental risks, in order to fulfil the above tasks and to strengthen the resilience of the target communities the prioritization of opportunities and the planning of investments and activities will be carried out through a participatory process which will include local actors and local governing bodies.

58. The logic underpinning the theory of change of the project is graphically represented in Figure 1 below and will be more fully explained in the description of project components.

**Figure 1: The theory of change of the project**



59. **Development Objective.** The Development Objective of the project, responding to the priorities identified in the Country Strategy Note, is “Improved livelihood resilience through income generation, access to assets, improved nutrition and adaptation to climate variability”.

60. **Development Objective indicator**

- (a) 80% of targeted households have increased their score on the resilience scorecard by at least 2 points.

61. **Outcome indicators** will measure the contribution of the project to the achievement of its development objective:

- (a) 80 % of households in targeted communities participate in the development of public / collective investment plans
- (b) People in targeted communities participating in producers' groups with approved business plans.
- (c) At least 80% of the households that invested in business plans have increased their income from agriculture and related activities by 50 per cent in relation to the baseline
- (d) Additional volume of water stored in targeted communities
- (e) Number of households in targeted communities with access to renewable energy sources
- (f) Number of Internet Access Points available to households in targeted communities

- (g) Number of reference “best option food baskets,” reflecting nutritionally adequate, low-cost options, are developed and communicated (based on food-based dietary guidelines and giving preference to foods available from local production)
- (h) 60% of households have food consumption patterns that substantially reflect appropriate “best option food basket”
- (i) Number of crops and animal varieties and wild species used as food or income generating source at community level
- (j) At least 90 per cent of the AWPB is implemented each year
- (k) Number of evidence based knowledge products developed
- (l) Number of MOUs signed with public institutions to provide services to the project
- (m) The project's global investment plan and AWPBs are reflected in the regional budgets and plans for two regions.

62. **Outcomes / Components.** In order to achieve project objectives and outcomes, the project includes two main components: (a) Strengthening of communities and producer group's investment planning; and (b) Implementation of investments plans. A third component will be dedicated to Project and knowledge management and coordination.

#### **Component 1: Strengthening of communities' and producer groups' investment planning**

63. The objective of this component is to support Village and Community Councils and RDCs in planning and prioritizing investments for the development of local value chains and resilient communities and livelihoods. **The expected outcome is** that communities and producer groups have strengthened capacities to identify investment opportunities and manage economic and climate change risks. In recognition of the differences between Region 1 and Region 9 the component will apply a differentiated strategy for the two regions. While Region 9 is more advanced in community planning and has a regional Integrated Sustainable Agriculture Development Strategy based on a detailed study of the State of Food and Agriculture (SOFA) in the region, Region 1 lacks these elements. Also the land tenure, community social capital and ethnic dynamics differ in the two regions with Region 1 having more mixed communities and more individual farmers not belonging to an Amerindian village or producer group. Finally, in terms of natural resources and climate conditions, Region 1 has significantly more fertile soils and adequate rainfall for the production season, and as such good conditions for agriculture development. Instead of the challenge of prolonged dry periods seen in Region 9, drainage management and possible salt water intrusion are the key issues in the between hills swamp farming systems, while the hill top farming faces no major special challenges.

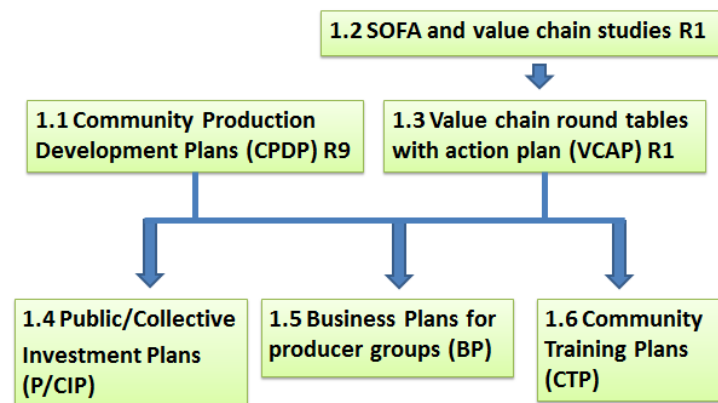
64. The component will therefore start from the community entity in Region 9 and support a participatory community planning process to identify production opportunities linked to territorial management and diversified livelihood strategies in each community. Subsequently, the component will support the formation of value chain round tables gathering producer groups from different communities with interests in the same produce. Although the community planning processes will primarily take place within Amerindian villages, whenever appropriate the process will also involve households, businesses and organizations located in neighbouring communities that contribute or are linked to the activities that villages intend to develop.

65. In Region 1 the project will have a more narrow intervention concentrated on a few value chains in the Mabaruma and Moruca subregions. In order to confirm the relevance and viability of the preselected spices value chains for Region 1 and get a better understanding of production constraints and opportunities and livelihood strategies, the component will start with a SOFA and value chain studies for spices. The participatory planning process to identify needed supporting investments will subsequently be done using value chain round tables for each produce.

66. The main instruments that will be developed by this component are Community Production Development Plans (CPDP) for Region 9 and Value Chain Action Plans (VCAP) for Region 1. These overall medium term plans will be the basis for the development of three types of concrete investment plans to be implemented with the project support: Public/Collective Investment Plans (P/CIP); Community Training Plans (CTP), and Business Plans (BP), see Figure 2 below. While component 1

will provide training, studies and capacity building needed to develop these plans, component 2 will support their actual implementation.

**Figure 2: Component 1 planning process products**



67. In the following paragraphs, each output of component 1 is described in more details.

#### **Output 1.1: Community Production Development Plans (CPDP) Region 9**

68. During the last decade several Village Councils in Rupununi have done territorial land use mapping and participatory preparation of Village Development Plans through different projects supported by MIPA and NGOs. Particularly relevant in this regard has been the experience generated by Conservation International - Guyana, whose models and practices of participatory Community Development Planning in Rupununi have been an important source of knowledge and inspiration for the design of the proposed project. Ten villages organized in the Kanuku Mountains Community Representative Group (KMCRG) have developed Village Resources Development Plans (VRDPs) supported by CI-Guyana. In the northern Rupununi 16 Villages have come together in the North Rupununi District Development Board (NRDDB) and prepared their development plan for the northern district, which has allowed them to raise resources for different community projects. In the south and south central Rupununi 17 villages have joint forces in forming the South and South Central District Toshos Council and a Management Plan of their territory ("Baokopa'o wa di'itinpan wadauniinao ati'o nii - Thinking together for those coming behind us") have been prepared.

69. Based on CI-Guyana's and MIPA's experiences with participatory planning processes, the MIPA has developed guidelines for the preparation of Community Development Plans (CDP) for Amerindian villages and a Framework Agreement on the same has been approved by the Cabinet in June 2016. The objective of the development of CDPs is for the communities and the government and other supporting partners to have a more formalized agreement to organize technical and financial assistance to the communities for the implementation of the plans. The guidelines build on a participatory process applying FPIC principles for identifying village priorities in the areas of health, education, nature and environment, traditions & culture, livelihood, and governance. Within the next year it is foreseen that the World Wildlife Fund (WWF) and CI-Guyana will support 20 and 11 communities respectively in the development of CDPs covering the most of Region 9.

70. For the development of the CPDPs the PMU will work in close collaboration with MIPA and contract service providers (NGOs with experience in village land-use and development planning) to facilitate community processes to strengthen agricultural production, supporting assets and services and nutrition aspects in existing CDPs and develop a CPDP document for each village. The participatory process leading to the CPDPs will apply specific strategies for the involvement of women, youth and vulnerable households and include: (i) mapping of human and natural resources and production opportunities and constraints for income generation and diversified livelihoods; (ii) identifying limiting factors, and investment needs in public or community collective assets and services in order to create an enabling environment for the development of local value chains and for the resilience of local livelihoods; and (iii) identifying potential producer groups who will prepare business plans.

71. As part of the development of the CPDPs and building on a capacity needs assessment of Village Council and community members the service providers will support training activities and

technical assistance in different areas which are important for the resilience of the communities and therefore need to be taken into account in the CPDPs. These aspects include: (i) sustainable management of natural resources (water, forest crop and grassland) and different options of practices and technologies which can enhance their sustainable use; (ii) climate change trends and projections and effects on village and household assets and activities and options for adaptation; (iii) nutrition awareness linked to food production and purchase and family health; (iv) financial and economic variability analysis of agricultural production, processing and marketing opportunities for income generation; and (v) specific actions for the inclusion of women, youth and vulnerable households. The CPDPs will conclude in an agreement (MoU with Village Council) on: (i) priorities for project support in public/collective investments; (ii) producer groups, production and processing activities and allocation of land and water resources for these activities; and (iii) 6 years production development targets and means of monitoring so the communities can follow up on the implementation of the CPDPs.

### **Output 1.2: State of Food and Agriculture (SOFA) and value chain studies Region 1**

72. Through the IFAD grant the project will finance a SOFA study for Region 1 that builds on the methodology and approach already adopted in Region 9. The SOFA study will be undertaken under the direction of the MOA with appropriate technical assistance (possibly from FAO) and will cover the Mabaruma and Moruca sub-regions identified as suitable candidates for project intervention. The information generated through the SOFA study will allow for fine-tuning the project intervention and targeting strategy for these sub-regions where lack of data is currently an obstacle. Likewise, to obtain a better understanding of the spices value chains the grant will also finance value chain studies. These studies will include an identification of key constraints and opportunities for the development of the value chains with the inclusion of Amerindian and small holder farmers including constraints in production and transport costs, produce volume and quality compared to market demands.

73. In order to avoid delays in project implementation for Region 1, resources for the SOFA and the value chain studies can be anticipated by the GOG as soon as the loan agreement has been signed. Expenses incurred for the SOFA study will be considered as retroactive expenses, and will therefore be reimbursed once the conditions for the effectiveness and disbursement of the Financing Agreement are fulfilled.

### **Output 1.3: Value Chain round tables and action plans (VCAP)**

74. The MoA will work in close collaboration with the Ministry of Business, playing a lead facilitation role, to establish value chain round tables for the spices which have shown to be viable in the value chain studies. The roundtables would gather interested producers, processors, NARI, the RDC, GMC and other key stakeholders for the development of the value chains. In line with the project's targeting strategy a special effort and strategies will be applied to include Amerindian and small producers, women and youth. Informed by the SOFA and the value chain studies and a participatory process, the roundtable will develop and agree on a 6 years VCAP for project support to address key constraints for the development of the value chain and identify roles and responsibilities of producer groups and supporting institutions. In addition the VCAP should contain implementation targets, indicators and measures of verification for the round table to follow the success of its implementation.

### **Output 1.4: Public/Collective Investment Plans (P/CIP)**

75. Based on the priorities identified in the CPDP (R9) or VCAP (R1), Village Councils (R9) or value chain round tables (R1) will develop P/CIPs supported by a service provider and in collaboration with relevant government institutions including: Ministry of Public Infrastructure (energy); MoC Guyana Water Inc. (water resources management and household water); MoA National Drainage and Irrigation Authority (drainage and irrigation); and NARI (agricultural research and extension). Examples of public/collective assets which may be included in the investment plans are: studies of water needs for multiple uses, available sources, and measures for integrated water resources management; infrastructure and technical assistance for rainwater harvesting, increased infiltration and recharge of the aquifer, drainage, and water mobilization and channelling for multiple use; renewable energy for multiple use (solar, wind, biogas); ICT access points; equipment and support for technical training facilities; climate proofed multiple use storage facilities; participatory research in resilient climate-smart and/or organic agricultural inputs and their application including drought and salt tolerant varieties, bio-pesticides, organic fertilisers, and integrated pest management (IPM) practices.

76. Each P/CIP must include: an operation and maintenance plan of any equipment and infrastructure with full cost coverage; show sustainable use of natural resources; support climate change resilience; and show positive impacts on good nutrition and diversified livelihoods.

#### **Output 1.5: Business Plans (BP) for producer groups**

77. Producer groups identified in the CPDP (R9) or VCAP (R1) will be supported by service providers in preparing BPs for the development of local income generating value chains. Examples of investments that may be included are: processing, packaging and storage facilities; technical assistance minor infrastructure and equipment for access to and efficient use of water; technical assistance in soil improving measures, IPM, intercropping and use of more drought, pest and salt tolerant varieties; technical assistance in accounting, business management and marketing; and organizational strengthening of the producer group for the implementation of the BP and further build negotiation skills, reporting and social auditing capacities. The BPs must include: a baseline for the producer group of production volume and assets, input supplies and output buyers, and organisational and business management capacities; demonstration of business, economic, environmental and social viability; demonstration of climate change resilience; and a mitigation strategy for specialisation risks for nutrition and CC resilience through linkages to use of agrobiodiversity and diversified livelihoods. In addition, plans that demonstrate participation of youth, women and vulnerable households will be prioritized.

#### **Output 1.6: Community Training Plans (CTP)**

78. Based on training and awareness needs identified in the CPDP (R9) or VCAP (R1), Village Councils (R9) or value chain round tables (R1) will develop CTPs supported by a service provider and in collaboration with relevant government institutions (NARI, MoH, MoB, etc). The topics for training that may be included in these plans are: (i) understanding climate change effects, vulnerabilities and mitigation strategies including disaster risk management; (ii) nutrition and the family food basket and sources including technical assistance for strengthening the formulation, diffusion and adoption of 'best food basket' recommendations in target communities; (iii) different renewable energy technologies, their maintenance, and service and input supply; (iv) ICT technologies and their use for accessing information on cultivation and processing technologies and practices, climate information, market information, knowledge exchange and communication with buyers and suppliers; (v) capacities for strengthening local governance and its structures; (vi) capacities that strengthen coordination for more effective public interventions addressing climate, economic and nutritional risks. The CTP must include youth focused skills development activities and vocational training of young women and men in areas including: (i) processing and marketing of agricultural produce; (ii) renewable energy technologies and their maintenance; (iii) Information and Communication Technologies (ICT); and (iv) small business administration and basic accounting.

#### **Output 1.7: List of cross community investments, studies and TA for the implementation of P/CIPs, BPs and CTPs**

79. When P/CIPs, BPs and CTPs have been finalized from various communities, the PMU will map out opportunities for synergies and joint investments, studies and TA across communities and value chains, to make the implementation of the plans more cost efficient. This exercise will allow for compiling a list of joint public investments and related studies at the regional level, which may also support the RDC in their regional investment planning, and joint community training and awareness raising activities. In the case of Region 9 this exercise will also identify opportunities for the establishment of value chain roundtables where producer groups can work together to harmonize the development of the chains and exchange knowledge and experience.

80. One of the areas of study that would benefit from a regional approach is a hydrological study and identification of integrated solutions for water management and mobilization for Region 9. Guyana does not have a water act, and the National Water Council under the Ministry of Communities, responsible for building the national framework for management of water resources, is currently being revived. Region 9 does not currently have a mapping of groundwater resources and a study of hydrological dynamics including recharge. Such mapping and studies are needed to decide on the best combination of cost-efficient, environmental and hydrological sound solutions for mobilizing water for agriculture activities and human consumption overcoming the often prolonged dry season the region is experiencing as a consequence of climate change. IICA is supporting (USD 300,000) a study on water conservation options in Region 9, and IDB has also assigned some funds for a study



identifying possible points in the landscape topographically adequate for the establishment of medium scale reservoirs. However, many communities might not live close enough to these possible reservoirs to benefit from the mobilized water. The project will therefore complement these efforts and finance a hydrological analysis and mapping and identification of integrated local solutions for water management and mobilization. The study would also identify internal and external knowledge institutions and service providers who can bring practices and technologies and build the needed capacities in the communities and in the region.

81. Other areas relevant for regional level studies are renewable energy and ICT. These studies should also complement other ongoing national initiatives at the regional level and include rural renewable energy needs, technology options (solar, wind, biogas), existing technology providers, and opportunities for youth participation in maintenance and input markets as well as ICT needs and solutions for improved access.

82. **Costs for the Component.** The budget allocated for Component 1 is US\$ 2.77 million.

### **Component 2: Implementation of investment plans**

83. The objective of this component is to finance and support the implementation of Public/ Collective, Community Training and Business Investment Plans identified and formulated under Component 1. Under Component 2 an Investment Fund will be established, which administration and execution will be arranged through an agreement signed between MOA and a Financial Institution(s) with presence in the regions (see box below). The selection of the Financial Institution(s) will be through a competitive bidding process. The PMU will be responsible for monitoring the implementation of the Investment Fund and evaluating the performance of the Financial Institution as

#### **Financial institutions operating in target areas**

The Institute for Private Enterprise Development (IPED): in Region 9, IPED has an office in Lethem and a sub-office in Annai that is visited once a month, with a portfolio of about 500,000 USD. In Region 1, IPED has an office in Mabaruma (in the project area) and an office in Port Kaituma with a portfolio of about 700,000 USD. IPED has some exposure to the agricultural sector in Region 9 (peanuts and cassava).

The Guyana Bank for Trade and Industry (GBTI): GBTI has a branch in Lethem (Region 9) and a branch in Port Kaituma (Region 1, but outside the project area). GBTI has a small rural portfolio in Region 9 (which also includes vegetable production, livestock, poultry and aquaculture), and has to date mobilized 20 mln GYD (about 100,000 USD) out of the 60 mln GYD (about 300,000 USD) of the Rupununi Innovation Fund established under the Leveraging Natural Capital in Guyana's Rupununi project financed by the IDB-MIF.

well as the results achieved

84. The Fund will , through non-reimbursable mechanism, finance public and common goods and services in the following categories of investments, included in the different types of investment plans:

- (a) **Public/Collective Investment Plans.** Investments in public and common goods and services that contribute to the reduction of climate and investment risks, such as investments in assets, technologies, knowledge and information for water and natural resource management, renewable energy and ICT; co-financing by the involved communities will be required to cover the operational and maintenance costs associated with these investments;
- (b) **Community Training Plans.** Services for training, capacity-building and awareness-raising activities, and related background studies, that contribute to the reduction of climate, economic and nutritional risks;
- (c) **Business Plans.** Technical Assistance and Services to favor activities that have positive spillover effects on the hosting communities. These services will contribute to the diffusion of models, knowledge, technologies and capacities that improve livelihood resilience by reducing the climate, economic and nutritional risks deriving from over-specialization and from productive transformation not sustained by appropriate technologies, knowledge and information.

**Table 3: Main public and collective goods and services financed by the project**

	<b>Public/Collective Investment Plans and Community Training Plans</b>	<b>Business Plans for Producers' Groups</b>
<b>Increased access to assets</b>	Knowledge and information for effective public investments (e.g., hydrological studies) NRM and access to water Renewable energy and ICT Strengthened local governance and coordination Training facilities and action research	Integrated soil fertility management (rotation, intercropping, manure) Integrated Pest Management (organic farming practices) Technologies for increasing efficient water use for productive activities
<b>Increased income-generating opportunities</b>	Studies on value chains and access to market Establishment of sub-regional value chain roundtables	Technical assistance, business incubation and coaching for improved productivity and competitiveness Increased management capacity (accountability, monitoring, implementation) Marketing activities i.e. branding, packaging promotion etc
<b>Improved quality of nutrition</b>	Collective awareness-raising and training activities (for public institution, schools, etc.) Use of the 'food basket' and its relation to the food system	Technical assistance for maintaining or increasing agro-biodiversity in diversified farming systems Technical assistance strengthening diversified livelihood strategy

85. The project will not directly finance private goods that can be individually appropriated. The project will, however, provide incentives for investments for the adequate management of natural resources and climate risks and nutrition security included in Business Plans. These incentives will be financed by the Investment Fund through a non-reimbursable matching grant equal to 30 per cent of the total cost of the investment; the remaining 70 per cent will have to be covered by the beneficiaries through own resources or through the credit market. The 30 per cent contribution will be calculated on the total amount of the investment that cannot exceed 1,500 USD per household. The contribution for these privately-appropriable goods is justified on two grounds:

- (a) They help overcome poverty barriers for the adoption of technologies that help households, participating in producers' groups, to manage economic and climate risks and achieve a more sustainable integration of income-generating activities in diversified livelihood strategies;
- (b) These investments have positive externalities and spillover effects on hosting communities since they: (1) favour the diffusion and adaptation of knowledge and technologies for upgrading the local value chain of cash crops and commodities identified as "pillars" for income and employment generation in CPDPs and VCAPs; (2) can help improve the quality, quantity, variety and affordability of processed and semi-processed foods available in the local food system; (3) can generate local demand for employment related to the processing activities themselves and to the servicing of machinery, equipment and renewable energy infrastructure; (4) can contribute to the diffusion of technologies, practices and knowledge for better NRM and climate change adaptation.

86. **Approval of investment plans.** The criteria for the evaluation of investment plans and the procedures for their approval by the PMU will be established in the Project Implementation Manual. In the case of business plans, even when proponents are not intending to request credit, a financial institution will be involved in the approval process to assess the economic viability of the proposed business plan and to evaluate the business capacity of proponents. If the proponents of Business

Plans intend to access credit, the project will provide support and technical assistance so as to reduce the perceived credit risk of applicants and the barriers they face to access credit. Technical support will be given for the preparation of improved Business Plans that comply with the standards required by the financial sector, including the establishment of an accounting system and the production of cash flow statements. The project will also provide assistance for the administrative procedures required to access bank credit.

**Outcome 2.1: Increased investments in business plans improved agriculture and related income-generating opportunities and improved market access.**

87. The first expected contribution of Component 2 to the projects' development objective is the increased incomes that the target group obtain from agriculture, processing and related activities and exploiting the opportunities for increased market access provided by key commodities identified as "pillars" of local agricultural development in CPDPs and VCAPs. This will happen through the realization of investments for production and processing activities included in Business Plans, the delivery of technical assistance to improve the marketing, organizational and managerial capacities of producers' groups, and the strengthening of sub-regional coordination and information-sharing among stakeholders involved in the value chains of targeted commodities and cash crops.

**Output 2.1.1 Business plans for the production and processing of cash crops and related value-adding activities approved by a financial institution, financed and implemented**

88. Preliminary investigations, existing value chains studies and experiences generated by previous projects indicate that the crops and commodities most likely to be prioritized by local communities will include: (i) In Region 9, cassava, peanuts, fruit, livestock and poultry; (ii) In the Mabaruma sub-region of Region 1, spices (ginger, turmeric, black pepper, nutmeg), cocoa and avocado. Further indications on the type of investments that producers' organizations in Region 9 will likely prioritize in their Business Plans come from experiences generated under the Amerindian Development Fund and Rupununi Revolving Innovation Fund (see Appendix 4, Box III). In both cases, business investment proposals focused on: (i) the processing and storage of peanuts and cassava; (ii) the upgrading of facilities for small-scale poultry farming serving local markets; (iii) breeding improvements for community cattle herds; and (iv) fruit processing facilities.

89. The activities identified in Business Plans can be linked to any stage of the local value chain such as input and service provision, production, processing, storage and logistics. Investments planned under a Business Plan can either be used to start a new activity or to improve, expand or upgrade an existing activity. Business Plans must include specific provision for the inclusion of women and youth. These may include the establishment of small rural businesses providing support services for local value chains development (including for example the installation and servicing of ITC and renewable energy facilities) able to generate local employment opportunities for local youths and women.

90. An accompanying strategy will be established by the PMU to assist beneficiaries throughout the implementation phase of the investment plan; the support services identified in the accompanying strategy will be delivered by local MOA agencies with support from the MIPA, MoB and MoC and, when needed, civil society organizations with adequate capacity. In order to ensure that minimum standards are adhered to during the implementation of investment plans and in the utilization of the allocated resources, an Induction Plan will be designed to introduce project beneficiaries to all relevant rules and procedures.

91. As a further support measure for the implementation of Business Plans, a financial institution will assist the PMU in the approval process of Business Plans, even when beneficiaries do not intend to access credit, in order to assess the economic viability of the proposed Business Plans according to consolidated standards in the formal credit sector. The financial institution will provide indications concerning the areas of the Business Plan that need strengthening, and technical assistance will be given to proponents to improve and revise the Business Plan according to these indications.

92. In order to favor synergies and avoid overlaps with initiatives undertaken by other government agencies and development partners in project areas, and to build on existing experiences with participatory investment planning in target areas, the format of business plans for the Hinterland project will be designed taking into account the business plans templates used for other support

actions to producers' groups in target areas. Examples of business plans adopted in previous projects (the RIF business plan developed by CI and GBTI, and the business plan developed for the Small Business Program by the Small Business Bureau of the MOC) are included as Annexes to Appendix 5.

**Output 2.1.2: Increase in volume sold through new or existing market channels and Coaching, technical assistance and business incubation activities provided for the implementation of Business Plans**

93. In order to effectively contribute to income generation, Business Plans must be commercially-oriented, economically sustainable and effectively implemented. Previous experiences, as well as consultations with potential project beneficiaries and financial institutions held during the Project Design Mission, have shown that exclusively focusing on the production side without adequately strengthening managerial capacities and consolidating market channels negatively affects the economic sustainability of the supported businesses, resulting in loss of motivation for beneficiaries and in their continued reliance on external support. For these reasons, the activities supported by Component 2 will also focus on helping producers' groups and association to strengthen their organizational and managerial capacities, and to identify, establish and consolidate market linkages at the regional and, whenever possible, national level.

94. The Investment Fund will therefore finance technical assistance activities included in Business Plans covering the following areas:

- (a) Technical support services for identifying and exploiting market opportunities for the commodities and crops produced by producers' groups with an approved Business Plan, for developing a marketing strategy and for specific activities that improve and expand market opportunities such as branding, packaging and promotion activities;
- (b) Technical assistance and support services for strengthening the organizational and managerial capacity of producers' groups with an approved Business Plan in areas including accountability, monitoring and business plan implementation;

95. In order to favor the coordination between the activities of producers' groups and regional-level initiatives for value chains and markets development, the project will promote the participation in market-related TA activities of specialized government agencies that are involved in the design and implementation of regulatory, industrial and infrastructural policies that affect regional-level value chains. Particularly relevant in this regard are different Agencies of the MoB, such as: the Industry Department, that is overseeing the establishment of an Industrial Zone in Lethem that will host, among other, agri-processing enterprises; the Guyana Office for Investment, that can assist with the identification of market opportunities; the Standards Bureau, that is overseeing food safety standards and regulations and can provide relevant indications for complying with sanitary measures.

96. Other possible providers of TA services include: (1) Training centers already identified and strengthened by the MOB through its Small Business Training Program; (b) the Bina Hill Institute and other community training institutions; (c) specialized organizations of the MOA such as NAREI, GMC, GLDA and NDIA; (d) when appropriate, assistance from civil society organizations and NGOs with consolidated expertise and presence in project areas will also be sought.

**Output 2.1.3: Sub-regional roundtables established to coordinate actions on key cash crops and commodities in Region 9 and studies for specific value chains and related market opportunities**

97. To improve coordination and information exchange among value chains stakeholder at the local level, the project will support training, capacity-building and support activities to facilitate the establishment of sub-regional value chains roundtables identified for Region 9 under Component 1 output 1.7. The project will support through non-reimbursable fund, interventions that include:

- (a) the production and dissemination to relevant value chains stakeholders of documents and training materials based on good practices;  
  
activities for the dissemination of information on key stakeholders and on the opportunities for coordination emerging from the analysis of cross-community investments performed by the PMU under Component 1 output 1.7;

- (b) the organisation of a kick-off meeting for each sub-regional value chain roundtable that brings together relevant stakeholders from communities, producers' organizations, government agencies and the private sector
- (c) detailed studies on the value chains for which roundtables have been established; these studies should focus on identifying opportunities for the inclusion of small farmers, women and youth, opportunities for increasing market access and for local upgrading; the project will also finance the dissemination of the main results and recommendations emerging from these studies to all relevant stakeholders.

**Outcome 2.2: Increased access to assets that build community and household resilience and create an enabling productive environment (water, energy, ITC).**

98. While the activities listed above have as their main objective increased income generation for the target group, the activities that contribute to Outcome 2.2 aim at improving livelihood resilience by increasing access to assets, knowledge and information that reduce climate and investment risks, improve natural resource management and establish a more conducive environment for private investment in the agricultural sector.

**Output 2.2.1: Investments in public goods for improved water management, renewable energy and in public facilities and infrastructure that increase access to internet in target communities.**

99. The project will support, through non-reimbursable funds, investments for public goods and services included in approved P/CIPs in the following areas: (i) infrastructure and technical assistance for rainwater harvesting, infiltration and recharge of the aquifer, drainage, and water mobilization and channelling for multiple use; (ii) natural resources management (water, forest, crop and grassland); (iii) renewable energy solutions for multiple use, including solar, wind and biogas; (iv) climate proofed storage facilities; (v) ICT solutions, including mobile technologies and internet access points, to increase access to information on markets, climate change, diet and nutrition.

**Output 2.2.2: Investments for integrated soil fertility management (rotation, intercropping, better use of plant genetic resources), Integrated Pest Management, and in technology for increasing efficient water use for productive activities in business plans.**

100. To complement the investments in resilience-building public assets included in P/CIPs, the project will support technical assistance for incorporation of technologies and good climate resilient practices for better on-farm management of trees, plant genetic resources, soils and water as well as integrated pest management identified in Business Plans formulated by producers' groups. In this way, proponents of Business Plans will be encouraged to make use of the increased availability of public assets, knowledge and training activities resulting from the implementation of P/CIPs and CTPs to build resilience in their production activities.

101. Support for the realization of these objectives will take two forms:

- (a) The project will support, through non-reimbursable funds, technical assistance to Business Plans proponents for the adoption of integrated soil fertility management (such as rotation, intercropping and better use of plant genetic resources), the adoption of Integrated Pest Management and organic farming practices, and the adoption of technologies for increasing efficient water use for productive activities;
- (b) The project will provide an incentive, through a non-reimbursable matching grant equal to 30 per cent of the total cost of the investment, to cover the "incremental" costs associated with the investments in goods, technologies and services required to introduce these practices in the production cycle of commodities and cash crops included in Business Plans.

**Outcome 2.3: Improved diet of adequate quality and appropriate quantity, referring to context-appropriate food-based dietary guidelines and drawing insofar as possible on own-production and local markets in a context of effective behaviour change and nutrition education activities.**

102. As a further element contributing to improving the livelihood resilience of the target group, the project will support activities that strengthen the linkage between increased income generation and quality of nutrition. Given the vulnerability of local households to climate change effects and to shocks originating in commodity and labour markets, participation in new income-generating activities should in fact not result in over-specialization or in the abandonment of productive activities that play a crucial role in households' food security and nutrition quality, including the production of food for self-consumption. Component 2 will support awareness-raising, training activities and technical assistance identified in CTPs that help address the increasing complexity of nutritional problems affecting target areas. The aim of these activities are: (a) to help households in target areas make more informed dietary choices; (b) to increase the relevance and use of information and recommendations produced by the government, including the "best food basket" system; (c) to maintain or increase the richness, variety and nutritional quality of foods available in the local food system.

**Output 2.3.1: Increased knowledge on nutrition and balancing of diet through awareness raised and training**

103. To assist households and communities make more informed and healthy dietary choices, the project will support through non-reimbursable funds the following activities that can be included in CTPs formulated by individual communities or aggregated, when deemed appropriate, by the PMU in joint cross-community interventions:

- (a) Collective awareness-raising and training activities on the nutritional implications of dietary choices and on the potential contribution of local food to nutrition quality, delivered through schools and other public institution;
- (b) Activities that strengthen the formulation of "best food basket" recommendations by the MOH, increase its attention to locally produced food, and improve its delivery, diffusion and adoption by households in target communities

**Output 2.3.2: Production of food that balances diets at community level increased**

104. To limit the risks that specialization in commercially-oriented production may result in the impoverishment of the local food system and in the abandonment of diversified farming system that contribute to households' food security and nutritional quality, the project will support, through non-reimbursable fund, activities included in Business Plans that aim at:

- (a) accessing support services and technical assistance for maintaining or increasing agrobiodiversity in the diversified farming systems of households participating in producers' groups with an approved Business Plan, including the small-scale production of varieties of high nutritional value in vegetable gardens for self-consumption or local markets;
- (b) accessing technical assistance for increasing the capacity of target households to integrate new income-generating activities in diversified livelihood strategies, including a better understanding of how new activities affect the labour, income and food security cycles of the household.

105. The budget allocated for Component is US\$5.97 million.

**Component 3: Project and Knowledge management and Coordination**

**Outcome 3: Efficient and adequate management and implementation of planned activities and effective coordination and planning between institutions at the national, regional and local level.**

**Output 3.1: Participatory planning and M&E.**

106. The purpose of the third component would be to establish management and administrative procedures including accounting and auditing as well as setting up monitoring and evaluation mechanisms in accordance with IFAD and national guidelines. Specific evidence-based knowledge products will be developed on the basis of Project experiences in order to extract lessons and best practices, up-scale innovative solutions, achieve better outcomes and greater impact from development resources. Also coordination and linking project and regional planning will be supported.

107. **The procurement of goods and services** related to investments funded by the Investment Fund will be undertaken by the Hinterland project office at the ASDU. Beneficiaries (including Village

Councils and producers' organizations) will be consulted for the identification of suppliers, contractors and service providers. Urgent and relatively small and local procurement, with thresholds to be determined in the Project Implementation Manual and modelled upon the experience of READ, can be delegated to the Regional Administrative/Accounts Officers. Payments to suppliers, contractors and service providers for investments covered by the Investment Fund will be directly issued from the Project Operational Account; direct payment to suppliers and service providers for approved business plans has been successfully adopted by the Small Business Program administered by the Small Business Bureau of the Ministry of Business (MoB). Procurement by the PMU is also intended to favour efficiencies and savings by identifying, whenever possible, opportunities for joint investments that involve different communities and producers' groups.

108. **The implementation, monitoring and evaluation** of Public/Collective Investment Plans, Community Training Plans and Business Plans financed by the Hinterland Project resides with the beneficiaries. These will primarily include Village Councils, Community Councils and producers' groups. The reporting requirements will be determined in the Project Implementation Manual.

109. If required by the scale and nature of proposed investments, as in the case of joint investments plans identified by the PMU that involve different communities or producers groups whose members reside in different communities, the implementation, monitoring and evaluation of investment plans can be delegated to higher-level organizations including:

- (a) umbrella organizations that represent multiple villages and communities, such as District Development Boards and multi villages development boards (south center and south and north Rupununi);
- (b) sectoral producers' organizations with adequate capacity and stability to fulfill the implementation role, such as the Producers' Association and Cooperatives;
- (c) the value chains roundtables established through project support in Region 9 and Region 1, if offering an adequate management and organizational capacity;
- (d) other *ad hoc* organizational arrangements as identified by the PMU through the analysis of possibilities for joint investments.

110. Local capacity building for participatory planning and M&E is important as part of the empowerment of the project beneficiaries. The Project will therefore work closely together with target communities, villages, producers organizations, sectoral associations and other umbrella organizations, helping them develop their own monitoring and evaluation tools (simple and participatory) in an effort to monitor their own progress and evaluate outcomes and impact of the implementation of public/collective goods Investment Plans and business Plans

111. The budget allocated for Component is US\$ 1.79 million.

112. Table 3 below summarizes the main similarities and differences between project interventions under component 1 and component 2 for the two regions.

**Table 4: summary of project interventions in Region 1 and Region 9**

	Component 1: Strengthening of communities' and producer groups' investment planning	
	Region 9	Region 1
Main instrument:	<b>Community Production Development Plans</b>	<b>Value Chain Action Plans (VCAP)</b>
Produced by:	Produced by: villages and communities Strategy: The Project will start from the community entity in	Produced by: value chains roundtables Strategy: The Project will have a more
Strategy:	The Project will start from the community entities and support a participatory community planning process to identify production opportunities linked to territorial management and diversified livelihood strategies in each community. Subsequently, the component will support the formation of value chain round tables gathering producer groups from different communities with interests in the same produce. Although the community planning processes will primarily take place within Amerindian villages, whenever appropriate the process will also involve households, businesses and organizations located in neighbouring communities that contribute or are linked to the activities that villages intend to develop.	The Project will have a narrower intervention concentrated on a few value chains in the Mabaruma and Moruca subregions. In order to confirm the relevance and viability of the preselected spices value chains for region 1 and get a better understanding of production constraints and opportunities and livelihood strategies, the component will start with a SOFA and value chain studies for spices (financed by the IFAD Grant; resources can be anticipated by the GoG as retroactive). The participatory planning process to identify needed supporting investments will subsequently be done using value chain round tables for each produce.
Investment plans produced:	<b>Public/Collective Investment Plans (P/CIPs)</b> <b>Community Training Plans (CTPs)</b> <b>Business Plans (BPs) for producers groups</b>	<b>Public/Collective Investment Plans (P/CIPs)</b> <b>Community Training Plans (CTPs)</b> <b>Business Plans (BPs) for producers groups</b>
Prioritized crops and commodities for VC development:	Cassava, peanuts, fruit, livestock and poultry	Spices (ginger, turmeric, black pepper, nutmeg), cocoa, avocado
<b>Component 2: Implementation of investment plans</b>		
Investments in public/collective goods that provide <b>increased access to assets</b>	<b>Under P/CIPs and CTPs:</b> Knowledge and information for effective public investments (e.g., hydrological studies). NRM and access to water. Renewable energy and ICT. Strengthened local governance and coordination. Training facilities and action research <b>Under BPs:</b> Integrated soil fertility management (rotation, intercropping, manure). Integrated Pest Management (organic farming practices). Technologies for increasing efficient water use for productive activities	<b>Under P/CIPs and CTPs:</b> Knowledge and information for effective public investments (e.g., hydrological studies). NRM and access to water. Renewable energy and ICT. Strengthened local governance and coordination. Training facilities and action research <b>Under BPs:</b> Integrated soil fertility management (rotation, intercropping, manure). Integrated Pest Management (organic farming practices). Technologies for increasing efficient water use for productive activities
Investments in public/collective goods that provide <b>increased income-generating opportunities</b>	<b>Under P/CIPs and CTPs:</b> Studies on value chains and access to markets. Establishment of sub-regional value chain roundtables <b>Under BPs:</b> Technical assistance, business incubation and coaching for improved productivity and competitiveness. Increased management capacity (accountability, monitoring, implementation). Marketing activities i.e. branding, packaging promotion etc.	<b>Under P/CIPs and CTPs:</b> Studies on value chains and access to markets. Establishment of sub-regional value chain roundtables <b>Under BPs:</b> Technical assistance, business incubation and coaching for improved productivity and competitiveness. Increased management capacity (accountability, monitoring, implementation). Marketing activities i.e. branding, packaging promotion etc.
Investments in public/collective goods that contribute to <b>Improved quality of nutrition</b>	<b>Under P/CIPs and CTPs:</b> Collective awareness-raising and training activities (for public institution, schools, etc.). Use of the 'food basket' and its relation to the food system <b>Under BPs:</b> Technical assistance for maintaining or increasing agro-biodiversity in diversified farming systems. Technical assistance strengthening diversified livelihood strategy.	<b>Under P/CIPs and CTPs:</b> Collective awareness-raising and training activities (for public institution, schools, etc.). Use of the 'food basket' and its relation to the food system <b>Under BPs:</b> Technical assistance for maintaining or increasing agro-biodiversity in diversified farming systems. Technical assistance strengthening diversified livelihood strategy.



### **BOX III: Example of activities financed under the ADF and RRIF**

Resources from the Guyana REDD+ Investment Fund (GRIF) were used to establish an Amerindian Development Fund (ADF), which provides grants for support and development of livelihood activities in areas such as (i) enhancing food security, (ii) agricultural development, and (iii) community based ecotourism. Micro-capital grants were made available to Amerindian communities that had developed a Community Development Plan (CDP) approved by a village general meeting, on which basis a Business Plan was formulated. The activities identified in CDPs give an indication of possible investment proposals generated by local communities. In Region 9, for example, CDPs included one proposal for cattle breeding, to enhance the herd of the community; one proposal for a processing facility to produce orange juice, fruit jams and jellies and dried cashews; one proposal for a farine processing plant to serve local markets and the school feeding program. In Region 1, a proposal was submitted for a 10-acres village farm to be planted with cassava, peanuts and cash crops.

Further indications on the type of activities that local communities have proposed for financing comes from the experience of the Rupununi Innovation Revolving Fund (RIRF), again part of the IDB-MIF “Leveraging Natural Capital in the Rupununi” project. CI-Guyana has developed a business plan template (with flexibility to meet specific circumstances) that is available to prospective loan applicants; almost all loan applicant to the RIRF facility have used this template. RIRF loans have been approved for fourteen CBEs facilitated by CI. Among these, twelve were engaged in agriculture or agricultural processing activities in the following sectors: three peanut production and processing initiatives; three farms for mixed vegetable production; two poultry farms serving local markets; two CBEs involved in cattle rearing; one aquaculture initiative; one agro-processing initiative.

## **V. Organizational framework**

113. **Coordination.** The Lead agency for the implementation of the Hinterland Project will be the Ministry of Agriculture through its ASDU. However, effective coordination with other line ministry's, Regional Democratic Councils and private sector initiatives in the regions is essential in order to create synergies and ensure sustainability of project results. The specifics of this particular project: e.g. the indigenous population and their traditional governance structures, the participatory planning processes and identification of public/collective investments, the linkages with regional planning processes, the focus on natural resource management, business plans and coaching, or on nutrition, the cross cutting gender equality issues, call for effective coordination both at central and regional level.
114. **Project Management Unit (PMU).** For the Hinterland Project, which in the case of Region 9 will be implemented more than 500 km away from Georgetown and Region 1 and 9 being two geographically distinct regions with no direct air, road or water transport between them, regional project offices would be established. The Project Management Unit would therefore comprise the office at the MOA in Georgetown and the regional offices in Region 1 and 9.
115. The Office in Georgetown will have a Project Manager (PM), a Procurement Officer, an Administrative/Finance Officer, and an M&E Specialist. The latter will be located at the M&E Unit of the MOA. In each regional office, the Project will be supported by a Regional Project Coordinator, an Administrative/Accounts Officer and a Field Facilitator. The office in Region 9 will also have a Social Inclusion and Gender Specialist who will assist both Regional Project Coordinators in this particular area of expertise.

116. **Service providers.** It is recognized that in many areas, the MOIPA or other organizations such as the SSOS or CI Guyana have more experience than the MOA and may be better equipped to achieve certain deliverables. Therefore, certain aspects of the Project will be executed in the field by a range of service providers (public institutions, non-profit organisations, individual consultants) who will be contracted and supervised by the PMU.
117. **Investment Fund.** For the administration and execution of the Investment Fund, MOA will sign an agreement with a Financial Institution(s) with presence in the regions. The selection of the Financial Institution(s) will be through a competitive bidding process. The PMU will be responsible for monitoring the implementation of the Investment Fund and evaluating the performance of the Financial Institution as well as the results achieved.

## Annex 1

### Business Plan Template developed by CI and GBTI for the RRIF

#### SECTION 1: THE BUSINESS PROFILE & VISION

##### Description of My Business

*Describe your vision:*

*Who will benefit (You & your family? The community? Environment)?.*

*What is the project you want funding for*

*Are you:*

*Sole Proprietor?*

*Partnership?*

*Friendly Society?*

*Other?*

*Is this a new or continuing business?*

##### Business Profile

*What are the characteristics of your business? (What is your sector, type & size of your business, what facilities? How many people are employed?):*

*List your products or services:*

*Who will be your customers?*

##### Strengths & Weaknesses of your business

Strengths	Weaknesses
•	•

*Describe the activities for the project:*

*Identify the resources you have and what is needed for the project:*

- *What do you have?*

## SECTION 1: THE BUSINESS PROFILE & VISION

- *What will you need?*
- *How long will it take?*
- *When do you need to start?*

## SECTION 2: MARKETING

### Market Analysis

*What are the current trends in the market that you are operating? Is it growing or getting smaller? Are there new comers? Explain.*

*Is your product Seasonal? How will you cope in the slow seasons?*

*What is your market advantage? Price? Quality? Design? Speed? Or other?*

*What other products can you develop? What help will you need?*

*How will you promote/advertise your business?*

### Competitors

*Who are your strongest competitors?*

*What are their strengths and weaknesses?*

*How will you compete with them?*

## SECTION 3: MANAGEMENT & ORGANIZATION

### Structure & People

*What is the structure of your business (Describe the number of persons, their roles and responsibilities, including part time workers and describe the knowledge, qualifications, experience, skills & capacity of key persons for doing their job (including your own))*

*What additional training is needed and for whom?*

### Administration, inventories, & record-keeping

*What record-keeping systems do you have for the above? List them.*

*Do you have computers? What computer skills exist in your business?*

### Community relations

*What benefits do you bring to the community?*

*Do you have a written agreement with the Village council?*

*What are potential areas of conflict & how will you resolve them?*

### Energy & Fuel

*What are the sources of energy for your business? Air/Water/Gas/Electricity/Fuel/Solar*

### Purchasing

*What are your major/bulk purchases? List them*

*Who are your major suppliers/agents? List them*

### Standards & Quality Control

*Do you check for quality of your major raw material?*

*Do you have specifications for your products/services?*

### SECTION 3: MANAGEMENT & ORGANIZATION

*We aim to produce a bird that has a carcass weight of 2-2.4 kg after six weeks of rearing*

***How do you check for quality?(Physical checks/visual checks, customer feedback)***

*This is verified by slaughter weight and visual inspection, by experience, of weight gain during fattening*

#### **Packaging & Labelling**

***What packaging do you use?***

***Do you use labels or promotional materials such as posters or brochures?***

YES ☐ NO ☐

#### **Storage & Stock Control**

***Do you have storage facilities? Do you have adequate storage space & containers for raw materials and finished products?***

***Do you have an inventory system for your materials & finished products?***

***Did you have any waste last year?***

#### **Access to Technical services**

***Who can you contact for technical advice & support? List them:***

### SECTION 4: FINANCIAL CONTROL

#### **Budget/ Profit & Loss**

***Supply your budget for the next 12 months***

***What is your projected sales for six months?***

#### **Cash Flow**

***Supply your cash flow analysis for at least six months***

**Balance sheet**

***Supply your starting balance sheet***

## SECTION 4: FINANCIAL CONTROL

### Pricing Policies

*Cost Analysis – Describe your pricing structure.*

*How do you decide on your mark up?*

### Collateral & Capital

*List your assets & their approximate values:*

- *Fixed assets:*
- *Current assets*

## SECTION 5: LICENSES, PERMITS AND BUSINESS NAMES

### Licenses

*List appropriate licenses / permits / certificates you have or will need at local, regional and national levels*

### TIN Number:

*Indicate your business, personal TIN numbers for yourself & key members of staff*

## SECTION 6: ENVIRONMENTAL IMPACT

### Waste Generation & Disposal

*Does your business generate solid waste? How do you collect and dispose of solid waste?*

### Pollution / contamination of air & water systems

*Does your business generate pollutants to air & water systems?* YES ☐ NO ☐

*Do you monitor the impact of your business on the environment?* YES ☐ NO ☐

### Damage to Ecosystems & Bio-diversity?

*Can your activities damage eco-systems?* YES ☐ NO ☐

*Explain why:*

*What actions have you taken to protect eco-systems & bio-diversity?*

## SECTION 7: RISK MANAGEMENT

### What could go wrong?

*Accidents, Natural Disasters, Change of National Policy, Global Economic or Market Forces, or something else and how will you cope in this case?*



## Appendix II

### Business Plan Template prepared by the Small Business Bureau of the MoC

#### I. COMPANY INFORMATION:

**A. NAME OF COMPANY;** Name of Client; Contact information of Client.

**B. TYPE OF PRIMARY PRODUCT OR SERVICE:**

**C. BUSINESS LOCATION:**

**D. SHORT HISTORY OF THE BUSINESS:**

**1. WHEN AND WHERE STARTED AND BY WHOM:**

**2. EVOLUTION / CHANGES IN THE BUSINESS SINCE INCEPTION:**

#### II. PERSONAL AND BUSINESS STRATEGY / GOALS:

**A. PERSONAL STRATEGY/GOALS**

What are your lifetime goals? How do you want to be remembered by family, friends and colleagues? What do you want to accomplish by the end of this year, in five years, in fifteen years? How can you organize your personal life to attain these goals?

**B. BUSINESS STRATEGY/GOALS**

What is the vision for your business? How do you see it evolving? What will it be like at the end of this year, in five years, in ten years? What steps can you take toward achieving your business goals?

**C. MISSION STATEMENT**

Please write a brief statement that summarizes and clarifies the core purpose of your business.

#### III. PRODUCT / SERVICE DESCRIPTION:

**A. DESCRIBE:**

What are your products features and benefits? What makes your product unique from the competition's? What need or want does your product satisfy? Why should a customer purchase your product or service and not the competitions? What are similar or substitute products? What is its shelf life or life span? Are there any special considerations for your product or service (copyrights, patents, packaging, etc.)

#### IV. MARKET ANALYSIS

**A. TYPE AND RESULTS OF MARKET RESEARCH:**

**B. CUSTOMER PROFILE:**

How many customers do you have? Are they businesses or individuals? Do you have a few customers that regularly contribute a total of more than 20% to your total sales revenue? If so, list name, and % of total sales volume contributed by each. Profile your typical customer (age, sex, occupation, type of business, family size, lifestyle, etc.) Where are your customers located geographically? How far must customers travel to buy from you? How far must you travel to sell to your customers?

### C. WHO IS YOUR COMPETITION?

### D. WHAT ARE YOUR STRENGTHS AND WEAKNESSES RELATIVE TO THE COMPETITION?

How many competitors do you have? Are there too many competitors? What is the nature of the competition? Have any competitors recently gone out of business? Why?

List your four major competitors:

<u>NAME</u>	<u>LOCATION</u>	<u>% OF MARKET</u>
1.		
2.		
3.		
4.		

Complete the following comparison between your business and your four major competitors. Rate on a scale of one to five, with five being the best.

	You	1	2	3	4
PRODUCT OR SERVICE					
PRICE					
QUALITY					
EXPERIENCE					
CUSTOMER SERVICE					
REPUTATION OR IMAGE					
ADVERTISING					
LOCATION					
FACILITIES					
OTHER					

**V. MARKETING PLAN**

**A. WHAT IS YOUR PRODUCT STRATEGY?**

**B. WHAT IS YOUR PRICING STRATEGY?**

**C. WHAT IS YOUR PROMOTION STRATEGY (INCLUDING SALES)?**

**D. WHAT IS YOUR DISTRIBUTION STRATEGY?**

**VI. FINANCIAL PLAN**

**A. CREDIT POLICIES**

**B. CASH FLOW STATEMENT**

CASHFLOW PROJECTION						
Description	Mo nth	M onth	M onth	M onth	Mo nth	Mo nth
Beginning Month/Year_____						
<b>Beginning Cash Balance (a)</b>						
Cash Sales +						
Accounts Receivable Collected +						
Loan Proceeds +						
Owner Investment +						
Other Receipts +						
<b>Total Cash Received (b)</b> =						
<b>Total Cash Available ©</b> (a+b)						
Salary Expense +						
Rent & Utilities +						
Transportation +						
Operating Expense +						
Materials +						

Capital Expenditures	+						
Owner's Draw	+						
Other Disbursements	+						
<b>Total Cash Disbursed (d)</b>	=						
<b>Net Operating Cash Flow (e)</b>	(c-d)						
<b>Loan Payments (Prin &amp; Int) (f)</b>							
<b>Ending Cash Balance</b>	(e-f)						

## VII. NEXT STEPS AND ACTION PLAN

### A. CAPITAL REQUIREMENTS (ASSUMING EQUIPMENT PURCHASE)

### B. WHAT DO YOU WANT?

### C. HOW WILL PURCHASE HELP YOUR BUSINESS?

### D. WHERE WILL YOU BUY IT?

### E. WHAT IS THE PRICE?

### F. WHERE WILL YOU GET THE SUPPLIES NEEDED TO USE IT?

### G. WHERE WILL YOU GET THE MACHINE REPAIRED?

### H. HOW LONG TO MAKE PROJECT OPERATIONAL AND FULLY PRODUCTIVE? LONG UNTIL MAKING MONEY?

**J. WHAT WILL BE YOUR BREAK-EVEN POINT**

--

**VIII. SWOT ANALYSIS OF THE BUSINESS**

**A. STRENGTHS**

--

**B. WEAKNESSES**

--

**C. OPPORTUNITIES**

--

**D. THREATS**

--

1.



## Appendix 5: Institutional aspects and implementation arrangements

### A. Institutional framework

#### I. Governmental organizations engaged in Climate Change and the Environment

1. At the regional level the key ministries that are involved in agricultural and rural development in the hinterland regions of Guyana (Regions 1, 7, 8 and 9) are the Ministry of Agriculture (MOA) and the Ministry of Indigenous Peoples Affairs (MOIPA). The Ministry of Communities (MOC) of course has a wider, cross-cutting role of administration and therefore is a key stakeholder in all programs and projects inclusive of those that are administered by the other ministries such as the Ministry of Education (MOE), Ministry of Public Health (MOPH), Ministry of Business (MOB), Ministry of Social Protection (MSP) and Ministry of Infrastructure (MOI). In fact, the Region 9 Agricultural Strategy and Action Plan notes that agricultural development activities reflect a mix of the public, private and NGO sectors; donor and technical assistance agencies and volunteer agencies. In Region 1, the mix is less diverse but not dissimilar to Region 9. This document will highlight selected public and NGO institutions. Further details can be found in the State of Food and Agriculture in Region 9 and the Region 9 Agricultural Strategy and Action Plan.<sup>69</sup>
2. Further to the above, because this project is not a typical agricultural development project, and because of the importance of climate change and the environment, the Office of Climate Change of the Ministry of the Presidency is also considered to have an important role.
3. **Ministry of Agriculture.** The mission of the Ministry of Agriculture **is** to ensure the formulation and implementation of policies and programmes which facilitate the development of agriculture and fisheries in Guyana, thereby contributing to the enhancement of rural life, the sustainable improvement of incomes of producers and other participants in the agricultural production and marketing chain; and the maintenance of a sound physical and institutional environment for present and future productive activities. Its Mission is addressed through three programme areas (Administration, Fisheries and Hydrometeorological Services) which fall directly under the control of the ministry as well as through the mandates of a number of agencies which deal with specific areas of focus.
4. *Administration:* This department is responsible for effective and efficiently managing and coordinating human, financial, physical and material resources necessary for the successful implementation and administration of the Ministry's programmes and operations.
5. *Fisheries Department.* The Fisheries unit is responsible for managing, regulating and promoting the sustainable development of the nation's fishery resources for the benefit of the participants in the sector and the national economy.
6. *Hydrometeorological Services.* The "Hydromet" Unit is responsible for observing, archiving and understanding Guyana's weather and climate. It provides meteorological, hydrological, and oceanographic services in support of Guyana's national needs and international obligations.
7. **Hydrometeorological Department.** The functions of the Hydrometeorological Department are:
  - (a) To monitor the atmospheric and water resources in Guyana and its exclusive economic zone (EEZ).
  - (b) To collect, process, archive and make available data and information on weather, climate, hydrology and oceanography.
  - (c) To coordinate Hydrometeorological activities of the Government of Guyana.

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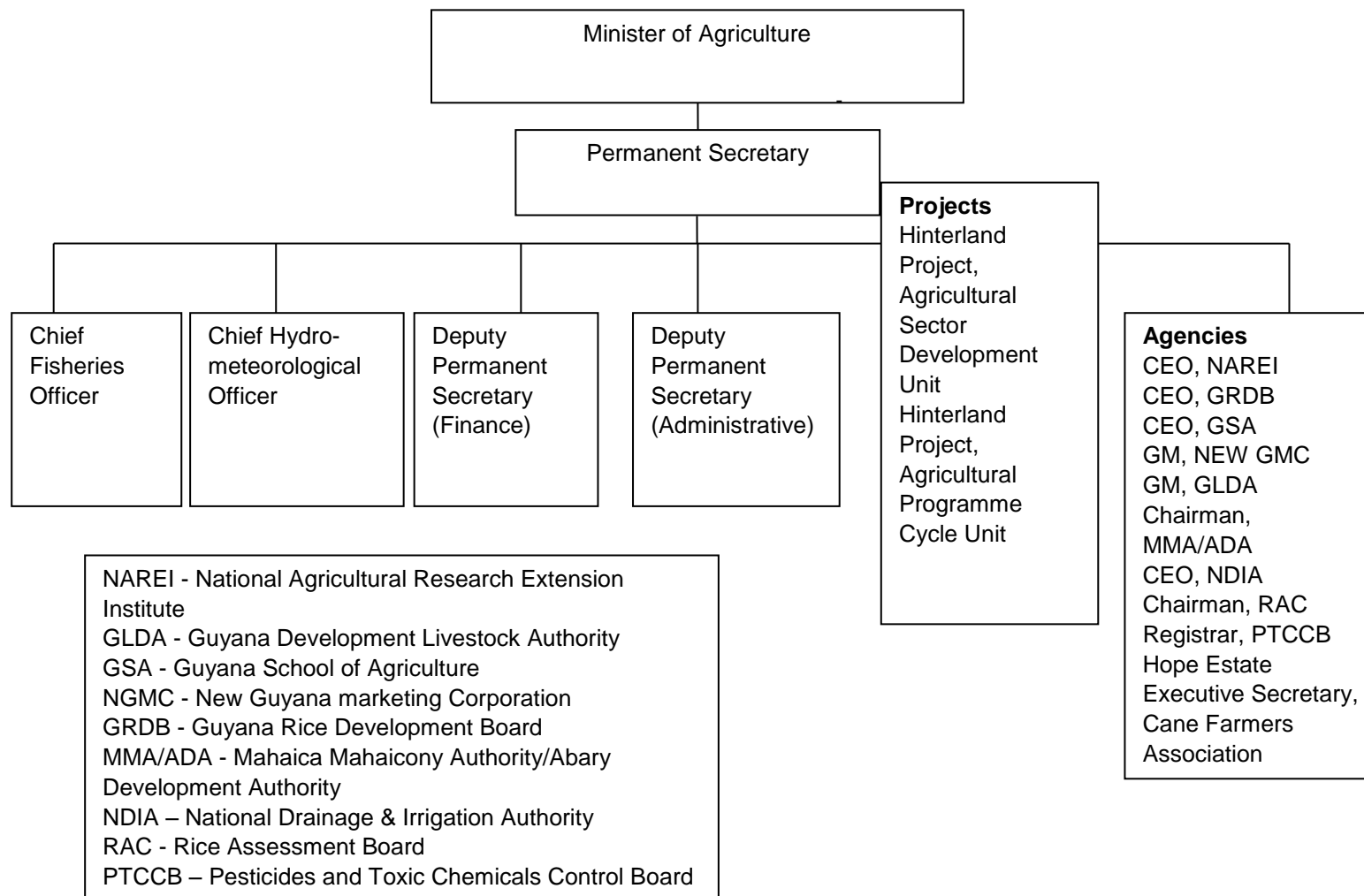
<sup>69</sup> MOA collaborated with FAO and CI Guyana to achieve these outputs

Appendix 5: Institutional aspects and implementation arrangements

- (d) To establish and maintain networks of climatic, synoptic and water monitoring stations in Guyana and its EEZ.
  - (e) To routinely provide the governmental and non-governmental agencies with information on composition of the atmosphere, quantity and quality of surface and ground water and sea surface temperature, waves, swells, ocean currents and other parameters.
  - (f) To work along with other agencies in promoting environmentally sound economic and social activities.
  - (g) To conduct research and systematic monitoring of activities in furtherance of Guyana's commitments under international related conventions.
  - (h) To promote public awareness of the atmospheric and water resources of Guyana and their importance to the Socio-economic development of Guyanese.
  - (i) To advise the Minister on matters of general policy relating to the hydrological, meteorological and oceanographic aspects of the atmosphere and water resources in Guyana and its EEZ.
  - (j) To perform such other functions pertaining to the monitoring of the atmospheric and water resources of Guyana and its EEZ as may be assigned by the Minister or under any enactment.
8. The Hydrometeorological Service provides useful outputs to varied users; top of the list being the agriculture, education & aviation sectors. It also contributes to the World Weather Watch and World Climate Programmes. Information such as climate and weather forecasts, monitoring the water resources, providing high tide alerts, daily weather forecasts, etc. is disseminated via radio, television, newspapers, bulletins and facsimile.



## **ORGANIZATION STRUCTURE OF THE MINISTRY OF AGRICULTURE**



## Appendix 5: Institutional aspects and implementation arrangements

The Hydrometeorological Service is also linked to two regional institutions; the Caribbean Meteorological Organisation (<http://www.cmo.org.tt>) and the Caribbean Institute for Meteorology and Hydrology (<http://www.cimh.edu.bb/>); and in addition to the World Meteorological Organisation (<http://www.wmo.int>), a UN agency that co-ordinates global activity related to weather, water and climate. It also relates to the International Civil Aviation Organisation (<http://www.icao.int>) on matters relating to operational meteorology for aviation. Local weather and monthly climatology are also exchanged for international consumption and aviation on the Global Telecommunication System (GTS) and the AFTN world networks co-ordinated by the World Meteorological Organization, and the ICAO. In addition, the Hydromet Service is the focal point for the National Ozone Action Unit (NOAU).

9. **Fisheries Department.** The Fisheries Department is responsible for managing, regulating and promoting the sustainable development of the nation's fishery resources for the benefit of the participants in the sector and the national economy. The Fisheries sector is made up of three primary components: Marine Fishery, Aquaculture and Inland Fishery. The department achieves its mission through the following divisions:
  - (a) *Administration:* To provide the relevant support services necessary for the development and maintenance of fisheries programmes and activities.
  - (b) *Statistical Unit:* To collect and analyze data and conduct surveys to provide scientific and social-economic information for policy determination, planning and resource management. The key responsibilities include: Market Survey Activity, Management of Data Entry and Storage, Production and Management of Individual Export Licence forms.
  - (c) *Legal and Inspectorate Unit:* To ensure the observance of all legal and administrative requirements by all entities in the fishery sub-sector and recommended appropriate changes to existing regulations which govern the Sector. The key responsibilities include: registration and licencing of fishing vessels; licencing and inspection of fish processing plants; enforcement and surveillance activities of fishing vessels; monitoring the industrial fleet / artisanal vessels with respect to compliance with licence conditions; monitoring and conciliating in complaints and disputes; issuing export licences for fish and fish products; and ensuring the collection of revenue under the Fisheries Act 2002 and Maritime Act of 1977, etc.
  - (d) *Aquaculture:* To ensure that aquaculture is developed in a sustainable and controlled manner optimising economic and environmental benefits.
10. **Agricultural Public Sector Agencies of most importance to Regions 1 and 9.** The public sector agencies that fall under the management of the MOA include: National Agricultural Research Extension Institute (NAREI), Guyana Development Livestock Authority (GLDA); Guyana School of Agriculture (GSA); Guyana Marketing Corporation (GMC); Guyana Rice Development Board (GRDB); Mahaica Mahaicony Authority/Abary Development Authority (MMA/ADA); and National Drainage & Irrigation Authority (NDIA). However, within the context of this project, the agencies of importance in Regions 1 and 9 are NAREI, GLDA and GMC. These are briefly described below.
11. **National Agricultural Research & Extension Institute.** The National Agricultural Research & Extension Institute (NAREI) is the premier organisation responsible for spearheading agricultural research and extension activities for productivity enhancement and diversification of the non- traditional crops sector (fruits and vegetables), bio fuel development as well as for plant quarantine services. NAREI's vision is **"to ensure food security, prosperity and livelihoods of all, using technological innovations in agriculture."** NAREI's mission is to achieve excellence in promoting technologies through research, and training programs that serve the people of Guyana.
12. The Institute is actively engaged in adaptive research that focuses on improving crop production / productivity for enhanced food security and rural development. Emphasis is placed on crop diversification from high volume- low income to low volume- high income crops such as spices and other cash crops, new vegetables (cauliflower, broccoli, red cabbage and sweet pepper), IPM approach to managing biotic stresses, procurement and evaluation of exotic germplasm (black eye, corn and soybean) of field crops, bio fuel crops, coconut and cassava revitalisation, and technology dissemination through the extension services. The promotion of

- Climate Smart Agricultural Practices inclusive of protected agricultural systems for year-round vegetable production, hydroponics and drip irrigation is also given prominence.
13. NAREI's Strategic Plan (2013- 2020) envisions the Institute as being the major facilitator for a prosperous, food secure and environmentally sustainable Guyana. This will be achieved through enhancing agricultural productivity and quality of produce through generation and dissemination of newer and efficient technologies and services reduced import of agricultural produce and products, reduced malnutrition and environmental degradation and enhanced exports taking into consideration the changing global and business environments. The three main departments are: Crop Development and Support Services, Research and National Plant Protection Organization.
  14. **Guyana Livestock Development Authority.** In 2010, the Guyana Livestock Development Authority (GLDA) was instituted as a semi-autonomous agency within the MOA. The vision of GLDA is stated as "A vibrant livestock industry, providing safe food to Guyana's population and generating income for rural and urban households, while making optimal use of available resources and competing with producers beyond its borders" while the mission is defined as "To promote greater efficiency in the livestock and livestock product industry and to enhance services in livestock husbandry, livestock health and research and to make provision for effective administration, for internal competition between industries and regulation of trade, commerce and export of livestock or livestock products. The GLDA has a number of Units which assist it in fulfilling its mandate and these include the Animal Health Unit as well as the Animal Production Unit; and these units are supported by a number of sub units and supporting facilities.
  15. Several programmes are planned and implemented under GLDA's mandate. One involves protecting the gains of animal production and genetics through the provision of timely veterinary interventions and minimizing the threat of disease from internal and external sources. Veterinary drugs and the importation of animals are also regulated under this programme. Another programme involves infusing local animal stock with new genetics to enable our farmers to benefit from higher productivity. Techniques of artificial insemination and embryo transfer form part of the regular strategies. Superior genetics is supported by another programme designed to catapult our farmers into higher levels of animal husbandry through better nutrition, housing and access to authentic and validated information.
  16. **Guyana Marketing Corporation.** Guyana Marketing Corporation (GMC) is a government corporation established under section 46 of the Public Corporations Act, Cap 19:05 of the Laws of Guyana that has been working assiduously over the years to promote the cultivation and export of Guyana's non-traditional agricultural crops to Regional and Extra-Regional markets. GMC's mission is to: **"Coordinate and facilitate the development and marketing of quality agricultural produce and product"**.
  17. Guyana Marketing Corporation is sometimes referred to as the "New" Guyana Marketing Corporation (New GMC). This is because in 1985 the policy of the Guyana Marketing Corporation was changed. There was a total cessation of all buying and selling operations, and a mandate to provide market facilitation services to the private sector for the export of non-traditional agricultural produce, facilitate local market development, develop and disseminate post-harvest technology, conduct market research and provide market intelligence services to farmers was adopted.
  18. In 1997, GMC resumed the buying of farmers' produce and processed agricultural products and other locally manufactured items, but at prices that were negotiated directly with farmers and manufacturers. Moreover, only quality produce, for which there was a ready demand, was bought. This was part of GMC's effort to make Guyanese produce and products more accessible to consumers.
  19. In 2001, to further enhance its services to farmers and exporters, the corporation established the Central Packaging Facility – Sophia to prepare produce for export. In 2008, the Parika Agro-Packaging Facility was established for the same purpose. Apart from these activities, GMC is also charged with the responsibility of providing Marketing Services for the development of the non-traditional agricultural sector. GMC also provides exporters of non-traditional agricultural

Appendix 5: Institutional aspects and implementation arrangements

- products with marketing advice, assistance for sourcing supplies, harvesting, cleaning, packaging and facilitating logistical arrangements for exports.
20. The GMC comprises of the following departments: Administrative and Finance, Marketing and Business Development, Market Information Centre, Packaging Facilities and Guyana Shop.
  21. **Ministry of Indigenous Peoples Affairs.** The vision of the Ministry of Indigenous Peoples Affairs (MOIPA) is, "We will be the leader in promoting a better quality of life among all Amerindians, with the needed economic infrastructures, equal opportunity in all respects of life, land tenure, and adequate representation so that amidst development, Amerindian culture, rights and welfare and environment are preserved and maintained. It is our vision that Amerindian Villages are empowered to transcend all forms of vulnerability, and to have full equal access to all social services that the government has to offer".
  22. The mission is, "We create and provide services through human resource development, technical, technological and financial assistance for a holistic development of Amerindian Villages and for all Amerindians to have land tenure and ownership and access to all social services while representing and protecting their cultural heritage, rights and welfare".
  23. The departments include: Administration and finance, projects, social welfare and labour, Hinterland Scholarship Program, Governance and Community Development and the Amerindian Hostel.
  24. The Ministry is linked to villages through the Principal Regional Development Office (PRDO) and a Community Development Officer (CDO) is based in each of the Sub-districts of each region.
  25. Two major projects implemented by the MOIPA over the last few years are the Amerindian Development Fund and the Amerindian Land Titling Project.
  26. **Amerindian Development Fund.** The Amerindian Development Fund (ADF) was established to provide support for the socioeconomic and environmental development of Amerindian communities and villages, through the implementation of Community Development Plans (CDPs). The projects cover agricultural production and processing, village infrastructure, tourism, manufacturing, village business enterprise, and transportation, among others.
  27. Micro-capital grants have been made available through the Low Carbon Development Strategy Guyana REDD+ Investment Fund (LCDS GRIF) for Amerindian Communities to pursue business ventures and village infrastructure development. These ventures are developed through a process that will culminate in the graduation of CDP to a full Business Plan. A variety of capacity strengthening exercises are being undertaken to support the CDPs. Strategic partnerships to close market access gaps for targeted communities are being established. In this regard, the creation and strengthening of a system of value chains is the mechanism through which the support to Amerindian communities is provided.
  28. **Amerindian Land Titling Project.** The Amerindian Land Titling (ALT) Project seeks to enable Amerindians to secure their lands and natural resources with a view towards sustainable social and economic development. It is expected that titling and demarcation will strengthen land tenure security and the expansion of the asset base of Amerindians, thus enabling improved long term planning for their future development. The outputs are:
    - (a) Land titles issued and demarcation process completed for all Amerindian villages that submit requests
    - (b) A mechanism in place for identifying and resolving land issues
    - (c) A Revised Communication Strategy
  29. **Office of Climate Change.** The Office of Climate Change (OCC) which falls under the Ministry of the Presidency has the mandate to lead in the development and implementation of national climate change policies and actions, and coordinate efforts across sectors and agencies for the mainstreaming of climate change at the national and regional levels. The OCC since its establishment in 2009, played a key role in the preparation of Guyana's Low Carbon Development Strategy (LCDS), the consultative process for its finalization and implementation of the on-going stakeholders engagement, communication and outreach, which forms part of

- the Enabling Activities of the Joint Concept Note to Memorandum of Understanding between the Government of Guyana (GOG) and Norway.
30. The OCC is the Focal Point for the United Nations Framework Convention on Climate Change and is responsible for ensuring that GOG fulfills its obligations as a Party to the Convention and its Protocols. The OCC also plays a leading role in the engagement and dialogue with multilateral agencies on behalf of the GOG, to establish partnerships and facilitate access to technical and financial support for low carbon initiatives and climate change mitigation and adaptation, in furtherance of national development thrust.
  31. Currently there seems to be no clear institutional framework or mechanism for coordination across the sectors. This was compounded further after the change in designation in Ministry of Natural Resources and Environment (so designated under the previous administration) to a department then back to a Ministry. The coordination mechanism could therefore be considered works-in-progress as Guyana seeks to grapple with all of the issues pertaining to climate change and the environment.
  32. Based on The Official Gazette of January 6, 2016, these were the changes made with respect to the natural resources sector and the Ministerial Portfolios.
    - (a) ***Under the Minister of State, Ministry of the Presidency are:*** Office of Climate Change, Civil Defence Commission, Guyana Lands and Survey Commission.
    - (b) ***Under the Minister of Natural Resources, Ministry of Natural Resources are:*** Guyana Forestry Commission (GFC), Guyana Geology and Mines Commission (GGMC), Guyana Gold Board, Environmental Protection Agency (EPA), Wildlife Division, Petroleum (Oil/Gas)
    - (c) ***Under the Ministry of Communities:*** Guyana Water Inc., Central Housing and Planning Authority, National Water Council.
  33. The mandate for most of the agencies are enshrined in the Acts under which they were established, since most are semi-autonomous.
  34. Further to the above, it should be noted that there are two independent agencies, Conservation International (Guyana) and the Iwokrama International Centre for Rainforest Conservation and Development that are involved in climate change and the environment. Conservation International (Guyana) - is a non-profit organization, independent of government. It is involved in a number of initiatives some of which are in collaboration with government. The Iwokrama International Centre (IIC) is an international not-for-profit organisation which was at the beginning funded by a number of international agencies but in recent years depended heavily of government subventions.

## II. Decentralized Administration

35. The existing Constitutional provisions identify the levels of government:
  - Supreme Congress of the People
  - Parliament
  - National Congress of Local Democratic Organs
  - Regional Democratic Councils
  - Neighbourhood Democratic Councils
  - People's Cooperative Units
36. The country was divided by Government Order (No. 69 of 1980) under the Local Democratic Organs Act 1980 (No. 12 of 1980) into ten (10) regions and each one has a Regional Democratic Council (RDC).
37. The RDC's primary duty is to ensure efficient management and development in its area, to provide leadership by example, to organise popular co-operation in respect of the political, economic, cultural and social development of its area, to co-operate with the social organisation of the working people to maintain and protect public property, improve working and living conditions, promote the social and cultural life of the people, raise the level of civic

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consciousness, preserve law and order, consolidate socialist legality and safeguard the rights of the Citizens (Section 6 (a) to (j), Act 12 of 1980).

38. In Region 1, two (2) Neighborhood Democratic Councils have been established - one for the Matarkai area and the other for Mabaruma/Hosororo/Kumaka area. Apart from these there are an estimated 30 nucleated Amerindian communities and several non-nucleated ones as well as mining encampments which fall within Region 1. The effective administration of sub-regions is one of the major problems which Region 1 has faced over the years. As can be seen from the outline below the sub-regions are relatively vast with scattered settlements:

(i) Mabaruma sub-region: All communities and settlements are along the Aruka, Barima, Barama and Waini Rivers and their tributaries including Morawahanna and the settlements along the road from Barima end to Yarakita.

(ii) Moruka sub-region: The 'island' settlements along the lower, central and upper Moruka River, the settlements along the road from Kumaka to Kwebanna as well as settlements in Manawarin, Warapoka and Waramuri.

(iii) Matarkai sub-region: The areas of Matthews Ridge, Arakaka and Port Kaituma (as the name Matarkai suggests), Sebai and settlements along the Kaituma River as well as Towakaima and Baramita.

39. Region 9 is known to be the largest Administrative Region in Guyana. The Region is administered by the RDC which is made up of 15 elected representatives. For the ease of administration there are five (5) programme areas, namely:
1. Regional Administration and Finance;
  2. Agriculture Development;
  3. Public Works;
  4. Education Delivery; and,
  5. Health Services.
40. In Region 9, the recently elected town council administers the affairs of the township of Lethem which also includes the Moco Moco Settlement. The Regional Democratic Council achieves its objectives by partnering with various stake holders by engaging in constant consultation. These include, but are not limited to:
1. Rupununi Chamber of Commerce and Industry (RCCI)
  2. Conservation International (CI)
  3. Lethem Municipality
  4. The Guyana Police Force (GPF)
  5. The Guyana Defence Force (GDF)
  6. The Amerindian Village Councils (AVCs)
  7. The North Rupununi District Development Board (NRDDB)
  8. Iwokrama
  9. Central Ministries
41. The Region has fifty eight (58) villages and communities which are scattered across this vast Region as follows:
- (a) South Rupununi – eight (8) villages and two (2) satellite communities;
  - (b) South Central Rupununi – eight (8) villages and four (4) satellite communities;
  - (c) Central Rupununi – four (4) villages and eight (8) satellite communities;
  - (d) North Rupununi – six (6) villages and five (5) satellite communities; and,
  - (e) South Pakaraimas – six (6) villages and seven (7) satellite communities.

### III. Non-profit organizations engaged in Climate Change and the Environment

42. **Conservation International-Guyana Inc.** The general objective of the **Conservation International-Guyana Inc.**-implemented project entitled, "Leveraging Natural Capital in Guyana's Rupununi" is to contribute to the healthy and sustainable economic development of the Rupununi Region of Guyana. The project's specific objective is to strengthen and create

- environmentally-sustainable business models for Community-based Enterprises (CBEs) in the Rupununi that are focused on nature-based tourism and agriculture.
43. This project aims to contribute to the economic development of the Rupununi Region while preserving its ecosystems. More specifically, the project will create and strengthen environmentally sustainable, local-level, business-led initiatives in the Rupununi. Through this process the project will test models for implementation of Guyana's LCDS at a local level in the Rupununi. Through supporting models of low-carbon development, the project outcomes will demonstrate how natural resource-dependent local and indigenous communities in the Rupununi can enhance and ensure sustainability of their livelihoods, whilst maintaining the capacity of the Rupununi to provide environmental services such as carbon sinks and biodiversity habitat. In addition, the project will focus on nature-based tourism and sustainable agriculture.
  44. CI Guyana has over the years refined the community planning process in Region 9 and this is an area that the Hinterland Project could benefit from.
  45. ***Iwokrama International Centre for Rainforest Conservation and Development (IIC)***. The Iwokrama International Centre (IIC) is an international not-for-profit organisation, governed by an International Board of Trustees and managed by a professional team of around seventy permanent staff in Georgetown and at the Iwokrama River Lodge and Research Centre at Kurupukari.
  46. The IIC was established in 1996 under a joint mandate from the Government of Guyana and the Commonwealth Secretariat to manage the Iwokrama forest, a unique reserve of 371,000 hectares of rainforest, "in a manner that will lead to lasting ecological, economic and social benefits to the people of Guyana and to the world in general".
  47. The Iwokrama forest and its research centre are unique, providing a dedicated site in which to test the concept of a truly sustainable forest – where conservation, environmental balance and economic use can be mutually reinforcing. Drawing on its earlier work in sustainable forest management, the IIC is now, in close collaboration with the Government of Guyana, the Commonwealth and other international partners including the UK company, Canopy Capital, developing a new approach to enable countries with rainforests to earn significant income from eco-system services and creative conservation practice.
  48. In a July 2016 visit to the IIC, President David Granger and First Lady Mrs. Sandra Granger, got a first-hand look at the operations of the facility, which is located in Potaro-Siparuni Region (Region Eight) and which borders the Surama Village of Region 9. Speaking to the gathering at the Surama Village Office, the President reaffirmed his Administration's commitment to sustaining Iwokrama and ensuring that it becomes a workable model for development and environmental protection.
  49. "We cannot develop this country unless we learn the lesson of Iwokrama; the lesson of biodiversity, sustainable development, renewable energy, climate change and living together, not in conflict, but in concert with nature... Unless we solve these problems, Guyana will continue to be poor," President Granger said.
  50. **Role of selected agricultural sector agencies of Region 9.** The key agencies that have played a role in influencing the agricultural production and productivity in Region 9 are briefly discussed below.<sup>70</sup>
  51. The **North Rupununi District Development Board (NRDDB)** has been instrumental in the development of relations with the Fisheries Department of the Ministry of Agriculture. Present activities focus on developing management plans for Arapaima and Aquarium Fish and examining the development of fish farms in the area. The Arapaima management plan will be the first in a series of plans for the management of natural resources in the North Rupununi, and is reported to be the first example of community-based inland fisheries management in Guyana. As part of the management of fisheries in the area, Fisheries Committees are being developed in each community to be managed by an Executive Fisheries Committee at the

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<sup>70</sup> Region 9 Agriculture Strategy and Action Plan and SOFA

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- NRDDB. Agencies involved in the fisheries initiatives include the Fisheries Department (MOA), Environmental Protection Agency (EPA), Iwokrama, Conservation International - Guyana, Food and Agriculture Organization, Projeto Piaba, Mamiraua Institute, New England Aquarium and the Natural Resources Institute (NRDDB, 2012-2017).
52. Unlike the situation with cassava production, peanut cultivation in Region Nine has benefited from a well-organized agriculture extension programme conducted over a six-year period (2002-2007). The **Peanut Collaborative Research and Support Program** was funded through the United States Agency for International Development (USAID) and conducted by staff from the Universities of Florida and Georgia and the Beacon Foundation of Guyana with support from the National Agricultural Research Institute of Guyana. Initially, the primary objective of the programme was to provide expertise to peanut farmers in the Rupununi. By the conclusion of its activities, the Peanut CRSP programme provided recommendations resulting in (1) improved productivity as measured by average yields obtained by farmers across the region, (2) improved storage methods and systems in place in the major peanut producing villages and (3) the development of production systems that saw less reliance on the traditional slash and burn methods that required farmers to clear new lands every season (Ballayram et al 2014).
  53. The **Society for Sustainable Operational Strategies (SSOS)** was founded in 2006 as a not-for-profit organization registered under the Friendly Societies Act. Its officers (Executive Officer, Secretary and Treasurer) serve on a voluntary basis. SSOS has seven core members with over 130 years of experience working in development activities in Guyana's hinterlands. Areas of expertise include: agricultural production, processing and marketing; small equipment operation and maintenance; alternative energy sources; information and technology, and organization and business management, among others. SSOS also has three active Associate members. Three of its members are women and two members reside full time in Region 9.
  54. Three members of SSOS worked under the umbrella of an NGO, helping to create the School Snack Program in 2005. In 2007, they formed SSOS and signed a 5-year agreement with the University of Georgia, USA, to manage the Peanut CRSP Project. In the same year SSOS signed an agreement with the Ministry of Education to manage the School Snack Program, growing it from 7 villages and 1,400 hundred school students in 2007 to 41 villages and 3,400 students in 2012.
  55. SSOS focuses on helping to create a progressive network that allows rural people with specific needs to effectively access appropriate solutions, through local, national and/or international service providers. It facilitates an effective flow of quality information and appropriate technologies to progressive hinterland people engaged in efforts to create jobs, increase incomes, add value to products and improve the quality of life for their families.
  56. SSOS helps formulate and/or implement feasible and practical development projects that respond to specific needs of rural communities, NGOs or other hinterland clients. It uses its web site (**SSOSGY.com**) to share experiences and establish links to relevant sources of technology, information and technical assistance.
  57. While not to the level of peanuts, cassava production has also benefited from external funding to facilitate value addition and address the market constraints and production shortcomings. In the report funded by **Volunteer Service Oversees (VSO)/CUSO** and prepared by a volunteer Heather Cobb (2011) about the Market Assessment for the Wowetta Women Cassava Processing Group, a number of constraints were identified that once extrapolated to other areas within the region may provide a substantial amount of information pertaining to the issues influencing cassava products marketing, production, possibilities and constraints in the area (VSO, 2011).
  58. Similarly, for two years VSO placed a resident financial management specialist in the Wowetta village as part of the strategies to equip the community leaders and agro processing groups with skills to guide the process of records and book keeping. This culminated in a publication of a financial pocket fact book- "Business & Financial Management in Amerindian Communities" for the communities and this is applicable to all of the communities in Region 9 (VSO, 2012). While the targeted communities were mostly from the North Rupununi, the findings therein do not differ significantly from what is affecting other parts in the region and as a result the recommendations are applicable to other areas of the region.



59. The newest development for the cassava industry is that two farine factories, one at Moco Moco and one at Wowetta have been established with funding from CIDA's Disaster Risk Reduction Program. As at June 2016, the basic structures were completed and finishing touches were in progress.
60. **WADNet and the Rural Enterprise and Agricultural Development (READ) project of the Ministry of Agriculture** with support from IICA had within the last 18 months of the READ project, conducted various workshops to address the issues of costs and returns of production of cassava, cashew nut and peanut value-added products. In association with CUSO, the agencies addressed the key areas affecting the production by the three women's groups (Helping Hands, Wowetta and Anaraputa). The issue of cost of raw materials was specifically identified by the women's groups as one of the factors affecting the profitability of the respective enterprises.<sup>71</sup>
61. The major livestock private sector organization is the **Rupununi Livestock Producers Association (RLPA)**. The foundation of this association was the Rupununi Development Company the owners of the Dadanawa Ranch and the other large private livestock farmers of the Rupununi Savannahs. The RLPA is perhaps mostly active in organizing the famous, annual Rupununi Rodeo. However, in early 2016, the RLPA was reorganized. It has a new executive that has a new vision for its members.
62. In an effort to engage the growing number of youth in the region, initiatives such as **Bina Hill Youth Learning Centre (BHYLC)** have been established. At the beginning, it only recruited youth from North Rupununi, however, with increased demand for such services, the only kind in the region, youth from other regions are now accepted into the institution.
63. The Institute provides an opportunity for the youth who may not have joined the formal education system to gain some skills that they could apply in their communities. The skills imparted to the students include agriculture, carpentry, tourism, business management, forestry and natural resource management. In fact, some of the graduates of this institute are already providing services to the region in various capacities such as Fisheries Officers, Forest Officers, and Agriculture Officers.
64. With respect to the Non-Timber Forest Products (NTFP), various exhibitions have been held at Lethem, and craftsmen and women have exhibited at GUYEXPO with the support of the **Ministry of Commerce and Tourism (now Ministry of Business and Tourism)**. Most of these art and craft pieces tend to portray the lifestyle of the Indigenous people.

#### **IV. Technical Assistance Agencies**

65. **Food and Agriculture Organization.** The Country Programming Framework (CPF) was signed between the Government of Guyana (GOG) and the Food and Agriculture Organization (FAO) of the United Nations on 17th December 2015. It sets out three government priority areas to guide FAO partnership and support with the GOG, bringing together innovative international best practices and global standards with national and regional expertise during the four years from 2016-2019.
66. The CPF will focus on the following three priority areas:
  - (a) Food and Nutrition Security;
  - (b) Sustainable management and utilization of natural resources (land, forest and fisheries), climate change and resilience of livelihoods to disasters; and
  - (c) Agriculture, forestry, fisheries, hinterland and rural development.
67. **Food and Nutrition Security** – Under this priority area, FAO will contribute to the reduction of hunger, food insecurity, malnutrition and poverty in Guyana. It will support the strengthening of the National Food and Nutrition Security Council as the intersectoral governance and

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<sup>71</sup> Report on Rupununi Stakeholder's Meeting, Business Forum & Exhibition, Rural Enterprise and Agriculture Development, MOA, December 2014

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- coordination mechanisms for food and nutrition security; the implementation of the National Food and Nutrition Security Strategy and Action Plan, the National Nutrition Strategy and the National Strategic Plan for the Integrated Prevention and Control of Chronic Non-Communicable Diseases and their Risk Factors. The national school feeding programme will also be the focus of this priority area, with emphasis being placed on nutrition education and linking local farmers produce to public institution requirements through public purchasing.
68. Sustainable management and utilization of natural resources (land, forest and fisheries), climate change and resilience of livelihoods to disasters - With a national emphasis on building a green economy and given the country's heavy dependent on its natural resources, this thematic area will support efforts to strengthen national capacity and governance framework to ensure sustainable management of natural resources for energy, food production, livelihoods and adequate compensation for global climate and ecological services. The work under the CPF is also expected to strengthen the national agriculture disaster risk management mechanism.
  69. *Agriculture, forestry, fisheries Hinterland and Rural Development* – In support of national strategies such as the National Strategy for Agriculture in Guyana (2013 – 2020), the Poverty Reduction Strategy Paper and the Low Carbon Development Strategy, FAO support in this priority area will focus on interventions to improved uptake of modern production technologies, increase market access by small farmers through value chain approach, reduce food losses at post-harvest, strengthen pest and disease management strategies in livestock and crop production systems; introduce initiatives to strengthen hinterland agricultural production and productivity; promote integrated water land management and support efforts to improve access to services by rural and hinterland small farming communities. Government institutions and value chain actors will be provided with FAO's technical assistance (production, processing, packaging, marketing and trade) to support the enhancement of agribusiness, value chains and the development of new agro-industries within the hinterland regions. In support of data and information for evidence based decision making, under this priority area FAO support will also focus on strengthening national capacity for the collection, analysis and dissemination of food and agriculture data and information. Building partnerships between private sector, civil society and academia will be critical to advancing this area.
  70. It should be noted that two of notable achievements of FAO's contribution under the last CPF were the completion of the State of Food and Agriculture (SOFA) for the Rupununi and the Integrated Sustainable Agriculture Development Strategy for Region 9. As a result, FAO should be a partner for collaboration with Hinterland Project.
  71. ***The Inter-American Institute for Cooperation on Agriculture*** is the second major technical assistance agency in Guyana's agricultural sector.
  72. The following Instruments of Action are being employed by the Guyana Office<sup>72</sup>:
    - (a) "Flagship Projects (FPs)": These will serve as the "backbone" for delivering IICA's technical cooperation proposed for the 2014-2018 period related to Competitiveness, Sustainability and Inclusion;
    - (b) "Projects Financed with External Resources": These instruments will be financed entirely with external funds and designed or implemented to complement and expand IICA's actions under this MTP;
    - (c) "Rapid Response Actions (RRAs)": These are designed to respond to specific requests and opportunities that arise in a country or in a group of countries prompted by political, social or economic changes, environmental emergencies or other emerging issues;
    - (d) "Technical Cooperation Fund" (FonTC): This mechanism will be used to finance pre-investment initiatives, formulate projects aimed at securing external resources and to mobilize new financial resources complementary to the Regular Fund.
  73. In this new period, IICA will be implementing these new "Flagship Projects": Competitiveness and Sustainability of Agricultural Chains for Food Security; Productivity and Sustainability of

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<sup>72</sup> IICA Strategy for Guyana, 2014-2018

Family Agriculture for Food Security and the Rural Economy; Resilience and Comprehensive Risk Management in Agriculture; and Inclusion in Agriculture and Rural Territories.

74. These projects will highlight and make operational the excellence of the Institute's Technical Cooperation. Further, within and among these projects, the Institute has identified eleven contributions. As the main instrument for delivering the "Flagship Projects," the eleven contributions are designed and will be managed as a set of interrelated and coordinated technical cooperation actions, implemented over the next four-year period, of hemispheric scope and with concrete multinational and national results. It is geared to the provision of public goods, designed and managed by IICA to comprehensively address complex problems of agriculture. The success of the flagship projects will be the distinctive hallmark of the Institute at the end of the period.
75. IICA would be another potential partner for collaboration with the Hinterland Project. Like FAO, it has been involved in some activities in Region 9 particularly those related to the empowerment and participation of the indigenous women.

## V. Other Players in Agricultural and Rural Development in Region 9

76. Notwithstanding the ministries, agencies and institutions mentioned above, the SOFA and Region 9 Agricultural Strategy Action Plan note that there is a mix of the public, private and NGO sectors; technical assistance and donor agencies and volunteer agencies. Each stakeholder targets one or more component of the sector, one or more gender group and one or more geographical area. In the case of Region 9 therefore, organizations such as the NRDDDB, SSOS, CUSO and WADNet must be given credit. Table 1 refers.

<b>Table 1: Players in the Agriculture Sector in Region 9</b>		
<b>Stakeholders</b>	<b>Focus</b>	<b>Target Group</b>
<b>Non-Governmental Organizations</b>		
Aranaputa Processors Friendly Society (APFS)	Peanut butter processing (commercial production)	Women
Beacon Foundation of Guyana	Supported peanut production	Community members
Conservation International – Guyana (CI-Guyana)	Nature Conservation	Community members
Helping Hands Women Producer's Cooperative Society	Cashew nut (commercial production)	Women
Kanataka Demerara-Rotary Clubs	Drip Irrigation/ Credit Scheme	Community members
Kanuku Mountain Community Representative Group (KMCRG)	Nature conservation	Community members
North Rupununi Development Agriculture and Producers Association (NRDAPA)	Livestock, crops, fisheries	Farmers and producer
North Rupununi District Credit Development Trust (NRDCDT)	Credit and Development	Farmers and producers
North Rupununi District Development Board (NRDDDB)	Community projects	16 Communities in North Rupununi (NR)
Partners of the Americas	Shadehouse vegetable production	Community members
Rupununi Livestock Producers Association (RLPA)	Livestock production	Livestock farmers
South Central Peoples' Development Association (SCPDA)	Nature conservation	Community members
Society for Sustainable Operational Strategies (SSOS)	Peanut/ Vegetables	Community members
Women in Agriculture Development Network (WADNet)	Agro processors	Women in agriculture
Wowetta Women Agro-Processors Association	Farine and associated products (commercial production)	Women
<b>Private Sector</b>		

<b>Table 1: Players in the Agriculture Sector in Region 9</b>		
<b>Stakeholders</b>	<b>Focus</b>	<b>Target Group</b>
Dadanawa Ranch	Beef cattle (commercial production)	Extensive cattle production
JR Ranch		
Santa Fe Farm	Mixed farming- Rice/?	Large scale intensive commercial production
<b>Public Sector</b>		
Community Village Council (CVC)	Community projects	Community members
Guyana Forest Commission (GFC)	Forest products	SMEs, Community members
National Agriculture Research and Extension Institute (NAREI)	Crops	Community members
Guyana Livestock Development Authority (GLDA)	Livestock	Community members
Ministry of Agriculture (MoA)	Fisheries, Crops	Community members
Ministry of Amerindian Affairs (MOAA)	Community projects	Community members
Guyana Rice Development Board (GRDB)	Rice production	Community members
Office of the President (OP)	Community projects	Community members
Ministry of Natural Resources (MNR)	Community projects	Community members
<b>Donor / Technical Assistance Agencies</b>		
Canadian International Development Agency (CIDA)	Forest management	SMEs
Canadian University Students Organization (CUSO)	Agro processing, Markets	Agro processors
European Union (EU)	Integrated farming	Youth Institutions. Community members
Food and Agriculture Organization (FAO)	Agricultural projects, Fisheries	Livestock, Agro processors, Fisheries
GEF – Small Grants Programme, UNDP	Vegetable, root crop production	Katoonarib Village
Inter-American Institute for Cooperation on Agriculture (IICA)	Crop	Community members
International Fund for Agriculture Development (IFAD)	Agro processing, Markets	Agro processors
International Institute for Environment and Development	Forest SMEs	Community members
Iwokrama International Centre for Rainforest Conservation and Development (Iwokrama)	Forest management	Community members
Natural Research Institute	Fisheries related Research	Fisheries communities
New England Aquarium	Fisheries related Research	Fisheries communities
Projeto Piaba Mamiraua	Fisheries related Research	Fisheries communities
UNICEF Amazon program	Cassava value addition	Community members
United Nations for Development Program (UNDP)	Nature conservation	Community members
United States Agency for International Development (USAID)	Peanut production	Community members
University of Florida	Peanut production	Community members

## **B. Project Organization and Coordination**

77. **Agriculture Sector Development Unit.** The agriculture sector in Guyana has attracted the sustained attention of the Government of Guyana (GoG), international donors and lending agencies. Current institutions involved in projects in the sector include the Inter-American Development Bank, World Bank, Caribbean Development Bank, European Union, Canadian Agency for Development, the Food and Agricultural Organisation, Inter-American Institute for

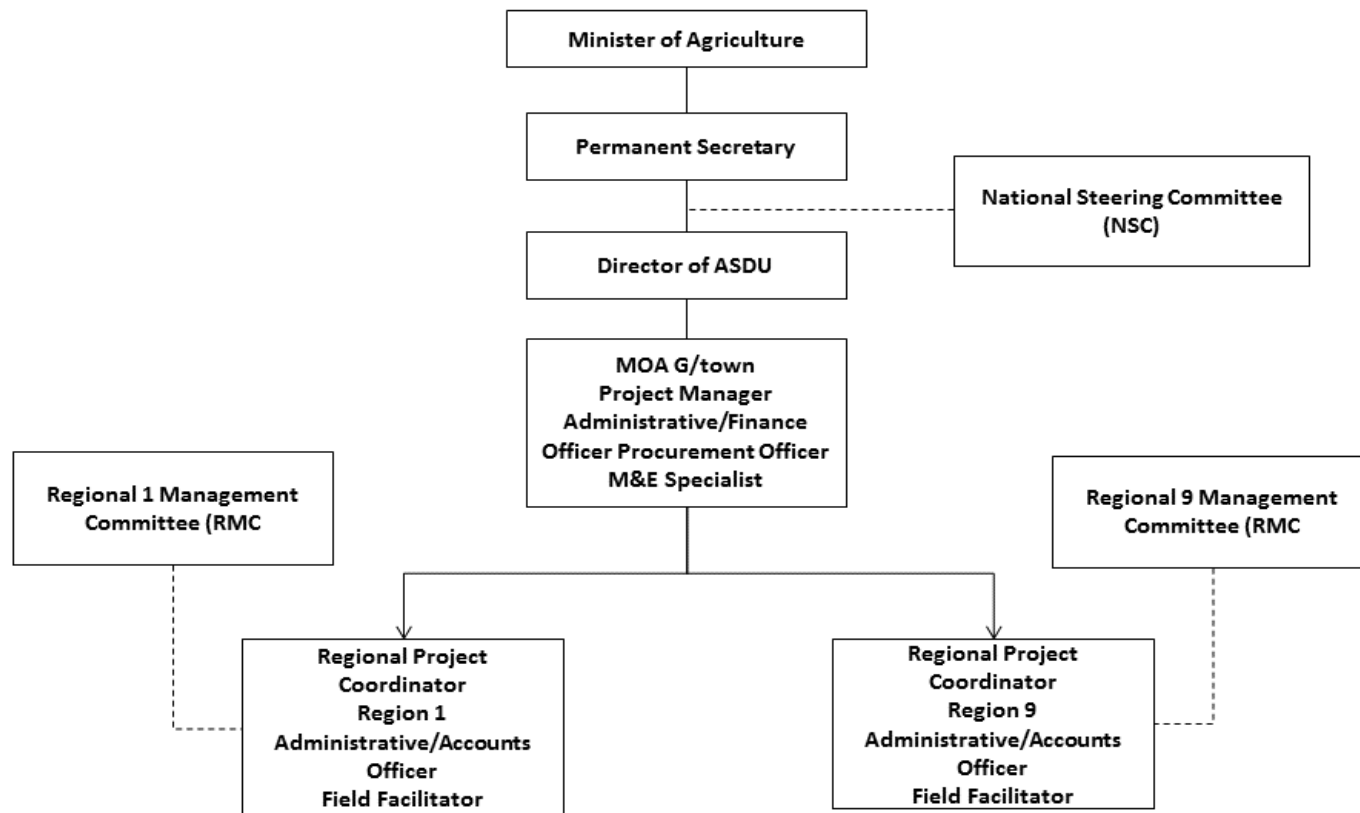
Cooperation on Agriculture and International Fund for Agricultural Development of the United Nations.

78. The Government has acknowledged the importance of improving both overall programme administration and its capacity to manage and coordinate external resources. Given the similarities in the execution of donor-funded projects, and given the need to coordinate the execution of these projects, the Ministry of Agriculture (MoA) has established a single unit, the Agriculture Sector Development Unit (ASDU), which will execute all donor-funded projects in order to improve the execution and at the same time provide administrative savings to the MoA. This was the unit that oversaw the execution of the last IFAD-funded project – READ.
79. READ was implemented by the MOA through a special projects execution unit referred to as the Agricultural Sector Development Unit (ASDU) in accordance with an agreement signed between GOG and IFAD. There was a Project Coordinator (PC) who was located within the ASDU at the MOA headquarters office in Georgetown and who was directly responsible for coordinating day-to-day project operations. READ's PC was a senior member of the ADSU through whom autonomy and control of resources of READ was channelled. READ was one of several projects sharing overhead costs related to office space and general project coordination and management services were provided to the project by the ASDU.
80. **Project Management Unit (PMU).** For the Hinterland Project, which in the case of Region 9 will be implemented more than 500 km away from Georgetown and Region 1 and 9 being two geographically distinct regions with no direct air, road or water transport between them, regional project offices would be established. The Project Management Unit would therefore comprise the office at the MOA in Georgetown and the regional offices in Region 1 and 9.
81. The Office in Georgetown will have a Project Manager (PM), a Procurement Officer, an Administrative/Finance Officer, and an M&E Specialist. The latter will be located at the M&E Unit of the MOA. In each regional office, the Project will be supported by a Regional Project Coordinator (RPC), an Administrative/ Accounts Officer and a Field Facilitator. The Terms of Reference for the PM and RPCs are presented in Annexes 3 and 4. The office in Region 9 will also have a Social Inclusion and Gender Specialist who will assist both Regional Project Coordinators in this particular area of expertise. Terms of Reference for this Specialist are presented in Annex 11 of Appendix 2. The organizational structure of the Hinterland project is shown in Figure 1 below.
82. **Coordination.** The Lead agency for the implementation of the Hinterland Project will be the Ministry of Agriculture through its ASDU. However, effective coordination with other line ministry's, Regional Democratic Councils and private sector initiatives in the regions is essential in order to create synergies and ensure sustainability of project results. The specifics of this particular project: e.g. the indigenous population and their traditional governance structures, the participatory planning processes and identification of public/collective investments, the linkages with regional planning processes, the focus on natural resource management, business plans and coaching, or on nutrition, the cross cutting gender equality issues, call for effective coordination both at central and regional level.
83. **National Steering Committee (NSC).** The Director of ASDU and Project Manager will receive guidance from a National Steering Committee, chaired by the Ministry of Agriculture. The NSC is comprised of representatives from the: Ministry of Agriculture (MOA), Ministry of Indigenous People's Affairs (MIOPA), Ministry of Natural Resources and Environment (MNRE), Ministry of Business (MOB), Ministry of Health (MOH), Ministry of Communities (MOC), Ministry of Social Protection (MSP), Office of Climate Change at the Presidency, and two Representatives from the beneficiaries (one from Region 1 and one from Region 9). The NSC will also provide guidance to the implementation new MOA/IDB project.
84. The main responsibilities of the NSC (to be detailed in the Project Implementation Manual) are: (i) To provide policy directions and support for project implementation, (ii) Advice on the Annual Work Plans and Budget, and (iii) Facilitate desirable coordination and linkages with related ministries, agencies, government programmes, and projects. Annex 1 presents draft TOR for the NSC.

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85. **Regional Management Committee (RMC).** Each region will be supported by a Regional Management Committee. The RMCs will be chaired by the Regional Chairman and comprised of: representatives of the Regional Agricultural Committee (could be NAREI and/or GLDA), regional representatives of MIOPA, MNRE, MOB (eg. Business Desk), MOH, MSP, and two (2) representatives from the beneficiaries. In Region 9, the RMC will also provide guidance to the implementation new MOA/IDB project.
86. The key functions of the RMCs are: (i) Providing support on the implementation of the Project at the regional level and ensuring conformity with the agreed-upon respective Annual Work Plans and budgets; (ii) Facilitate linkages between the Project and Ministries, Agencies or Organizations, other related projects, governmental programmes and private sector activities required for project success; and, (iii) Providing guidance on the inclusion of stakeholders as specified in relevant project documents. Annex 2 presents draft TOR for the RMCs.

**Figure 3: Organisational chart**







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87. **Implementation arrangements.** The PMU has been kept to a minimum in order for the Project to contract quality technical services for the implementation of for instance the participatory community planning process including the formulation of investment and business plans, the coaching of business plan implementation, technical assistance in areas of production or marketing, amongst others. It is also recognized that in many areas, the MOIPA or other organizations such as the SSOS or CI Guyana have more experience than the MOA and may be better equipped to achieve certain deliverables. Therefore, certain aspects of the Project will be executed in the field by a range of Service Providers (public institutions, non-profit organisations, individual consultants) who will be contracted and supervised by the PMU. The PMU is responsible for the development of Terms of Reference, the procurement process, performance monitoring and supervision of the work carried out by the service providers, and the final evaluation of compliance with the contract and achieved results.
88. In some cases a Memorandum of Understanding (MOU) is an alternative instrument that can be used to hire Service Providers. In this case the same applies, that is: the PMU is responsible for the development of terms of the MOU, its negotiation, performance monitoring and supervision of the work carried out by the service provider, and the final evaluation of compliance with the MOU and achieved results.
89. **Investment Fund.** For the administration and execution of the Investment Fund, MOA will sign an agreement with a Financial Institution(s) with presence in the regions. The selection of the Financial Institution(s) will be through a competitive bidding process. The PMU will be responsible for monitoring the implementation of the Investment Fund and evaluating the performance of the Financial Institution as well as the results achieved.

## **Annex 1**

### **Draft Terms of Reference**

#### **National Steering Committee**

##### **Objectives**

- To provide policy directions and support for project implementation.
- To advice on the Annual Work Plans and Budget.
- To facilitate desirable coordination and linkages with related ministries, agencies, government programmes, projects, and private sector activities.

##### **Functions**

- Ensure conformity between project implementation and established public policy and provide general directions.
- Advise on guidelines to enhance project implementation or to correct project dysfunctions.
- Advise on the project Annual Work Plan and Budget.
- Provide guidance on how to ensure inclusion of all stakeholders, especially vulnerable groups.
- Facilitate linkages to other Ministries, Agencies or Organizations, other related projects, governmental programmes and private sector activities which can impact favourably on project implementation.
- Provide assistance to the Project Manager with networking and relationship building across the wide spectrum of agents affecting market access, enterprise development and organization development.
- Making recommendations for sustainability of the project's successful innovations and best practices in institutions related to its mandate.
- The NSC may be required to advice on the Project Implementation Manual.

##### **Membership**

The NSC is comprised of representatives from the: Ministry of Agriculture (MOA), Ministry of Indigenous People's Affairs (MIOPA), Ministry of Natural Resources and Environment (MNRE), Ministry of Business (MOB), Ministry of Health (MOH), Ministry of Communities (MOC), Ministry of Social Protection (MSP), Office of Climate Change at the Presidency, and two Representatives from the beneficiaries (one from Region 1 and one from Region 9).

## **Annex 2**

### **Draft Terms of Reference**

#### **Regional Management Committee**

The Regional Management Committee will function at the regional level.

#### **Objectives**

To provide support on the implementation of the Project at the regional / community level and ensuring conformity with the agreed-upon respective Annual Work Plans and budgets.

To provide guidance on the inclusion of stakeholders as specified in relevant project documents.

To facilitate linkages to other Ministries, Agencies or Organizations, other related projects, governmental programmes and private sector activities required for project success.

To facilitate desirable linkages with related projects, agencies and activities in the region.

#### **Functions**

- Ensure conformity between implementation and the agreed-upon respective Annual Work Plans and budgets.
- Facilitate linkages between the Project AWBPs and the regional annual planning process.
- Facilitate linkages between the Project and Ministries, Agencies or Organizations, other related projects, governmental programmes and private sector activities which can impact favourably on Project execution.
- Provide assistance to the Regional Project Coordinator with networking and relationship building across the wide spectrum of agents affecting market access, enterprise development and local organization development.
- Provide guidance on the inclusion of stakeholders as specified in relevant project documents.
- 

#### **Membership**

The RMCs are chaired by the Regional Chairman and comprised of: representatives of the Regional Agricultural Committee (could be NAREI and/or GLDA), regional representatives of MIOPA, MNRE, MOB (eg. Business Desk), MOH, MSP, and two (2) representatives of beneficiaries.

### **Annex 3**

## **Terms of Reference**

### **Project Manager**

#### **A. Objective**

The Project Manager is to be responsible for the effective and timely implementation of the HINTERLAND PROJECT activities as detailed in the Project Appraisal Documents and Operations Manual.

#### **B. Characteristics of the Appointment**

**Type of Appointment:** Individual.

**Duration:** 1 year, renewable on the basis of performance.

**Place of Work:** Hinterland Environmentally Sustainable Agriculture Development Project Office, Ministry of Agriculture, Georgetown, Guyana.

**Reporting:** The Project Manager will report to the Director, ASDU; and will work closely with the Liaison Officer of IFAD related to the HINTERLAND PROJECT Supervision.

#### **C. Qualifications:**

The **Project Manager** should have:

- 1) University Degree in an area related to the three main components of the project– Strengthening of community and producer groups investment planning; Implementation of investment plans; and Project and Knowledge management and Coordination;
- 2) At least ten years of experience in high level rural area project management, including working with male, female and international consultants;
- 3) At least five years of experience in working with indigenous villages or communities;
- 4) Understanding and experience with accounts and ability to manage them electronically;
- 5) Experience writing annual, progress, midterm and project completion reports;
- 6) Demonstrated evidence of being an excellent communicator and confident leader;
- 7) Sensitivity to gender equality and ethnic issues;
- 8) Rural area grass roots experience.

#### **D. Position Responsibilities**

The **Project Manager** will:

- Provide effective and efficient leadership to the Project Management Unit and ensure achievement of the goals and objectives of the project in a comprehensive and sustainable manner.
- Prepare all strategic project planning, management and related documents that is important to overall efficient and effective project implementation.
- Develop, maintain and update project management and operational manuals informing the legal and other regulations governing the implementation of the project.
- Participate actively in the hiring of all PMU personnel and prepare evaluation reports on personnel hired directly by the Project.

#### Appendix 5: Institutional aspects and implementation arrangements

- Manage the budget of the project and ensure that all expenditures are in keeping with the project objectives and activities, at both the national and regional levels.
- Prepare bidding documents, terms of reference or MOUs and oversee procurement of all Project service providers, including the Financial Institution(s) responsible for the administration and execution of the Investment Fund.
- Submit to IFAD procurement clearances and bidding documents for prior review.
- Supervise the implementation of service provider contracts and MOUs (including the Financial Institution(s)), paying particular attention to the social goals that should be mainstreamed in the project – attention to women, youth and vulnerable groups.
- Work closely with the Project Regional Coordinators and M&E Specialist on monitoring progress on the Project Logical Framework indicators and assessing project delivery and impact.
- Oversee the preparation and submission of quarterly progress reports (on technical, managerial and accounting matters) to MOA and of six-monthly progress to the National Steering Committee (NSC) and IFAD.
- Ensure the implementation of the Project's social inclusion and gender equality strategy and supervise the performance of the Specialist in this area.
- Establish and maintain on behalf of the project excellent relations with all direct project partners such as NAREI, GLDA, NGMC, MOIPA, MOC, MOB, MNRE, FIs, private sector, NGOs and with other agencies sharing the objectives of the project so that synergies can be maximized.
- Respond to all requests by the ASDU Director as it relates to management and implementation of the HINTERLAND PROJECT.
- Respond to all request by the all the IFAD supervision points to ensure timely reporting, efficient and effective management of the project.
- Represent the project in all direct activities of the project and in forums where the project is participating or its results are being featured.
- Liaise on behalf of MoA with IFAD on all aspects of the Project.
- Represent MoA in all its dealings with the project's service providers.
- Ensure active beneficiary participation in all areas of the Project and that social and gender issues are incorporated in all project components and activities.
- Coordinate and promote capacity development of the PMU and especially training of regional personnel and beneficiaries to ensure smooth delivery of the project and sustainability of the projects results.

#### **E. Compensation Package**

The contract will be for one year duration but is subject to annual renewal. The compensation package is negotiable but cannot exceed specific scales currently in place for projects funded by IFAD.

#### **Annex 4**

### **Terms of Reference**

#### **Regional Project Coordinator (2)**

##### **A. Objective**

The Regional Project Coordinator is to be responsible for the effective and timely implementation of the HINTERLAND PROJECT activities in Region 1 / Region 9.

##### **B. Characteristics of the Appointment**

**Type of Appointment:** Individual

**Duration:** 1 year, renewable on the basis of performance.

**Place of Work:** Hinterland Environmentally Sustainable Agriculture Development Project Office, Mabaruma, Region 1 and Lethem, Region 9 respectively, Guyana.

**Reporting:** The Regional Project Coordinator **will report to the Project Manager**, and **will work closely with the** Regional Management Committee of the specific region.

##### **C. Qualifications:**

The **Regional Project Coordinator** should have:

- 1) University Degree in an area related to the three main components of the project– Strengthening of community and producer group’s investment planning; Implementation of investment plans; and Project and Knowledge management and Coordination;
- 2) At least three years of experience in high level rural area project management, including working with male, female and international consultants;
- 3) At least three years of experience in working with indigenous villages or communities;
- 4) Understanding and experience with accounts and ability to manage them electronically;
- 5) Experience writing annual, progress, midterm and project completion reports;
- 6) Demonstrated evidence of being an excellent communicator and confident leader;
- 7) Sensitivity to gender equality and ethnic issues;
- 8) Rural area grass roots experience.

##### **D. Position Responsibilities**

The **Regional Project Coordinator** will:

- Provide effective and efficient leadership to the project implementation team at the regional level and ensure achievement of the goals and objectives of the project in a comprehensive and sustainable manner.
- Prepare all regional strategic project planning, management and related documents that are important to overall efficient and effective project implementation.
- Manage the finances of the project in the target region and ensure that all expenditures are in keeping with the project objectives and activities.

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- Assist the Project Manager with the preparation of bidding documents, terms of reference or MOUs for Project service providers,
- Oversee the performance of the regional office in implementing their direct responsibilities and in supervising field activities.
- Supervise in the region, the implementation of service provider contracts and MOUs, including those with the Financial Institution(s).
- Work closely with the Social Inclusion and Gender Equality Specialist on the implementation of the Project's strategy in this area.
- Oversee the activities of the Field Facilitators in relation to M&E activities and the recollection of documentation on regional expenditures and documentation related to the implementation of Investment Plans by communities or Producers Groups.
- Work closely with the Project Manager and M&E Specialist on monitoring progress on the Project Logical Framework indicators and assessing project delivery and impact.
- Provide input to the quarterly progress and six-monthly reports (on technical, managerial and accounting matters).
- Establish and maintain on behalf of the project excellent relations with all regional project partners such as NAREI, GLDA, NGMC, MOIPA, MOC, MOB, MNRE, FIs, private sector, NGOs and with other agencies sharing the objectives of the project so that synergies can be maximized.
- Respond to all requests by the Project Manager as it relates to management and implementation of the HINTERLAND PROJECT in the specific region.
- Participate as a resource person for the technical components of the project where management lessons from the project itself can be beneficial to stakeholders.
- Represent the project at the regional level, especially its social goals in all direct activities of the project and in forums where the project is participating or its results are being featured.

**E. Compensation Package**

The contract will be for one year duration but is subject to annual renewal. The compensation package is negotiable but cannot exceed specific scales currently in place for projects funded by IFAD.

## Appendix 6: Planning, M&E and learning and knowledge management

### A. Introduction

1. IFAD, like several other organizations, uses a Management of Development Results (MfDR) approach in the projects and country programmes it supports, and within IFAD itself. By adopting MfDR planning, monitoring, measuring, reporting are improved, and projects can be more proactively managed for results, using information in decision-making and learning.
2. As claimed in IFAD's evaluation manual, evaluation is increasingly playing a key role in the framework of the evolution of IFAD's business model, operational focus, corporate processes, and accountability systems. The decision to adjust and sharpen evaluation tools aims to ensure that the Fund can be in the best possible position to fulfill its mandate and meet its corporate goals.<sup>73</sup> In this respect, IFAD has to respond to new demands about its ability to: i) understand rural transformation; ii) report on results in new areas; iii) measure new dimensions of poverty.
3. In this context, along with the specific evaluation architecture developed by the Independent Office of Evaluation (IOE) the Fund draws also on a comprehensive self-evaluation function. For each project, IFAD conducts periodic supervision missions and mid-term review. In addition, at completion, it prepares Project Completion Report (PCR). Also, other instruments have been established to support the self-evaluation system: the client surveys, the quarterly corporate performance reviews and the annual portfolio reviews.
4. A similar tendency towards the enhancement of accountability against results by public administration is taking place also in Guyana. Since a decade ago, the Government of Guyana has been implementing reforms aimed at improving public sector efficiency and effectiveness through MfDR, including the introduction of Monitoring and Evaluation (M&E). In 2011, as result of a Technical Cooperation project between the Ministry of Finance and the IDB, a 5-year M&E Action Plan called "A Strategy and Action Plan for Institutionalizing Monitoring and Evaluation in Guyana" was produced.
5. As a consequence, a Central M&E Unit was created within the Ministry of Finance, work is in progress for the institutionalization of technical processes, and training seminars have been provided to improve the capacities of other institutions involved in the M&E system.
6. The M&E Action Plan involves several government institutions, with most of the responsibilities distributed between the Ministry of Finance (MOF) and line ministries. The former assumes a leadership and coaching role, while the latter, which spend public monies, have the most data collection responsibilities. The Ministry of Finance has leadership and control over M&E, including the ability to set priorities, determine rules, assess quality, and present results. Evaluations are also the responsibility of the M&E Central Unit at MOF. In turn, line ministries are responsible for planning and executing data gathering using M&E systems. At the same time, they are expected to introduce a performance framework that will link their goals to the overarching goals of their sector (IDB, 2014; pg. 15).
7. The remarks by the Minister of Finance at an M&E Training Workshop in April of 2016, show that the efforts from the Government of Guyana to institutionalize a culture of M&E will continue for the years to come.

*"As a Government, we intend to be evidence-driven in our decision-making and policy development, strategic in our thinking and planning and, importantly, data-driven in our actions..."*

*...We need to stop guessing and become analytical as officers responsible for delivering services to the public; we need to be informed about our target group and design policies and programmes to address the needs of the public in practical and effective ways. When you provide advice to your seniors and supervisors and policy makers, it must be data-driven".*

*Hon. Winston Jordan*

<sup>73</sup> Independent Office of Evaluation of IFAD, 2015. Evaluation Manual. Second Edition.,p.11



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8. It is in this context that in addition to line ministries such as Health and Education, also the Ministry of Agriculture (MOA), has developed in 2013 a National Agriculture Sector Strategy 2013-2020 and has identified sector indicators which are the basis for M&E of the MOA and all its agencies and projects.
9. A number of MOA agencies (and MOA projects) work together to implement the Agriculture Strategy 2013-2020. Each department and or authority will develop annual work plans and is responsible for its implementation. The Ministry of Agriculture Heads of Departments monitor the implementation on a quarterly basis. The MOA M&E Unit reports quarterly to the Permanent Secretary and the Heads of Departments on the implementation performance.
10. The overall goal of the Agriculture Strategy 2013-2020 would be accomplished via a number of sub-sector strategies and would be monitored by indicators listed in the Strategy and sub-sector strategy documents. There are twelve (12) overall indicators listed as the indicators for the monitoring and evaluation of the Agriculture Strategy and its impact on the overall development of Guyana. There are twenty-five (25) priority areas for implementation. The Agriculture Strategy Roadmap has 494 activities for the period 2013-2020 with 511 output indicators. These indicators and others described for each specific Priority Area are being reviewed annually within 60 days of the New Year (MOA, 2013).
11. Each of the indicators would be monitored and an achievement index is calculated. Non-completion or partial completion would have seen the achievement index being marked down from 100%. A score of greater than 90% is considered acceptable. A score of less than 90% is ineffective implementation (MOA, 2013).
12. The institutional capacities of M&E at MOA and in Guyana are in an initial phase. At the time of final project design, the MOA M&E Unit was led by a Coordinator who reports directly to the Permanent Secretary, an M&E Officer and a Statistician. Both the National Agricultural Research and Extension Institute (NAREI) and the Guyana Livestock Development Authority (GLDA) have already hired an M&E Officer; the Hydro meteorological Service and National Drainage and Irrigation Authority (NDIA) are in the process of hiring M&E Officers. The other agencies are lacking behind, however they all have an M&E Focal point and have been trained in the use of the M&E Matrix, which is an Excel spreadsheet with the Agriculture Strategy indicators. At the time of project design, MOA was lacking a system and on-line database to easily add up the monthly reports from agencies on indicators. Whereas reporting on output indicators has seen progress, reporting on outcomes further development.

### B. Proposal for M&E and Knowledge management

13. **Strengthening MOA M&E Unit.** The Project would provide limited support to MOAs performance monitoring and reporting through the development of an information system that will allow the Ministry to properly monitor the performances of different agencies within the Ministry and how agencies and MOA projects contribute to the Agriculture Sector Strategy indicators.
14. To simplify this complex management process, a basic M&E Platform will be developed using a comprehensive and interactive database that records M&E system data, along with physical and financial activities, both planned and actual. The database will be the primary repository of all records. In this manner, information can be collated and stored to be readily retrievable and be sorted and presented in a number of formats and incorporated into regular reports. Preferably, the database will be accessible by all M&E officers through a virtual/online link to update their status on a monthly basis. It would have scope to upload photographs, videos to show the impacts of projects.
15. With this platform, the unit would be able to generate extensive sectoral reports, as well as individual reports for agencies and projects within the sector, accordingly, reporting and communicating M&E information will be more effective and can be used as a decision-making tool. The acquisition of the platform would be supported through the IFAD Grant.
16. **Objective of project M&E.** The main objective is to provide the Project stakeholders with data, information and knowledge in order to ensure an efficient use of resources and timely dealing

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with problems that will lead to the Project achieving its objectives, expected outcomes and targets within the foreseen timeframe.

17. The specific objectives of the M&E and Knowledge management would be to:
  - Provide the Borrower (MOF), the MOA and other relevant GOG institutions such as the Ministry of Indigenous People's Affairs (MOIPA), as well as IFAD, with data regarding Project progress in relation to the Logical Framework;
  - Provide the information on progress and problems encountered that would help the PMU in decision making in favor of the successful implementation of the Project;
  - Create the capacity at Project client level and their organizations to plan on an annual basis and evaluate progress accordingly;
  - Generate and share knowledge from Project experiences that can lead to further innovation, replication by others and possibly up scaling of best practices;
  - Provide the MOA and other line ministry's with information and knowledge that might be a useful input to national policy dialogue.
18. **Project M&E strategies and mechanisms.** Monitoring and evaluation would be conducted using the participatory approach adopted by the Project. Data collection would be kept simple, not time consuming and would ensure the reliability and especially the usefulness of the data collected. Projects tend to collect too much data while not having the capacity (human resources) to analyse all the information. Another weakness in many Projects is that there are no feedback mechanisms in place to share among stakeholder the knowledge that is generated from the analysed data. This results in a system that just extracts information from project clients for the benefit of donors and government statistics rather than a learning and results-based management system.
19. The Project's Monitoring and Evaluation system would include the following key elements:
  - (a) Start-up;
  - (b) Planning;
  - (c) Monitoring (data collection and registration, analysis and feedback);
  - (d) Reporting (half yearly and annual reporting to the Borrower and IFAD);
  - (e) Local capacity building for participatory planning and M&E;
  - (f) Evaluation (baseline, regional annual evaluation and planning workshops, final impact study);
  - (g) Project Completion Process and Report;
  - (h) Project Supervision; and
  - (i) Knowledge generation and knowledge sharing.
20. **Start-up.** The Project would have start-up workshops in each region; planned in region 9 for Y1 and region 1 for Y2. The main objective of these workshops are informing stakeholders, including governmental institutions (e.g. RDC, MOA, MOIPA, MNRE, MOC, Business, Social Protection, Health), and the target group of the project scope, objectives, expected results, components, and intervention strategies. Participation in these workshops of Tohaos and councilors of indigenous villages and communities, representation of youth and women from the target group, the regional democratic council and organisations with presence in the region and that work in topics relevant to the project, is essential. The workshop would help the Project Management Unit with networking/coordination efforts and forging strategic alliances that would contribute to ensuring complementarity of activities and avoiding overlap.
21. **Planning.** The Annual Workplan and Budget (AWPB) is the outcome of the annual project planning process. Through annual work planning, the project decides what activities will be carried out over the next 12 months, by whom, the resources and the time needed to complete them. The AWPB is therefore a planning and management tool that specifies what is expected to be done during the year, how and at what cost.

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22. On an annual basis the Project would implement in both region 1 and region 9, Regional Evaluation and Planning Workshops. These workshops (minimum 2 days) would bring together representatives off stakeholders and direct beneficiaries (including youth and women) in order to: (i) take stock of progress made during the year; (ii) identify obstacles encountered during implementation and proposals to avoid them in next year's planning, and (iii) identify activities for next year's planning.
23. The timing of these workshops would be such that the results can feed in to the elaboration of next year's AWPB.
24. Project staff would participate in the annual MOA planning and evaluation workshop organized by the MOA, M&E Unit each year in January. The purpose would be to ensure that project activities and targets will be linked to and will feed into the MOA M&E Matrix and Sectoral indicators.
25. AT regional level, the Regional Project Coordinator would liaise with the RDC and the Agriculture Committee to ensure linkages between the Project AWPB and the regional planning processes.
26. **Monitoring.** Monitoring means tracking the key elements of project performance on a regular basis (inputs, activities, outputs and outcomes). A monitoring system can be defined as an observation system for the project managers to verify whether the project activities are happening according to planning and whether means are used in a correct and efficient manner. The system must supply the project management with a continuous flow of information throughout the course of the project to make it possible to take the right decisions. Monitoring is limited to the relation between the implementation of the activities and the results, in which the results are directly and only determined by the project activities.
27. A simple (user friendly, ease of application and that generates reliable and useful data) database (and a data collection system) would be developed by MOA (M&E Unit) with assistance of a consultant as soon as baseline data is available. It is imperative that the database be developed before the Project becomes operational so data can be registered from day-1 of project implementation. The database would cover the data required to measure the outputs and outcomes as defined in the Logframe, and to monitor progress made on the implementation of the AWPB. Disaggregated data would be used in order to allow the monitoring of the targeting strategy and the outreach to vulnerable groups (sex, age groups, and ethnic composition).
28. Training and support would be provided to project staff and service providers in the use of the data collection system and the M&E Specialist would be responsible for ensuring the quality of the data, and that information is registered frequently and the database up-to-date.
29. While setting the priorities concerning the information that is needed, it is also important to consider the information flows: who will give which information to whom, what happens with the information at different levels, which information is gained where, how is the feedback organised, when will policy decisions be taken and by whom (Project Manager, National Steering Committee (NSC), Regional Management Committees (RMC))? The Project would develop and implement a simple reporting system useful for (i) management decisions at project management level and (ii) policy decisions (NSC, MOA and Borrower).
30. Liaising with the MOA M&E Unit is essential in order to ensure project results and outputs are registered in the MOA performance monitoring framework and M&E Matrix and database, linking them where applicable to the Agriculture Sector Strategy (2020) indicators.
31. **Reporting.** Brief monthly and quarterly progress reports, measured against the AWPB, would be submitted by Regional Project Coordinators (RPCs) to the Project Manager (PM), who would endorse them for presentation to the MOA and the Regional Management Committees. More detailed mandatory six-monthly and annual reports to the Borrower and IFAD would be prepared with input from all Project staff members and consolidated by the M&E Specialist. The latter would be presented to and approved by the National Steering Committee before submission. The M&E Specialist with assistance from Field Facilitators would be responsible for gathering inputs from the various parties and compile these reports, ensuring that data is disaggregated by sex, ethnicity, and age groups and analysed from a gender equity perspective

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to the extent possible. These reports would inform on progress with regard to the AWPB as well as the Logframe indicators.

32. **Local capacity building.** Local capacity building for participatory planning and M&E is important as part of the empowerment of the project beneficiaries. The Project will therefore work closely together with indigenous and rural communities and villages and producers organizations and groups with business plans, helping them develop their own monitoring and evaluation tools (simple and participatory) in an effort to monitor their own progress and evaluate outcomes and impact of the implementation of public/collective goods Investment Plans and business Plans.
33. **Evaluation.** Evaluation is the periodic assessment of the change in targeted outcomes and their indicators that can be attributed to the project intervention. It tries to describe the changes in life and wellbeing of the final users, while trying to compare the situation ex-ante (Baseline) and ex-post and analyse the positive or/and negative evolutions. In the evaluation process, external factors that can interfere with the activities to reach a certain impact on the target group, are also taken into account.
34. **Baseline study.** In order to be able to evaluate over time progress made and impact achieved, it is essential to have access to baseline data. It is imperative that the baseline study be conducted by MOA before the start-up of the project (condition for Project effectiveness) in order to have data that really reflect the initial situation at project start-up. The minimum requirement of data for the baseline is that they provide the information required to be able to measure the indicators defined in the Logframe (LF).
35. The time required and costs involved are expected to be limited as the project can tap into the IDB baseline survey carried out in 2016 in region 9. The SOFA (State of Food and Agriculture) study to be carried out for Region 1 in Y1 (before project effectiveness), is expected to generate a lot of baseline data for this Region. However, a Baseline study for both regions has been catered for in order to complement the IDB (region 9) and SOFA (region 1) data so as to ensure measurement of for all Project LF indicators. Both the SOFA/R1 and the Baseline study would be paid for through the IFAD Grant.
36. **Mid-Term Review.** A Mid-Term Review (MTR) would be carried out two and a half years after Project start-up, providing information by half way of Project Year 3. This would be an external review led by IFAD. The scope of the MTR would be wide-ranging so as to assess progress in implementation and achievement of LF indicators, project objectives and outcomes, resource used and allow time for adjustments to be made in project implementation. The MTR would also assess the effectiveness of the project targeting approach and of the gender equality strategy. It is anticipated that it would specifically assess the timeliness of response to requests made to the "Investment Fund" and the extent to which this Fund has helped target villages and communities and households improve their assets, food and nutritional security, climate change resilience, and income through the implementation of agricultural or non-agricultural of productive investments. The Project Management Unit will be responsible for data collection and analysis of indicators relevant to the LF. A Baseline study (Y1, before project effectiveness) as well as a Final Impact study in Y6 (PCR) have been planned and budgeted for and would be paid for through the IFAD Grant.
37. **Project supervision.** IFAD's supervisory function will be ongoing and support will be provided for implementation and resolving issues that arise. Supervision missions from the Latin America and Caribbean Division (LAC) will take place once or twice a year as required and will be organized by IFAD's Country Programme Manager (CPM) in coordination with the Borrower and MOA. The Supervision missions will pay particular attention to smooth and timely implementation of the project and to achieving its intended objectives and outcomes and progress made on achieving the LF indicators.
38. **Project Completion Process and Report.** The project completion review is a process undertaken by the Borrower in close coordination with IFAD at the end of the project implementation cycle in order to report on the results achieved through project interventions. The main purposes of the completion review process are to promote accountability, reflect on performance and elicit lessons learned to inform new project design, and to define an appropriate post-project strategy. The learning dimension of the completion process should be regarded by

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both IFAD and the Borrower as the foundation for improvements in future project design and programming. The completion review process is also critical for identifying opportunities for scaling-up best practices (IFAD, 2015; pg. 3).

39. A well-managed project completion process is of key importance for identifying the ways and means to enhance the sustainability of project interventions. It provides all stakeholders with a unique opportunity to reflect on overall project performance and generate useful lessons learnt from implementation. Key findings of the completion review are summarized in a standard Project Completion Report (PCR).
40. At the end of the Project, the PMU will plan and implement "Termination Workshops" in region 1 and 9; with the objective of discussing experiences with stakeholders, project results and success stories as well as obstacles encountered during implementation as input to the Project Completion Report (PCR).
41. **Knowledge generation and knowledge sharing.** Knowledge generation and knowledge sharing are important elements in addition to the M&E process. Specific evidence-based knowledge products will be developed on the basis of Project experiences in order to extract lessons and best practices, replicate innovative solutions, achieve better outcomes and greater impact from development resources, and strategically disseminate the knowledge generated to support national, regional and local decision making and policy processes.
42. Knowledge capturing would happen through amongst others: (i) thematic networks in regions 1 and 9 that will include indigenous peoples' organizations; farmers' and community organizations; government and civil society organizations; and the private sector; (ii) the writing of short development (success) stories with input from staff members, project clients, and other stakeholders; (iii) the use of photo documentation as evidence; (iv) participatory development of short videos and radio programmes (as an alternative for beneficiaries to written communication).
43. The Project would have a basic information technology platform to enable information management, communication and knowledge-sharing with stakeholders and the public in general (web page, Facebook page, link to IFAD virtual platforms, uploads to Youtube, twitter account, Pinterest, Instagram, etc).
44. The Project would also tap into existing Learning Routes in Latin America and the Caribbean or IFAD projects in other English speaking countries seeks to enhance the knowledge accumulated by other rural development.

### C. Implementation Arrangements and Human Resources

45. Effective team-work amongst the Project staff is key for an effective and efficient M&E of Project implementation. The M&E and Knowledge management Specialist is responsible for the execution and functioning of the M&E system and the realization of the knowledge products, however, support from other Project staff would be required.
46. The Project also has two regional Field Facilitators (one for region 1 and one for region 9) whose main responsibility is the timely collection of reliable data from the field. The Field Facilitators will also provide support to the project administration and account staff in following-up to timely submission of proof of purchase and payment regarding expenditures from local service providers in the regions and the technical and financial reports from communities or producers groups in order to facilitate timely disbursements in the scope of investment plans. Terms of Reference of the M&E Specialist and Field Facilitators are presented in Annex 1 and 2.

**Annex 1:**  
**Terms of Reference**  
**Specialist in M&E and Knowledge management (1)**  
**MOA/M&E Unit - Georgetown**

The M&E and Knowledge management Specialist will report directly to the Project Manager and work in close collaboration with the Regional Project Coordinators, other Project Officers, Social inclusion and Gender Specialist, and Field Facilitators. He/she will be responsible for efficient and functional M&E, knowledge management, and communication both internally between stakeholders and to the public in general (public relations).

Specific responsibilities include:

1. Coordinate with staff from the Project Management Unit (PMU), the planning and implementation of “Start-up Workshops” in region 1 and 9; with the objective of informing stakeholders such as the project target group, RDC, Ministries and agencies (including Agriculture, Indigenous People’s Affairs, Communities, Natural Resources, Business, Social protection, Health), other donor projects and private sector representatives of the project scope, objectives, outcomes, components, and intervention strategies.
2. Develop detailed Terms of Reference for the procurement of services for the impact studies; supervise the implementation of these studies and coordinate the sharing of the results with stakeholders.
3. Develop a simple (user friendly, ease of application and that generates reliable and useful data) database (and a data collection system) that covers the data required to measure the output and outcome indicators as defined in the Logframe and to monitor progress made on the implementation of the AWPB; using disaggregated data that will allow monitoring the targeting strategy and the mainstreaming of vulnerable groups (gender, youth, ethnic composition).
4. Train and provide support to PMU staff (especially Field Facilitators) and service providers in the use of the data collection system and ensure that information is registered frequently and up-to-date.
5. Provide assistance to the Financial Institution(s) responsible for the management and administration of the Investment Fund in establishing a simple monitoring system that supplies the PMU with the required data and reports.
6. Develop a simple reporting system useful for: (i) management decisions at project management level, and (ii) policy decisions (National Steering Committee, MOA and Borrower).
7. Liaise with the MOA M&E Unit to ensure project results and outputs are registered in the M&E Performance Matrix, linking them where applicable to the Agriculture Sector Strategy (2020) indicators.
8. Work with indigenous and rural villages and communities and their leaders, helping them develop their own monitoring and evaluation tools (provide participatory tools), in an effort to monitor their own progress and evaluate outcomes and impact of the implementation of public/collective goods Investment Plans.
9. Work with indigenous and rural producers groups, helping them develop their own monitoring and evaluation tools (provide simple and participatory tools for: registration of data and reporting, feedback mechanism respecting traditional communication, amongst others), in an effort to monitor their own progress and evaluate outcomes and impact of the implementation of Business Plans.
10. Coordinate with PMU staff the implementation the annual Regional Evaluation and Planning Workshops, and ensure that results are used as an input for next year’s AWPB.
11. At the end of the Project, coordinate with the PMU the planning and implementation of the “Termination Workshops” in region 1 and 9; with the objective of discussing experiences with

Appendix 5: Institutional aspects and implementation arrangements

stakeholders, project results and success stories as well as obstacles encountered during implementation as input to the PCR.

12. Assist the PM with the elaboration of the PCR (according to IFAD pre-established format).
13. Develop an appropriate strategy for knowledge sharing and effective communication and liaise with regional and national media (newspapers, TV, radio) for the timely communication of project related messages and information for beneficiaries and the public in general. Work in close collaboration with the MOA and MOIPA.

**Annex 2**  
**Terms of Reference**  
**Field Facilitators (2)**  
**Regional Offices, region 1 and 9**

The Field Facilitator will assist with the M&E Specialist in the overall M&E and knowledge management tasks and will also provide support to the project administration and account staff in following-up to timely submission of proof of purchase and payment regarding expenditures from local service providers in the regions. Specifically, he/she will:

1. Assist with the timely collection of quotes, bills, receipts, proof of purchase and payment regarding expenditures from local service providers in the regions, technical and financial reports from communities or producers groups in order to facilitate timely disbursements in the scope of investment plans.
2. Be directly responsible for the timely collection of reliable data required for measuring the LF indicators; while using disaggregated data that will allow monitoring the targeting strategy and the mainstreaming of vulnerable groups (sex, age groups, tribes) and input into the database;
3. Follow-up with service providers in the regions (including the Financial Institution(s)), in order to ensure they provide the Project Management Unit with the required data, reliable and timely;
4. Provide training to rural and indigenous communities and producers groups in the use of participatory monitoring and evaluation tools developed by the M&E Specialist;
5. Assist with the coordination and implementation of the annual Regional Evaluation and Planning Workshops, and ensure recording of results for use in next year's AWPB;
6. Assist with the development of evidence based knowledge products;
7. Assist PMU staff and project beneficiaries from indigenous and rural communities and producers groups in developing the writing of short development (success) stories;
8. Assist with the setting up and regular meetings of thematic networks in the Region that would lead to capturing knowledge; and
9. Assist with the development of short videos and radio programmes (as an alternative for beneficiaries to written communication).



### Annex 3

#### Complete Logical Framework

Results Hierarchy	Indicators			Means of Verification			Risks
	Name	Baseline	End Target	Source	Frequency	Responsibility	
<b>Development Objective:</b> Improved livelihood resilience through income generation, access to assets, improved nutrition, and adaptation to climate variability.	▪ 80% of targeted households have increased their resilience <sup>74</sup> .	▪ Baseline resilience TBD	▪ 4,800 hh (15% female headed hh)	Baseline studies Impact study Verification in the field	Before Effectiveness Mid Term Before Closing	PMU MOA	<b>Economic risks:</b>  ▪ Productive specialization (vs traditional diversification strategy): vulnerability to market shocks; increased seasonality effects on income and labour cycles  ▪ Competition for labour from other sectors (e.g., mining)
<b>Component 1: Strengthening of community and producer groups investment planning</b>							
<b>Outcome 1</b> Communities and producer groups have identified investment opportunities manage economic and climate change risk.	▪ 80% of households in targeted communities participate in development of public / collective investments plans.	▪ 0	▪ 4,500 hh (15% female headed hh)	Reports M&E Supervision reports Progress reports	Semi-annually Annually Mid Term Before Closing	PMU MOA	
	▪ People in targeted communities participating in producer groups with approved business plans.	▪ 0	▪ 2,500 people (50% women; 30% youth)				

<sup>74</sup> Household resilience will be measured by using a simple scorecard. A household is more resilient if the answers to the following questions are positive: 1) have one or more household members participated in the formulation of CPDPs and P/CIPs?; 2) is at least one family member participating in a producer group with an adopted business plan, that has increased household incomes; 3) does the household use the same or an increased number of crops and animal varieties and wild species as food or income generating source compared to use at project start? 4) Has the household adopted a climate-smart production system including measures for the sustainable management of soils and water in at least 1/4 of its cultivated land?; 5) has the household access to a secure water source (rainwater harvesting and micro irrigation) for at least 1/5 of its cultivated land (region 9)?; 6) in the last years has the family used the internet to access climate, weather or market information and used this information to take decision on crops and varieties to cultivate and time of planting?; 7) does the family have access to a renewable energy source for household and production needs?; 8) Do women and children 6-23 months old in the household consume a diet with a minimum acceptable level of dietary diversity? (for the last question in the case of women the Minimum Dietary Diversity-Women indicator (MDD-W <http://www.fao.org/3/a-i5486e.pdf>) should be used and for children 6-23 months old the indicator from the Infant and Young Child Feeding Practices guidelines (<http://www.who.int/nutrition/publications/infantfeeding/9789241599290/en/>) should be used).

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Results Hierarchy	Indicators			Means of Verification			Risks
	Name	Baseline	End Target	Source	Frequency	Responsibility	
<u>Output 1.1</u> Community Production Development Plans (CPDP) Region 9	▪ Agreements with village councils or communities signed.	▪ 0	▪ 60 <sup>75</sup>	Agreements Progress reports	Semi-annually Annually	PMU	
<u>Output 1.2</u> State of Food and Agriculture (SOFA) and value chain studies Region 1	▪ Study reports approved	▪ 0	▪ At least 2	Studies Progress reports	Semi-annually Annually	PMU	
<u>Output 1.3</u> Value Chain round tables and action plans (VCAP)	▪ Number of VCAPs developed and supported	▪ 0	▪ At least 3	VCAPs Progress reports	Semi-annually Annually	PMU	
<u>Output 1.4</u> Public/Collective Investment Plans (P/CIP)	▪ Number of P/CIPs developed.	▪ 0	▪ 60 <sup>76</sup>	P/CIPs M&E reports Progress reports	Semi-annually Annually	PMU	
<u>Output 1.5</u> Business Plans (BP) for producer groups	▪ Number of BPs developed.	▪ 0	▪ At least 200	Business Plans M&E reports Progress reports	Semi-annually Annually	PMU	
<u>Output 1.6</u> Community Training Plans (CTP)	▪ Number of CTPs developed.	▪ 0	▪ 60 <sup>77</sup>	M&E reports Business Plans Progress reports	Semi-annually Annually	PMU	

<sup>75</sup> The target could be fewer as a CPDP might cover a village and its satellite communities.

<sup>76</sup> The target could be fewer as a P/CIP might cover a village and its satellite communities.

<sup>77</sup> The target could be fewer as a CTP might cover a village and its satellite communities.

Results Hierarchy	Indicators			Means of Verification			Risks
	Name	Baseline	End Target	Source	Frequency	Responsibility	
<b>Output 1.7</b> List of cross community investments, studies and TA for the implementation of P/CIPs, BPs and CTPs	<ul style="list-style-type: none"> <li>Number of opportunities for joint investments.</li> <li>Number of opportunities for regional studies.</li> <li>Number of opportunities for joint awareness raising or training.</li> <li>Number of opportunities for value chain round tables (Region 9).</li> </ul>	<ul style="list-style-type: none"> <li>0</li> <li>0</li> <li>0</li> <li>0</li> </ul>	<ul style="list-style-type: none"> <li>10</li> <li>2</li> <li>10</li> <li>4</li> </ul>	M&E reports Progress reports	Semi-annually Annually		
<b>Component 2: Implementation of investment plans</b>							
<b>Outcome 2.1</b> Increased investments in business plans that increase agriculture and related income-generating opportunities and increase market access.	<ul style="list-style-type: none"> <li>At least 80% of the households that invested in business plans have increased their income from agriculture and related activities by 50%<sup>78</sup>.</li> </ul>	<ul style="list-style-type: none"> <li>Private assets baseline TBD</li> </ul>	<ul style="list-style-type: none"> <li>2,000 hh (15% female headed hh)</li> </ul>	Baseline studies Impact study Progress reports Verification in the field	Before effectiveness Annually Mid Term Before Closing	PMU MOA	<b>Climate change risks:</b> <ul style="list-style-type: none"> <li>Productive transformation without access to adequate technology and information for water and soil management</li> <li>Shift to less diversified farming systems</li> </ul>
<b>Output 2.1.1</b> Business plans for the production and processing of cash crops and related value-adding activities approved by a financial institution.	<ul style="list-style-type: none"> <li>Number of BPs supported and implemented.</li> </ul>	<ul style="list-style-type: none"> <li>0</li> </ul>	<ul style="list-style-type: none"> <li>At least 200</li> </ul>				

<sup>78</sup>Refers to BL on income of the households that as part of a producers group present a Business Plan; a score card would allow registration of different incomes disaggregated by income source, including incomes coming from agriculture and related activities. The purpose is to identify any additional incomes coming from agriculture and related activities as result of project activities.

Results Hierarchy	Indicators			Means of Verification			Risks
	Name	Baseline	End Target	Source	Frequency	Responsibility	
<u>Output 2.1.2</u> Increase in volume sold through new or existing markets channels and coaching, technical assistance and business incubation activities provided for the implementation of business plans.	<ul style="list-style-type: none"> <li>Number of business plans that have received coaching, technical assistance and business incubation activities</li> </ul>	<ul style="list-style-type: none"> <li>0</li> </ul>	<ul style="list-style-type: none"> <li>???</li> </ul>				<b>Social risks:</b> <ul style="list-style-type: none"> <li>Weakening of social capital and organization capacity at community level</li> <li>Exclusion of vulnerable groups including women and youth</li> <li>Risks for nutrition and food security:</li> <li>Increased complexity of nutritional problems (e.g., transition to unhealthy diets)</li> <li>Decrease of food security</li> <li>Loss of traditional knowledge, food culture and agro-biodiversity</li> </ul> <b>Institutional risks:</b> <ul style="list-style-type: none"> <li>Limited inter-institutional coordination for actions at the regional level</li> <li>Incipient managerial and organizational capacity to implement investments at the local level (communities and</li> </ul>
<u>Output 2.1.3</u> Sub-regional roundtables established to coordinate actions on key cash crops and commodities in Region 9 and studies for specific value chains and related markets opportunities.	<ul style="list-style-type: none"> <li>Number of value chain round tables supported (Region 9).</li> <li>Number of studies carried out.</li> </ul>	<ul style="list-style-type: none"> <li>0</li> <li>0</li> </ul>	<ul style="list-style-type: none"> <li>4</li> <li>2</li> </ul>				
<b>Outcome 2.2</b> Increased access to assets that build community resilience and create an enabling productive environment (water, energy, ICT).	<ul style="list-style-type: none"> <li>Additional volume of water stored in targeted communities.</li> </ul>	<ul style="list-style-type: none"> <li>Baseline</li> <li>TBD</li> </ul>	<ul style="list-style-type: none"> <li>TBD</li> </ul>				
	<ul style="list-style-type: none"> <li>Number of households in targeted communities with access to renewable energy sources.</li> </ul>	<ul style="list-style-type: none"> <li>Baseline</li> <li>TBD</li> </ul>	<ul style="list-style-type: none"> <li>TBD</li> </ul>				
	<ul style="list-style-type: none"> <li>Number of Internet Access Points available to households in targeted communities.</li> </ul>	<ul style="list-style-type: none"> <li>Baseline</li> <li>TBD</li> </ul>	<ul style="list-style-type: none"> <li>TBD</li> </ul>				
<u>Output 2.2.1</u> Investments in public goods for improved water management, renewable energy and in public facilities and infrastructure that increase access to internet in target communities.	<ul style="list-style-type: none"> <li>Number of P/CIPs for water, energy, ICT supported and implemented.</li> </ul>	<ul style="list-style-type: none"> <li>0</li> </ul>	<ul style="list-style-type: none"> <li>30</li> </ul>				

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Results Hierarchy	Indicators			Means of Verification			Risks
	Name	Baseline	End Target	Source	Frequency	Respon- sibility	
<u>Output 2.2.2</u> Investments for integrated soil fertility management, integrated pest management, and in technology for increasing efficient water use for productive activities in business plans.	▪ Number of BPs that have received incentives and TA for integrated soil and pest mgt. and efficient water use	▪ 0	▪ 30				producers' organizations)
<b>Outcome 2.3</b> Improved diet of adequate quality and appropriate quantity, referring to context-appropriate food-based dietary guidelines and drawing insofar as possible on own-production and local markets in a context of effective behaviour change and nutrition education activities.	▪ 60% of households have food consumption patterns that substantially reflect appropriate “best option food basket”.	▪ Baseline TBD	▪ 3,600 hh (15% female headed hh)				
	▪ Number of reference “best option food baskets”, reflecting nutritionally adequate, low-cost options, developed and communicated (based on food-based dietary guidelines and giving preference to foods available from local production).	▪ Baseline TBD	TBD	Baseline studies Impact study Progress reports Verification in the field	Before effectiveness Annually Mid Term Before Closing	PMU MOA	
	▪ Number of crops and animal varieties and wild species used as food or income generating source at community level.	▪ Baseline TBD	▪ Same or more				
<u>Output 2.3.1</u> Increased knowledge on nutrition and balancing of diet through awareness raising and training.	▪ 60% of target group aware of balanced diets.	▪ Baseline TBD	▪ 3,600 hh (15% female headed hh)	Baseline and Final Impact study Progress reports	Before effectiveness Annually Before closing	PMU	
<u>Output 2.3.2</u> Production of food that balances diets at community level increased.	▪ Increase volume of food crops produced as part of the “best option food baskets”	▪ Baseline TBD	▪ 30% increase				

Results Hierarchy	Indicators			Means of Verification			Risks
	Name	Baseline	End Target	Source	Frequency	Responsibility	
<b>Component 3: Project and Knowledge management and Coordination</b>							
<b>Outcome 3</b> Efficient and adequate management and implementation of planned activities and effective coordination and planning between institutions at the national, regional and local level.	▪ At least 90 per cent of the AWPB is implemented each year.	▪ 0	▪ 90 per cent annual	AWPB Supervision reports Progress reports	Annually Mid Term Before Closing	PMU MOA	
	▪ Number of evidence based knowledge products developed (written, video or oral/radio).	▪ 0	▪ At least four	Knowledge products MOUs Supervision reports Progress reports			
	▪ Number of MOUs signed with public institutions to provide services to the project.	▪ 0	▪ At least four				
	▪ The project's global investment plan and AWPBs are reflected in the regional budgets and plans for two regions.	▪ 0	▪ Two regions	NSC and RMC Minutes Progress reports			
<b>Output 3.1</b> Participatory planning and M&E.	▪ Percentage of communities that monitor and evaluate their P/CIPs. ▪ Percentage of producer groups that monitor and evaluate their BPs. ▪ Number of Regional Evaluation and Planning Workshops	▪ 0 ▪ 0 ▪ 0	▪ At least 80% ▪ At least 80% ▪ 1/year in each region	Progress reports Regional workshop reports	Semi annual Annual	PMU	

#### **Annex 4:**

#### **References**

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## Appendix 7: Financial management and disbursement arrangements

### I. Financial management assessment

1. A desk review was conducted to assess the Financial Management (FM) and evaluate fiduciary risk of the Ministry of Agriculture's Sector Development Unit – ASDU in accordance with the FMD guidelines. It was concluded that ASDU Finance Department has an acceptable FM environment.

#### A. Strength and Weakness of the Financial Management

2. The Main strength is that ASDU has a wide experience in implementing internationally funded projects, including recently closed IFAD's READ project and some projects funded by the Inter-American Development bank (IDB) and the World Bank (WB).

3. One of the ASDU's major weaknesses is the significant procurement delays, which have affected implementation of the previous project. Another potential weakness is the lack of knowledge and experience in application of IFAD procedures related to the FM and Procurement for the newly recruited Administrative /Finance Officers in the regional offices.

4. The following Action Plan was created to mitigate potential fiduciary risks:

Action	Responsibility	Timing
Draft the PIM and request IFAD NO Objection	Consultant / Project Coordinator	Disbursement Condition
Prepare the 18 months procurement plan	ASDU in consultation with IFAD	Start up workshop
Recruit a qualified Finance Manager, preferably certified accountant with relevant years of experience.	MOA	Disbursement Condition
Recruit a Procurement officer for the Georgetown PMU.	MOA	As soon as practicable
Recruit Administrative/Finance Officers for Regional Offices	MOA	As soon as practicable
Conduct FM training for ASDU Finance Team, Regional Administrative /Finance Officers and MOA Internal Auditors. In addition all Finance Team and Regional Administrative/ Finance Officers should complete IFAD Financial Management E- Learning Course	IFAD	Start up workshop
Obtain IFAD NO Objection on the Auditor's TOR and appoint an Auditor	MOA	Within 120 days after the entry into force

#### B. Country Issues

5. Guyana fiduciary environment for utilising donor funds is considered adequate. Transparency International's Corruption Perception Index ranked Guyana 119 of 168 countries in 2015 with a score of 29.

6. Over the past fifteen years the Government of Guyana (GOG) has embarked on implementing reforms aimed at improving its public financial management (PFM) systems, strengthening public

procurement and introducing additional modern public financial management tools to ensure effective and efficient allocation of resources.

7. In 2013 the GOG created a FM action plan which defined more than one hundred activities to be completed over the period 2013-2017 to further improve and strengthen the systems and capacity in the areas of internal and external audit, procurement predictability, control and multiyear perspective in budget planning, internal control. Strong emphasis was placed on compliance and capacity building.

8. In the beginning of 2016 Guyana became a member of the Global Forum on Transparency and Exchange of Information for Tax purposes, which illustrates Government's interest towards increased transparency.

9. Based on the above the inherent risk is rated as Medium.

### C. Risk assessment of financial management

10. A financial management assessment of ASDU was carried out using IFAD's Financial Management Assessment checklist. The objective of the assessment was to determine whether the implementing entity has acceptable financial management arrangements, which will ensure that: (1) project funds are used only for the intended purposes in an efficient and economical way, (2) accurate, reliable and timely periodic financial reports are prepared, and (3) the entities' assets are safeguarded.

11. The following risk analysis is based on the assessment of financial management arrangements proposed for this project.

**Table 2 - Risk Assessment and Mitigation Measures**

Risk	Risk	Risk Mitigating Measures incorporated into Project Design	Residual FM Risk
<b>Inherent Risk</b>			
<b>Country Level</b>  TI Rating placed Guyana at 119 of 168 countries with a score of 29	<b>M</b>		<b>M</b>
<b>Project Risk</b>			
<b>Entity and Project Level</b>  The ability of MOA/ ASDU and the PMU to effectively coordinate implementation in the remote regions.	<b>H</b>	Adequate staffing arrangements at MOA – ASDU and Region1 and 9 offices.  Training to be provided by MOA/ ASDU to the staff of two Regional offices as it relates to procurement, budget preparation and IFAD FM procedures  PIM to be finalised before project entry into force	<b>M</b>
<b>Organization&amp; Staffing</b>  Currently ASDU finance unit comprise of a Finance Officer and an Assistant Accountant, the position of Finance Manager who	<b>M</b>	The position of the Finance Manager and two Admin/ Finance Officers (one for each regional office) should be recruited using competitive bidding. The position of Finance Manager	<b>L</b>

<b>Risk</b>	<b>Risk</b>	<b>Risk Mitigating Measures incorporated into Project Design</b>	<b>Residual FM Risk</b>
<p>will be responsible for the unit is vacant.</p> <p>There is only one procurement officer in the ASDU.</p>		<p>should be filled as a condition for entry into force.</p> <p>Another procurement officer familiar with both International procurement and national procurement guidelines should be recruited by ASDU specifically for the Hinterland Project.</p>	
<p><b>Budgeting</b></p> <p>Potential delays in submitting consolidated AWPB and Procurement Plans (PP).</p>	<b>M</b>	<p>Budget templates for the Hinterland Project should be included in PIM.</p> <p>A session on the preparation of the AWPB &amp; PP should be held at the Start-up workshop for all PMU and ASDU staff that will be assigned to the Hinterland Project.</p> <p>Workshop should be arranged to include all stakeholders so inputs can be timely received. This workshop should be initiated at least five months before budgets are due to MOA.</p>	<b>M</b>
<p><b>Funds Flow &amp; Disbursement</b></p> <p>Disbursement bottlenecks could arise due to the weak cash flow planning and poor counterpart funds availability</p>	<b>L</b>	<p>ASDU has experience in IFAD disbursement procedures and counterpart funds for the previous project were provided in a timely manner.</p> <p>The newly appointed Finance Manger should complete IFAD Financial Management E-Learning Course.</p>	<b>L</b>

<b>Risk</b>	<b>Risk</b>	<b>Risk Mitigating Measures incorporated into Project Design</b>	<b>Residual FM Risk</b>
<b>Internal Controls</b>  Risk of non- compliance with internal control processes.  Possibilities of weaknesses (transparency) in procurement and awards of contracts.	<b>M</b>	The PIM should provide adequate information for operational controls. It should clearly document the approval and authorization hierarchies applicable for processing financial transactions.  MoA has a functioning Internal Audit Unit , which should perform an analysis of risk areas and propose mitigation measures.  Regular IFAD supervision missions will help ascertain level of compliance for internal controls and procurement  Review of internal controls and procurement will also be covered by annual external audits	<b>L</b>
<b>Financial Reporting and Monitoring</b>  Delays in obtaining information and documentation in the preparing and submitting financial reports, progress reports and withdrawals applications due to distances of the regional offices and the number of service providers in the project.	<b>M</b>	Training to be provided to Administrative/Finance Officers in the regional offices on IFAD procedures. The processes and procedures should be detailed in the PIM.  Regional offices to be responsible for close monitoring of service providers to ensure all information is received in a timely manner.	<b>L</b>
<b>Internal Audit</b>  There is an Internal Audit department called the verification unit within the MOA. This is a new department within the ministry and therefore will require some training to familiarise with IFAD procedures and guidelines.	<b>H</b>	The Verification unit staff should attend the project start-up workshop and complete IFAD Financial Management E- Learning Course to have an understanding of IFAD procedures.  The Verification unit should report on the project internal control on a quarterly basis which should include reports on site visits to Region 9 and 1.	<b>M</b>
<b>Auditing</b>  The Auditor General Office of the GOG will conduct the Audit of the Hinterland Project. The quality and timeliness of audits performed by the Auditor General Office for the recently closed READ project was	<b>L</b>	No additional measures to be taken	<b>L</b>

Risk	Risk	Risk Mitigating Measures incorporated into Project Design	Residual FM Risk
rated satisfactory.			
<b>Overall FM Risk</b>	<b>M</b>		<b>L</b>

H- High, M-Moderate, L-Low

12. Overall, the assessment concluded that the proposed FM arrangements for the Hinterland Project satisfy IFAD's minimum requirements for a robust and sound financial management with a mitigated risk level assessed as LOW.

## II. Proposed FM implementation arrangements

### A. Financial Management Organization

13. The Financial Management and the Procurement of the Hinterland Project will be undertaken by the ASDU through creation of the dedicated project management unit (PMU). The ASDU has experience in dealing with international funding, including the IFAD funded READ Project, which had satisfactory rating for the quality of FM. The ASDU is already equipped with an appropriate accounting software system, and staff is already trained in donor reporting and disbursement procedures. This arrangement will contribute towards further country capacity building and will mitigate FM risks by ensuring acceptable financial accounting and reporting from the start of the project.

### B. Financial Management Staff

14. The Finance Department of the ASDU is currently staffed with a Finance Officer and Assistant Accountant. At the time of the FM assessment the position of the Finance Manager was vacant. It is required to fill this position by an experienced certified accountant through a competitive process. The Financial Manager of ASDU will have fiduciary oversight responsibilities over the FM of the Hinterland Project.

15. At each regional office an Administrative/ Finance Officer should be recruited through a competitive process; he/she will be responsible to perform administrative and basic accounts functions.

16. Detailed job description of the ASDU finance team will be included in the PIM.

17. As part of the implementation readiness, ASDU Finance Team and Regional Administrative/ Finance Officer should be provided with an in-depth training of IFAD requirements, procedures and FM best practices by an IFAD Finance Officer. This type of training will be ongoing in order to keep the Project Finance team abreast on any changes. In addition ASDU Finance Team, Regional Administrative/ Finance Officers and Programme Manager (PM) should complete the IFAD FM E-Learning Course. Upon completion certificates should be kept in each staff personnel files for review by IFAD Supervision team.

### C. Accounting and Financial Reporting

18. The ASDU currently use Quick Books Multi currency Accounting Software to record all the transactions and produce financial statements and various reports. This software has the capabilities

to maintain the records of transactions by financiers, category, component and printed of cheque. This software was used for the READ project and it provided the project with the reliable financial reports. The only short fall of the software is that it is not able to generate Withdrawal Applications and Statement of Expenditure as per IFAD reporting requirements and as a result it is done on Excel.

19. The ASDU uses a cash basis accounting and its financial statements are prepared in accordance with International Public Sector Accounting Standards (IPSAS).

20. The financial statements for the Hinterland Project should be produced in formats acceptable to IFAD and will include inter alia a Sources and Uses of Funds statement, with classification of expenditures by categories and components and comparisons against approved budgets. Samples of these statements should be included in the PIM.

21. The time frame for the submission of the unaudited financial statements is three months after the end of the fiscal year and for the audited financial statements is six months after the end of the fiscal year.

#### **D. Budgeting**

22. All the activities and expenditures that will be implemented by the Hinterland Project will be included in an Annual Work Plan and Budget (AWPB), including the extent to which budgeted expenditures are intended to be financed by each financier (IFAD, GOG, beneficiaries)

23. The procedures for the preparation and approval of AWPBs will be as follows:

- (a) Project years will be based on the Government's financial year of January to December. In PY1 the date and period will be adjusted after satisfaction of conditions precedent.
- (b) AWPBs for each financial year, from PY 2 will be prepared during the period September-November prior to that financial year, so that organizations can plan accordingly.
- (c) The planning process will begin at the beneficiary level (groups, cooperatives, etc.) with assistance of the PMU technical staff. The sources of the AWPB inputs will be strategic plans, the service providers plan for delivering technical support and training and other activities proposed by component coordinators in order to reach the expected outcomes.
- (d) At PMU level the Planning Monitoring & Knowledge Management Specialist will organize and facilitate an annual session with PMU and service providers to present and validate the AWP of the community/beneficiary level. The agenda of the meetings will be guided by the review, validation and update of the project Log Frame. The Log frame will be broken down into yearly sets of objectives and indicators that will lead to the identification of activities, their corresponding budget and procurement plan.
- (e) Once the planning session is completed the Project Manager and Regional Project Coordinators will consolidate the AWP resulting from the needs and approved requests/proposals by beneficiaries, adding other activities proposed by the Regional Project Coordinators to better achieve the component outcome and the management activities required. Along the process, the Financial Manager will translate the proposed AWP into budget allocations and procurement needs. This consolidation will be led, coordinated and facilitated by the Planning Monitoring & Knowledge Management Specialist that will be responsible for providing feedback to the participants of the planning meetings regarding eventual changes and budgetary allocations.
- (f) The draft of the AWPB will be submitted to the MOA for review and comment no later than September 30<sup>th</sup>.
- (g) A revised draft will be submitted to IFAD for review and comment no later than October 15<sup>th</sup> each year.
- (h) If IFAD do not comment on the draft AWPB within 30 days after receipt, the AWPB shall be deemed approved.

- (i) To facilitate transparency in the budgeting, and facilitate implementation and monitoring of the budgeted activities, approved AWPBs will be accessible to all project staff and the ASDU.

### **E. Funds Flow and Disbursement**

24. The proceeds of the financing will be used for eligible expenditures as defined in the Financing Agreement, and in line with the disbursement allocations specified in the relevant section of the Financing Agreement

25. As a condition for Project entry into force a segregated IFAD Designated Account denominated in USD will be opened in the Central Bank Of Guyana. The signatories should be; (i) the Permanent Secretary of the Ministry of Agriculture (ii) the Permanent Secretary of Ministry of Finance and (iii) Director of the ASDU.

26. The funds will be disbursed by IFAD into the Designated Account following the imprest/ replenishment mechanism. The Authorised Allocation (initial deposit) will be specified in the Letter to the Borrower.

27. IFAD Designated Account will be replenished on the basis of Withdrawal Applications prepared and submitted to IFAD by the ASDU Finance Manager, signed by the authorised representatives of the Borrower, accompanied by the required supporting documentation. Detailed instructions for disbursements will be included in the LTB issued for the Hinterland Project.

28. A designated account denominated in Guyanese dollars will also be opened at the Central Bank of Guyana for the Counterpart Funds.

29. Upon the request from the PMU and in accordance with the approved Project AWPBs, funds will be transferred from the designated accounts to Project operational account, which will be opened at the Central Bank of Guyana and denominated in Guyanese dollars. Funds from the Project operational account will finance the activities included in approved AWPB.

30. Each Regional Office will operate a bank account in Guyanese dollars, the signatories for the account will be the Regional Project Coordinator and the Administrative/ Finance Officer. The account will operate on an imprest system managed by the Finance Manager of ASDU with a ceiling to be determined. Payments made at the regional offices will be for urgent and relatively small procurement (threshold to be determined and included in the PIM). The Administrative / Finance Officer will be responsible for the reconciliation of the Bank account.

31. The project will use a direct implementation model in which funds are channelled to and managed entirely by the community based organizations (CBOs) or other rural organizations and producers groups that belong to the Programme's target group. The "Direct Implementation by Beneficiaries" model demands beneficiary participation at every stage of the project cycle in order to enhance ownership of the investment /project.

32. Additional general conditions prior to disbursements are: i) Opening of the Project Account; ii) Operational Manual; iii) Assignment of Project Coordinator and Financial Administrator; iv) Baseline for final impact evaluation; and v) for Region 1 the completion of the SOFA study and value chain studies.

33. In order to facilitate the start of Project implementation, if necessary, the following financing mechanisms could be agreed upon:

- **Retroactive reimbursement of expenses.** This mechanism allows expenses to be eligible from the date of negotiations. The mechanism foresees the Borrower to advance the payment of expenses and submit them to IFAD for reimbursement, as a first withdrawal application, once the Loan Agreement has become effective and the general and additional conditions for disbursements have been met. The retroactive reimbursement of expenses has to be mentioned in the President's Report for approval by IFAD's Executive Board.

- **Start-up Expenses.** This mechanism allows expenses to be eligible from the date of effectiveness and before the disbursement conditions have been met. Under this mechanism, the project could receive an advance of funds from the date of effectiveness.

34. The maximum amounts for “retroactive reimbursement of expenses” and “start-up expenses” as well as the pertinent categories to which these can be applied on the basis of a budget, will be set in the Loan Agreement. The eligible expenses for “retroactive reimbursement of expenses” and “start-up expenses” are normally those associated to the additional general conditions prior to disbursements, including for example, hiring of key personnel, expenses for the project office to become operational (i.e. furniture, computing equipment, vehicles), and the establishment of the project monitoring and evaluation system (base line).

35. Details of the Hinterland Project fund flows, including bank accounts and imprest modalities will be outlined in the PIM.

#### **F. Internal Control and Internal Auditing**

36. MoA has a functioning internal audit unit called the verification unit, which help to ensure a sound control environment within the Ministry. This department is relatively new and as a result the staff of the unit should be part of the start up workshop in order to have better understanding of the IFAD procedures.

37. Supervision missions would report on the activity of the internal audit with respect to Hinterland Project and ASDU by reviewing the Internal Auditor reports and assessing management's responsiveness to any recommendations formulated.

38. Internal controls will also be verified during the annual audit exercise and reported to IFAD in a Management letter, in line with IFAD's audit guidelines.

39. In the preparation of the PIM, the roles and responsibilities for the Hinterland Project activities should be well defined.

#### **G. Auditing**

40. The project financial statements, will be prepared by the Finance Manager of ASDU, and will be audited on an annual basis in accordance with the International Standard on Auditing and the IFAD guidelines on Auditing of the projects.

41. In line with its mandate as per the Guyana Audit Act 2004, the Auditor General shall be responsible for conducting financial, compliance, performance and value - for-money audits with respect to the accounts of all projects funded by the way of loans or grants by any foreign state or organization.

42. In this regard, the Guyana Auditor General Audit Office will conduct the audit of the Hinterland Project financial statements and provide separate opinions on the financial statements, on the operation of the Designated Accounts and on the certified statement of expenditure. A separate management letter addressing the adequacy of the accounting and internal control systems should also be issued. The audit report including all the opinions mentioned above should be submitted to IFAD within the six months of the end of the fiscal year.

43. The READ project was audited by the Guyana Auditor General Audit Office for the entire life of the project and the technical capacity of the office of Auditor General was considered satisfactory. Based on the lesson learnt, due to workload constraints of this office and in order to ensure that there are no delays in meeting IFAD's financial covenants for audit, the ASDU and the Project Manager should appoint the Auditor General Audit Office within 120 days after Project entry into force. The terms of reference for the auditor will require prior review by IFAD before submitting it to the Auditors.

#### **H. Anticorruption and Good Governance Framework**



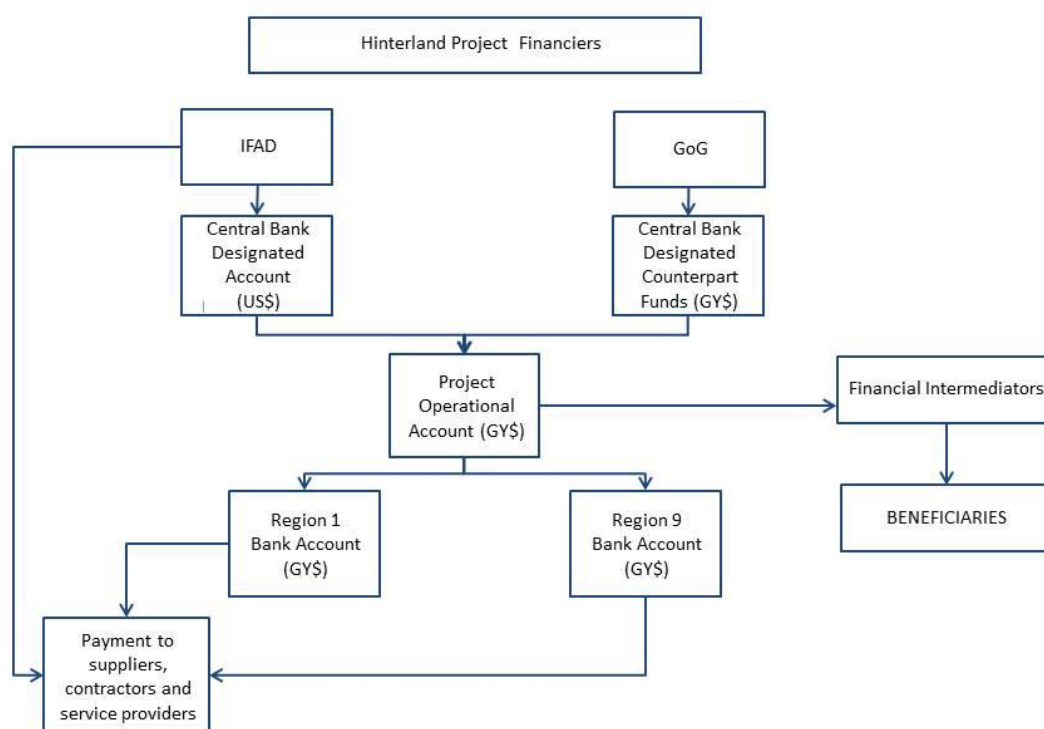
44. The primary responsibility of detecting fraud and corruption lies with the borrower. However, the Project should note IFAD applies a Zero Tolerance Policy towards fraudulent, corrupt, collusive or coercive actions in projects financed through its loans and grants. "Zero Tolerance" means that IFAD will pursue all allegations falling under the scope of this policy and that appropriate sanctions will be applied where the allegations are substantiated. IFAD shall take all possible actions to protect from reprisals individuals who help reveal corrupt practices in its project or grant activities and individuals or entities subject to unfair or malicious allegations. Given IFAD's Zero Tolerance described above, it is important that the staff and all stakeholders of the Project are familiar with IFAD's anticorruption policies and whistle blowing procedures. The IFAD anticorruption policy is available on the IFAD website at [www.ifad.org/governance/anticorruption/index.htm](http://www.ifad.org/governance/anticorruption/index.htm)). The IFAD website also provides instructions on how to report any alleged wrongdoing to the Office of Audit and Oversight (<http://www.ifad.org/governance/anticorruption/how.htm>).

#### **I. Supervision and Implementation Support Plan (FM)**

45. In light of the low residual FM risk, in the first year of implementation the supervision plan of the Hinterland Project will comprise of:

- At least two on-site visits that will involve *inter alia* visits to beneficiaries and a sample of service providers and updating of the FM assessments.
- The supervision process will be complemented by desk review of progress and financial reports, the programme's annual financial statements, internal audit reports, and annual audits including the recommendation in the Auditor's Management Letter
- Detailed review of the PIM as it relates the Financial Management Arrangements and Procurement
- Detailed reviewed of the Project Accounting Software, the Chart of Accounts and the financial reports produced by the Software.
- Detailed review of the Contract Register and Fixed Asset Register.

## Annex 1. Flow of Funds for Hinterland Project



## **Annex 2: Terms of Reference and Scope of Services**

### **Administrative/Finance Officer Hinterland Project**

#### **Main Purpose of the Job:**

To provide Hinterland Project with a comprehensive range of Administrative, Office Management and Accounts related support services to the Project Manager , Project Regional Coordinator, ASDU Finance Manager and other technical / specialists staff of the Regional Offices .

#### **Key Responsibilities:**

1. Assist the Regional Project Coordinator, and Hinterland Project Team in the fulfillment of Hinterland Project's Objectives.
2. Responsible for day-to-day coordination of project correspondence, information sharing, filing and ensuring that appropriate follow-up actions are taken on all correspondence.
3. Assist in preparing quarterly reports, Project evaluation reports, annual Project reports, and update project files accordingly.
4. Provide administrative planning, coordination, secretarial assistance and support to PMU Team and visiting missions;
5. Maintain an electronic directory of PMU stakeholders and suppliers;
6. Minutes of Meetings: Schedule, organize and prepare agenda, documentation and circulation of same for Hinterland National Steering Committee meetings, Hinterland Project Management Team meetings, Hinterland Project General Staff Meetings and other relevant meetings and the relevant minutes accordingly.
7. Coordinate the planning, organization and logistical arrangements of workshops and Hinterland Project events and activities, and assist with preparation of workshop presentations.
8. Create and maintain personnel files under the supervision of the Project Regional Coordinator ; including management of employees leave records;
9. Manage local and international travel arrangements for PMU staff and international experts missions (including procurement of tickets, hotel reservations and pick-up from the airport as may be necessary or required);
10. Create, maintain and manage a well organized filing system covering all aspects of Hinterland Project.
11. Assist with the preparation and advertising of procurement documents.
12. Monitor, manage and enter data in Fixed Assets Register and manage the maintenance of office equipment, furniture and general office security in close collaboration with the Finance Manager and Project Regional Coordinator;
13. Maintain equipment records and servicing schedules with equipment suppliers, and in close collaboration with the accountant, ensure appropriate office equipment is insured.
14. Ensure that records of vehicle licensing and insurance are maintained to facilitate the necessary renewal of same on time, including coordinating the management of PMU vehicles and drivers' schedules.
15. Manage the office supplies and consumables and maintain record of assets & stock inventory;

16. Manage and maintain the Petty cash.
17. Preparation of monthly bank reconciliation .
18. Assist the accountant with the preparation, entry and filing of Payment Vouchers.
19. Assist the Finance Manager in all secretarial duties and administration related to accounting and procurement / contract files, documents and records and similar register of contracts;
20. Undertake any other relevant duties that may be assigned by the Project Manager , Finance Manager and Regional Project Coordinator from time to time.

.  
**Period of Assignment:** Two (2) years, with possibility of renewal every two years, subject to performance.

**Qualifications:**

The successful candidate must possess an Associate Degree in Business Administration or related field or a minimum of a Certificate in Secretarial Science or Office Administration from a recognized institution with Five (5) 'O' Level Subjects including English Language and Accounting. Computer Literacy: Microsoft Office and QuickBooks is essential.

The successful candidate should have at least six (6) years administrative experience in providing administrative support services to Senior Management / Senior executives or at the policy level in the public / NGO sector, or in the private project environment. The candidate must be familiar and experienced with handling confidential correspondences and experienced with supporting project coordination and implementation in addition to basic bookkeeping.

## **Finance Specialist Hinterland Project**

### **Main Purpose of the Job:**

The Finance Specialist will direct, manage and coordinate the total financial management activities of the Hinterland Project in strict compliance with the requirements of the Finance Agreements between the Government of Guyana and IFAD; the Project Implementation Manual (PIM) and appropriate financial management best practice and international accounting standards. He/she will provide all possible support to the Project Management Team, in order to achieve successful implementation.

### **Key Responsibilities:**

1. Review the financial management organization and procedures applying to project receipts and payments, and ensure that the funds are used for the purposes intended, in an open and transparent manner; ensure the project manager is aware of risks arising from any weaknesses in the internal control system, and take steps to minimize the risks
2. Ensure that all financial documents relating to the project (cash books, ledgers, registers, payrolls, bank statements, invoices, cheque books and other vouchers) are retained by the PMU are available for inspection by , Internal and External Auditors and IFAD Supervision Mission team.
3. The design, implementation and maintenance of fund accounting system which includes a well design chart of accounts which will show linkages between the logframe and the budgeting and accounting and financial reporting tools.
4. Managing an ordering and procurement system and administering of procurement contracts in accordance with IFAD Guidelines for Procurement and any other applicable local Guidelines.
5. Maintain and regular updating of the following: Fixed Assets Register, Procurement Register and Contract Register.
6. Assisting the Project Management Team with the preparation of the Annual Work Plan and Budget.
7. Preparing the general Ledger and books of accounts.
8. Prepare monthly cash flow statements and analyses.
9. Reconcile bank statements and prepare expense statements.
10. Maintain an inventory of Project assets and ensure insurance coverage at all times, including for assets, during implementation/construction.
11. Manage the payroll and relevant worksheets.
12. Monitor project accounts and prepare:
  - a. Payments to suppliers, contractors, trainees and training agents etc; and
  - b. Withdrawal applications.
13. Prepare statements for, and liaise with, auditors
14. Assist the PM in preparing financial and Project performance reporting.

15. Finance Manager will provide training for the CBO members on relevant themes of “Direct Implementation by Beneficiaries.

16. The Finance Manager is expected to visit regional offices as part of its monitoring activities.

17. Perform any other duties that may be assigned by the PM.

**Period of Assignment:** Two (2) years, with possibility of renewal every two years, subject to performance.

**Qualifications:**

The Finance Specialist should have a degree or professional accounting qualification (such as ACCA, CPA), and at least 5 years of post-qualification experience in accounting preferably including responsibility for the financial and accounting operations of donor funded projects; Excellent knowledge and use of QuickBooks and Microsoft Office Suite ; Knowledge IFAD procurement guidelines will be an asset.

## Appendix 8: Procurement

### II. Introduction

1. Public procurement in Guyana is subject to the Public Procurement Act 2003). The Procurement Act of 2003 is the legislative framework that establishes the rights, obligations and responsibilities of all parties in the procurement procedures. It sets out procedures for the control of the public procurement to ensure that public funds are used in the most cost-effective manner.
2. It should be noted the procurement procedures do not apply to Procurement funded by Multilateral Development Banks and similar external agencies such as the IDA, IADB, CDB, EU, the Millennium Fund, etc., which are governed by the procurement rules of the funding agency agreed to by the GoG.
3. The IFAD Procurement Handbook was compared with the Procurement Manual published by the Public Procurement Commissions, Guyana in line with the provisions of the Public Procurement Act, 2003. The review confirms that the Guyana procurement procedures generally conform to the IFAD procurement principles. The national procedures could be used on IFAD projects, without risk, provided the procurement team are well trained and qualified. However, IFAD's procedures shall supersede the Borrower's procedures where there are inconsistencies between the two procedures.
4. Procurement shall be undertaken only during the Project implementation period, i.e. from the date of effectiveness to Project Completion date and in accordance with the procurement plans approved by IFAD. Procurement will be directly implemented by the PMU/ASDU and will be subject to the provisions of IFAD "Procurement Guidelines" and the procedures set out and or referred to in schedule in the IFAD financing agreement.
5. Before the commencement of procurement and annually thereafter, the PSC shall furnish IFAD for approval an 18-month procurement Plan as described in Appendix 1, paragraph 1 of the IFAD Procurement Guidelines. The Procurement Plan shall specify, among others, the method of procurement for each contract to be financed, including thresholds, ceilings and preferences to be utilised in the implementation of procurement under the Project. The Procurement Plan shall also specify any additional requirements as may be set out in the IFAD Procurement Guidelines with respect to certain methods of procurement. An Indicative Procurement Plan for the first eighteen (18) months of Project implementation should be prepared in consultation with the PMU at the start of the project and submitted to IFAD for 'no objection'.
6. In the preparation of this assessment valuable lesson learned under the READ Programme should be taken into consideration.: The main problems identified were: 1) Poor Procurement Planning, 2) Weak technical capacity of staff in handling procurement, 3) Lack of knowledge of the procurement guidelines, 4) inconsistency between some bid evaluations reports and recommendations , 5) bid costs that are much higher than original estimates, 6) re bidding because of poor response
7. In order to reduce the procurement implementation risks the following action plan is proposed :
  - Recruit a dedicated procurement officer who will be focusing on procurement management.
  - During the Project Start Up Workshop a procurement expert should be provisioned by IFAD to provide training for the PMU /ASDU Staff as well as finalizing the proposed 18 month procurement plan.
  - In addition in order not to delay implementing small project activities the number of tenders under the project will be limited to two, which should limit overall procurement delays.

- The PIM should include a specific chapter on procurement, detailing all the procedures and Channels of responsibilities and flow of documentations and examples of standing Bidding documents. .

### III. Arrangement for Procurement under the Project

8. **Procurement decisions** – to the extent possible, the goods, works and consulting services shall be bulked into sizeable bid packages in such a manner as to permit the optimal use of competitive bidding. The thresholds for various procurement methods and procedures and prior review (mentioned below exclude duties and taxes) are indicative and subject to changes as may be acceptable to IFAD. In general, contracts estimated to cost USD 50 000 or more for whatever category of procurement will be subject to prior review by IFAD.

9. **Procurement of goods and works-** will be packaged to attract International Competitive Bidding (ICB) or National Competitive Bidding (NCB). Such procurements will follow ICB or NCB procedures whichever is applicable. Materials, supplies and operating costs will be small and fall under LCB or Local Shopping procedures. In principle, a contract for supply of goods estimated to cost USD 100 000 equivalent or more will be awarded under ICB. Contracts which are equal to or less than USD 100 000 equivalent but more than USD 50 000 will be through NCB acceptable to IFAD, and those more than USD 5 000 but equal to or less than USD 50 000 equivalent through local shopping with at least three quotations.

10. **Contracts for consultants' services and studies** will also be in accordance with IFAD procurement guidelines. Terms of reference, conditions and terms of contracts, and the qualifications and experience of consultants will be subject to prior review and approval of IFAD, where applicable. Each contract for the supply of technical assistance, studies and training, and other services provided by consultants and other service providers shall be in principle awarded as indicated in Table 1 below. Before agreeing to any material modification or waiver of the terms and conditions of any contract, or granting an extension of the stipulated time for performance of such contract, or issuing any change order (except in cases of extreme urgency) that would increase the cost of the contract by more than 10% of the original price, the Borrower shall inform IFAD on the proposed modification.

11. **Review of Documents by IFAD-** The award of any contract for goods or work through direct Contracting or estimated to cost fifty thousand (USD 50,000) equivalent or more, shall be subject to prior review by IFAD. Also, the award of any contract for consulting services through Single Source selection or estimated to cost thirty thousand US dollars (USD 30,000) equivalent or more shall be subject to prior review by IFAD.

12. **Review of procurement decisions-** Procurement is fundamentally the responsibility of the Government, but the IFAD supervision involves three main tasks in relation to procurement: (i) Review of the procurement plan; (ii) prior or ex-post review of procurement, and (iii) Review of pre-qualification of bidders.

- (i) **Review of Procurement Plan.** The PMU will have a duly approved annual work plan and budget, which includes a procurement plan for all major procurements of goods, works and consulting services to be carried out within a period of at least 18 month. The first procurement plan will be updated after loan effectiveness and is to cover the initial 18 months of the Project implementation period and is to be submitted to IFAD for approval. The procurement plan is to be updated annually (or as needed) to cover every subsequent 18-month period of Project duration as part of the AWP&B.
- (ii) **Prior and Ex-post Review of Procurement.** Irrespective of the method of procurement to be employed, the Finance Agreement specifies the threshold for prior review ie for contracts valued at more than the threshold amount. The IFAD financing agreement specifies the extent to which the review procedures will apply in respect of the various categories of goods, works and services, in whole or in part, from the IFAD loan. Where prior review is not required, IFAD conducts post-award reviews on a sample



basis of documentation and contracts submitted as supporting documents for withdrawal applications.

- (iii) Review of Pre-qualification of Bidders. Pre-qualification involves review by IFAD in two instances: (a) prior to the government issuance of invitations to prequalify, IFAD reviews the draft documents to be issued, including the text of the invitation to prequalify, the qualification questionnaire and the evaluation methodology, together with a description of the advertising procedures to be followed; and (b) following the government's evaluation of submissions IFAD reviews the draft evaluation report together with the list of prequalified bidders and a statement of their qualification, and of the reasons for excluding any applicant from prequalification.

**13. Procurement Monitoring and Reporting-** The PMU will keep a complete and up- to- date record of all procurement documentation and relevant correspondence in its files, which will reviewed during supervision missions. It should be proposed that Monitoring reports on procurement progress will be submitted as part of progress report on program implementation. The report shall include all information related with the completed, on –going and planned contracts.

**Table 1- Procurement Methods**

Method	Description	Applicability/Characteristics	Advertising	Remarks
Limited International Bidding (LIB)	ICB by direct invitation (no open advertisement)	<ul style="list-style-type: none"> <li>Smaller value</li> <li>Limited number of suppliers</li> </ul>	Restricted ITB	- Domestic preference not applicable
National Competitive Bidding (NCB)	Procedure for public procurement in Borrower Country	<ul style="list-style-type: none"> <li>Small value contracts</li> <li>Geographically scattered, labour-intensive or time-spread works</li> <li>Local prices below international market</li> <li>No or limited interest from international business community</li> <li>ICB advantages outweighed by financial and administrative costs</li> </ul>	Local press Open ITB	<ul style="list-style-type: none"> <li>IFAD to establish acceptability of national procedures</li> <li>Foreign suppliers allowed to bid</li> </ul>
International Shopping	Comparison of price quotations from at least 3 suppliers in 2 different countries	<ul style="list-style-type: none"> <li>Small value procurement</li> <li>Off-the-shelf goods, standard specification commodities, simple civil works</li> </ul>	Request for quotation (restricted)	- Purchase order or brief contract
National Shopping	Comparison of price quotations from at least 3 suppliers	<ul style="list-style-type: none"> <li>Same as International Shopping</li> <li>Goods available locally from several sources at competitive prices</li> </ul>	Request for quotation (restricted)	- Purchase order or brief contract
Direct Contracting	Single or sole-source selection	<ul style="list-style-type: none"> <li>Extension of existing contract</li> <li>Standardization for vehicles, equipment</li> <li>Proprietary equipment obtainable from one source only</li> <li>Condition of performance guarantee</li> <li>Emergency procurement</li> </ul>	No advertising No competition	
Procurement by Financial intermediaries				
Procurement with Community Participation				
Procurement of Consulting Services				
Quality and Cost Based Selection	Competitive selection from short-listed firms based on quality and cost of proposal	Two-step evaluation: quality (technical proposal) and cost (financial proposal)	GPN (large contracts) Request for Proposal (RFP)	Preferred selection method for most consulting services

Refer to the IFAD Procurement Guidelines for further details

## **IV. Records of procurement/contract management**

### **Period of Record**

14. The PMU will need to maintain records of bidding proceedings and contract management for a minimum period of 2 years from the closing date of the loan agreement. If a contract is challenged or involves a dispute or is expected to involve a dispute, the records should be kept for a longer period or until the completion of the settlement of the dispute.

### **Content of Procurement Records**

15. All bidding records maintained by the PMU should contain at least the following documents, where appropriate:

- (a) the request that initiated the procurement activity (requisition) from the user;
- (b) a copy of the published advertisement(s) or shortlist of suppliers;
- (c) a copy of the pre-qualification document and pre-qualification evaluation report (as applicable) and invitation to bidding/proposal invitation or invitation to quote and any amendments or clarifications requests;
- (d) the records of bid closing and bid openings;
- (e) copies of all bids evaluated and any clarifications requested from bidders and responses received;
- (f) the evaluation report including the recommendation of award;
- (g) minutes of any meetings related to the procurement, including pre-bid and negotiation meetings;
- (h) all documents approving and authorizing certain tasks including all submissions to and all decisions of the Project manager;
- (i) copies of all No Objections from IFAD (as applicable);
- (j) copies of all other communications from bidders, suppliers, contractors or providers in relation to the procurement/contract, in particular any bid and securities (originals to be stored in a safe) and record of their return.

### **Content of Contracts Records**

16. All contract records maintained by the PMU should contain the following documents:

- (a) the notice of acceptance to the supplier;
- (b) the signed contract document including any signed contract amendments;
- (c) all post contract documentation relating to the fulfillment of contract obligations in particular photocopies of performance securities or advance payment guarantees (originals kept in a safe);
- (d) minutes of any meetings related to the contract management, including contract progress or review meetings including any meeting held with the supplier;
- (e) all delivery documentation evidencing deliveries of supplies or completion certificates in relation to contracts for services or works under the contract;
- (f) copies of all invoices for goods including papers verifying the accuracy of payments claimed and details of the actual payment authorized;
- (g) copies of cumulative payment worksheets evidencing management of all payments made;

- (h) copies of any claims made by the PMU in respect of any warranty, non warranty, short supply, damage and other claims upon the supplier or upon the PMU;
- (i) all correspondence between the PMU and supplier/contractor;

### **Procurement and contract process control**

17. The purpose of a procurement control system is to be able to control the key activities of the procurement process throughout the project, to ensure:

- (i) Any procurement activity undertaken has been authorized by the correct project authority prior to commencement of any associated work;
- (ii) Administratively that each activity of the project that requires procurement action is recorded into a register so that it can be identified as a specific activity,
- (iii) Each procurement activity is provided with a unique identifier for clear identification throughout its life, particularly important during commitment and payment stages;
- (iv) Adequate monitoring of activity from its procurement through to its contract thereby providing a control and an audit trail.

### **Minimum procurement and contract control**

18. There are two forms of control that are the minimum arrangement and consisting of separate registers held by the Finance manager and through which the control is exercised. These are:

- (i) procurement register - in which any activity requiring procurement should be registered.
- (ii) contract register - effectively an extension of the procurement register, recording the complete list of all contracts placed. Its information is crucial, as this register should contain the full list of commitments against project funds.

### **Content of the Procurement Register**

19. The procurement register would typically include only the key summary information relating to each piece of procurement. This would normally cover data recorded on both a horizontal and vertical basis. Vertically the information would relate to the actual key data of the procurement while horizontally the data would relate to that of the actual requirement.

20. The procurement information would normally include:

- (a) procurement reference number allocated to the requirement;
- (b) the date the requirement was received in the PMU;
- (c) the Project component against which the requirement will be actioned;
- (d) a brief, general description of the requirement;
- (e) the anticipated cost or budget that has been allocated to the requirement;
- (f) the procurement method that will be applied to the requirement;
- (g) the type of Bank review that will apply to the procurement method.

21. The procurement register therefore, provides the manager with a complete list of all procurement being undertaken and with a list of work against which projects reports and tables can be cross-checked. The register enables the PMU to verify the authority to commence any particular procurement prior to any actual work being commenced.

#### **Content of the Contracts Register**

22. The main portion of the contracts register would include key data giving a summary of each contract placed. The contract information would include:

- (a) a contract reference number allocated to the contract;
- (b) the date the contract was placed;
- (c) the contract amount estimated in the currency;
- (d) the name of the supplier/contractor awarded the contract;
- (e) any special annotation needed against the entry.
- (f) state if Prior review was given

23. The contracts register should provide a total for all the contracts, representing the total committed cost to the Project.

24. The contracts register provides the project with a complete list of all contracts placed, permitting a simple overall control and oversight over the contracted workload and a means against which to cross check procurement and contracts monitoring tables.

25. Additionally, the contract register can provide (on its right, but not shown above) a breakdown by component should this be required at this stage of the project.

#### **Review Using the Procurement and Contract Control System**

26. This basic procurement and contract control system should be used to manage the incoming workload and control the workload processed by the procurement resources. It should be reviewed regularly on at least a weekly basis by Finance Manager.

27. New requirements should be entered in the procurement register as soon as they are known. Possible requirements may be included as these represent workloads that may need to be factored into future workload calculations. Procurement requirements or contract entries should not be deleted, but annotated when all action has been completed.

## **Annex 1: Terms of Reference and Scope of Services: Procurement Officer**

### **Main Purpose of the Job**

The objective of the appointment is to effectively manage the procurement processes of works, goods and services required for the implementation of the Project in accordance with the **IFAD** and **GOG's** established procurement procedures, laws and regulations.

### **Position Responsibilities**

The **Procurement Officer** will:

- i. Plan, supervise and coordinate procurement activities of the Hinterland Project for goods and services.
- ii. Prepare and submit in a timely manner the annual procurement plans of the Hinterland Project in accordance with its Annual Operating Plans.
- iii. Examine relevant documents and liaise with suppliers to verify and develop specifications of purchase requests to determine the need for purchases.
- iv. Consult price lists and catalogs and communicate with possible suppliers to obtain information on prices and services available, quality and availability of products and compare data to determine the best suppliers.
- v. Advise the Project Manager and Regional Project Coordinator of inherent contractual rights and obligations and evaluates contract performance for compliance.
- vi. Prepare and evaluate bidding documents and associated contracts, in accordance with the IFAD's, GOG's established procurement procedures, laws and regulations.
- vii. Draw up tender lists based on projected requirements and study bids, comparing prices and specifications.
- viii. Arrange for the Selection Committee to review tenders and prepare relevant paper work.
- ix. Complete and forward Purchase Orders or Contracts to Suppliers or Consultants; negotiate and follow-up as required with respect to delivery of goods and services.
- x. Maintain records and support documents that are necessary to account for all purchases and distribution of goods and services related to the implementation of the Project.
- xi. Arbitrate claims or complaints occurring during performance of Contracts.
- xii. Undertake any other duties and responsibilities that may, from time to time, be reasonably requested by the Project Manager of the Hinterland Project.

### **III. Characteristics of the Appointment**

**Type of Appointment:** Individual

**Duration:** 2 year

**Place of work:** Agriculture Sector Development Unit [ASDU], Ministry of Agriculture, Georgetown, Guyana

**Qualifications:**

The **Procurement Officer** should have:

- i. A Bachelor's Degree in Management Studies, Engineering or Procurement Management or other related field from a recognized university
- ii. Computer competence in software packages: Microsoft Word, Excel and Project Management
- iii. Familiarity with Donors, and in particular IFAD procedures, is desirable but not necessary
- iv. Knowledge of IFAD, GOG and other lending agencies procurement policies is desirable but not necessary
- v. Excellent written, oral and interpersonal skills

## Appendix 9: Project Cost and Financing

### A. Introduction

1. This appendix presents the following project costs and financing tables: (i) Total and Base costs by component and year; (iii) Base cost by component and expenditure category; (iii) Project financing; (iv) Project financing by expenditure category -amounts and percentages-; and (v) Project financing by disbursement category -amounts and percentages-.

### B. Total and Base Costs

2. The Project total cost for a six-year implementation period amounts to US\$ 11.14 million, of which US\$ 10.54 million are the base cost (95% of the total cost), and US\$ 0.61 million are the physical and price contingencies (5% of the total cost).

**Table 1. Base Cost by Component and Year**

Project Components by Year Base Costs (US\$ '000)	Base Cost						Total		
	PY1	PY2	PY3	PY4	PY5	PY6	Amount	% BC	% TC
1. Studies and analysis, capacity building and village planning	776	909	619	255	105	104	2 770	26%	
2. Implementation of investment plans	178	1 344	2 592	1 652	104	102	5 972	57%	
3. Project management, M&E and knowledge management	533	222	232	222	222	365	1 795	17%	
<b>Total BASELINE COSTS</b>	<b>1 487</b>	<b>2 475</b>	<b>3 444</b>	<b>2 129</b>	<b>431</b>	<b>571</b>	<b>10 537</b>	<b>100%</b>	<b>95%</b>
Physical Contingencies	49	65	58	29	7	14	221		2%
Price Contingencies	31	67	93	75	46	74	385		4%
<b>Total PROJECT COSTS</b>	<b>1 567</b>	<b>2 606</b>	<b>3 594</b>	<b>2 234</b>	<b>483</b>	<b>658</b>	<b>11 143</b>		<b>100%</b>
Taxes	203	368	525	306	25	52	1 480	13%	
Foreign Exchange	188	74	168	113	11	10	564	5%	

3. The adopted criteria for the cost estimation were: (a) Exchange rate, 1 US\$ = GY\$ 206.5; (b) Unit costs. Were estimated in Guyana dollars (GY\$) and in United States of America dollars (US\$), accordingly to the origin of data; (c) Price contingencies. The price contingencies in GY\$ were estimated at 2.0% yearly, for a period of six years and a half, with a total cumulative 12.6%. Price contingencies in US\$ were estimated at 2.0% yearly for the same period, with a total cumulative 12.6%. Total price contingencies amounted to US\$ 0.39 million -4% of total cost-; (d) Physical contingencies. Were estimated by expenditure category, with the following percentages: training 5.0%; consultancies 5.0%; and operating expenses 5.0%. The total for physical contingencies amounted to US\$ 0.22 million -2% of total cost-; (e) Taxes. It was considered the value added tax (VAT 16%). The total tax amounted to US\$ 1.48 million – 13.0% of total cost-; and (f) Imported component. It amounted to US\$ 0.57 million —5.0% of total cost-.

### C. Expenditure Categories

4. The expenditure categories which will be used to manage the project and processing the disbursements from the International Fund for Agricultural Development -IFAD-, are as follows (Table 2):

- Vehicles. The base cost of this category amounts to US\$ 0.18 million (2% of base cost). It will be used for the acquisition of vehicles for the project components;

**Table 2. Base Cost by Expenditure Category and Component**

Expenditure Accounts by Components Base Costs (US\$ '000)	Strengthening of community's and producer groups' investment planning		Implementation of investment plans		Project and knowledge management and coordination		Total		Physical Contingencies	
									%	Amount
<b>I. Investment Costs</b>										
A. Vehicles	48	27%	68	39%	61	34%	177	2%	-	-
B. Equipment	8	19%	8	18%	27	63%	43	0%	-	-
C. Training	558	85%	-	-	95	15%	653	6%	5.0	33
D. Consultancy Services										
1. Consultancy services - Loan	1 470	43%	1 306	38%	679	20%	3 455	33%	3.9	134
2. Consultancy services - Grant	274	50%	-	-	273	50%	547	5%	5.0	27
Subtotal Consultancy Services	1 744	44%	1 306	33%	952	24%	4 002	38%	4.0	162
E. Grants (for sub-projects)										
1. Community Development Plans	-	-	2 360	100%	-	-	2 360	22%	-	-
2. Business Plans for Producer Groups	-	-	1 768	100%	-	-	1 768	17%	-	-
Subtotal Investment Fund	-	-	4 128	100%	-	-	4 128	39%	-	-
<b>Total Investment Costs</b>	<b>2 358</b>	<b>26%</b>	<b>5 510</b>	<b>61%</b>	<b>1 135</b>	<b>13%</b>	<b>9 002</b>		<b>2.2</b>	<b>194</b>
<b>II. Recurrent Costs</b>										
A. Salaries	264	27%	264	27%	468	47%	996	9%	-	-
B. Operating Expenses	148	27%	198	37%	193	36%	539	5%	5.0	27
<b>Total Recurrent Costs</b>	<b>412</b>	<b>27%</b>	<b>462</b>	<b>30%</b>	<b>661</b>	<b>43%</b>	<b>1 535</b>		<b>1.8</b>	<b>27</b>
<b>Total BASELINE COSTS</b>	<b>2 770</b>	<b>26%</b>	<b>5 972</b>	<b>57%</b>	<b>1 795</b>	<b>17%</b>	<b>10 537</b>	<b>177%</b>	<b>2.1</b>	<b>221</b>
Physical Contingencies	115	52%	67	30%	39	18%	221	2%	-	-
Price Contingencies	141	37%	120	31%	124	32%	385	3%	3.1	12
<b>Total PROJECT COSTS</b>	<b>3 025</b>	<b>27%</b>	<b>6 159</b>	<b>55%</b>	<b>1 959</b>	<b>18%</b>	<b>11 143</b>	<b>100%</b>	<b>2.1</b>	<b>233</b>
Taxes	412		913		155		1 480		2.5	37
Foreign Exchange	62		409		93		564		0.5	3



- **Equipment:** The base cost of this category amounts to US\$ 0.04 million (less than 1% of the base cost). It will go towards the acquisition of equipment for the project components;
- **Training.** The base cost of this category amounts to US\$ 0.65 million (6% of base cost). Will it go to the training events and learning tours for beneficiaries and project technicians, and for the elaboration of various dissemination materials;
- **Consultancy services.** The base cost amounts to US\$ 4.00 million (38% of base cost). It has two expenditure sub-categories: (a) Consultancy services-Loan, with a base cost of US\$ 3.45 million, for technical assistance for the preparation and coaching of community development plans and producer groups business plans, and also for other technical consultancy services; (b) Consultancy services-Grant, with a base cost of US\$ 0.55 million, for specific basic studies mainly in Region 1, and for the line base/final evaluation project studies, and also for improve the MOA-M&E platform and database.
- **Grants (for sub-projects).** The base cost of this category amounts to US\$ 4.13 million (39% of base cost). It has two sub-categories: (a) Community development plans, with a base cost of US\$ 2.36 million, for implementation of development investments plans of communities and villages; and (b) Business plans for producer groups, with a base cost of US\$ 1.77 million, for the implementation of business plans;
- **Salaries.** The amount assigned to this category amounts to US\$ 0.99 million (9% of base cost). It will go to the salaries of project technicians;
- **Operating costs.** The amount assigned to this category amounts to US\$ 0.54 million (5% of base cost). It will be for fuels, lubricants, maintenance of equipment and vehicles, insurances, office miscellaneous and travel expenses of personnel, among others, required for the project operation.

## D. Project Financing

5. The project would be financed as follows: (a) the Cooperative Republic of Guyana will finance all taxes of investment and recurrent costs of the project, 50% of salaries, and 50% of specifics consultancy services, with a total of US\$ 2.43 million -22% of the total cost-; (b) IFAD will finance investments in all components and expense categories, with a total of US\$ 8.45 million<sup>1</sup> -76% of the total cost-, including a grant of up to US\$ 500,000 required for supporting national authorities in specific basic studies mainly in Region 1, and for the project's line base and final evaluation studies, and also to contribute to the MOA-M&E platform and database; (c) beneficiaries would contribute US\$ 0.27 million -2% of the total cost-.

**Table 3. Project Financing**

Components by Financiers Total Costs (US\$ '000)	Guyana Government	IFAD Loan	IFAD Grant	Beneficiaries	Total	
					Amount	%
1. Strengthening of community's and producer groups' Investment planning	637 21%	2 142 71%	247 8%	- -	3 025	27%
2. Implementation of investment plans	1 139 18%	4 755 77%	- -	265 4%	6 159	55%
3. Project and knowledge management and coordination	650 33%	1 055 54%	253 13%	- -	1 959	18%
<b>TOTAL PROJECT COSTS</b>	<b>2 426</b> 22%	<b>7 952</b> 71%	<b>500</b> 4%	<b>265</b> 2%	<b>11 143</b> 100%	

<sup>1</sup> Total allocation PBAS 2016-2018

6. **Financing of expenditure categories.** Financing of expenditure categories and their respective percentages of funding are as follows (table 4 and table 5):

- **Government of Guyana.** It will finance the taxes of all investment and recurrent costs of the project, 50% of project salaries, and 50% of specific consultancy services (see table below);
- **IFAD loan/grant.** It will finance the eligible expenditures of categories: Vehicles, Equipment; Training; Consultancy services; Grants (for sub-projects); Salaries; and Operating expenses. The percentages to be financed in each category are those presented in Table 5;
- **Project beneficiaries.** Their contributions will be to co-finance the Grants (for sub-projects) category. These contributions will be mainly in-kind, and smaller amounts in money.

**Activities Financed with IFAD Grant – Expenditure Category “Consultancy Services – Grant”**

ACTIVITIES	Base Cost (US\$ '000)							Total Cost (US\$ '000)							Total Cost Free of Taxes (US\$ '000)						
	2017	2018	2019	2020	2021	2022	Total	2017	2018	2019	2020	2021	2022	Total	2017	2018	2019	2020	2021	2022	Total
<b>Component 1</b>																					
SOFA Region 1	114	-	-	-	-	-	114	122	-	-	-	-	-	122	103	-	-	-	-	-	103
Specific value chain study Region 1	28	-	-	-	-	-	28	30	-	-	-	-	-	30	25	-	-	-	-	-	25
Inclusive value chains for selected commodities	19	-	-	-	-	-	19	20	-	-	-	-	-	20	17	-	-	-	-	-	17
Hidrological study	85	-	-	-	-	-	85	91	-	-	-	-	-	91	76	-	-	-	-	-	76
Studies of opportunities for renewable energy	28	-	-	-	-	-	28	30	-	-	-	-	-	30	25	-	-	-	-	-	25
<b>Subtotal Component 1</b>	<b>274</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>274</b>	<b>293</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>293</b>	<b>247</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>247</b>
<b>Component 3 - M&amp;E, KM</b>																					
Project Baseline Study and Final Evaluation	80	-	-	-	-	83	163	86	-	-	-	-	98	184	72	-	-	-	-	82	154
MOA - M&E Platform and Database	110	-	-	-	-	-	110	118	-	-	-	-	-	118	99	-	-	-	-	-	99
<b>Subtotal Component 3</b>	<b>190</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>83</b>	<b>273</b>	<b>204</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>98</b>	<b>302</b>	<b>171</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>82</b>	<b>253</b>
<b>TOTAL GRANT</b>	<b>464</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>83</b>	<b>547</b>	<b>497</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>98</b>	<b>595</b>	<b>417</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>82</b>	<b>500</b>

7. **Financing of disbursement categories.** Financing of disbursement categories and their respective percentages of funding are those presented in table 6 and table 7.

**Table 4. Project Financing by Expenditure Category – Total Cost**

Expenditure Accounts by Financiers Total Costs (US\$ '000)	Guyana Government		IFAD Loan		IFAD Grant		Beneficiaries		Total	
I. Investment Costs										
A. Vehicles	29	16%	151	84%	-	-	-	-	180	2%
B. Equipment	7	16%	37	84%	-	-	-	-	44	0%
C. Training	117	16%	614	84%	-	-	-	-	731	7%
D. Consultancy services										
1. Consultancy services - Loan	886	23%	2 904	77%	-	-	-	-	3 790	
2. Consultancy services - Grant	95	16%	-	-	500	84%	-	-	595	
Subtota Consultancy services	982		2 904		500		-		4 385	39%
E. Grants (for sub-projects)										
1. Community Production Development Plans	378	16%	1 982	84%	-	-	-	-	2 360	
2. Business Plans for Producer Groups	283	16%	1 220	69%	-	-	265	15%	1 768	
Subtotal Grants (for sub.projects)	660		3 202		-		265		4 128	37%
Total Investment Costs	1 795	19%	6 908	73%	500	5%	265	3%	9 468	85%
II. Recurrent Costs										
F. Salaries	534	50%	534	50%	-	-	-	-	1 068	10%
G. Operating Expenses	97	16%	510	84%	-	-	-	-	607	5%
Total Recurrent Costs	631	38%	1 044	62%	-	-	-	-	1 675	15%
Total PROJECT COSTS	2 426		7 952		500		265		11 143	100%
	22%		71%		4%		2%		100%	

**Table 5. Financing Percentages by Expenditure Category – Total Cost**

Expenditure Accounts by Financiers Total Costs (US\$ '000)	PERCENTAGE OF PROJECT TOTAL COST					PERCENTAGE OF ELIGIBLE EXPENSES FREE OF TAXES				
	Government	IFAD Loan	IFAD Grant	Beneficiaries	Total	Government	IFAD Loan	IFAD Grant	Beneficiaries	Total
<b>I. Investment Costs</b>										
A. Vehicles	16%	84%	-	-	100%	-	100%	-	-	100%
B. Equipment	16%	84%	-	-	100%	-	100%	-	-	100%
C. Training	16%	84%	-	-	100%	-	100%	-	-	100%
D. Consultancy services										
1. Consultancy services - Loan	23%	77%	-	-	100%	31%	69%	-	-	100%
2. Consultancy services - Grant	16%	-	84%	-	100%	-	-	100%	-	100%
E. Grants (for sub-projects)										
1. Community Production Development Plans	16%	84%	-	-	100%	-	100%	-	-	100%
2. Business Plans for Producer Groups	16%	69%	-	15%	100%	-	82%	-	18%	100%
F. Salaries	50%	50%	-	-	100%	50%	50%	-	-	100%
G. Operating Expenses	16%	84%	-	-	100%	-	100%	-	-	100%

**Table 6. Project Financing by Disbursement Category – Total Cost**

Disbursement Accounts by Financiers Total Costs (US\$ '000)	Guyana Government		IFAD Loan		IFAD Grant		Beneficiaries		Total	
<b>I. Investment Costs</b>										
A. Vehicles	29	16%	151	84%	-	-	-	-	180	2%
B. Equipment	7	16%	37	84%	-	-	-	-	44	0%
C. Training	117	16%	614	84%	-	-	-	-	731	7%
D. Consultancy services	982	22%	2 904	66%	500	11%	-	-	4 385	39%
E. Grants (for sub-projects)	660	16%	3 202	78%	-	-	265	6%	4 128	37%
F. Salaries	534	50%	534	50%	-	-	-	-	1 068	10%
G. Operating expenses	97	16%	510	84%	-	-	-	-	607	6%
<b>Total PROJECT COSTS</b>	<b><u>2 426</u></b>		<b><u>7 952</u></b>		<b><u>500</u></b>		<b><u>265</u></b>		<b><u>11 143</u></b>	100%
	22%		71%		4%		2%		100%	

**Table 7. Financing Percentages by Disbursement Category – Total Cost**

Disbursement Accounts by Financiers Total Costs (US\$ '000)	PERCENTAGE OF PROJECT TOTAL COST					PERCENTAGE OF ELIGIBLE EXPENSES FREE OF TAXES				
	Government	IFAD Loan	IFAD Grant	Beneficiaries	Total	Government	IFAD Loan	IFAD Grant	Beneficiaries	Total
<b>I. Investment Costs</b>										
A. Vehicles	16%	84%	-	-	100%	-	100%	-	-	100%
B. Equipment	16%	84%	-	-	100%	-	100%	-	-	100%
C. Training	16%	84%	-	-	100%	-	100%	-	-	100%
D. Consultancy services	22%	66%	11%	-	100%	29%	56%	15%	-	100%
E. Grants (for sub-projects)	16%	78%	-	6%	100%	-	92%	-	8%	100%
F. Salaries	50%	50%	-	-	100%	50%	50%	-	-	100%
G. Operating expenses	16%	84%	-	-	100%	-	100%	-	-	100%

## Appendix 10: Economic and Financial Analysis

### Economic and financial analysis - Summary tables

#### GUYANA - Hinterland Environmentally Sustainable Agricultural Development Project - Hinterland Project

A)		PRODUCTION		PROCESSING	OTHER
F I N A N C I A L  A N A L Y S I S		Family modles'net incremental benefits (in GY\$ '000)		Processing and activity models'net incremental benefits (in GY\$ '000)	Enterprise and marketing models'net incremental benefits (in GY\$ '000)
		Cassava-cattle production	Peanut-sheep production	Cassava procesing	Guest house - ecotourism
	PY1	-68	-38	-3 900	-4 500
	PY2	56	117	455	218
	PY3	72	130	1 667	1 010
	PY4	91	130	1 801	1 693
	PY5	91	130	1 949	1 693
	PY6	91	130	1 949	1 693
	PY7	91	130	1 949	1 693
	PY8	91	130	1 949	1 693
	PY9	91	130	1 949	1 693
	PY10	91	130	1 949	1 693
NPV (GY\$ '000)		296.5	519.8	3 608.1	1 801.9
NPV (USD)		1 436	2 517	17 473	8 726
FIRR (@10%)		101%	312%	35%	23%

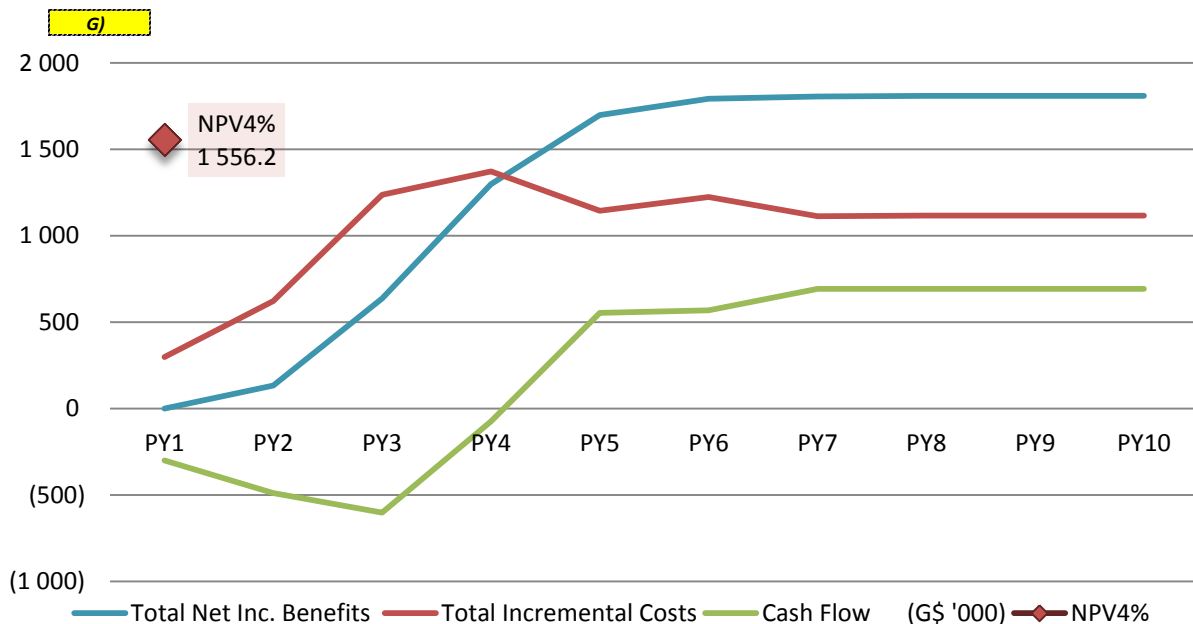
B)					
PROJECT COSTS AND INDICATORS FOR LOGFRAME					
TOTAL PROJECT COSTS (in million USD)		11.14	Base costs	10.54	PMU 1.80
Beneficiaries	30 000 people	6 000 Households	25 groups	25 enterprises	
Cost per beneficiary	371 USD x person	1 857 USD x HH	Adoption rates	80%	
Components and Cost (USD million)		Outcomes and Indicators			
<u>Studies and analysis, capacity building and village planning</u>	3.02 M	Communities and producers' organisations have strengthened their capacities for identifying investment opportunities and managing economic and climate change risk	Households in targeted communities participate in development of public/collective investments plans	6 000 HH	
<u>Implementation of investment plans</u>	6.16 M	Communities and producers' organizations have invested in public, common/private goods that increase economic opportunities and improve the management of climate change risks	US\$ invested in public and common goods, and in business activities	4.1 US\$ M	
<u>Project management, M&amp;E and knowledge management</u>	1.96 M	Efficient and adequate management and implementation of planned activities and effective coordination and planning between institutions at the national, regional and local level	Project's investment plan and AWPBs are reflected in the regional budgets and plans	At least 90 per cent of the AWPB is implemented each year	

C)					
MAIN ASSUMPTIONS & SHADOW PRICES <sup>1</sup>					
FINANCIAL	Output	Price (in GY\$)		Input prices	Price (GY\$)
		Av. Incremental Yields (%)			
	Cassava	35%	20	Fertilizer	10 000
	Peanuts	30%	200	Pesticides	2 500
	Cattle	100%	50 000	Seeds	12 000
	Sheep	80%	18 000	Rural wage	750
	Farine	new	100		
ECONOMIC	Renting beds	new	3 000		
	Official Exchange rate (OER)	206.5	Discount rate (opportunity cost of capital)	14%	
	Shadow Exchange rate (SER)	223.3	Social Discount rate	4%	
	Standard Conversion Factor	1.08	Output conversion factor (mean)	0.94	
	Labour Conversion factor	0.9	Input Conversion factor	0.84	

[illegible]

E)		NET INCREMENTAL BENEFITS (G\$ '000)			NET INCREMENTAL COSTS (G\$ '000)				Cash Flow (G\$ '000)
ECONOMIC ANALYSIS		Rural Production	Intangible Benefits	Total Net Inc. Benefits	Economic Investment Costs	Economic O&M Costs	Economic Project Costs	Total Incremental Costs	
	PY1	0	0	0	0	0	299	299	-299
	PY2	121	12	133	119	127	376	622	-489
	PY3	592	45	636	297	458	482	1 237	-601
	PY4	1 233	65	1 298	214	842	316	1 371	-74
	PY5	1 633	65	1 698	0	1 052	93	1 145	554
	PY6	1 727	65	1 792	0	1 103	120	1 223	569
	PY7	1 741	65	1 806	0	1 101	12	1 113	693
	PY8	1 744	65	1 809	0	1 104	12	1 116	693
	PY9	1 744	65	1 809	0	1 104	12	1 116	693
	PY10	1 744	65	1 809	0	1 104	12	1 116	693
		NPV@ 4 % (GY\$ '000,000)	1 556.2						
		NPV@ 4 % (US\$ '000,000)	6.97						
		EIRR	21.0%						

F)		SENSITIVITY ANALYSIS (SA)							
		Δ%	Link with the risk matrix				IRR (%)	B/C	NPV (USD M)
Base scenario							21.0%	2.01	6.97
Project benefits		-10%	Combination of risks affecting output prices, yields and adoption rates				17.5%	1.77	5.33
Project benefits		-20%					13.7%	1.54	3.70
Project benefits		-30%					9.6%	1.30	2.06
Project costs		10%	Increase of construction material prices				11.8%	1.46	3.47
Project costs		15%					7.7%	1.22	1.73
1 year lag in ben.			Risks affecting adoption rates and low implementation capacity				14.3%	1.64	3.95
2 years lag in ben.							12.3%	1.28	3.53





## A. Introduction

46. The project will support the development of inclusive local-level agricultural value chains with the objective of further building local productive, processing and technical capacities and strengthening market access for poor indigenous and non-indigenous rural households in Region 9 and in selected sub-regions of Region 1. As a complementary support to these income-generating activities the project will also support the communities in natural resources management, adaptation to climate change and improvement of the nutritional status of rural households

47. This appendix presents the financial and economic analysis of the project proposal, to establish its viability under those criteria.

- Financial analysis. Includes the financial evaluation of development investments of rural households and producers' groups enterprises, in addition to the financial evaluation of the project as a whole, considering all the investment and recurrent costs.
- Economic analysis. The project economic evaluation was performed using economic variables to avoid distortions of the market, and does not include the transfer of resources to or from the public sector (taxes and subsidies). Intangible benefits generated by the community development plans were also included.

## B. Financial Analysis

### a) Methodology

48. The methodology to establish the financial viability of families and CBEs investments, as well as that of the project as a whole, is the cost-benefit analysis. This methodology calculates the flow of annual incremental net benefits, with the annual benefits and costs valued at market prices. The duration of the financial evaluation was compatible with the maturation time of principal investments.

49. The flow of incremental net benefits was carried out at annual pace during 10 years, which is suitable to reflect the financial results of the investments in agricultural production, food and nutrition security, and enterprises' investments; this flow was used to calculate the financial viability indicators that are described later. Moreover, the flow of incremental net benefits of the project served to calculate the respective financial viability indicators.

50. The project beneficiaries will be 6 000 rural households; of these, 5 750 will be supported in their agricultural production, and 250 will be supported in the establishment of 25 enterprises. Moreover, 6 100 households will be benefited with community development investments, like drinking water systems, internet facilities, and others. The incorporation of beneficiaries to the project is presented in the following table:

**Table 1. Beneficiaries Incorporation to the project**

ANNUAL INCORPORATION OF BENEFICIARIES	Years With Project						TOTAL
	PY1	PY2	PY3	PY6	PY5	PY6-10	
<b>Business Plans for Producer Groups</b>							
<u>Agricultural production</u>							
Cassava & cattle production	-	800	1,300	850	-	-	2,950
Peanut & sheep production	-	800	1,300	700	-	-	2,800
<u>Subtotal agricultural production</u>	-	<u>1,600</u>	<u>2,600</u>	<u>1,550</u>	-	-	<u>5,750</u>
<u>Enterprises</u>							
Cassava processing enterprise	-	50	100	50	-	-	200
Guest house enterprise - Ecotourism	-	20	30	-	-	-	50
<u>Subtotal enterprises</u>	-	<u>70</u>	<u>130</u>	<u>50</u>	-	-	<u>250</u>
<b>Households by Year</b>	-	<b>1,670</b>	<b>2,730</b>	<b>1,600</b>	-	-	<b>6,000</b>
<b>Total Households</b>	-	<b>1,670</b>	<b>4,400</b>	<b>6,000</b>	<b>6,000</b>	<b>6,000</b>	
<b>Community Production Development Plans</b>							
Drinking water systems	-	600	1,800	1,200	-	-	3,600
Internet facilities	-	600	1,250	650	-	-	2,500
<b>Households by Year</b>	-	<b>1,200</b>	<b>3,050</b>	<b>1,850</b>	-	-	<b>6,100</b>
<b>Total households</b>	-	<b>1,200</b>	<b>4,250</b>	<b>6,100</b>	<b>6,100</b>	<b>6,100</b>	

## b) Financial evaluation of agricultural production

51. **Methodology.** It consisted in preparing simulation models, based on interviews with rural families during the field visit and in the experience of Conservation International Guyana (CI-Guyana).
52. The agricultural production of families is cassava, peanuts, cattle breeding, sheep breeding and poultry breeding. For its part, the enterprises production is cassava farina and rural tourism. Production prices are market prices, used in the investment plans performed by the Ministry of indigenous affairs, and by CI-Guyana.
53. The indicators used to establish the financial viability of families' investments were: (a) the benefit; (b) the family net income<sup>1</sup>; (c) the work of the family, on farm and off-farm; (d) the financial internal rate of return –FIRR- at market prices; and (e) the financial net present value at market prices – FNPV- of the incremental net benefits. The time for the financial evaluation was 10 years and the discount rate was 14.0% annually, equal to the opportunity cost of the capital of commercial banks.
54. The **Error! Reference source not found.** shows the financial benefit and net family net income, in the scenarios Without project and With project, verifying that both indicators increase remarkably in the With project scenario. Another indicator which increase is the family labour, estimated that family activities (agricultural and non-agricultural) demand permanent occupation of between one and two members of the family.
55. Furthermore, the values of the FIRR and the FNPV, confirm the financial viability of the productive transformation and of food and nutritional security proposal.
56. Investments in agricultural models are US\$ 253 and US\$ 207 per household, including the project financing and the family contributions.
57. Demonstration tables on the use of land, production and family labour, and the flow of funds are presented in annex 1 of this appendix. Additionally, the crops technology and other productive activities are presented in annex 2.

**Table 2. Socio-economic Indicators of the Agricultural Models**

AGRICULTURAL MODELS	Benefit (US\$ / year)			Family Net Income (US\$ / year)			Labor (days / year)			Investment			FIRR	FNPV 14%
										Project financing	Family financing	Total		
	Without project	With project	Diff.	Without project	With project	Diff.	Without project	With project	Diff.	US\$	US\$	US\$	%	US\$
Cassava-cattle production	1 246	1 963	718	1 246	1 963	718	202	278	76	209	44	253	101%	1 436
Peanut-sheep production	1 492	2 120	629	1 956	2 932	976	228	324	96	163	44	207	312%	2 517

58. The indicators used to establish the financial viability of CBEs (Table 3) are: (a) the benefit; (b) the annual sales; (c) the internal rate of return at market prices -FIRR-; and (d) the net present value of the incremental benefits at market prices -FNPV-. The period for the financial evaluation was 10 years and the discount annual rate was 14.0%, equal to the opportunity cost of the capital of commercial banks in Guyana.
59. These indicators confirm the financial viability of CBEs, with the positive values of FIRR and FNPV. It also shows that annual sales will reach significant amounts, and the local personnel hiring. The amount of investment of both models is relatively modest.

<sup>1</sup> Benefit + value of family labour

**Table 3. Socio-economic Indicators of Enterprises**

ENTERPRISES MODELS	Benefit (US\$ /year)			Sales (US\$ /year)			Labor (days / year)			Investment			FIRR %	NPV 14% US\$
										Project financing	CBE financing	Total		
	Without project	With project	Diff.	Without project	With project	Diff.	Without project	With project	Diff.	US\$	US\$	US\$		
Cassava procesing	-	9 439	9 439	-	81 895	81 895	-	720	720	14 528	2 082	16 610	35%	17 473
Guest house - ecotourism	-	8 197	8 197	-	12 349	12 349	-	345	345	17 433	4 358	21 792	23%	8 726

### c) Project financial evaluation

#### i) Project net incremental benefits

60. **Estimation of the project benefits.** The benefits considered were the aggregate production of the 5 750 rural households, and 25 enterprises, that will be supported by the project.

#### ii) Project costs

61. **Project costs estimation.** Considered costs were: (a) investments and operating expenses of agricultural production, and enterprises production; and (b) investments and operating costs of the project, including recurrent costs.

62. **Beneficiaries' investments and operating expenses.** Therefore, it was calculated the aggregates of investment and operating expenses of 5 750 households in agricultural production and 25 enterprises production. Unit prices were the market prices.

63. **Project investments and operating costs.** The project cost was estimated at market prices, excluding the cost of the investment fund that corresponds to investments of the beneficiaries, to not duplicate costs. The parameters for the estimation of costs were:

- (a) Official exchange rate: 1 US\$ = 206.5 GY\$
- (b) Unit costs. They were estimated in Guyana dollar (GY\$) and in United States of America dollars (US\$), according to the source of the data. The NGO CI-Guyana supply the majority of the unit costs in GY\$; other costs were obtained from other sources and were estimated in US\$;
- (c) Price contingencies. The price contingencies in GY\$ were estimated at 2.0%<sup>2</sup> yearly for a period of six years and six months, with a total cumulative 12.6%. Price contingencies in US\$ were estimated at 2.0% per year for the same period, with a total cumulative 12.6 per cent;
- (d) Physical contingencies. Were estimated by expenditure category, with the following percentages: training 5.0%, consultancies 5.0% and operating expenses 5.0%;
- (e) Taxes. It was considered the value added tax (VAT 16%).

64. **Project recurrent cost.** It was considered that for the achievement of the expected results, the Government of Guyana and the beneficiaries must be spent operation and maintenance costs until the completion of the evaluation period (year 10). These costs were estimated at 10% of the cost of year 6, for years 7 to 10.

<sup>2</sup> The Urban consumer price index –CPI- fell from 113.9 (2014) to 111.9 (2015)

**d) Project financial viability**

65. For the calculation of the indicators of the project financial viability were used: (a) an opportunity cost of capital equals the lending rate of the formal financial system -14.0%-; and (b) the official rate of Exchange 1 US\$ = 206.5 GY\$.
66. Results of the financial analysis. The project was financially viable, since financial analysis indicators were positive (**Error! Reference source not found.**):
- (a) FIRR: 17.9%;
  - (b) FNPV: US\$ 1.05 million;
  - (c) B/C ratio: 1.16
  - (a)
  - (b)

**Table 4. Cash flow of the Project Financial Analysis**

<b>CASH FLOW (US\$ '000)</b>	<b>Without Project</b>	<b>Years With Project</b>									
		<b>PY1</b>	<b>PY2</b>	<b>PY3</b>	<b>PY4</b>	<b>PY5</b>	<b>PY6</b>	<b>PY7</b>	<b>PY8</b>	<b>PY9</b>	<b>PY10</b>
<b>BENEFITS</b>											
Rural production benefits	11 436	11 436	12 031	14 355	17 569	19 641	20 170	20 249	20 267	20 267	20 267
<b>Total Benefits</b>	11 436	11 436	12 031	14 355	17 569	19 641	20 170	20 249	20 267	20 267	20 267
<b>COSTS</b>											
<b>Investment</b>											
Inputs	-	-	425	716	375	-	-	-	-	-	-
Labor	-	-	70	113	68	-	-	-	-	-	-
<b>Operation</b>											
Inputs	2 284	2 284	2 551	3 473	4 805	5 700	5 930	5 913	5 928	5 928	5 928
Labor	2 395	2 395	2 779	3 538	4 123	4 260	4 279	4 286	4 286	4 286	4 286
<b>Total Costs</b>	4 679	4 679	5 824	7 840	9 370	9 960	10 208	10 199	10 213	10 213	10 213
<b>INCREMENTAL NET BENEFIT</b>											
Net Benefit	6 758	6 758	6 207	6 515	8 199	9 681	9 962	10 050	10 054	10 054	10 054
Incremental Net Benefit	-	-	-551	-243	1 441	2 924	3 204	3 292	3 296	3 296	3 296
<b>PROJECT COST</b>											
Base Cost <sup>1</sup>	-	1 487	1 981	2 615	1 685	431	571				
Physical contingencies	-	49	65	58	29	7	14				
Price contingencies	-	31	67	93	75	46	74				
<b>Total Project Cost</b>	-	1 567	2 112	2 766	1 789	483	658	66	66	66	66
<b>NET CASH FLOW</b>		<b>-1 567</b>	<b>-2 663</b>	<b>-3 009</b>	<b>-348</b>	<b>2 441</b>	<b>2 546</b>	<b>3 227</b>	<b>3 230</b>	<b>3 230</b>	<b>3 230</b>

<sup>1</sup> Without the investments included in COSTS, Investment

**FIRR = 17.9%**  
**FNPV = 1.05 US\$ '000,000**  
**B/C ratio = 1.16**

## C. Economic Analysis

### a) Methodology

67. The methodology to establish the economic viability of the project is the cost-benefit analysis. This methodology calculates the flow of annual incremental net benefits at annual pace during 10 years, with the annual benefits and costs valued at economic prices (shadow prices). The duration of the financial evaluation was compatible with the maturation time of principal investments.
68. The flow of incremental net benefits is used to calculate economic viability indicators: (i) Economic internal rate of return, EIRR; (ii) Economic net present value, ENPV; and (iii) Benefit/Cost ratio, B/C.

### b) Shadow prices

69. Shadow prices calculated were: (a) Shadow salary; (a) Shadow price of tradable goods - products and inputs-. (c) Shadow exchange rate; and (d) Social discount rate.
70. Shadow salary. The official minimum wage for the public sector employees is GY\$ 50 000 per month (equivalent to GY\$ 2 175 per day). However, the offer of public employment in the project area is very low, and the daily wage-paying by enterprises is GY\$ 900 per day and the on farm family labour is GY\$ 750/day<sup>1</sup>. So, those values were used for the financial analysis.
71. In Guyana, the unemployment rate is not systematically calculated, and the private sector employment information is scarce. However, the Bureau of Statistics of Guyana reported that the unemployment rate in 2006 was 10.7%<sup>2</sup>, and in 2002 was 11.7%<sup>3</sup>. Although these data are not updated and not disaggregated by geographical region, a rate of unemployment of 10% was adopted for economic analysis, in the absence of better information (see Table 19 in Annex 2).
72. Shadow price of tradable goods. These goods are: (a) primary agricultural products and enterprises products; (b) inputs of investment and operation of the families and communities/villages:
- (a) *Agricultural products*. Agricultural production shadow prices are equal to market prices because the families' production do not exceed the GY\$ 10.0 million per year<sup>4</sup>, and they are therefore exempt from paying the Value-added tax (VAT, 16%). On the other hand, shadow price of enterprises production would exceed GY\$ 10.0 million per year and VAT should be payed; therefore, shadow price of enterprises production was calculated deducting the VAT;
- (b) *Investment and operation inputs*. Shadow prices are without taxes, so the VAT (16%) was deducted to the market price.
73. **Shadow exchange rate**. The Central Bank of Guyana does not estimate the shadow exchange rate, so a correction factor (SFC) was calculated to adjust the official exchange rate, following the methodology recommended by IFAD<sup>5</sup>. This methodology establishes that the Shadow exchange rate (SER) is equal to the Official exchange rate multiplied for the ratio between foreign exchange inflows (CI) and foreign exchange outflows (CO).

$$SER = \frac{\sum_{t=1}^n \left[ OER_t \left( \frac{CI_t}{CO_t} \right) \right]}{n}$$

<sup>1</sup> Values provided by CI-Guyana  
<sup>2</sup> Household budget survey  
<sup>3</sup> Population and housing census  
<sup>4</sup> Guyana PFK Tax Guide, 2013  
<sup>5</sup> IFAD: Guide for financial and economic analysis, 2015.

74. The balance of payments during the period 2010-2014<sup>6</sup> (**Error! Reference source not found.**) shows a negative annual balance (inflows less outflows), due to the deficit of the trade balance -goods and services- This fact indicates the appropriateness of using the shadow exchange rate, which adequately reflects the value of the Guyana Dollar (GY\$).

**Table 5. Balance of Payments of Guyana**

ITEM	YEAR					AVERAGE
	2010	2011	2012	2013	2014	
<b>Balance or Payments (USD millones)</b>	<b>116.6</b>	<b>17.0</b>	<b>(119.5)</b>	<b>(116.4)</b>	<b>(107.6)</b>	
<u>Current Account</u>	<u>(247.4)</u>	<u>(372.3)</u>	<u>(456.1)</u>	<u>(385.2)</u>	<u>(144.2)</u>	
Merchandise trade	(534.1)	(641.5)	(499.8)	(624.1)	(304.9)	
Services	(84.1)	(145.4)	(309.5)	(218.7)	(255.8)	
Transfers	370.8	414.6	353.2	457.6	416.5	
<u>Capital Account</u>	<u>339.3</u>	<u>373.3</u>	<u>314.8</u>	<u>210.1</u>	<u>71.5</u>	
Capital transfers	27.1	30.1	7.3	4.4	18.5	
Non-financial public sector	39.6	67.7	70.9	0.5	(94.8)	
Private capital	269.7	307.8	217.7	263.0	125.1	
Short term capital	2.9	(32.3)	18.9	(57.8)	22.7	
Errors & omissions	24.7	(16.0)	(21.8)	58.7	(34.9)	
<b>Balance of Incomes and Expenditures</b>						
<u>Incomes - CI</u>	<u>734.8</u>	<u>820.2</u>	<u>668.0</u>	<u>725.5</u>	<u>582.8</u>	
<u>Expenditures - CO</u>	<u>618.2</u>	<u>835.2</u>	<u>831.1</u>	<u>900.6</u>	<u>690.4</u>	
<b>Ratio CI / CO</b>	<b>1.19</b>	<b>0.98</b>	<b>0.80</b>	<b>0.81</b>	<b>0.84</b>	<b>0.92</b>
<b>Official exchange rate (OER)</b>	<b>203.6</b>	<b>204.0</b>	<b>204.5</b>	<b>206.1</b>	<b>206.5</b>	<b>206.5</b>
<b>Shadow exchange rate (SER)</b>	<b>171.3</b>	<b>207.7</b>	<b>254.4</b>	<b>255.8</b>	<b>244.6</b>	<b>223.3</b>

Source: Central Bank of Guyana

75. The average of the relationship between inflows and outflows (current account, capital account, and errors/omissions) during the past five years is the SFC, which value is 0.92. Therefore, the shadow exchange rate (SER) should be higher than the official exchange rate (OER) and is 223.3, as the following calculation:

$$\text{SER} = 206.5 / 0.92 = \underline{223.3 \text{ GY\$ / US\$}}$$

76. **Social discount rate.** It was adopted a discount rate of 4.00%, based on the possible sources of funding from the Government of Guyana on the capital market, whose reference rates are:

- Bank of Guyana Treasury Bills. These bonds, whose minimum value is GY\$ 50 000, are 91-day term and 1.84% interest rate. However, the financial performance is greater because there are periodical tenders and the bids can offer less than the nominal value. The performance may exceed 12% per year.
- Mortgage interest rate in the United States of America:
  - Term 30 years, 3.37% (June-2016);
  - Term 15 years, 3.0% (June-2016).
- Wall Street Journal Prime Rate. 3.50% (June-2016).

### c) Flow of Incremental net benefits

77. The flow of Incremental net benefits was calculated at annual pace, from the benefits and annual costs at economic prices, for the 10 years' period of the economic evaluation.

#### i) Benefits

78. The benefits considered were the rural production of beneficiaries and the externalities of the project.

<sup>6</sup> A five years' period of analysis, at least (IFAD, Guide for financial and economic analysis -Draft-, 2012)

79. **Rural production.** It was calculated aggregate production of cassava, peanut, cattle breeding, sheep breeding and poultry breeding of 5 7500 rural households that will be supported by the project, and also the production of the 25 enterprises supported. The prices of these products were calculated as described in para. 27 of this Appendix.
80. **Intangible benefits of development plans for communities and villages.** Intangible benefits were those generated by the drinking water systems and the internet facilities to be implemented. The annual values estimated for these intangible benefits were: (i) US\$60.0 per family per year due to the reduction of medical expenses, with the drinking water systems; and (ii) US\$ 30.0 year by the improved access to information on agricultural production technologies, markets and prices, thanks to the internet facilities (see Table 6).

#### *ii) Costs*

81. Costs included in the economic analysis were the investments and operating expenses of supported families and CBEs, in addition to the investments, operating costs, and recurrent costs of the project.
82. **Investments and operating expenses of families and communities/villages businesses.** It was calculated the aggregates of investment and operating expenses of the 5 750 rural households engaged in agricultural production and 250 families associates to 25 enterprises.
83. **Project implementation costs.** The cost of the project was estimated at shadow prices. The parameters for the units' costs estimation:
  - (a) *Shadow exchange rate.* 1 US\$ = 223.3 GY\$;
  - (b) *Unit costs.* They estimated in Dollars of Guyana (GY\$) and Dollars of the United States of America (US \$), accordingly to the origin of the data;
  - (c) *Price contingencies.* The economic analysis does not consider the price contingencies;
  - (d) *Physical contingencies.* Were estimated by expenditure category, with the following percentages: training 5.0%, consultancies 5.0% and operating expenses 5.0%;
  - (e) *Taxes.* It was considered de Value Added Tax (VAT, 16%)
84. **Project recurrent cost.** It was considered that for the achievement of the expected results, the Government of Guyana and the beneficiaries' families must be spent out the operation and maintenance costs until the completion of the project evaluation period (year 10). These costs were estimated at 10% of the cost of year 6, for years 7 to 10.

#### **c) Project economic viability**

85. Calculation parameters. For the calculation of economic viability indicators were used: (a) the opportunity cost of capital equals the social rate of discount -4.0%-; and (b) the shadow exchange rate 1 US\$ = 223.3 GY\$.
86. Result of the economic analysis. The project was economically viable, as indicators of the economic analysis were positive (Table 7):
  - (a) EIRR: 21.0%;
  - (b) ENPV: US\$ 6.97 millones;
  - (c) B/C ratio: 2.01
87. These indicators also provide reference values needed to compare the investment in the HEAD project with other investments.
88. It is worth adding that this economic evaluation did not considered intangible benefits of complex measurement such as some environmental benefits, neither the benefits of gender equality.



**Table 6. Benefits of Drinking Water Systems and Internet Facilities**

ITEM	Years With Project									
	PY1	PY2	PY3	PY4	PY5	PY6	PY7	PY8	PY9	PY10
<b>BENEFITS OF DRINKING WATER SYSTEM</b>										
<b>Drinking water systems</b>										
. annual implemetation	systems	0	10	30	20	0	0	0	0	0
. total	60 systems	0	10	40	60	60	60	60	60	60
. beneficiaries by system	60 households									
. beneficiaries	3,600 families	0	600	2,400	3,600	3,600	3,600	3,600	3,600	3,600
. benefit by family	60 USD/year	0	36,000	144,000	216,000	216,000	216,000	216,000	216,000	216,000
<u>Beneficit of Drinking Water Systems</u>	<u>USD</u>	<u>0</u>	<u>36,000</u>	<u>144,000</u>	<u>216,000</u>	<u>216,000</u>	<u>216,000</u>	<u>216,000</u>	<u>216,000</u>	<u>216,000</u>
<u>Cost of Drinking Water Systems</u>	<u>20,000 USD</u>	<u>0</u>	<u>200,000</u>	<u>600,000</u>	<u>400,000</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
<b>Net Benefit of Drinking Water Systems</b>	<b>USD</b>	<b>0</b>	<b>-164,000</b>	<b>-456,000</b>	<b>-184,000</b>	<b>216,000</b>	<b>216,000</b>	<b>216,000</b>	<b>216,000</b>	<b>216,000</b>
TIRf = 11.6%										
VANf = 96,122 USD										
ITEM	Years With Project									
	PY1	PY2	PY3	PY4	PY5	PY6	PY7	PY8	PY9	PY10
<b>BENEFITS OF INTERNET FACILITIES</b>										
<b>Internet facilities</b>										
. annual implemetation	facilities	0	12	25	13	0	0	0	0	0
. total	50 facilities	0	12	37	50	50	50	50	50	50
. beneficiaries by facility	50 families									
. beneficiaries	2,500 families	0	600	1,850	2,500	2,500	2,500	2,500	2,500	2,500
. benefit by family	30 USD/year	0	18,000	55,500	75,000	75,000	75,000	75,000	75,000	75,000
<u>Beneficit of Internet Facilities</u>	<u>USD</u>	<u>0</u>	<u>18,000</u>	<u>55,500</u>	<u>75,000</u>	<u>75,000</u>	<u>75,000</u>	<u>75,000</u>	<u>75,000</u>	<u>75,000</u>
<u>Cost of Internet Facilities</u>	<u>8,000 USD</u>	<u>0</u>	<u>96,000</u>	<u>200,000</u>	<u>104,000</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
<b>Net Benefit of Internet Facilities</b>	<b>USD</b>	<b>0</b>	<b>-78,000</b>	<b>-144,500</b>	<b>-29,000</b>	<b>75,000</b>	<b>75,000</b>	<b>75,000</b>	<b>75,000</b>	<b>75,000</b>
TIRf = 13.7%										
VANf = 51,950 USD										

**Table 7. Cash Flow of the Project Economic Analysis**

<b>CASH FLOW (US\$ '000)</b>	<b>Without Project</b>	<b>Years With Project</b>									
		<b>PY1</b>	<b>PY2</b>	<b>PY3</b>	<b>PY4</b>	<b>PY5</b>	<b>PY6</b>	<b>PY7</b>	<b>PY8</b>	<b>PY9</b>	<b>PY10</b>
<b>BENEFITS</b>											
Rural production benefits	10 470	10 470	11 011	13 121	15 990	17 785	18 204	18 265	18 280	18 280	18 280
Drinking water systems benefits	-	-	36	144	216	216	216	216	216	216	216
Internet facilities benefits	-	-	18	56	75	75	75	75	75	75	75
<b>Total Benefits</b>	<b>10 470</b>	<b>10 470</b>	<b>11 065</b>	<b>13 320</b>	<b>16 281</b>	<b>18 076</b>	<b>18 495</b>	<b>18 556</b>	<b>18 571</b>	<b>18 571</b>	<b>18 571</b>
<b>COSTS</b>											
<u>Investment</u>											
Inputs	-	-	495	1 220	884	-	-	-	-	-	-
Labor	-	-	36	109	73	-	-	-	-	-	-
<u>Operation</u>											
Inputs	2 112	2 112	2 359	3 212	4 443	5 271	5 483	5 468	5 482	5 482	5 482
Labor	1 993	1 993	2 313	2 945	3 431	3 545	3 561	3 567	3 567	3 567	3 567
<b>Total Costs</b>	<b>4 105</b>	<b>4 105</b>	<b>5 203</b>	<b>7 486</b>	<b>8 831</b>	<b>8 817</b>	<b>9 045</b>	<b>9 035</b>	<b>9 049</b>	<b>9 049</b>	<b>9 049</b>
<b>INCREMENTAL NET BENEFIT</b>											
Net Benefit	6 365	6 365	5 862	5 835	7 450	9 260	9 451	9 521	9 522	9 522	9 522
Incremental Net Benefit	-	-	-503	-530	1 085	2 895	3 085	3 156	3 157	3 157	3 157
<b>PROJECT COST</b>											
Base Cost <sup>1</sup>	-	1 296	1 632	2 111	1 391	409	526				
Physical contingencies	-	41	54	49	25	6	12				
Price contingencies	-	-	-	-	-	-	-				
<b>Total Project Cost</b>	<b>-</b>	<b>1 337</b>	<b>1 686</b>	<b>2 160</b>	<b>1 416</b>	<b>415</b>	<b>538</b>	<b>54</b>	<b>54</b>	<b>54</b>	<b>54</b>
<b>NET CASH FLOW</b>		<b>-1 337</b>	<b>-2 189</b>	<b>-2 690</b>	<b>-331</b>	<b>2 480</b>	<b>2 547</b>	<b>3 102</b>	<b>3 103</b>	<b>3 103</b>	<b>3 103</b>

<sup>1</sup> Without the investments included in COSTS, Investment

**EIRR = 21.0%**  
**ENPV = 6.97 US\$ '000,000**  
**B/C ratio = 2.01**

#### d) Project risks

89. Sensitivity analysis shows that economic viability indicators are insensitive to the reduction of the benefits. This indicates that not finding sufficient market outlets, or reductions in commodity prices, or a decline in the adoption rate, will not affect significantly the economic results of the project. The switching value (SV) for the reduction of the benefits is 42.7%; this means that a benefits reduction in this percentage would reduce the ENPV to zero.
90. On the other hand, economic viability indicators are sensitive to the increased costs. The SV for the costs increase is 20.0%.
91. Moreover, the indicators of viability are very sensitive to the combined effect of a 20% benefits reduction plus a 10% costs increasing. However, in this eventual situation the project will remain economically viable.
92. Finally, the delay in obtaining the benefits (1 and 2 years) will not alter sensitively the project economic viability. This indicates that the delays in the implementation would not put in risk the achievement of the expected results. This is due to a realistic and gradual incorporation of the beneficiaries.

INDICATOR	EIRR	ENPV US\$ millions	B / C	SV <sup>1</sup>
Benefits reduction				
. 10%	17.5%	5.33	1.77	
. 20%	13.7%	3.70	1.54	42.7%
. 30%	9.6%	2.06	1.30	
Costs increasing				
. 10%	11.8%	3.47	1.46	
. 15%	7.7%	1.73	1.22	20.0%
Benefits reduction 20% + Costs increasing 10%	5.7%	0.71	1.09	
Benefits delay				
. 1 year	14.3%	3.95	1.64	
. 2 years	12.3%	3.53	1.28	

<sup>1</sup> Switching Value

## **ANNEX 1: HOUSEHOLDS AND ENTERPRISES MODELS**

**Table 8. Cassava production and cattle breeding – Household model**

ITEM		Without Project	Years with Project			
			PY1	PY2	PY3	PY4-10
<b>LAND USE</b>						
<b>Crops</b>						
<u>Existing technology</u>						
cassava	acre	1.00	-	-	-	-
Subtotal existing technology		1.00	-	-	-	-
<u>New technology</u>						
cassava	acre	-	1.00	1.30	1.30	1.30
forage pasture	acre	-	-	-	1.00	1.00
Subtotal new technology		-	1.00	1.30	2.30	2.30
Total Crops		acre	1.00	1.00	1.30	2.30
<b>Livestock</b>						
<u>Existing technology</u>						
cattle breeding	activity	1	-	-	-	-
hunting, fishing and forest	activity	1	1	1	1	1
<u>New technology</u>						
cattle breeding	activity	-	1	1	1	1
poultry breeding	activity	-	1	1	1	1
<b>INVESTMENTS</b>						
cattle corral	unit	-	1	-	-	-
poultry breeding	chickens	-	8	-	-	-
<b>AGRICULTURAL PRODUCTION</b>						
cassava	lb	10,000	12,000	17,550	17,550	17,550
bulls / heifers	animal	1	1	1	2	2
eggs	unit	-	640	1,440	1,440	1,440
chickens	animal	-	-	2	2	2
hunting, fishing and forest	year	1	1	1	1	1
<b>LABOR</b>						
family investment labor	day	-	12	-	-	-
family operation labor	day	102	161	176	177	178
w age labor	day	100	100	100	100	100
Total labor		day	202	273	276	277
<b>FLUJO DE CAJA</b>						
<b>Inflows</b>						
<u>Production</u>						
cassava	GY\$	200,000	240,000	351,000	351,000	351,000
bulls / heifers	GY\$	50,000	50,000	50,000	100,000	100,000
eggs	GY\$	-	26,880	60,480	60,480	60,480
chickens	GY\$	-	-	3,000	3,000	3,000
hunting, fishing and forest	GY\$	60,000	60,000	60,000	60,000	60,000
w age labor	GY\$	90,000	90,000	90,000	90,000	90,000
Subtotal Incomes		GY\$	400,000	466,880	614,480	664,480
<b>Outflows</b>						
<u>Investment</u>						
<u>Inputs</u>						
business investments, project financing	GY\$	-	43,200	-	-	-
Subtotal inputs		GY\$	-	43,200	-	-
<u>Labor</u>						
family labor	GY\$	-	9,000	-	-	-
Subtotal labor		GY\$	-	9,000	-	-
Subtotal Investment		GY\$	-	52,200	-	-
<u>Operation</u>						
<u>Inputs</u>						
agricultural inputs	GY\$	142,800	181,400	245,850	279,050	259,050
Subtotal inputs		GY\$	142,800	181,400	245,850	279,050
<u>Labor</u>						
family labor	GY\$	76,500	120,750	131,850	132,600	133,350
Subtotal labor		GY\$	76,500	120,750	131,850	133,350
Subtotal Operation		GY\$	219,300	302,150	377,700	411,650
Subtotal Outflows		GY\$	219,300	354,350	377,700	392,400
<u>Benefit</u>		GY\$	180,700	112,530	236,780	252,830
		US\$	875	545	1,147	1,224
Family Net Income		GY\$	257,200	242,280	368,630	405,430
		US\$	1,246	1,173	1,785	1,866

FIRR = 101%

FNPV = 296,537 GY\$

1,436 US\$

**Table 9. Peanut production and sheep breeding – Household model**

ITEM		Without Project	Years with Project			
			PY1	PY2	PY3	PY4-10
<b>LAND USE</b>						
<b>Crops</b>						
<u>Existing technology</u>						
peanuts	acre	1.00	-	-	-	-
<u>Subtotal existing technology</u>		<u>1.00</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>
<u>New technology</u>						
peanuts	acre	-	1.00	1.30	1.30	1.30
forage pasture	acre	-	-	1.00	1.00	1.00
<u>Subtotal new technology</u>		<u>-</u>	<u>1.00</u>	<u>2.30</u>	<u>2.30</u>	<u>2.30</u>
<b>Total Crops</b>	<b>acre</b>	<b>1.00</b>	<b>1.00</b>	<b>2.30</b>	<b>2.30</b>	<b>2.30</b>
<b>Livestock</b>						
<u>Existing technology</u>						
sheep breeding	activity	1	-	-	-	-
hunting, fishing and forest fruits harvest	activity	1	1	1	1	1
<u>New technology</u>						
sheep breeding	activity	-	1	1	1	1
poultry breeding	activity	-	1	1	1	1
<b>INVESTMENTS</b>						
sheeps corral	unit	-	1	-	-	-
poultry breeding	chickens	-	8	-	-	-
<b>AGRICULTURAL PRODUCTION</b>						
peanuts	lb	1,000	1,200	1,690	1,690	1,690
sheeps	animal	1	1	1	1	1
lambs	animal	2	2	3	4	4
eggs	unit	-	640	1,440	1,440	1,440
chickens	animal	-	-	2	2	2
hunting, fishing and forest fruits harvest	lump	1	1	1	1	1
<b>LABOR</b>						
family investment labor	day	-	12	-	-	-
family operation labor	day	128	194	223	224	224
w age labor	day	100	100	100	100	100
<b>Total trabajo</b>		<b>day</b>	<b>228</b>	<b>306</b>	<b>323</b>	<b>324</b>
<b>FLUJO DE CAJA</b>						
<b>Inflows</b>						
<u>Production</u>						
peanuts	GY\$	220,000	264,000	371,800	371,800	371,800
sheeps	GY\$	20,000	20,000	20,000	20,000	20,000
lambs	GY\$	32,000	32,000	48,000	64,000	64,000
eggs	GY\$	-	26,880	60,480	60,480	60,480
chickens	GY\$	-	-	3,000	3,000	3,000
hunting, fishing and forest fruits harvest	GY\$	60,000	60,000	60,000	60,000	60,000
w age labor	GY\$	90,000	90,000	90,000	90,000	90,000
<b>Subtotal Incomes</b>		<b>GY\$</b>	<b>422,000</b>	<b>492,880</b>	<b>653,280</b>	<b>669,280</b>
<b>Outflow s</b>						
<u>Investment</u>						
<u>Inputs</u>						
Project financing						
agricultural inputs	GY\$	-	33,700	-	-	-
<b>Subtotal project financing</b>		<b>GY\$</b>	<b>-</b>	<b>33,700</b>	<b>-</b>	<b>-</b>
<b>Subtotal inputs</b>		<b>GY\$</b>	<b>-</b>	<b>33,700</b>	<b>-</b>	<b>-</b>
<u>Labor</u>						
	GY\$					
family labor	GY\$	-	9,000	-	-	-
<b>Subtotal labor</b>		<b>GY\$</b>	<b>-</b>	<b>9,000</b>	<b>-</b>	<b>-</b>
<b>Subtotal Investment</b>		<b>GY\$</b>	<b>-</b>	<b>42,700</b>	<b>-</b>	<b>-</b>
<u>Operation</u>						
<u>Inputs</u>						
agricultural inputs	GY\$	18,000	35,100	61,720	63,320	63,720
<b>Subtotal inputs</b>		<b>GY\$</b>	<b>18,000</b>	<b>35,100</b>	<b>61,720</b>	<b>63,320</b>
<u>Labor</u>						
family labor	GY\$	96,000	145,500	166,950	167,700	167,700
<b>Subtotal labor</b>		<b>GY\$</b>	<b>96,000</b>	<b>145,500</b>	<b>166,950</b>	<b>167,700</b>
<b>Subtotal Operation</b>		<b>GY\$</b>	<b>114,000</b>	<b>180,600</b>	<b>228,670</b>	<b>231,020</b>
<b>Subtotal Outflow s</b>		<b>GY\$</b>	<b>114,000</b>	<b>223,300</b>	<b>231,020</b>	<b>231,420</b>
<b>Benefit</b>		<b>GY\$</b>	<b>308,000</b>	<b>269,580</b>	<b>424,610</b>	<b>438,260</b>
		<b>US\$</b>	<b>1,492</b>	<b>1,305</b>	<b>2,056</b>	<b>2,122</b>
<b>Family Net Income e</b>		<b>GY\$</b>	<b>404,000</b>	<b>424,080</b>	<b>591,560</b>	<b>605,960</b>
		<b>US\$</b>	<b>1,956</b>	<b>2,054</b>	<b>2,865</b>	<b>2,934</b>

FIRR = 312%  
FNPV = 519,825 GY\$ 2,517 US\$

**Table 10. Cassava processing – Enterprise model**

ITEM		Years with Project				
		PY1	PY2	PY3	PY4	PY5-10
<b>PRODUCTION</b>						
farine, bags 50 lb	bags	350	1,120	2,013	2,258	2,363
farine, bags 2 lb	bags	3,750	12,000	21,563	24,188	25,313
<b>LABOR</b>						
manager	days	180	180	180	180	180
employees	days	360	360	360	540	540
Total trabajo	days	<b>540</b>	<b>540</b>	<b>540</b>	<b>720</b>	<b>720</b>
<b>FLUJO DE CAJA</b>						
<b>Inflows</b>						
<u>Production</u>						
farine, bags 50 lb	GY\$	1,680,000	5,376,000	9,662,400	10,838,400	11,342,400
farine, bags 2 lb	GY\$	825,000	2,640,000	4,743,860	5,321,360	5,568,860
<b>Subtotal Inflow s</b>	<b>GY\$</b>	<b>2,505,000</b>	<b>8,016,000</b>	<b>14,406,260</b>	<b>16,159,760</b>	<b>16,911,260</b>
<b>Outflows</b>						
<u>Investment</u>						
Inputs						
CBEs investments, project financing	GY\$	3,000,000	-	-	-	-
CBEs investments, beneficiaries financing		430,000	-	-	-	-
Subtotal inputs	GY\$	3,430,000	-	-	-	-
<b>Subtotal Investment</b>	<b>GY\$</b>	<b>3,430,000</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>
<u>Operation</u>						
Inputs						
CBEs operating inputs	GY\$	2,111,000	6,697,100	11,875,156	13,332,856	13,936,156
Subtotal inputs	GY\$	2,111,000	6,697,100	11,875,156	13,332,856	13,936,156
Labor						
manager	GY\$	540,000	540,000	540,000	540,000	540,000
employees	GY\$	324,000	324,000	324,000	486,000	486,000
Subtotal labor	GY\$	864,000	864,000	864,000	1,026,000	1,026,000
<b>Subtotal Operation</b>	<b>GY\$</b>	<b>2,975,000</b>	<b>7,561,100</b>	<b>12,739,156</b>	<b>14,358,856</b>	<b>14,962,156</b>
<b>Subtotal Outflows</b>	<b>GY\$</b>	<b>6,405,000</b>	<b>7,561,100</b>	<b>12,739,156</b>	<b>14,358,856</b>	<b>14,962,156</b>
<b>Benefit</b>	<b>GY\$</b>	<b>-3,900,000</b>	<b>454,900</b>	<b>1,667,104</b>	<b>1,800,904</b>	<b>1,949,104</b>
	<b>US\$</b>	<b>-18,886</b>	<b>2,203</b>	<b>8,073</b>	<b>8,721</b>	<b>9,439</b>

FIRR = 35%

FNPV = 3,608,129 GY\$ 17,473 US\$

**Table 11. Guest house – Enterprise model**

ITEM		Years with Project				
		PY1	PY2	PY3	PY4	PY5-10
<b>PRODUCTION</b>						
renting beds	days	-	300	600	850	850
<b>LABOR</b>						
employees	days	-	150	270	345	345
Total trabajo	days	-	150	270	345	345
<b>FLUJO DE CAJA</b>						
<b>Inflows</b>						
<u>Production</u>						
renting beds	GY\$	-	900,000	1,800,000	2,550,000	2,550,000
Subtotal Inflows	GY\$	-	900,000	1,800,000	2,550,000	2,550,000
<b>Outflows</b>						
<u>Investment</u>						
Inputs						
CBEs investments, project financing	GY\$	3,600,000	-	-	-	-
CBEs investments, beneficiaries financing	GY\$	900,000	-	-	-	-
Subtotal inputs	GY\$	4,500,000	-	-	-	-
Subtotal Investment	GY\$	4,500,000	-	-	-	-
<u>Operation</u>						
Inputs						
CBEs operating inputs	GY\$	-	546,800	546,800	546,800	546,800
Subtotal inputs	GY\$	-	546,800	546,800	546,800	546,800
Labor						
employees	GY\$	-	135,000	243,000	310,500	310,500
Subtotal labor	GY\$	-	135,000	243,000	310,500	310,500
Subtotal Operation	GY\$	-	681,800	789,800	857,300	857,300
Subtotal Outflows	GY\$	4,500,000	681,800	789,800	857,300	857,300
Benefit	GY\$	-4,500,000	218,200	1,010,200	1,692,700	1,692,700
	US\$	-21,792	1,057	4,892	8,197	8,197

FIRR = 23%  
FNPV = 1,801,878 GY\$ 8,726 US\$





## **ANNEX 2. PRODUCTION MODELS**

**Table 12. Cassava – 1 acre (0.4 ha)**

ITEM			Existing technology	New technology	
				PY1	PY2-10
<u>PRODUCTION / INVESTMENTS / OPERATION</u>					
<b>Production</b>					
cassava	lb		10,000	12,000	13,500
<b>Operation</b>					
<u>Inputs</u>					
farm seed	lb		3,000	2,000	2,000
improved seed	lb		-	1,000	1,000
phytosanitaires	lt		-	1	1
fertilizers	bag		-	2	3
transportation	lb		10,000	12,000	13,500
<u>Labor</u>					
land preparation	day		10	10	10
planting	day		2	2	2
weeds control	day		4	7	8
apply phytosanitaires	day		-	1	1
apply fertilizer	day		-	1	1
harvest	day		10	12	14
<u>Subtotal labor</u>			<u>26</u>	<u>33</u>	<u>36</u>
<b><u>CASH FLOW</u></b>					
<b>Production value</b>					
cassava	20	GY\$/lb	200,000	240,000	270,000
<b>Inputs cost</b>					
<u>Operation</u>					
farm seed	30	GY\$/lb	90,000	60,000	60,000
improved seed	40	GY\$/lb	-	40,000	40,000
phytosanitaires	2,500	GY\$/lt	-	2,500	2,500
fertilizers	5,000	GY\$/bag	-	10,000	15,000
transportation	3	GY\$/lb	30,000	36,000	40,500
<u>Subtotal Operation</u>			<u>120,000</u>	<u>148,500</u>	<u>158,000</u>
<b>Subtotal Inputs</b>			<b>120,000</b>	<b>148,500</b>	<b>158,000</b>
<b>Labor cost</b>					
<u>Operation</u>					
land preparation	750	GY\$/day	7,500	7,500	7,500
planting	750	GY\$/day	1,500	1,500	1,500
weeds control	750	GY\$/day	3,000	5,250	6,000
apply phytosanitaires	750	GY\$/day	-	750	750
apply fertilizer	750	GY\$/day	-	750	750
harvest	750	GY\$/day	7,500	9,000	10,500
<u>Subtotal Operation</u>			<u>19,500</u>	<u>24,750</u>	<u>27,000</u>
<b>Subtotal Labor</b>			<b>19,500</b>	<b>24,750</b>	<b>27,000</b>
<b>Benefit</b>			<b>60,500</b>	<b>66,750</b>	<b>85,000</b>
			<b>US\$ 293</b>	<b>323</b>	<b>412</b>
<b>Family Net Income</b>			<b>80,000</b>	<b>91,500</b>	<b>112,000</b>
			<b>US\$ 387</b>	<b>443</b>	<b>542</b>

**Table 13. Peanut – 1 acre (0.4 ha)**

ITEM		Existing technology	New technology		
			PY1	PY2-10	
PRODUCTION / INVESTMENTS / OPERATION					
Production					
peanuts	lb	1,000	1,200	1,300	
Operation					
Inputs					
farm seed	lb	40	-	-	
improved seed	lb	-	30	30	
insecticides	l.	-	1	1	
fertilizers	bag	-	1	2	
production transport	lb	1,000	1,200	1,300	
Labor					
land cleaning	day	8	8	8	
land preparation	day	8	12	12	
sowing	day	1	1	1	
weeds control	day	10	12	15	
apply insecticides	day	-	2	2	
apply fertilizers	day	-	1	1	
harvest	day	25	30	33	
Subtotal labor		day	52	66	72
CASH FLOW					
Production value					
peanuts	220 GY\$/lb	220,000	264,000	286,000	
Inputs cost					
Operation					
farm seed	230 GY\$/lb	9,200	-	-	
improved seed	400 GY\$/lb	-	12,000	12,000	
insecticides	2,500 GY\$/l.	-	2,500	2,500	
fertilizers	5,000 GY\$/bag	-	5,000	10,000	
production transport	3 GY\$/lb	3,000	3,600	3,900	
Subtotal Operation		GY\$	12,200	23,100	28,400
Subtotal Inputs		GY\$	12,200	23,100	28,400
Labor cost					
Operation					
land cleaning	750 GY\$/day	6,000	6,000	6,000	
land preparation	750 GY\$/day	6,000	9,000	9,000	
sowing	750 GY\$/day	750	750	750	
weeds control	750 GY\$/day	7,500	9,000	11,250	
apply insecticides	750 GY\$/day	-	1,500	1,500	
apply fertilizers	750 GY\$/day	-	750	750	
harvest	750 GY\$/day	18,750	22,500	24,750	
Subtotal Operation		GY\$	39,000	49,500	54,000
Subtotal Labor		GY\$	39,000	49,500	54,000
Benefit		GY\$	168,800	191,400	203,600
		US\$	817	927	986
Family Net Income		GY\$	207,800	240,900	257,600
		US\$	1,006	1,167	1,247

**Table 14. Cattle breeding – 1 producer**

ITEM		Existing technology	New technology			
			PY1	PY2	PY3	PY4-10
HERD SIZE						
bulls / heifers at slaughter weight	animal	1	1	1	2	2
bulls / heifers 3 years old	animal	1	1	2	1	1
bulls / heifers 2 years old or less	animal	2	2	1	1	1
PRODUCTION / INVESTMENTS / OPERATION						
Production						
bulls / heifers at slaughter weight	animal	1	1	1	2	2
Investments						
Inputs						
corral materials	lump	-	1	-	-	-
Labor						
corral construction	day	-	5	-	-	-
Operation						
Inputs						
bulls / heifers 2 years old or less	animals	1	1	1	2	1
oat sowing	acre	-	-	-	1.0	1.0
vaccines	dose	2	4	6	8	8
antiparasitics	tube	1	2	2	3	3
minerals	kg	-	8	8	12	12
syringes / needles replacement	lump	-	1	1	1	1
Labor						
herd management	day	50	50	50	50	50
sanitary treatments	day	2	4	4	5	6
corral maintainance	day	-	-	1	1	1
Subtotal labor	day	52	54	55	56	57
CASH FLOW						
Production value						
bulls / heifers at slaughter weight	50,000 GY\$ / animal	50,000	50,000	50,000	100,000	100,000
Inputs cost						
Investments						
corral materials	22,000 GY\$ / lump	-	22,000	-	-	-
Subtotal Investments	GY\$	-	22,000	-	-	-
Operation						
bulls / heifers 2 years old or less	20,000 GY\$ / animals	20,000	20,000	20,000	40,000	20,000
oat sowing	8,000 GY\$ / acre	-	-	-	8,000	8,000
vaccines	400 GY\$ / dose	800	1,600	2,400	3,200	3,200
antiparasitics	2,000 GY\$ / tube	2,000	4,000	4,000	6,000	6,000
minerals	600 GY\$ / kg	-	4,800	4,800	7,200	7,200
syringes / needles replacement	2,500 GY\$ / lump	-	2,500	1,250	1,250	1,250
Subtotal Operation	GY\$	22,800	32,900	32,450	65,650	45,650
Subtotal Inputs	GY\$	22,800	54,900	32,450	65,650	45,650
Labor cost						
Investments						
corral construction	750 GY\$ / day	-	3,750	-	-	-
Subtotal Investments	GY\$	-	3,750	-	-	-
Operation						
herd management	750 GY\$ / day	37,500	37,500	37,500	37,500	37,500
sanitary treatments	750 GY\$ / day	1,500	3,000	3,000	3,750	4,500
corral maintainance	750 GY\$ / day	-	-	750	750	750
Subtotal Operation	GY\$	39,000	40,500	41,250	42,000	42,750
Subtotal Labor	GY\$	39,000	44,250	41,250	42,000	42,750
Benefit						
	GY\$	-11,800	-49,150	-23,700	-7,650	11,600
	US\$	-57	-238	-115	-37	56
Family Net Income						
	GY\$	27,200	-8,650	18,300	35,100	55,100
	US\$	132	-42	89	170	267

**Table 15. Sheep breeding – 1 producer**

ITEM		Existing technology	New technology			
			PY1	PY2	PY3	PY4-10
<b>FLOCK SIZE</b>	<b>animal</b>	<b>13</b>	<b>12</b>	<b>14</b>	<b>15</b>	<b>16</b>
breeding sheeps	animal	4	4	4	4	4
discard sheeps (4 years old or more)	animal	1	1	1	1	1
lambs births	animal	4	4	5	5	6
lambs deads	animal	2	1	1	1	1
lambs at slaughter weight	animal	2	2	3	4	4
<b>PRODUCTION / INVESTMENTS / OPERATION</b>						
<b>Production</b>						
sheeps at slaughter weight	animal	1	1	1	1	1
lambs at slaughter weight	animal	2	2	3	4	4
<b>Investments</b>						
<u>Inputs</u>						
corral materials	lump	-	1	-	-	-
<u>Labor</u>						
corral construction	day	-	5	-	-	-
<b>Operation</b>						
<u>Inputs</u>						
oat sowing	acre	-	-	0.5	0.5	0.5
vaccines	dose	7	12	14	15	16
antiparasitics	tube	1	2	2	2	2
minerals	kg	-	2	2	4	4
<u>Labor</u>						
flock management	day	50	50	50	50	50
sanitary treatments	day	2	4	4	5	5
corral maintainance	day	-	-	1	1	1
Subtotal labor	day	52	54	55	56	56
<b>CASH FLOW</b>						
<b>Production value</b>						
sheeps at slaughter weight	20,000 GY\$ / animal	20,000	20,000	20,000	20,000	20,000
lambs at slaughter weight	16,000 GY\$ / animal	32,000	32,000	48,000	64,000	64,000
<b>Total production value</b>	<b>GY\$</b>	<b>52,000</b>	<b>52,000</b>	<b>68,000</b>	<b>84,000</b>	<b>84,000</b>
<b>Inputs cost</b>						
<u>Investments</u>						
corral materials	12,500 GY\$ / lump	-	12,500	-	-	-
<b>Subtotal Investments</b>	<b>GY\$</b>	<b>-</b>	<b>12,500</b>	<b>-</b>	<b>-</b>	<b>-</b>
<u>Operation</u>						
oat sowing	8,000 GY\$ / acre	-	-	4,000	4,000	4,000
vaccines	400 GY\$ / dose	2,800	4,800	5,600	6,000	6,400
antiparasitics	3,000 GY\$ / tube	3,000	6,000	6,000	6,000	6,000
minerals	600 GY\$ / kg	-	1,200	1,200	2,400	2,400
<b>Subtotal Operation</b>	<b>GY\$</b>	<b>5,800</b>	<b>12,000</b>	<b>16,800</b>	<b>18,400</b>	<b>18,800</b>
<b>Subtotal Inputs</b>	<b>GY\$</b>	<b>5,800</b>	<b>24,500</b>	<b>16,800</b>	<b>18,400</b>	<b>18,800</b>
<b>Labor cost</b>						
<u>Investments</u>						
corral construction	750 GY\$ / day	-	3,750	-	-	-
<b>Subtotal Investments</b>	<b>GY\$</b>	<b>-</b>	<b>3,750</b>	<b>-</b>	<b>-</b>	<b>-</b>
<u>Operation</u>						
flock management	750 GY\$ / day	37,500	37,500	37,500	37,500	37,500
sanitary treatments	750 GY\$ / day	1,500	3,000	3,000	3,750	3,750
corral maintainance	750 GY\$ / day	-	-	750	750	750
<b>Subtotal Operation</b>	<b>GY\$</b>	<b>39,000</b>	<b>40,500</b>	<b>41,250</b>	<b>42,000</b>	<b>42,000</b>
<b>Subtotal Labor</b>	<b>GY\$</b>	<b>39,000</b>	<b>44,250</b>	<b>41,250</b>	<b>42,000</b>	<b>42,000</b>
<b>Benefit</b>		<b>GY\$</b>	<b>7,200</b>	<b>-16,750</b>	<b>9,950</b>	<b>23,600</b>
		<b>US\$</b>	<b>35</b>	<b>-81</b>	<b>48</b>	<b>112</b>
<b>Family Net Income</b>		<b>GY\$</b>	<b>46,200</b>	<b>23,750</b>	<b>51,950</b>	<b>65,950</b>
		<b>US\$</b>	<b>224</b>	<b>115</b>	<b>252</b>	<b>319</b>

**Table 16. Poultry breeding – 1 producer**

ITEM		New Technology		
		PY1	PY2	PY3-10
<b>PRODUCTION / INVESTMENTS / OPERATION</b>				
<b>Production</b>				
eggs	unit	640	1,440	1,440
chickens	chicken	-	2	2
<b>Investments</b>				
<u>Inputs</u>				
chickens	chicken	8	-	-
henhouse materials	lump	1	-	-
vaccines	dose	8	-	-
vitamines	dose	8	-	-
balanced food	lb	32	-	-
<u>Labor</u>				
henhouse construction	day	7	-	-
Investment labor	day	7	-	-
<b>Operation</b>				
<u>Inputs</u>				
chickens	chicken	-	2	2
vaccines	dose	16	16	16
vitamines	dose	16	4	4
balanced food	lb	32	8	8
<u>Labor</u>				
henhouse maintenance	day	50	50	50
Operation labor	day	50	50	50
<b>CASH FLOW</b>				
Precio Unitario				
<b>Inflows</b>				
eggs	42 GY\$/unit	26,880	60,480	60,480
chickens	1,500 GY\$/chicken	-	3,000	3,000
<b>Subtotal Inflows</b>	<b>GY\$</b>	<b>26,880</b>	<b>63,480</b>	<b>63,480</b>
<b>Investments</b>				
<u>Inputs</u>				
chickens	800 GY\$/chicken	6,400	-	-
henhouse materials	6,000 GY\$	6,000	-	-
vaccines	300 GY\$/dose	2,400	-	-
vitamines	0 GY\$/dose	-	-	-
balanced food	200 GY\$/lb	6,400	-	-
Investment inputs	C\$	21,200	-	-
<u>Labor</u>				
henhouse construction	750 GY\$/day	5,250	-	-
Investment labor	C\$	5,250	-	-
<b>Operation</b>				
<u>Inputs</u>				
chickens	800 GY\$/chicken	-	1,600	1,600
vaccines	300 GY\$/dose	-	4,800	4,800
vitamines	0 GY\$/dose	-	-	-
balanced food	200 GY\$/lb	-	1,600	1,600
Operation inputs		-	8,000	8,000
<b>Subtotal Inputs</b>		<b>21,200</b>	<b>8,000</b>	<b>8,000</b>
<u>Labor</u>				
henhouse maintenance	750 GY\$/day	37,500	37,500	37,500
Mano de obra de operación	C\$	37,500	37,500	37,500
<b>Subtotal labor</b>	<b>C\$</b>	<b>42,750</b>	<b>37,500</b>	<b>37,500</b>
<b>Benefit</b>	<b>GY\$</b>	<b>-37,070</b>	<b>17,980</b>	<b>17,980</b>
	<b>US\$</b>	<b>-2,091</b>	<b>943</b>	<b>493</b>
<b>Family Net Income</b>	<b>GY\$</b>	<b>5,680</b>	<b>55,480</b>	<b>55,480</b>
	<b>US\$</b>	<b>-569</b>	<b>2,278</b>	<b>1,827</b>

**Table 17. Cassava processing**

ITEM			New technology				
			PY1	PY2	PY3	PY4	PY5-10
<b>PRODUCTION / INVESTMENTS / OPERATION</b>							
<b>Production</b>							
farine, bags 50 lb	bags		350	1,120	2,013	2,258	2,363
farine, bags 2 lb	bags		3,750	12,000	21,563	24,188	25,313
<b>Investment</b>							
<u>Inputs</u>							
building construction	lump		1	-	-	-	-
electrical/plumbing instalation	lump		1	-	-	-	-
black tanks	lump		1	-	-	-	-
cassava mill	unit		1	-	-	-	-
cassava press	unit		1	-	-	-	-
transportation	lump		1	-	-	-	-
raw materials & fire wood	lump		1	-	-	-	-
<b>Operation</b>							
<u>Inputs</u>							
cassava	lb		100,000	320,000	575,000	645,000	675,000
power	kw.h/año		2,000	4,000	5,000	6000	6000
bags (50 lb)	unit		350	1,120	2,013	2,258	2,363
bags (2 lb)	unit		3,750	12,000	21,563	24,188	25,313
transportation	bags		25,000	80,000	143,750	161,250	168,750
building maintenance	year		-	1	1	1	1
equipment maintenance	year		-	1	1	1	1
<u>Labor</u>							
manager	days		180	180	180	180	180
workers	days		360	360	360	540	540
<b>Subtotal labor</b>	<b>days</b>		<b>540</b>	<b>540</b>	<b>540</b>	<b>720</b>	<b>720</b>
<b>CASH FLOW</b>							
<b>Sales</b>							
farine, bags 50 lb	4,800	GY\$/bags	1,680,000	5,376,000	9,662,400	10,838,400	11,342,400
farine, bags 2 lb	220	GY\$/bags	825,000	2,640,000	4,743,860	5,321,360	5,568,860
<b>Sales</b>	<b>GY\$</b>		<b>2,505,000</b>	<b>8,016,000</b>	<b>14,406,260</b>	<b>16,159,760</b>	<b>16,911,260</b>
<b>Inputs cost</b>							
<u>Investment</u>							
building construction	1,000,000	GY\$	1,000,000	-	-	-	-
electrical/plumbing instalation	90,000	GY\$	90,000	-	-	-	-
black tanks	100,000	GY\$	100,000	-	-	-	-
cassava mill	1,000,000	GY\$/unit	1,000,000	-	-	-	-
cassava press	200,000	GY\$/unit	200,000	-	-	-	-
transportation	400,000	GY\$	400,000	-	-	-	-
raw materials & fire wood	640,000	GY\$	640,000	-	-	-	-
<b>Soubtotal Investment</b>	<b>GY\$</b>		<b>3,430,000</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>
<u>Operating</u>							
cassava	20	GY\$/lb	2,000,000	6,400,000	11,500,000	12,900,000	13,500,000
power	50	GY\$/kw.h/año	100,000	200,000	250,000	300,000	300,000
bags (50 lb)	10	GY\$/unit	3,500	11,200	20,130	22,580	23,630
bags (2 lb)	2	GY\$/unit	7,500	24,000	43,126	48,376	50,626
building maintenance	1%	GY\$/year	-	11,900	11,900	11,900	11,900
equipment maintenance	3%	GY\$/year	-	36,000	36,000	36,000	36,000
<b>Soubtotal Operation</b>	<b>GY\$</b>		<b>2,111,000</b>	<b>6,683,100</b>	<b>11,861,156</b>	<b>13,318,856</b>	<b>13,922,156</b>
<b>Subtotal Inputs</b>	<b>GY\$</b>		<b>5,541,000</b>	<b>6,683,100</b>	<b>11,861,156</b>	<b>13,318,856</b>	<b>13,922,156</b>
<b>Labor cost</b>							
<u>Operation</u>							
manager	3,000	GY\$/days	540,000	540,000	540,000	540,000	540,000
workers	900	GY\$/days	324,000	324,000	324,000	486,000	486,000
<b>Subtotal Operation</b>	<b>GY\$</b>		<b>864,000</b>	<b>864,000</b>	<b>864,000</b>	<b>1,026,000</b>	<b>1,026,000</b>
<b>Subtotal Labor</b>	<b>GY\$</b>		<b>864,000</b>	<b>864,000</b>	<b>864,000</b>	<b>1,026,000</b>	<b>1,026,000</b>
<b>Benefit</b>	<b>GY\$</b>		<b>-3,900,000</b>	<b>468,900</b>	<b>1,681,104</b>	<b>1,814,904</b>	<b>1,963,104</b>
	<b>US\$</b>		<b>-18,886</b>	<b>2,271</b>	<b>8,141</b>	<b>8,789</b>	<b>9,507</b>

**Table 18. Guest house - Ecotourism**

ITEM		New technology			
		Año 1	Año 2	Año 3	Años 4 a 10
<b><u>PRODUCTION / INVESTMENTS / OPERATION</u></b>					
<b>Production</b>					
renting beds	guest-night	-	300	600	850
<b>Investment</b>					
<b><u>Inputs</u></b>					
guest house	unit	1	-	-	-
<b>Operation</b>					
<b><u>Inputs</u></b>					
marketing	year	-	1	1	1
guest house maintainance	year	-	1	1	1
cleaning inputs	year	-	1	1	1
<b><u>Labor</u></b>					
care taker	days	-	100	180	230
cleaning	days	-	50	90	115
<b><u>CASH FLOW</u></b>			150	270	345
<b>Production value</b>					
renting beds	3,000 GY\$/guest-night	-	<b>900,000</b>	<b>1,800,000</b>	<b>2,550,000</b>
<b>Inputs cost</b>					
<b><u>Investment</u></b>					
guest house	4,500,000 GY\$/unit	4,500,000	-	-	-
<b><u>Subtotal Investment</u></b>	<b>GY\$</b>	<b>4,500,000</b>	<b>-</b>	<b>-</b>	<b>-</b>
<b><u>Operating</u></b>					
marketing	200,000 GY\$/year	-	200,000	200,000	200,000
guest house maintainance	5% GY\$/year	-	225,000	225,000	225,000
cleaning inputs	100,000 GY\$/year	-	100,000	100,000	100,000
<b><u>Subtotal Operation</u></b>	<b>GY\$</b>	<b>-</b>	<b>525,000</b>	<b>525,000</b>	<b>525,000</b>
<b>Subtotal Inputs</b>	<b>GY\$</b>	<b>4,500,000</b>	<b>525,000</b>	<b>525,000</b>	<b>525,000</b>
<b>Labor cost</b>					
<b><u>Operation</u></b>					
care taker	900 GY\$/days	-	90,000	162,000	207,000
cleaning	900 GY\$/days	-	45,000	81,000	103,500
<b><u>Subtotal Operation</u></b>	<b>GY\$</b>	<b>-</b>	<b>135,000</b>	<b>243,000</b>	<b>310,500</b>
<b>Subtotal Labor</b>	<b>GY\$</b>	<b>-</b>	<b>135,000</b>	<b>243,000</b>	<b>310,500</b>
<b><u>Benefit</u></b>		<b>GY\$</b>	<b>-4,500,000</b>	<b>240,000</b>	<b>1,032,000</b>
		<b>US\$</b>	<b>-21,792</b>	<b>1,162</b>	<b>4,998</b>
				<b>8,303</b>	

**Table 19. Financial and Economic Unit Prices**

ITEM		Correction	Prices (GY\$)	
		Factor	Financial	Economic
<u>Outputs</u>		<u>VAT</u>		
cassava	lb	no	20	20
peanuts	lb	no	220	220
bulls / heifers	animal	no	50 000	42 000
sheeps	animal	no	20 000	20 000
lambs	animal	no	16 000	16 000
eggs	unit	no	42	42
chickens	chicken	no	1 500	1 500
farine, bags 50 lb	bag	16%	4 800	4 032
farine, bags 2 lb	bag	16%	220	185
renting beds	day	16%	3 000	2 520
hunting, fishing and forest	year	no	60 000	60 000
<u>Labor</u>		<u>Unemployment</u>		
		Rate		
family labor (on farm)	day	10%	750	675
family labor (w age labor)	day	10%	900	810
manager	day	10%	3 000	2 700
employees	day	10%	900	810



## Appendix 11: Draft project implementation manual

### Hinterland Environmental Sustainable Development project Draft PROJECT implementation manual

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## **PROJECT IMPLEMENTATION MANUAL**

### **I. INTRODUCTION**

#### **A. Purpose and contents of the manual**

1. This Project Implementation Manual (PIM) provides the basis for the implementation of Hinterland Environmentally Sustainable Agriculture Development Project (Hinterland Project). It will establish the Strategic and Institutional Framework and provide guidance for the overall planning and implementation of activities. It will details the collaborative framework for project implementation, the institutional and management arrangements; the administrative, fiduciary and contractual procedures; monitoring, evaluation and reporting.
2. The Manual will establish effective implementation procedures and mechanisms, which will ensure the achievement of the overall objectives as outlines in the project's design document and logframe.
3. Lessons learned from READ as well as other IFAD intervention in the region will inform the design of the manual. This manual will be used in conjunction with the Final Design Document and will be updated regularly by the Project team to reflect any eventual changes agreed between the Government of Guyana (GOG), the International Fund for Agricultural Development (IFAD).

#### **B. Intended Use and Users**

- List all stakeholders.

#### **A. Scope and Limitations**

4. The manual does not provide decisions for every Project circumstance. It is intended to serve as a guide in Project implementation, and where and when needed, it should be reviewed and updated to reflect changed conditions and thus different implementation requirements. In particular, it guides implementers in the following areas:
  - a) Target group and project area focus
  - b) Project organisation and management
  - c) Components and activities
  - d) Procedures for staff selection and recruitment
  - e) Administrative, accounting and evaluation arrangements
5. The manual does not attempt to draw up a management information system for the project, nor does it indicate the detailed procedures for procurement on each transaction the project will do.
6. Any unforeseen circumstance or any controversy caused by the application of the Operation Manual regulations shall be presented to the National Steering Committee (NSC) for evaluation and resolution.

#### **B. Project Location**

#### **C. Documents referred**

7. The following documents should be consulted in the preparing and updating of the PIM:
  - a) IFAD Project Final Design Report and its Working Papers and Appendices
  - b) IFAD Guidelines for Procurement
  - c) IFAD Guidelines for Supervision
  - d) Project Financing Agreements with the IFAD
  - e) IFAD General Conditions
  - f) Letter to the Borrower
  - g) IFAD Guidelines for Audit

## **II. LEGAL FRAMEWORK**

8. The Hinterland Project is implemented by the Government of Guyana (GOG) and is financed by loan and grant from the International Fund for Agricultural Development (IFAD). The IFAD Loan Number *(to be inserted)/grant Number (to be inserted) was approved by the board on the ..... and has been signed on the (to be inserted) and has been declared effective on the ..... It should be noted, the Project closure date is decided from the signature date of the financing agreement not date of Board approval.*
9. The Government of Guyana as a borrower as established in the Financing Agreement, will appoint the ..... as the implementing agency who will be responsible for the signing the financing agreement and the implementation of the project whereas IFAD will be directly responsible for the supervision of the project.
10. The Financing Agreement constitutes the legal basis of the project; it will outline the conditions of first disbursement.
11. The Project is expected to start implementation in (to be inserted), and be completed ..... years. During the first eighteen months of implementation the project would become fully prepared for components delivery with most project staff expected to complete intense training over this period.
12. The implementation of this project should be in conformity with the Financier (IFAD) applicable rules.

## **III. STRATEGIC FRAMEWORK**

- A. Project Strategy**
- B. Project Objectives**
- C. Project Area and Target group**
- D. Expected project Outcomes**
- E. Sustainability**

13. Sustainability will depend in a large extent on the intervention strategies used by the Project.  
Outline

## **IV. INSTITUTIONAL FRAMEWORK AND ORGANIZATION FOR IMPLEMENTATION**

### **A. Implementing Agency**

### **B. Project Organisation**

14. Role and responsibilities of the National Steering Committee (NSC), Regional Management Committee (RMC), Project Management Unit (PMU), Regional Offices and the Ministry of Agriculture's Sector Development Unit (ASDU).

### **C. Method of Intervention**

### **V. Project Description**

#### **A. Strengthening of community's and Producer's group's investment Planning**

#### **B. Implementation of investment plans**

#### **C. Project and Knowledge Management and Coordination**

15. Under each Component, the objectives should be outlined, the approach and Strategy

## **VI. Regulation for the Functioning of the Investment Plan**

## **VII. PLANNING AND BUDGET**

**A. Procedures for Preparation and Approval of the AWPB**

**B. Outline of the AWPB**

**VIII. ADMINISTRATION AND HUMAN RESOURCE**

**A. Procedures for Recruitment and Contracting**

**B. Evaluation of the Performance**

**IX. ADMINISTRATION -FINANCES- ACCOUNTING**

**A. Flow of Funds**

**B. IFAD Disbursement Procedures**

**C. Checklist for Sending Withdrawal Applications**

**D. Internal Control**

**E. Procurement**

**F. Records of procurement/contract management**

**G. Audit Procedures**

**X. MONITORING AND EVALUATION**

**A. M&E Plan**

**B. Participatory M&E**

**C. Baseline Study**

**D. Mid Term Evaluation**

**E. Final Impact Evaluation**

**F. Project Completion Report**

**G. Reporting Requirements**

**H. Supervision**

**XI. COORDINATION AND PLANNING**

**XII. KNOWLEDGE MANAGEMENT**

**XIII. ENVIRONMENTAL CONSIDERATIONS**



## Appendix 12: Compliance with IFAD policies

1. **Compliance with national policies and priorities.** The operation is aligned with national policies and priorities to the extent to which it contributes towards achieving Government programmatic objectives, particularly the ones relating to the reduction of poverty levels in the isolated communities of the country.
2. The objectives also include the mitigation of the divide between hinterland and coastal development, the provision of support to indigenous communities in pursuing their own development, the facilitation of access to markets for agricultural and livestock outputs, the expansion of the use of Information, Communication Technologies (ICT) and, the strengthening of national and regional food security and nutrition in the context of enhancing diversified agriculture, the adoption of measures for the mitigation of natural disasters.
3. Also, this operation fits into the "Vision for Agriculture 2020" strategy which promotes sustainable natural resource management by exploiting the country's comparative advantage in the agricultural sector. The "Vision for Agriculture 2020" aims to significantly increase production on the basis of the assumption that Guyana can play a growing role in feeding and supplying the resource-poor parts of the world and contribute to the continuing growth of world trade in food and non-food agriculture-derived products
4. Also the new operation is in line with the national Low Carbon Development Strategy (LCDS) whose objectives include the improvement of access to arable, non-forested land and the promotion of investment in high-potential low carbon sectors, such as fruits and vegetables, aquaculture and ecotourism. Moreover, the LCDS underlines the need to create new economic opportunities for Amerindian communities and protect productive land from changing weather patterns. This need is addressed by the new operation which explicitly focus on the development of Amerindian communities.
5. The program is also aligned with national strategies as contained in Guyana's third generation Poverty Strategy Paper (PSRP) 2011-2015 which focused on accelerating and sustaining economic growth through enhanced competitiveness and social development by also protecting the environment and managing the natural resources with simultaneous sustainable social and economic development.
6. **Compliance with the Country Strategy Note** The new operation complies with the Guyana Country Strategy note objectives. Moreover, the project responds to GoG priorities as expressed in its dialogue with IFAD since it aims to i) strengthen management and productive capacities of families and community-based organizations; ii) improve agricultural and non-agricultural activities and facilitate market access; iii) improve food and nutritional security of families by linking local food production to their diet; iv) ensure adequate management of natural resources including forest resources for timber exploitation and non-traditional forest products and water for human and agricultural consumption in the context of climate change.
7. **Compliance with IFAD policies for targeting and Engagement with Indigenous Peoples**
8. IFAD's mandate defines its target group as rural people living in poverty and experiencing food insecurity in developing countries. Within this group, IFAD proactively strives to reach extremely poor people (as defined per MDG 1) who have the potential to take advantage of improved access and opportunities for agricultural production and rural-income generating activities.
9. In the case of Guyana, poor people live principally in marginal, low potential areas. Although no recent figures on poverty conditions are available, a 2009 Household Income and Expenditure Survey (HIES) referenced in Guyana's Poverty Reduction Strategy Paper 2011-2015 (PRSP) indicates that poverty was highest in Region 1, 8 and 9 where indigenous peoples were concentrated. Figures indicate that in the rural interior of the country 73.5 per cent of the population are considered poor (80.1 per cent in Region 1 and 74.4 per cent in Region 9) as compared to coastal regions where poverty affected 37 per cent of the population.
10. Accordingly, the geographical focus of Hinterland Project is on the remote areas of the countries, specifically Region 1 and Region 9. The target population includes the indigenous

- people's tribes of both regions, who make up for the majority of the population. The total Amerindian population in Region 1 makes up for 65 per cent of the total population in the region; whereas in Region 9, the Amerindian population is 86 per cent of the total population in the region.
11. The target group would be made up by 6,500 households that would be receiving project services, which is equivalent to 66 per cent of the existing households in regions 1 and 9. At least 15 per cent of these households (975 households) would be female headed households as this reflects the reality in regions 1 and 9.
  12. Self-targeting, with the purpose of including those who are often excluded (or self-excluded), is foreseen in the Project through specific affirmative actions, activities and investments oriented towards young males and females, local leaders (especially women), amongst others. Proactive measures designed to build the capacity of these groups have been included in project design (see Appendix 2: Section D. Strategy for Social Inclusion and Gender Equality).
  13. Direct targeting is foreseen in the Project, especially through the eligibility criteria for accessing the Investment Fund. This will be further developed during Final Design.
  14. Also, to meet the requirements of IFAD's targeting approach (demand-driven and consultative), a participatory mapping of resource use and economic activities in small business agricultural sector will be carried out under Component 1 of Hinterland Project. In those villages and communities where such mapping already exist, these will be used as basis for the development of Investment Plans under Component 2.
  15. Moreover, since partnership is another cornerstone of the Fund's targeting approach, in the framework of Hinterland Project, IFAD will closely work with the government and other stakeholders to develop a shared understanding of the causal factors of poverty and exclusion.
  16. The target population of the Hinterland Project initiative are mainly Amerindians, the indigenous people of Guyana (Arawak, Warau and Caribs in region 1; Makushi, Wapishana and the Wai Wai in region 9). Overall, the new operation also complies with the principles of engagement as detailed in the IFAD policy on engagement with Indigenous Peoples, particularly as for the principle 1, 3, 6 and 9.
  17. Regarding principle 1, IFAD will assist the communities in taking full advantage of their traditional knowledge, culture and governance systems and natural resources, all of which form part of their tangible and intangible heritage. In relation to principle 3, IFAD will enhance community driven development approaches that are particularly well suited to the holistic perspectives of indigenous peoples, while supporting indigenous peoples in the enhancement of the resilience of their ecosystems (principle 6).
  18. Finally, the Hinterland Project project will largely target indigenous women by expanding their access to fundamental resources such as land, traditional knowledge and technologies and will build on their untapped potential for sustainable development, thus by complying with principle 9 of the Policy.
  19. **Compliance with IFAD policies for environment and natural resource management.**
  20. The new operation largely complies with the IFAD Climate and Natural Resources Management Policy, specifically with principle 3 and 4.
  21. A preliminary analysis of the environmental situation in Guyana indicates that the greatest climate change-related threats are: i) decrease in precipitation and increase in temperature, and: ii) the sensitiveness of the surface water systems and ground water recharge to drought in the hinterland regions. These risks can be mitigated by adopting measures in the implementation of new operations, such as: (a) carrying out, at project start-up, an assessment of the status, availability and access to water resources, to be followed by assistance in adopting water conservation and management practices and constructing or rehabilitating rainwater-harvesting systems and preparing environmental management plans; (b) introducing improved land management practices while supporting crop diversification and including varieties for drought and/or flood conditions; (c) introducing additional drought-resistant crop varieties; and (d) mapping the most drought- and flood-prone areas, and providing training to



- project beneficiaries in the use of weather forecasts and climate information in planting and harvesting cycles based on new or improved climate information services.
22. In this respect, the Hinterland Project project will adopt an integrated climate smart approach from the start up. A thorough assessment of local value chains is to be carried out to analyse in which manner the latter are linked to household and community activities, which are supposed to contribute to the mitigation of climate change related risks. In addition, target commodities or activities for local value chain development will be identified through participatory village- or community-based planning processes to ensure that the development of local value chains will contribute to increasing community- and household-level resilience to climate change. Then, in the framework of community/village plans, priority will be given to those initiatives which aim to enhance climate –related disaster risks reduction and management and promote the establishment of agro ecological system. As for the family and community based enterprises investment plans, the project will finance those plans which aim to provide technical assistance for the incorporation of technologies and good practices for better management of trees, soils and water on the farm and resilience to climate change adaptive and preventive measures.
  23. Moreover, IFAD will support three main areas of investment, namely hydrological mapping and investments in integrated solutions for water management and mobilization, renewable energy needs and options, current technology providers and opportunities for youth in maintenance and input markets for renewable energy technology and ICT needs and solutions for improved access.
  24. **Compliance with IFAD Policy on gender equality and women`s empowerment.** Hinterland Project is aligned with IFAD`s policy on gender equality and women`s empowerment. Specifically, through the use of a participatory approach. Effort will be devoted to ensure that the voices of different segments of the rural population are equally heard and valued. By working with the entire household, the positive complementarities between women and men will be leveraged (Strategic objective 2).
  25. Social inclusion is the process of improving the terms for individuals and groups to take part in society. Project formulation has ensured that marginalized groups can take advantage of Project development activities and have access to its services; as such it refers to the empowering and participation of indigenous peoples, youth, and women. Gender equality is part of social inclusion and will be mainstreamed in overall Project implementation and through specific affirmative actions. Project implementation will take into consideration, amongst others: (i) including knowledge of gender equality and indigenous peoples in the Terms of Reference of all project staff and contracts with service providers, (ii) hiring of field staff who speak the local languages (or provide translation where required), (iii) gender specific eligibility criteria for the selection of investment plans, (iv) monitoring and evaluation will use disaggregated data (registration, collection, analysis and reporting), (v) participation of beneficiaries` representatives in regional level Project Advisory Committees (male, female and youth representative), (vi) provisions for training to be implemented as much as possible in villages/communities (to make them more accessible to women), (vii) provisions to facilitate women`s and youth participation in exchange visits organized or financed by the Project, (viii) preparation of awareness raising and training materials adequate and understandable for its specific audiences, and (ix) participation of project staff, GoG project related staff and beneficiaries in a regional or international exchange visit or learning route on social inclusion and gender equality.
  26. Affirmative actions are specific activities designed to address inequities in a society and help members of a disadvantaged group or a more vulnerable group to overcome obstacles to equal access to development opportunities. In the previous chapter a number of social problems in regions 1 and 9 have been discussed that need to be addressed by the Project directly and through alliances with specialized organizations for the Project to be successful in reaching its expected outcomes and objectives. This way, the affirmative actions included in Project design have the purpose of creating an enabling environment for its two technical components to be successful. They include: (i) Vocational and Technical Skills Training, (ii) Life skills Training, (iii) Leadership training, and (iv) Labour-saving technologies and practices.

27. **Compliance with IFAD Nutrition Action Plan 2016-2018** The project can be considered as a nutrition sensitive project as defined in the framework of the document "Mainstream Nutrition Sensitive-Agriculture at IFAD. Action Plan 2016-12018". According to the document, an intervention which has explicit nutrition objectives, activities and indicators can be considered as a nutrition –sensitive project. The proposed project contributes to improve food and nutritional security of families by linking local food production to their diet.
28. Overall, the project will contribute to the achievement of IFAD`s objective in the nutrition domain, namely to create more nutrition-sensitive agriculture and food systems. In this respect the role to be played by the Fund is to provide specific financing and know-how to promote the production and consumption of more diverse and nutrition foods by IFAD`s beneficiaries.

## Appendix 13: Contents of the Project Life File

1. Ballayram T, 2016. An Analytical Study of Conservation International Environmentally Sustainable Economic Development project in the Repununni.
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5. IFAD, 2015. Preliminary Social Environmental and Climate Assessment Procedures (SECAP) Note.
6. Wilkinson H, 2015. Project Completion Report. Rural Enterprise and Agricultural Development Project. Republic of Guyana
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8. IFAD, 2014. Rural Enterprise and Agricultural Project-READ. Supervision Report.
9. Republic of Guyana, FAO and Conservation International, 2014. Integrated Sustainable Development Strategy for the Region 9.
10. Conservation international, 2012. Village resource Development Planning. Toolkit for Communities.
11. Republic of Guyana, 2012. A National Strategy for Agriculture in Guyana 2013-2020
12. IFAD, 2012. Environment and natural resources management. Resilient livelihoods through the sustainable use of natural assets. Policy.
13. IFAD, 2012. Gender equality and women's empowerment. .Policy.
14. Republic of Guyana, 2010. A Low Carbon Development Strategy. Transforming Guyana's economy while combating climate change.
15. IFAD, 2009. Engagement with Indigenous Peoples. Policy
16. IFAD, 2008. Targeting. Reaching the rural poor. Policy
17. Cooperative Republic of Guyana, 2007. Poor Rural Communities' Support Services Project. Project Completion Report.

## Appendix 14: Social Environmental & Climate Assessment Procedures Note (SECAP)

### I. Major landscape characteristics and Issues (Social, natural resources, and climate)

1. Environmental *context*. Guyana is comprised of three main geographical zones: the coastal plain, the white sand belt, and the interior highlands. The coastal plain bordering the Caribbean, made up mostly of alluvial mud, comprises only 5% of the land but hosts 90% of the population. The white sand belt south of the coastal zone support a dense hardwood forest and cannot support crops: if trees are removed erosion is rapid and severe. The third zone is comprised of the interior highlands, a series of plateaus, flat-topped mountains, and savannahs that extend from the white sand belt to the country's southern borders. The country is characterized by an abundance of tropical forest, which covers 75% of the territory, and its low rate of deforestation, ranging from 0.02% to 0.079% per annum<sup>88</sup>, significantly below the rates in other tropical countries. Furthermore, the country has is a pioneer in implementing "Reducing Emissions from Deforestation and Degradation"(REDD+) mechanisms through a bilateral agreement with Norway. As such, tropical forests and biodiversity constitute an important national asset.
2. Guyana is divided into 10 regions. The project will focus on Region 9 ( Upper Takaku-Upper Essequibo), while pilot activities will be implemented in Region 1 (Barima-Waini). These are two of the country's four Hinterland regions. Region 9 presents a unique combination of natural and cultural capital. There are four main ecosystems: mixed forests, montane forests, swamp forests and savannahs. The extensive savannahs are divided into northern and southern regions by the rainforest-covered Kanuku Mountains. A broad belt of thick forest separates the Rupununi<sup>89</sup> from the coast, the most densely populated part of the country. This has contributed to maintaining a relatively intact and fully functional ecosystem in the Rupununi. Its location is at the interface between the Amazon and Guiana Shields ecological regions, resulting in one of the most culturally and biologically rich, as well as economically under-developed areas in Latin America. Currently about 1.1 per cent of the forest in the region is actively used for subsistence agriculture. A total of 67.5 per cent of the 45,71 hectares of arable lands are under mixed forest cover and the other 32.5 per cent, are in pockets of the savannahs. There is also 15 times as much semi-arable land (690,60 hectares of poor agricultural land with fertilization possibilities), that could be made productive by soil amendment. However, the potential to use open savannahs for crop production has received mixed responses, as farmers in the South are less favourably disposed, compared to those in the North, who are pressured to locate arable lands for expanding production. Besides, Region 9 has the highest acreage and percentage of land set aside for conservation purposes, including the conservation areas identified by Amerindian communities in their titled lands<sup>90</sup>. along with 59 sites of spiritual importance located in the forest throughout the region<sup>91</sup> (map 9, Annex 1).
3. Region 1 includes a coastland portion although the greater physical and social characteristics of the region are closely linked to that of the hinterland regions. A significant number of rivers crisscross the Region among them the Barima, Waimi, Aruka and Mazaruni rivers. Economic activities include logging for coastal and multi-national saw mills; manicole palm (*Prestoea tenuiramosa*) harvesting for Amazon Caribbean (AMCAR); gold-mining on the Barama and Barima Rivers, household-level subsistence farming and craft-production. In terms of agriculture, the Guyana Land and Surveys Commission (GLSC) has suggested that development should be centred on the large areas of Class I and II land around Matthews Ridge and Port Kaituma due to the area being a population centre as well as the fact that the area was an agricultural centre in the past. However, practically all of the suitable land is

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<sup>88</sup> Guyana Forestry Commission, 2015

<sup>89</sup> The Rupununi is a geographical area located in the country's Administrative Region Nine.

<sup>90</sup> FAO, CI, IDB, MIF. 2015. The State of Food and Agriculture in the Rupununi, Guyana.

<sup>91</sup> CI, IDB, MIF, Practical Action. 2015. Rupununi Ecosystem Baseline.

currently forested so a policy decision would have to be taken regarding the conversion of forestry to agriculture. (map 1,8, Annex 1)

4. *Biodiversity.* Guyana is situated in the neo-tropical bio-geographical province of north-eastern South America and is home to a vast expanse of primary tropical forest, and other unique ecosystems. Guyana is part of the Guiana Shield region which forms part of the Amazon Biome, the single largest remaining tropical rainforest in the world and is home to at least 10% of the world's known biodiversity. The variety of landscapes of the Guiana Shield includes sandstone tepuis, granite inselbergs, white sands, seasonally flooded tropical savannahs, lowlands with numerous rivers, isolated mountain ranges, and coastal swamps, each supporting a characteristic vegetation. This variety accounts for a great deal of the high diversity and flora and fauna endemism of the Shield's biota. The Pakaraima Mountains in Guyana has the highest level of plant endemism in the country, followed by the upper Mazaruni-Kako-Roraima area where high concentrations of endemic species are known to occur and is ranked the second most important area for endemism in Guyana. As of 2010 Guyana's species status was estimated as 8,000 plant species, of which 1,182 native tree species; 467 fishes; 130 amphibians; 179 reptiles; 814 birds; 225 mammals; 1,673 arthropods. Guyana's forest ecosystems and biodiversity are, in many ways, a key factor which supports community based activities; one such example is the socio-cultural and economic benefits derived from forests by hinterland communities who are highly dependent on wood and wood products, non-timber forest products (NTFP) used for furniture and crafts, fuel, and ecotourism. Forests are also an important source of food and medicines for Amerindian communities.<sup>92</sup>
5. *Social context and livelihoods.* The Rupununi area is home to some 18,000 inhabitants spread across approximately 59 villages. Indigenous people constitute about 90 per cent of the region's population, for as much as the past 7,000 years. The three main Amerindian groups that live in the Rupununi are the Makushi, mainly in the north, the Wapishama and the Wai Wai mainly in the south. Land in the Rupununi is owned mainly by the State and the Amerindian Villages. Village land is communally owned by its residents according to the Amerindian Act of 2006, which grants them irrevocable tenure and appoints them as sole managers of their land (7).
6. The main livelihoods in the Rupununi are mixed farming, agro-processing and wage-labour. Other livelihoods include fishing, livestock-rearing, craft-making, logging and to a lesser extent hunting and gathering. These activities are rooted in the NR available to these communities. Despite some interest among communities in savannah based agriculture, this is undertaken mainly in forests and forest islands, through slash and burn practice in 10 year cycles. The main produce is cassava and a range of other crops (e.g. corn, bananas, watermelons, pineapples, papaws, cotton and peanuts), generally aimed at meeting households' food needs. Increasingly households are expanding production for marketable sales to purchase items imported from Brazil and coastland Guyana. A significant number of households engage in wage labour, mainly with the central and government office in the villages, schools, and health services. Many also work as ranch hands and logging within the village communities. Agro-processing, mainly farine and cassava-bread, is shown to attract over 60 per cent of households, since households increasingly produce these cassava by-products as income-generation through sales. Timber provides significant income for households, and firewood consumption is mostly associated with preparation of farine. Nature-based tourism has also begun to generate income for some households.
7. Women traditionally played a key role in conventional food supply and agriculture practices, but these roles have been changing as many women are now participating more in the labour market or engaging in income-generating activities. Young people leave their communities and move to Brazil, Guyana coastlands, logging and mining concessions in search for jobs. Migration of youths has implications for community development in general since a vital human resource is lost (3).
8. The main economic activities in the Barima-Waini region are forestry and gold mining. The northern and northeastern sections include thousands of acres of rich alluvial soil, of which its

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<sup>92</sup> GOG. 2014. Guyana Fifth National Report to the Convention on Biological Diversity.

main crops include coffee, ground provisions (such as cassava, eddoes (*Colocasia antiquorum*) and yams), cabbage, beans, corn, peanuts, and citrus fruits.

9. *Climate.* The climate of the Rupununi is characterized by a well-marked four and a half month wet season (April to August) and a seven month dry season (September to March). Average rainfall is 1599 mm, more than 80 per cent falls in the wet season. The average monthly temperature is 31° C (Hydromet Office, Lethem). Climate change (CC) is expected to worsen Guyana's vulnerability to hydro meteorological and other hazards, with the greatest impacts projected to affect the agriculture sector and the coastal zone (crop production and infrastructure). In fact, despite being a net sink for greenhouse gas emissions, due to its large carbon store, its geography and historical settlement development have made it very vulnerable to CC (map 2, Annex 1).

***Environmental, climate-related and social issues of critical importance in Region 9, 1:***

10. In both Regions, while the land pressure is currently not thought to be so severe as to present an immediate threat (4), there are some issues that require management and planning to ensure the land is used sustainably.
11. *Water resource management.* Region 9's unimodal rainfall pattern effectively facilitates only a single crop per annum. On the other hand, with approximately 1200 – 1500 mm of rainfall occurring over a four-month period, flooding is always likely to take place. The combination of extremely large quantities of water descending from the mountainous regions on to the plains and the presence of fine-textured soils with low infiltration rates makes it unlikely that water accumulating on the soil surface can be adequately drained by the natural streams and rivers (3). On the other hand, during the dry season water is a constraint for crop production.
12. The rehabilitation of drainage and irrigation (D&I) and access dams in the Coastal Plain are considered issues holding back agricultural development. Yet, in some inland areas such as Region 1, the promotion of rainfed farming in inland areas would be crucial, since the provision of D&I is not a prerequisite for agricultural development on the well-drained soils of inland Guyana<sup>93</sup> (map 3,4, Annex 1).
13. *Livestock raising.* The present system of free-range grazing in the Rupununi requires 25 hectares per Animal Unit (AU), and the animals would generally take no less than five years to reach market weight. These archaic systems lead to extremely poor animal production parameters, such as high calf and weaned animal mortality, poor calving intervals, a reduced calving per centage and poor average daily gains and predisposes the stock to rustling<sup>94</sup>. In Region 1, the project would not target the pegasse back lands, which are mainly peat land, and should be left as wetland biodiversity reserves (4).
14. *Forest:* About half of the Rupununi region is covered with forests of two main types: Lowland mixed forests occur as forest islands scattered over the savannahs and mountainous mixed forests on undulating terrain in association with well-drained soils. Many of the forest islands have been considerably degraded by shifting cultivation and natural fires. In addition, Region 9 is at an increased deforestation risk given ongoing efforts to upgrade the Georgetown-Lethem transportation corridor, which links Guyana's coast with the Brazilian border, cutting through North Rupununi. If from one side, improvement of the transportation corridor opens up new opportunities for development, there are some associated threats, as potential large-scale industrial agriculture, timber harvesting, extensive forest cover clearance and the expansion of the extractive industries. There is evidence that increased access (e.g. roads) has already resulted in indiscriminate and at times illegal collection, hunting and fishing<sup>95</sup>. Based on their access to the natural resources and ownership of forestlands, Amerindian Communities are optimally placed to enable conservation and preservation of standing forests. Indeed, the Low Carbon Development Strategy (LCDS) critically recognizes the important role that Amerindian communities can play in protecting and sustainably managing the forests. Forest fires occur in the Savannah White Sands, along the Essequibo/Berbice watershed (Region 9), among other areas. Fires are one of the five anthropogenic drivers leading to deforestation in Guyana.

<sup>93</sup> Guyana Lands and Surveys Commission. 2013. Guyana National Land Use Plan.

<sup>94</sup> CI, IDB, MIF, Practical Action. 2015. Rupununi Vulnerability and Adaptation Report.

<sup>95</sup> IDB. 2012. Leveraging Natural Capital in Guyana's Rupununi. Donors Memorandum.

Appropriate training in fire management and awareness raising about the risk of forest fires is a recommended options for decreasing their incidences<sup>96</sup> (map 5,6, Annex 1).

15. *Social issues.* The people of the Rupununi still maintain an existence that hovers around subsistence levels, and have a strong dependency on NR to meet their needs. They are faced with the important challenge of maintaining their culture and traditions, safeguarding ecosystems integrity while at the same time expanding existing livelihood activities and improving the general welfare of the communities. Increasing agricultural productivity is hindered by the limited access to new technologies, financial investments, training, and technical assistance. Additional factors are also preventing the expansion of crop production, namely the use of only rudimentary farming tools, lack of guaranteed markets and poor transportation network and infrastructures
16. There are challenges to be overcome in the process of arresting poverty in Amerindian communities while simultaneously promoting environmental sustainability. Key challenges, (some of which can be addressed by the proposed project are: i. the remoteness and costs associated with transportation, communication and other logistical needs contribute significantly to the loss of business competitiveness, ii. the Amerindian village councils (established by the Amerindian Act), require strengthening for the successful implementation of Community Development Plans (CDPs), iii. market information, language gaps, media access, absence of Information, Communication Technologies (ICT) infrastructure, limited telecommunication among others., are all major factors limiting the socio-economic development of Amerindian communities, iv. Amerindian villages are comprised of small vulnerable agrarian-dependent activities, with low technical expertise, which are necessary for cutting-edge business development; v. financing and investment opportunities: are not readily available for Amerindian Communities to fund enterprise for development, and v. limited access to energy sources.
17. Access to land is in the process of being addressed, since the GOG has set the policy objective of addressing all Land Titling issues, for Amerindian villages where two thirds of the adult population request this to be done based on the principles of FPIC and allocated substantial funding through the GRIF Amerindian Land Titling Project. Hinterland Project will engage not only with communities that have secured their land tenure, but also with those that have not yet resolved the land titling issue.
18. In accordance to IFAD's Engagement with Indigenous Peoples Policy, and given that the project's target beneficiaries are largely indigenous peoples, the project has a strong commitment to implement the principle of Free, Prior and Informed Consent (FPIC) throughout all its operations to guide IP's participation in many of the project cycle. A local consultant was hired to develop the FPIC plan and application of its principles to Hinterland Project. This process entailed consulting and validating proposed project activities and approaches with all involved and/or affected indigenous communities to guarantee that the design is aligned with their priorities and cultural, social and economic needs The FPIC plan is presented in Annex X. It is a key instrument to ensure consideration of IP's traditional governance and participation mechanisms in the project's implementation arrangements. It is expected to be continuously updated based on the experience gained throughout project implementation, while supervision of its implementation will form part of the project's monitoring and evaluation framework. Furthermore, a consultation forum in each region should be organized to review draft project design and obtain views and recommendations from intended target groups, followed by yearly collective consultation forum events once the project has started.

#### ***Vulnerability to specific climate-related-risks.***

19. Floods: Guyana was ranked 13 out of 162 countries for flood risk by the United Nations Office for Disaster Risk Reduction. The major drivers of this vulnerability are: run off of conservancy dams and river embankments; inadequate drainage and irrigation network; overflow and breaches of the seawall defence system and the immense concentration of human and economic capital within the low Coastal Plain. The International Disaster Database (EMDAT) reports five major floods from 1990 to 2012, with the most significant event occurring in 2005. A total of 625,032 persons were affected in the Coastal Plain, with economic damages of

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<sup>96</sup> Ministry of Agriculture. 2013. Disaster Risk Management Plan for the Agriculture Sector 2013-2018.

- approximately US\$ 634 millions (60 per cent of GDP) (7). In Region 9, the cassava crop bears the brunt of crop losses incurred through flooding.
20. *Sea level rise/salt water intrusion in the Coastal Plains:* Climate model projections predict that sea level in Guyana is increasing at a rate of more than 10 millimetres per year, or 2-5 times faster than the global estimate<sup>97</sup>. Sea level is projected to increase by 14 cm (HadCM3) to 26 cm (CGCM2) by the 2030s, when storm surge heights are incorporated in the projections, heights may be close to 3 m in the minimum scenario, and close to 6 m in the maximum scenario by the 2030s (12). This rise coupled with increased extreme rainfall and storm surge events will likely exacerbate the population's vulnerability to flooding and the regular breaching of its already weakened sea defences. In Region 1, the shoreline is expected to retreat as much as 2.5 km with a rise of the sea level of 100 cm<sup>98</sup>. It should be noted that sea level rise will likely have significant impacts far inland due to the salinisation of agricultural lands (up to 120 Km) and the attendant reductions in productivity and outputs<sup>99</sup>. This would increase cost of production, make Guyana's agricultural exports less price competitive. Susceptibility analysis of the low lying Coastal Plain concluded that a significant portion of land would be inundated with large negative impacts to the rice and sugar cane sub-sectors, while to a lesser extent mixed farming, cash crops, coconuts and grazing areas will also be affected (7). Given this context, in Region 1, there is the need for identification of potential agricultural land (4).
  21. *Drought:* one in every five persons within the population is exposed to the effects this hazard. The EMDAT reports two major drought events from 1990 to 2012 with economic damages of approximately US\$43.7 million (7). With increases in the number of dry spells, drought conditions and changing rainfall patterns, stresses on Guyana's internal water resources, aquifers and rivers is increasing. The problem will worsen under the projected CC scenarios. According to the World Bank, in 2013 Guyana withdrew approximately 60 per cent of its 241 cubic meters of renewable internal fresh water resources; 94.3 per cent of which was used for agricultural purposes. Region 9 is vulnerable to drought; recently, during late 2014 early 2015, the monthly precipitation over a six month period was as low as 0.2 mm in some areas creating a situation that resulted in the death of livestock and crops, exhaustion of fresh water from wells, and an increase in the pest population<sup>100</sup>. The Intergovernmental Panel on Climate Change (IPCC) Coupled General Circulation Model (CGCM) 2.0 climate projections for 2050 show an increase of 1.9°C in maximum temperature and rainfall decreases by 257.6 mm in scenario B2 (low CO<sub>2</sub> emission scenario) (6).
- II. Potential project's social, environmental, and climate change impacts and risks**
22. The proposed project would place emphasis on ensuring economic, institutional, social and environmental sustainability. Implementation of the project would have a number of potential positive impacts on the social and natural environment by addressing the market and environmental risks that are putting a severe strain on their resilience and social cohesion of the hinterland communities. Project design would be oriented towards addressing several existing environmental and social concerns in the target area, namely improved access to water for human consumption and agricultural production, enhanced NRM (forest, crop and grassland), and promotion of renewable energy. Thus, it would enhance both food security and nutrition, while at the same time raise income levels, with economic benefits for poor and smallholder farmers through development of local agribusiness and households/ Community-Based Enterprises (CBEs) Investment Plans and strengthening of market access. This strategy is predicated upon the need to increase productivity of smallholders while at the same time enhance NRM and environmental conditions, and doing this in a way that builds resilience to CC.
  23. The project would target poor indigenous and non-indigenous rural people of Regions 1 and 9, who are less economically developed than the rest of the country. Interventions would include

<sup>97</sup> Government of Guyana. 2012. Second National Communication to the UNFCCC.

<sup>98</sup> Caribbean Community Climate Change Centre. 2009. Mainstreaming Adaptation to Climate Change. Vulnerability and Capacity Assessment: Impacts of Climate Change on Guyana's Agriculture Sector.

<sup>99</sup> Caribbean Development Bank. 2013. Guyana Country Strategy Paper 2013-2017.

<sup>100</sup> Ministry of the Presidency. 2015. Climate Resilience Strategy and Action Plan for Guyana. Draft for consultation.



developing efficient ways of farming crops most suitable for local cultivation and commercialization; building local productive, processing and technical capacities among local communities whose livelihoods depend on agriculture, fisheries, timber and non-timber products and ecotourism. On the recognition that this approach might be associated with social and cultural risks, as well as reputational risks for IFAD, the preparation of the FPIC plan was performed through the following steps to facilitate appropriate involvement of IP in the project design and implementation: i. identification of tribes that require systematic consultation during the project cycle, ii. identification of institutions, governance systems and decision-making roles, iii. socio-cultural and land tenure assessment, iv. preliminary consultations with IP and their representatives. Furthermore, it is foreseen the setting up and/or involvement of specific village and inter-village structures to meaningfully consult indigenous communities in the area of project interventions, as well as involvement of key collective representative bodies of IP in project governance and decision-making (e.g. South Rupununi District Council, SRDC). Finally, project design has been carried out on the basis of lessons learned from the ongoing Conservation International (CI) experience with the Leveraging Natural Capital in Guyana's Rupununi Project (2012-2017) and consultations with communities that identified sustainable agriculture and commercialization as key areas for investment.

24. Specific relevant activities for environment and NRM include: identification of key agricultural commodity chains essential for sustaining climate-resilient traditional lifestyles and sustainable agro-ecological development; elaborate business plans to optimize agricultural production to meet the demand of the market; hydrological mapping and identification of integrated solutions for water management and mobilization; assessment of renewable energy needs and technology options. These will be complemented by the design of adaptation actions for key agricultural commodity chains; and support to DRM/DRR plans.
25. The project can thus be expected to have the following positive environmental and social impacts: i) diversified and intensified production systems of target households, based on sustainable agriculture methods to balance food security and income generation, ii) increased income and profitability through better value addition and marketing of products, iii) improved management of NR, and iv) enhanced resilience to CC. The following table summarises possible negative environmental and social impacts during project implementation, as well as steps to address these, for inclusion in the project document.

**Table 1 Project potential environmental impacts and proposed response measures**

Potential project impacts	Measures to address the impacts
Intensification of crop production and generation of increased income is constraint by access to water and water availability	<ul style="list-style-type: none"> <li>- Increase and improve water availability and accessibility (e.g. water harvesting, storage and conservation practices and techniques)</li> <li>- Conduct an assessment of the status, availability and access to water resources (hydrological dynamics study and mapping of groundwater resources)</li> <li>- Investigate the best combination of cost-efficient, environmental and hydrological sound solutions for mobilizing water for agriculture activities and human consumption overcoming the often prolonged dry season</li> <li>- The potential negative impacts deriving from cassava processing will be dealt with through effluent treatment and use of alternative energy source to reduce firewood consumption (use of renewable energy)</li> </ul>
Interventions to wide the agriculture and nutritional base might miss the opportunity to make use of the country's best potential assets, namely the forest and its biodiversity	<ul style="list-style-type: none"> <li>- Mapping of potentially marketable traditional and non-traditional forest products with high agricultural and nutritional, or economic value</li> <li>- Valorisation and promotion of native forest species of high agriculture/nutritional value and other NTFP.</li> </ul>

26. Rupununi agriculture is still diverse and in this sense resilient, but the trend shows a dependence on one main crop, cassava, which is cultivated by 96 per cent of the population. If CC were to affect the cultivation of cassava, either because the new climatic conditions do not allow its production or because more pests or diseases proliferate, the population would be strongly affected. In terms of NR use, the population of Rupununi has a vulnerability that although is still low, will tend to grow. People depend on ecosystem services to have food like fish and fruits, firewood and timber for selling. As they are protecting the ecosystem, they are still resilient to CC (5). The Rupununi region also has an incipient level of organization linked to disaster prevention, and has begun organizing a disaster preparedness committee. Yet it cannot be affirmed that there is a local institution assuming the responsibility of preparing the population with regards to the threats of CC.
27. The Coastal Plain of Region 1 have higher exposure to climate hazards compared to Region 9. Information about historic climate disaster occurrences, current climate trends and future CC scenarios for the Coastal Plain at national levels indicate that sea level rise and saline water intrusion can potentially result in relocation of coastal and riverine communities (7,11). In conclusion, in order to reduce these climate-related vulnerabilities, as well as the risk of promoting maladaptive activities, it is important to consider the following adaptation responses.

**Table 2 Climate change impacts and proposed response measures**

Potential impact	Measures to address impacts
Food and nutrition security may not be enhanced if agricultural technical packages are not climate resilient	<ul style="list-style-type: none"> <li>- Improve weather and seasonal forecasting</li> <li>- Facilitate use of weather and climate forecasts by farmers</li> <li>- Crop diversification through alternative economically profitable crop varieties more suited to extreme climate</li> <li>- Conduct research to identify new germplasm, crops tolerant to higher temperature, drought, salinity incursions and flood</li> <li>- Improve processing, storage and preservation of food to reduce seasonality of food insecurity, and add value to agricultural goods</li> <li>- Investments are not made in coastal areas exposed to saline water intrusion</li> </ul>
Investments to enhance agricultural production are hindered by climatic risks	<ul style="list-style-type: none"> <li>- Expand Early Warning System (EWS) for extreme events, and emergency response system</li> <li>- Strengthen DRM and response at community and regional levels, through establishment of mechanisms for preparedness and response (CDC, NDIA)</li> <li>- Ensure storage and transport infrastructure are not built in risk prone areas</li> </ul>
Failure to intensify production and generate increased income if investments are exposed to extreme climate events (Coastal Plain)	Conduct hazard and vulnerability mapping to examine the nature of climate and disaster hazards in the geographical location of the project (e.g flood, soil salinization), to identify the most vulnerable agricultural areas, infrastructure and population, appraise the exposure and sensitivity of project-relevant communities, ecosystems and critical infrastructure and ultimately define risk reduction measures (as part of SOFA for Region 1)

### III. Environmental and social category (B)

28. The project is designed to positively affect social and environmental conditions, on the recognition that in both Regions, proper NRM is critical for the maintenance of the livelihoods. It incorporates special considerations of IP, women, youth and marginalised groups in the economic diversification and income generation activities. Therefore, it is expected that the project will produce positive social impacts on the target groups by strengthening their existing

natural-resource dependent business, raising income levels and ultimately impacting livelihoods within the villages where the Households/CBEs Investment Plans will operate.

29. Positive environmental impacts are foreseen, both directly and indirectly, by supporting the development of business models that have at their core the sustainable use of NR. First, the communities where the targeted Households/CBEs Investment Plans operate will avoid a resource-intensive development path that would degrade or destroy the local ecological resources. Second, by directly linking local wealth creation to sustainable NRM, the project will mitigate negative environmental impacts by increasing land stewardship, and thus vigilance of the local communities.
30. In line with IFAD's Social, Environmental and Climate Assessment Procedures (SECAP), the location and magnitude of the impact of the activities supported by the project, justify its classification as Category B. While the project's design and implementation activities may have some minor, reversible negative environmental and social impacts on human populations, these will be in non-sensitive areas (e.g. protected areas (map 7), natural forests; wetlands; areas of global significance for biodiversity conservation or locations that include physical cultural resources). Concerning potential negative social impacts, the programme design is specifically tailored to promote both food security, household nutrition, crop production and processing to improve income. Considering that this is a community, demand-driven project, it may be difficult to pre-determine all potential adverse impacts until project implementation, therefore additional environmental and social analysis will be carried out as part of the implementation of the Environmental and Social Management Plan (ESMP), which is a compliance document that accompanies Cat B projects. For the alignment with the GOG's social, environmental and CC policies and strategies reference should be made to the SECAP Preparatory Note.

#### **IV. Climate risk category (Moderate)**

31. In Region 9, the population possess traditional ecological and agricultural knowledge that may help them overcome a potential food production issue linked to CC. However, if the agro-ecological systems are negatively affected by climate variability and change, the population can become food insecure. In Region 9, the project can be expected to be moderately sensitive to climate risks, and thus require integration of specific adaptation responses during the project design phase.
32. The Coastal Plain of Region 1 has higher exposure to climate hazards compared to Region 9. However, information for a detailed climate risk screening in Region 1 is not readily available. It is, thus, recommended to undertake a hazard mapping and vulnerability assessment, during early implementation as part of the SOFA, to examine the nature of climate and disaster hazards in the geographical location of the project. This exercise is needed to identify the most vulnerable agricultural areas, infrastructure and population, appraise the exposure and sensitivity of project-relevant communities, ecosystems and critical infrastructure, to ultimately define risk reduction measures. The assumption about the level of replicability of approach in Region 1 should be tested against the capacity of the project and the Government to respond to the short and medium term risks associated with sea level rise, storm surges causing flooding, salinization of water and soil resources. The Digital Elevation Model (map 10, Annex 1) highlights the areas that are four meters below sea level and might be impacted by sea water intrusion and inundation during this century.

Table 3: Projections for sea level rise and storm surges in a moderate and catastrophic scenarios (GOG. 2012. Second National Communication to the UNFCCC)

Climate variable	2030s	2040s – 2070s	2070s – 2100
Average annual temperature <sup>i</sup> (°C)	↑ 0.4°C to 2.0°C	↑ 0.9°C to 3.3°C	↑ 1.4°C to 5.0°C
Average annual precipitation <sup>ii</sup> (% change)	Median: 0% to -4% Min-max: -29% to +14%+	Median: -4% to -8% Min-max: -41% to +13%+	Median: -4% to -5% Min-max: -63% to +20%+
Proportion of total rainfall that falls in heavy events <sup>iii</sup>	No data	Median: ↑ 1-2% Min-max: -3% to +10%+	Median: ↑ 2-3% Min-max: -8% to +12%+
Sea level rise <sup>iv</sup> (m)	↑ 0.14 m to 0.26 m	↑ 0.21 m to 0.43 m	↑ 0.25 m to 0.51 m
Sea level rise + storm surge <sup>v</sup> (m)	↑ 2.94 m to 5.94 m	No data	↑ 2.93 m to 6.19 m

Table 4: Projections for land inundations in the coastal zone (GOG. 2012)

		Scenario a: Only Sea-level Rise (hectares inundated)		Scenario b: Min Storm Surge (hectares inundated)		Scenario c: Max Storm Surge (hectares inundated)	
Year	Model	HadCM3	CGCM2	HadCM3	CGCM2	HadCM3	CGCM2
	2031	1961	2901	75,578	79,851	139,123	140,245
	2051	2563	3764	78,038	82,881	139,784	140,986
	2071	2901	5645	79,483	88,591	140,152	142,480

33. The project strategy does recognise that increases in productivity of smallholders must be based upon enhancing NRM (soil, water, forest and grassland), and this must be done in a way that reduce vulnerability to environmental hazards. Besides, the project is intended to increase resilience of target groups through income diversification, DRR/DRM, and an agro-climatological information system. At this stage, the preliminary climate risk category can be assessed as moderate, given that all available information regarding climate vulnerability, impacts and potential adaptation responses, including those discussed in this note, are incorporated in the project design.

## V. Recommended features of project design and implementation

34. Crop production in the Rupununi faces several challenges related to water control and conservation, crop diversification, access to technical assistance and extension services, technology transfer to follow the path of climate-resilient development. It is recommended that emphasis is placed on enhancing the ENRM and CC components in the project design, building upon the already positive elements that have been included in the design. Recommendations are made in four major areas.

### **Water management, conservation and harvesting**

35. Given that in the Rupununi, one of the greatest threats associated with CC is the decrease in precipitation and increase in temperature and that the surface water systems (e.g. rivers, creeks, wells) and ground water recharge are particularly sensitive to drought in the hinterland regions, emphasis should be placed on efficient water use at the farm level, and on establishing buffer zones in the headwaters of the basins and river banks. For instance, the Kanuku

Mountains and Konashen currently protect water resources, while “Pakaraima Mountains” need some level of protection (7). In Region 1, sea level rise and saline water intrusion are expected to cause soil erosion, irreversible damage to freshwater resources and water supply distribution networks. Sea level rise and storm surge can also cause consistent damage to sea defence infrastructure, drainage canals and irrigation (D&I) systems, while increasing salt intrusion risks. These facts coupled with the natural population growth and expected increase in demand for water from different sectors, call for water efficiency measures and ideally an assessment of the status, availability and access to water resources, as well as an analysis of current and projected demand for it. Agricultural production and associated project activities are particularly dependent on the availability of water, which strongly fluctuate with current climate variability and expected CC. With no improvement on water availability and accessibility, e.g. through water harvesting, storage and conservation practices and techniques, highly variable yields or crop failures could occur. It is thus recommended that a mapping of groundwater resources and a study of hydrological dynamics including recharge is carried out. Such mapping and studies are needed to decide on the best combination of cost-efficient, environmental and hydrological sound solutions for mobilizing water for agriculture activities and human consumption overcoming the often prolonged dry season the region is experiencing as a consequence of climate change.

### ***Enhancing risk identification, prevention, preparedness and response***

36. Disaster losses can be significantly reduced if authorities, individuals and organizations in hazard prone areas are well informed, capable and willing to take action. The project should undertake a comprehensive hazard mapping and vulnerability assessments using standardized vulnerability and risk assessment (VRA) methodologies agreed by the project stakeholders in Region 1. The results of this assessment and the information already available for Region 9 (e.g. risk maps, identification of key vulnerable assets) will inform the development and implementation of specific DRR/DRM plans. The process of preparation of these plans should be used as a mean to inform and discuss with beneficiaries and community based stakeholders (e.g. farmers, cooperatives and NGOs) about the most suitable land for agriculture over time, and to shape the content of the climate proof agricultural technical package. In the Region 9, the institutions responsible for risk management (e.g. Civil Defence Commission Alternate Emergency Centre) are new and have not still integrated CC themes (6). For Region 1, the prioritization of activities and target areas, on the basis of the hazard and climate vulnerability mapping, will allow identification of the most vulnerable agricultural areas, infrastructure and population (e.g flood, soil salinization). This approach will ensure investments are made on land suitable for agricultural and livestock development in the short and long terms. Failure to do so, may result in project interventions suffering from coastal land loss due to a combination of inundation and coastal erosion, which are projected to have widespread adverse consequences in the low-lying Coastal Plain of Guyana. The project might consider establishing a mechanism for preparedness and response to strengthen DRR/DRM at community and regional levels. The project could also consider dissemination of early warning information to empower communities at-risk to take action and reduce the potential for economic losses<sup>101</sup>.

### ***Weather and seasonal forecasting***

37. If small-scale agriculture systems are able to withstand and recover from weather-related events, a strong contribution would be given to support the Government's effort on improving weather and seasonal forecasting. Hydromet has a key role for the selection of sites for the installation of automated stations (north, central and south Rupununi), as well as their maintenance and calibration. The Project should consider the elaboration and implementation of a training on how to use weather and climate forecasts, targeting extension staff, farmers and key decision-makers in remote communities.

### ***Climate proof agricultural technical packages***

38. In Region 9, crop production occurs mainly in forest islands and foothills of mountains where the long-term utilization of soils has contributed to declining productivity and availability of suitable planting areas. In addition, the majority (86 per cent) of Rupununi families, grow less than five species (banana, cassava, peanuts, vegetables (pumpkins, corn, pea, pepper) and tree crops (cashew, avocados, citrus and mangoes) in their traditional farms, but despite this

<sup>101</sup> Civil Defence Commission. 2013. National Integrated Disaster Risk Management Plan and Implementation Strategy for Guyana.

dependence on a few crops, there is knowledge and germplasm to overcome a potential climate crisis linked to the cultures. In the rural hinterland, adaptation should focus on avoiding damage and loss of productivity due to drought and floods. These are the main area of concerns and have been indicated, especially over the past four years, to causes crop failures (e.g. cassava) or yield reductions, thereby leading to food shortages in some villages and concomitant imports from other villages (6).

39. If the main crops to be targeted for increased food security and commercialisation through the households/CBEs Investment Plans (e.g. cassava, vegetables) have or will experience declining production due to heat and water stress, the project will not achieve its objectives. Therefore, working in collaboration with national and sub-regional partners, investment should be made to identify crop varieties resilient and tolerant to drought, flood, pests, and soil salinity, given the CC projection for Regions 1 and 9. The focus should be on improved management practices, and alternative economically profitable crop varieties that are less water demanding, or can withstand water-logging conditions for adoption by the farming community. This should be done in a participatory fashion with smallholder farmers and resource users in different localities to allow for inclusion of local and traditional knowledge, and for cultural and gender-differentiated acceptability. It is recommended that the climate resilient agricultural package, (to be developed in collaboration with CI and Inter-American Institute for Cooperation in Agriculture (IICA)), include varieties and technologies that will deliver results under a range of conditions to accommodate uncertainties in projections. It is recommended to improve processing, storage and preservation of food, to reduce seasonality of food insecurity, improve food safety and add value to agricultural goods. It would be also important to develop and implement a public awareness campaign on adaptation responses to foster employment of good practices.

## **VI. Analysis of alternatives**

40. The project would be able to count with effective adaptation measures not only through the introduction of a set of techniques and practices, but through the definition of the climate proof agricultural technical packages on the basis of experimentation, community-based trial of proposed solutions, testing and revision of DRR/DRM plans. The approach should move from what may be called spontaneous adaptation to what is called planned adaptation.

## **VII. Institutional analysis**

41. In Guyana, the Office of Climate Change (OCC), within the Ministry of the Presidency, has the overall responsibility for coordinating and aligning the efforts of various government agencies around the issue of CC. Hydrometeorological Service (Hydromet), within the Ministry of Agriculture, is responsible for observing, archiving and understanding Guyana's weather and climate, and provides meteorological and hydrological services. The Civil Defence Commission (CDC) has the responsibility for coordinating and monitoring disaster risk management. All three institutions should be engaged in the project steering committees at national level, while the Ministry of Indigenous Peoples' Affairs could be engaged in project implementation. Closed collaboration will be sought with those institutions.

## **VIII. Monitoring and Evaluation**

42. The PDR would include indicators to monitor progress towards environmental management and adaptation objectives, their frequency of monitoring and participatory approaches to report on progress. The most relevant RB-RIMS indicators are: i. Rainwater harvesting systems constructed or rehabilitated, ii. Households in vulnerable areas with increased water availability for agricultural production and processing, iii. Environmental management plan formulated, iv. Households supported in coping with the effects of CC v. Households covered by new or improve climate information services, vi. Individuals/groups involved in climate risk management, NRM or DRR activities. It is recommended that the M&E Officer and project staff collect GPS coordinates of all interventions as so plot the data in maps and provide a visual representation of activities. This approach enhances monitoring, impact assessment and overall accountability.

## **IX. Further information required to complete screening, if any**

43. A draft ESMP was prepared during the first design mission. The climate risk and vulnerability assessment for Region 1 would also be undertaken as part of the SOFA for Region 1 and will complete the SECAP screening.

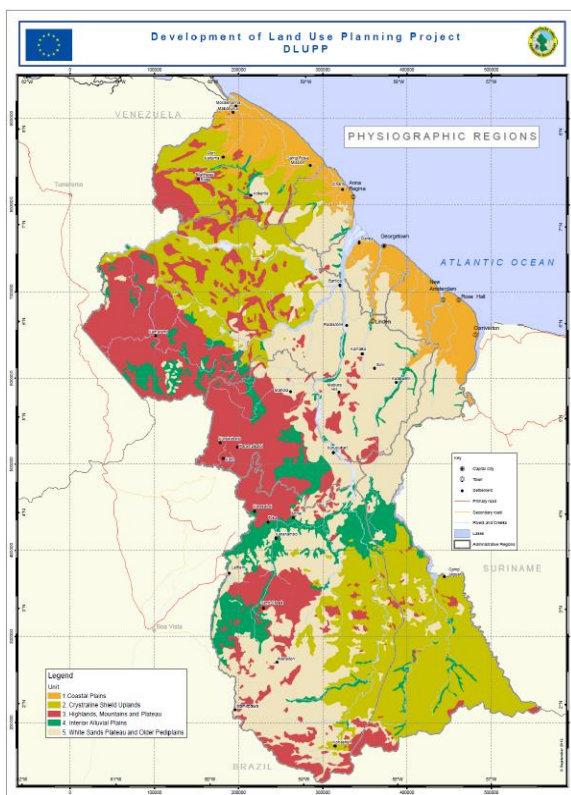
**X. Record of consultations with beneficiaries, civil society, general public etc.**

44. The information contained in this note were collected and confirmed during a first mission carried out from 8 to 16 February 2016 to initiate preparation of a Country Strategy Note (CSN) and a Project Concept Note (PCN), and a second mission for Hinterland Project project formulation from 8 to 14 June 2016. During the field visits, consultations were undertaken with local authorities of the Regional Democratic Council of Region 9, representatives of the North Rupununi District Development Board (NRDDB), CBOs and producers' associations, and potential beneficiaries.

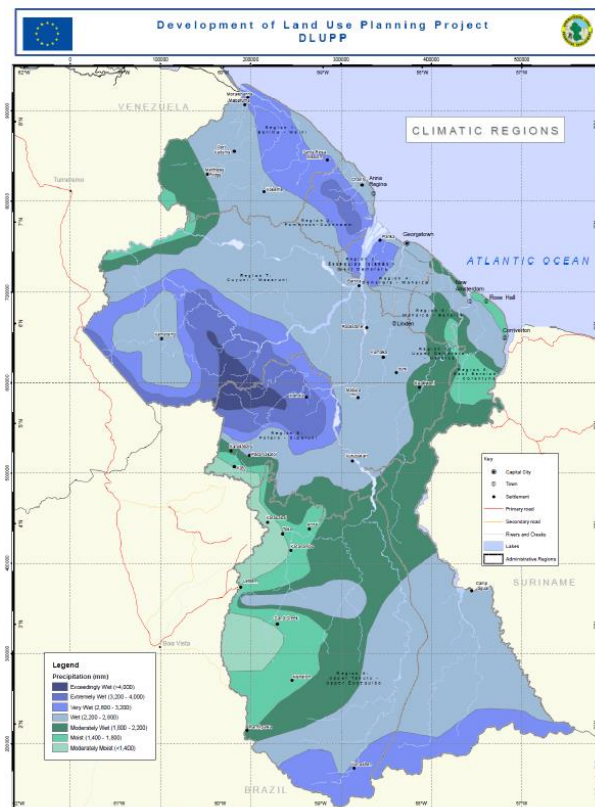


## Annex 1 Natural Resources and Land Use maps

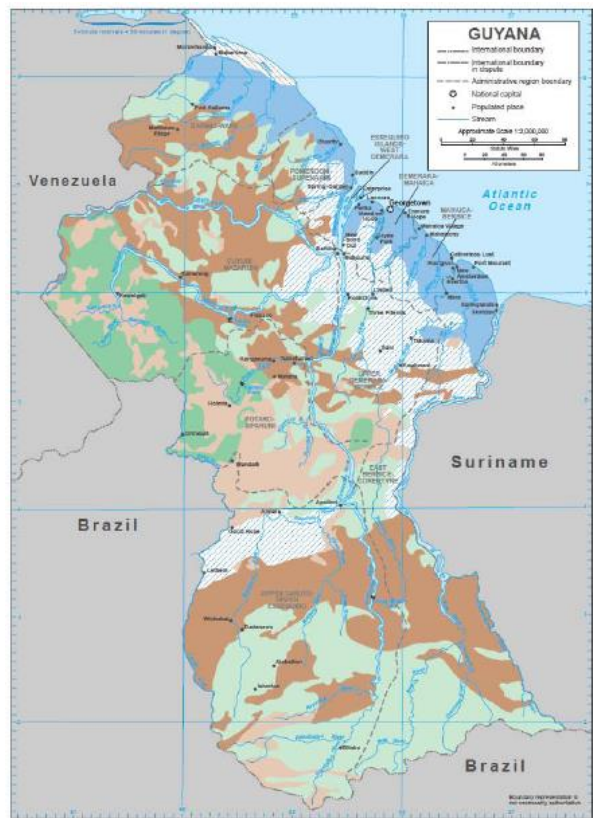
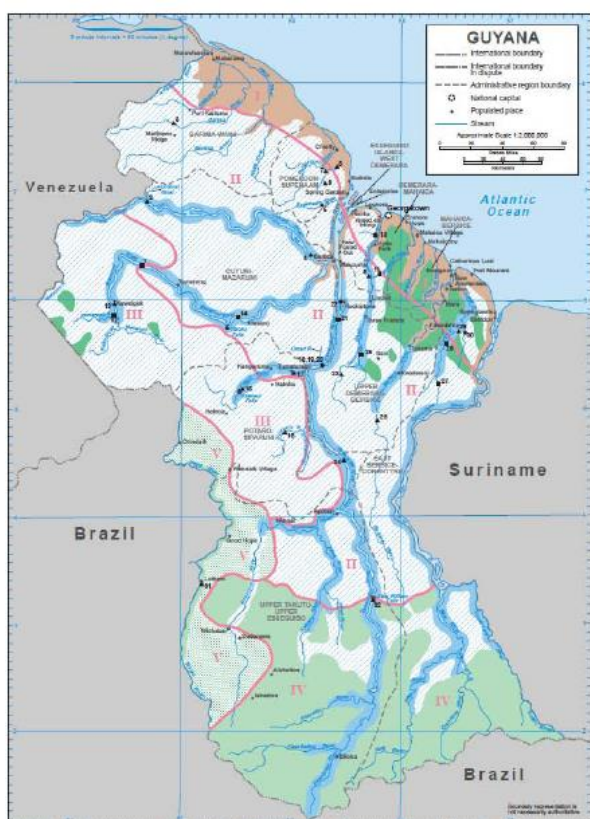
Map 1. Physiographic regions (Guyana Lands and Surveys Commission, GLSC, 2013).



Map 2: Climatic Regions (GLSC)

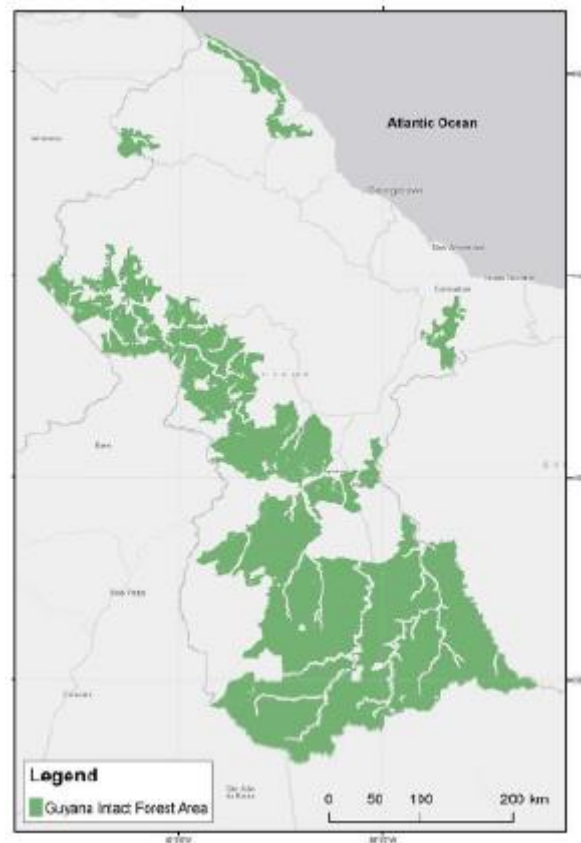
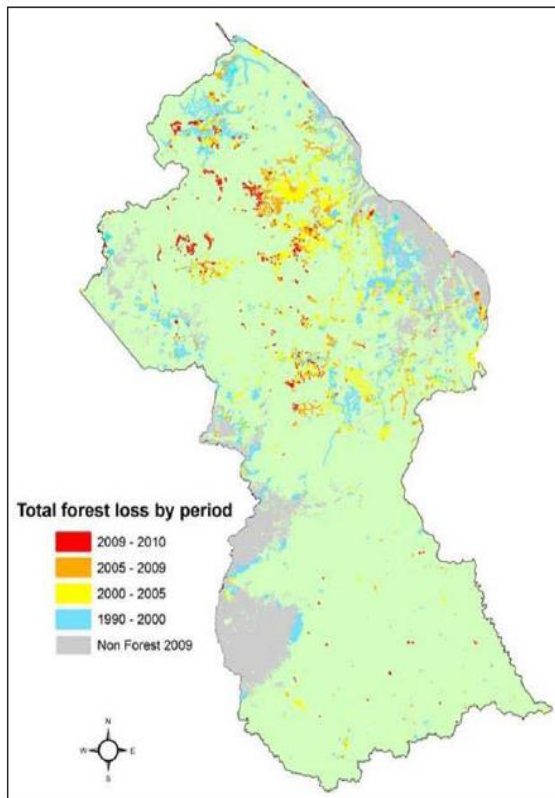


Map 3, 4: Surface and ground water resources (GLSC)

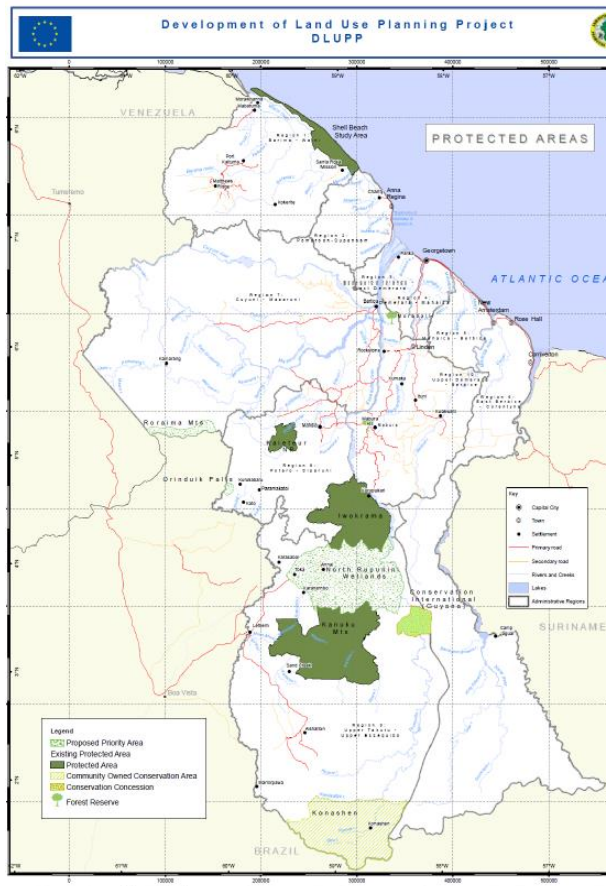




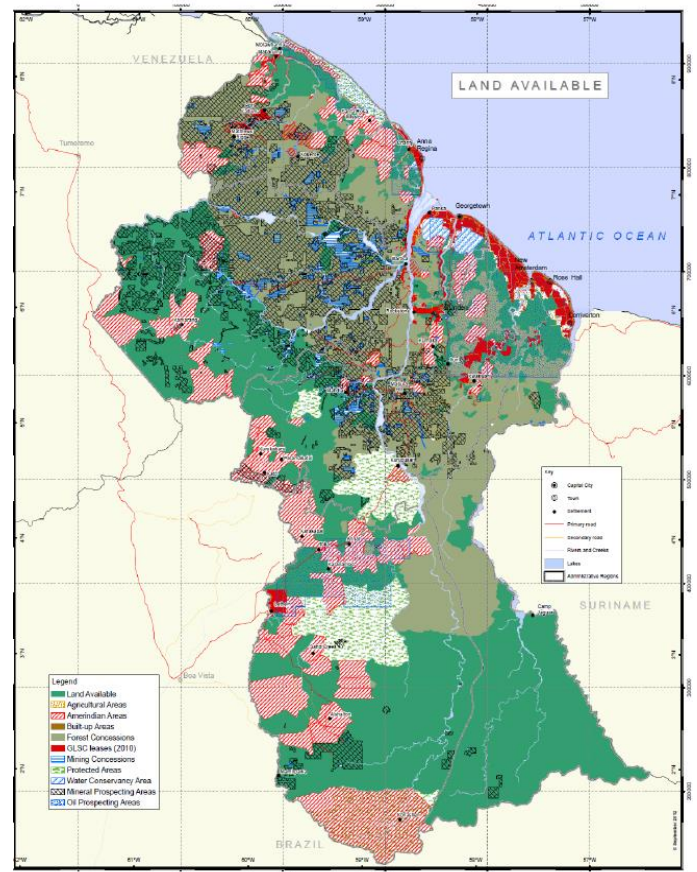
Map 5, 6: Areas of deforestation 1990-2011 and intact forest 2011 (GLSC)

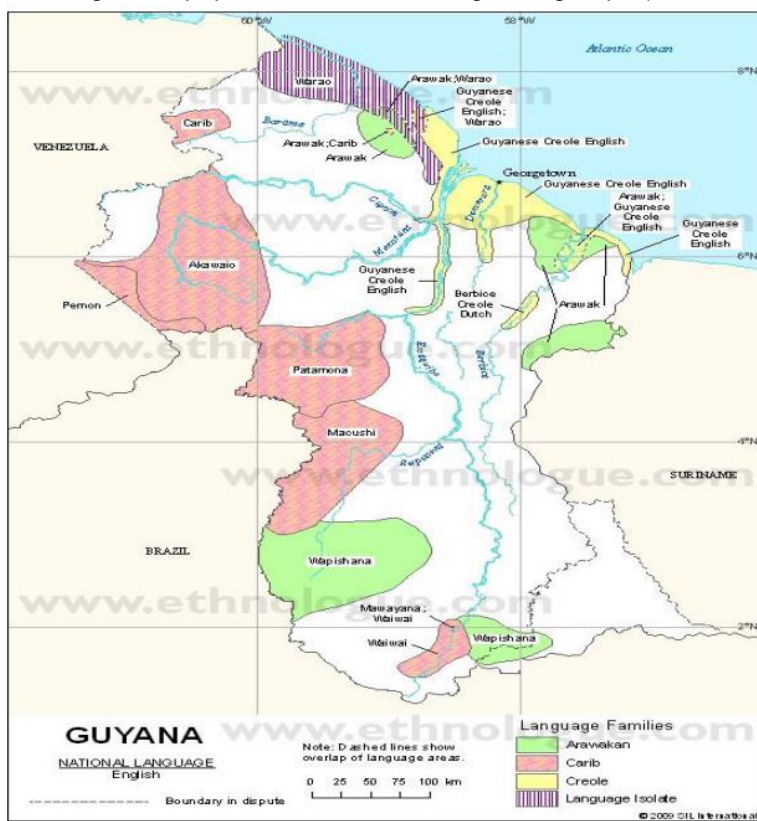


Map 7: Protected Areas Location (GLSC)

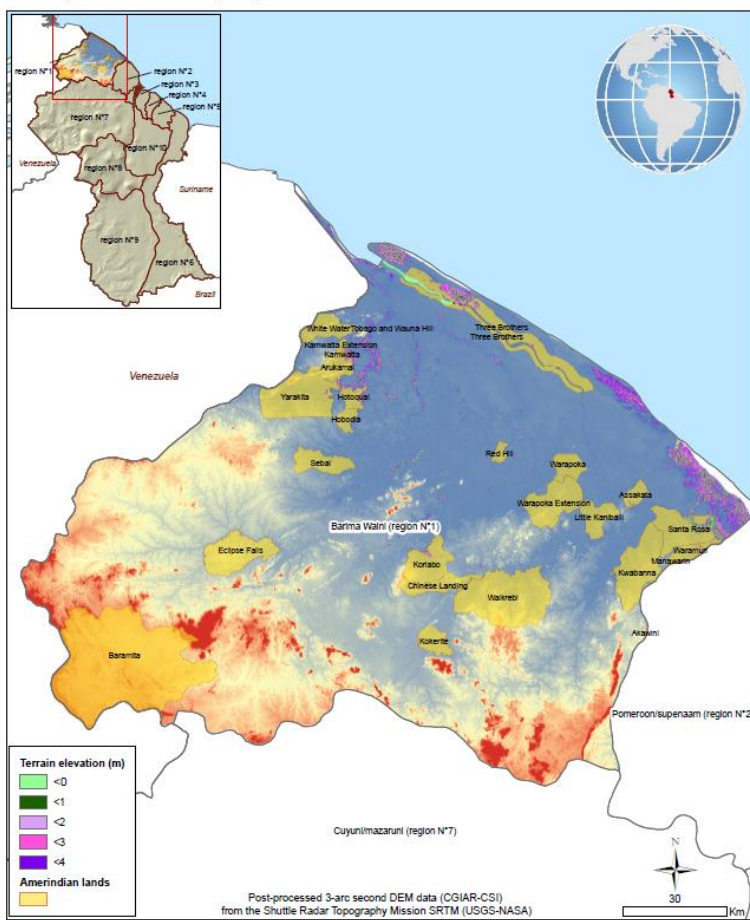


Map 8: Land use map (GLSC)





Map 10: Digital Elevation Model of Guyana Region 1



## Annex 2: Draft Environment and Social Management Plan

Parameter	Activity	Performance Indicator	Baseline data	Responsibility for monitoring during programme implementation	Monitoring means	Recommended frequency of monitoring	Estimated monitoring costs
ENVIRONMENTAL MONITORING							
<b>Risk of increased discharge of agrochemicals</b>	Monitor changes in the levels of agrochemical application	Use of fertilizers/ chemicals/ pesticides (ton per ha)	Baseline study	PMU in collaboration with NAREI	Survey	Half-yearly	
<i>Number of cassava processing waste management (medium scale)</i>							
<b>Risk of uncontrolled growth of livestock number</b>	Monitor changes in the livestock number	Average livestock number among targeted households	Baseline study	PMU in collaboration with Guyana Livestock Development Authority	Survey	Yearly	
<b>Water availability</b>	Monitor improved access to water for household consumption and farming	Volume of rainwater harvested	Baseline study	PMU and NDIA	Inspections, monitoring records	Monthly	
<b>Water withdrawal</b>	Monitor water table levels in selected hydrological units	Water table levels	Results from the hydrological mapping	PMU in collaboration with HYDROMET and NDIA	Inspections, monitoring records	Monthly	
<b>Soil and water salinity</b>	Monitor changes in the levels of soil and water salinity in the Coastal Zone	Salinity content (mg/L)	Results from the hydrological mapping	PMU in collaboration with HYDROMET and NDIA	Inspections, monitoring records	Yearly	
<b>Climate resilience</b>	Quantify, in economic terms, crops failure due to meteorological hazards	Value of crop losses from climate-related events (USD/year)	Baseline study	PMU in collaboration with OCC	Survey	Yearly	
	Monitor changes in water availability and access to water	No of month with sufficient water availability for agricultural production	Baseline study	PMU	Survey	Yearly	
	Monitor changes in agricultural practices for increased adaptation	No of beneficiaries with diversified farming systems	Baseline study	PMU	Survey	Yearly	

Parameter	Activity	Performance Indicator	Baseline data	Responsibility for monitoring during programme implementation	Monitoring means	Recommended frequency of monitoring	Estimated monitoring costs
<b>Agro-climatological information system</b>	Quantify the coverage of the agro-climatological information system	No of HH receiving weather and seasonal forecasts	Baseline study	PMU in collaboration with OCC, Hydromet	Survey		
	Quantify the coverage of ITC for EWS	No of farmers with infrastructure in place to receive climate-related warning	Baseline study	PMU in collaboration with Hydromet	Survey	Yearly	
<b>Land use change</b>	Monitor the conversion of natural habitats (forests, grasslands) into agricultural land	Ha of land converted to farming	Data from the Land and Survey Commission	PMU in collaboration with MNRE	Satellite data and ground truthing	Yearly	
<b>Shifting cultivation pressure on forest resources</b>	Monitor unsustainable land uses	Average length of the fallow period	Baseline study	PMU in collaboration with MOA	Survey	Start up Mid-term Final evaluation	
<b>Renewable energy capacity installed</b>	Monitor the quantity of wind/solar power installed	Kw of power off-grid produced	Renewable energy produced in the targeted communities	Service provider contracted to install wind power/solar panels	Service provider's report	Yearly	
<b>GHG emissions sequestered/avoided</b>	Monitor the mitigation benefits of the project	Ton of CO2 eq	Results from the GHG audit of the baseline scenario	PMU in both Regions	FAO Ex-Act tool	Start up Mid-term Final evaluation	4,000 USD each GHG audit
<b>SOCIAL MONITORING</b>							
<b>Risk of conflicts over use of NR</b>	Facilitate the resolution of conflicts over the use of NR	Establishment of a grievance mechanism at project level	None	PMU in collaboration with MIPA	Regular project supervision	Continuously	
		No of grievances received					
<b>Proper engagement with Indigenous People</b>	Survey the number of communities that have developed and implement the FPIC plan	No of communities implementing FPIC Plan	Records from the MICA on existing FPIC Plans previously developed in the target communities	PMU in collaboration with MICA	Field visits	Yearly	

### **Annex 3: Terms of Reference for IFPI Consultants**

#### **Background**

Free, prior and informed consent (FPIC) is an operational principle empowering local communities to give or withhold their consent to proposed investment and development programmes that may affect their rights, access to lands, territories and resources, and livelihoods. FPIC is solicited through consultations in good faith with the representative institutions endorsed by communities. It ensures that they participate in decision-making processes concerning a given development project.

FPIC of local communities on public development initiatives that may affect their rights, access to land, resources and livelihoods has become an IFAD operational principle through its policies on Improving Access to Land and Tenure Security (2008) and Engagement with Indigenous Peoples (2009). The principle is also mentioned in the IFAD Policy on Environment and Natural Resource Management (2011) and in IFAD's Social, Environmental and Climate Assessment Procedures (2014). IFAD is the first international financial institution to adopt FPIC as an operational principle in its policy documents.

In IFAD-funded projects and programmes, the borrowing government (or grant recipient) is responsible for seeking and obtaining FPIC. FPIC is methodologically solicited through consultation and the participation of communities and local institutions at specific stages of the project cycle.

#### **Objectives of the Consultancy**

Ensure that the Guyana Hinterland Environmentally Sustainable Agricultural Development Project (Hinterland Project) has a proper consultation process leading to consent and validating proposed project activities and approaches with all involved and/or affected indigenous communities and that the project interventions are aligned with their priorities and cultural, social and economic needs, in line with IFAD Policies.

#### **Main tasks and activities**

Under the direct supervision of the Hinterland Project Coordinator the Consultant will prepare a context specific (in terms of Guyana laws, policies and regulations) and culturally appropriate FPIC, in line with IFAD engagement with Indigenous Peoples Policy and the How-to-do-Note on Seeking free, prior and informed consent in IFAD investment projects. The FPIC implementation plan will be developed through the following main activities:

- (a) Identify indigenous peoples who require systematic consultation in region 9 and 1 (project target areas) during the project cycle providing the rationale for specific consideration. During the process, national census, and other reliable sources of information should be consulted in an effort to disaggregate available data in terms of youth, women and people with disability;
- (b) Conduct a socio-cultural and land tenure assessment by collecting and, or fact checking specific statistics/socio-economic, biophysical data on land-related aspects and propose how they can better be included in the design and implementation of the project. Provide additional information to what has been already included in the project design, and what needs to be further investigated during implementation with regard to: 1) community stakeholders/rightholders, landowners and users in the project area; 2) Customary laws, informal rules and organizing practices, and claims on land ownership, occupation and use; 3) Land use mapping indicating existing land use, 4) Social, cultural and spiritual relations with lands and territories owned, used or otherwise occupied by indigenous peoples, including refuge/important natural resources that need protection in the implementation of the project; 5) Incorporate data on indigenous peoples' communities' overall poverty and food and nutrition insecurity levels, productivity, income and produce, participation in value chains and market linkages opportunities that the project may support, 6) Identify particular vulnerable groups within the communities and provide recommendations for the project targeting strategy; 7) assess tenure security and project risks; 8) and identify project coordination with on-going processes, such as the UNDP-GRIF ALT Project.
- (c) Identify institutions, governance systems and decision-making roles at the village level and collective representative bodies at the regional level;
- (d) Conduct preliminary consultations with indigenous peoples' communities and representatives/key informants of the communities to discuss: Community's awareness of rights, Communities' perceptions: the benefits and risks of the proposed activities, relevance of the initiative, among others; assess communities' perception on previous processes on FPIC;
- (e) Ensure that indigenous peoples' issues are heard/expressed in the preliminary consultation

meetings and that their inputs are incorporated into the project in a manner consistent with their livelihood, lifestyles and vulnerabilities. In the process, the consultant should also identify local capabilities and engender to promote ownership of the project. The consultant will also identify capacity building needs;

- (f) Outline practical suggestions and methodologies to be used in an effort to meaningfully consult indigenous peoples' communities in the area of project interventions, for further consultations as needed for review of the FPIC Implementation Plan at project start-up and during project implementation;
- (g) Record the consultation process leading to FPIC Implementation Plan..