



Investing in rural people

## **Kingdom of Bhutan**

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### **Country Strategy Note**

Main report and appendices

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## Currency equivalents

Currency Unit	=	Bhutanese Ngultrum (BTN)
US\$1.0	=	74,02 BTN

## 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

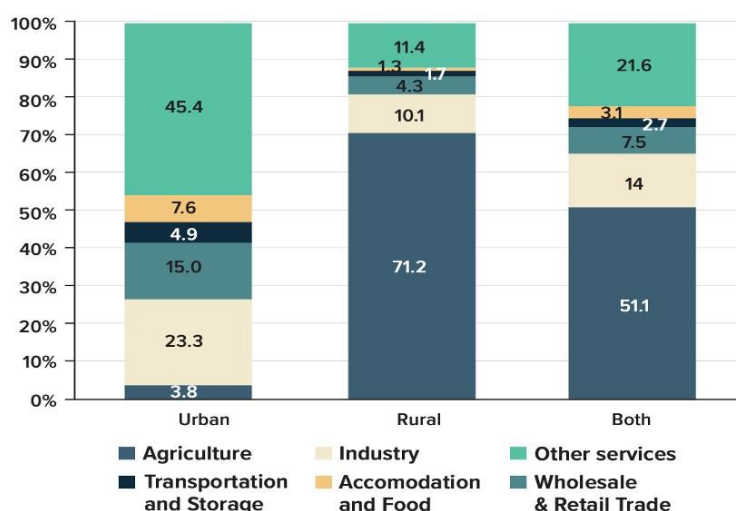
### **Abbreviations and acronyms**

ADB	Asian Development Bank
ASAP	Adaptation for Smallholder Agriculture Programme (IFAD)
CARLEP	Commercial Agriculture & Resilient Livelihoods Enhancement Programme
CSN	Country Strategy Note
DAMC	Department of Agriculture Marketing and Cooperatives
DoL	Department of Livestock
EU	European Union
FAO	Food and Agriculture Organization
FCBL	Food Corporation of Bhutan Ltd
FYP	Five Year Plan
GDP	Gross Domestic Product
GNH	Gross National Happiness
GNHC	Gross National Happiness Commission
IFAD	International Fund for Agriculture Development
ITC	International Trade Centre
MoAF	Ministry of Agriculture & Forests
UNDP	United Nations Development Programme
UNRC	United Nations Resident Coordinator
UNRCO	United Nations Resident Coordinator's Office
PBAS	Performance-Based Allocation System
RAMCO	Regional Agricultural Marketing Cooperatives Office
RGoB	Royal Government of Bhutan
SO	Strategic Objective
WB	World Bank
WFP	World Food Programme

## I. Country diagnosis

1. **Economic Background:** Bhutan is a landlocked country in South Asia with a land area of 38,394 km<sup>2</sup> and an estimated population of 777,612 in 2020<sup>1</sup>. The country is famous for its unique philosophy – Gross National Happiness (GNH) – that guides its development strategy and enables Bhutan to balance economic development with the preservation of its natural environment and cultural traditions. Bhutan’s economy was hit hard by the COVID-19 pandemic and experienced a GDP decrease in 2020 to USD 3,130 per capita<sup>2</sup> as compared to USD 3,419 in 2019. The Asian Development Bank is forecasting a GDP growth of 3.7% in 2022. The economy also experienced a drop in exports to -20.22% in 2020 from a growth of 14.39% in the previous year. The World Bank has estimated an inflation rate of 5.6% in 2020. Bhutan's debt/GDP ratio is expected to exceed 100% in 2021-22. However, the country is not expected to face any difficulties servicing its debt, owing to the favourable terms of loans from India, to which a majority of the debt is owed<sup>3</sup>. The services sector, which has been supporting growth in the past, is believed to have contracted by 0.6 percent in FY2019/20, due to the decrease in tourism arrivals in the second half of FY2019/20 and domestic containment measures<sup>4</sup>.
2. Bhutan is one of the fastest-growing economies in South Asia. Bhutan’s main economic growth is driven by the industrial sector, mainly hydropower, which contributed to 17.77% of the GDP<sup>5</sup> in 2020. The agriculture sector however is the primary contributor to the economy and its contribution to GDP has increased from 14.78% in 2010 to 19.23% in 2020. Bhutan maintains strong economic and strategic relations with India, particularly as its major trading partner, source of foreign aid and as a financier and buyer of surplus hydropower. In the aftermath of the COVID-19 pandemic, a key priority for the Government is rapid, yet sustainable economic recovery. To achieve that, the challenge remains for Bhutan to expand its economic base, support the development of a robust private sector capable of diversifying the economy and creating jobs, as well as make growth more inclusive, especially for unemployed youth and women.
3. **Agriculture Sector:** The agriculture sector, comprising of farming, livestock and forestry, continues to be a major player in the country’s economy. Subsistence farming is an integral part of the Bhutanese economy, with 69 percent of the total population living in rural areas and dependent on agriculture. The sector employs 51 percent of the population (Labour Force Survey, 2019).

Figure 1: Employment share by sector (percent), 2019



Source: NSB. 2019 Labor Force Survey

<sup>1</sup> World Bank

<sup>2</sup> National Accounts Statistics 2021.

<sup>3</sup> Economist Intelligence Unit, September 2021

<sup>4</sup> Bhutan Development Update. World Bank. 2020.

<sup>5</sup> National Accounts Statistics 2021.

4. The average landholding in Bhutan is 3.4 acres per household. Agriculture is characterized by farming on steep and moderate slopes where erosion and landslides often threaten its sustainability. Availability of arable land in Bhutan is a key constraint to agricultural development. Of the total land area of the country, 71 percent is under forest cover, around 8% is agricultural land (with only about three percent being cultivated), seven percent is under year-round snow and glaciers, and meadows and pastures occupy four percent. The remaining land is barren, rocky or scrubland<sup>6</sup>.
5. Bhutan relies on import of over 50% of its total food consumption, especially cereals, fish and vegetables. It produces 61% of staple cereals, and 47% of rice (WFP, Dec 2020). The dependency on food imports led to major food insecurity in the country as COVID-19 lockdown restrictions disrupted international supply chains, mainly affecting fresh produce distribution<sup>7</sup>. As a response to COVID-19, the RGoB elaborated the Economic Contingency Plan (ECP 2020), which prioritized the need to increase national food self-sufficiency. This led to an increase in production of a few agriculture commodities and livestock products thus demonstrating the potential for scaling up.
6. To support the re-orientation of the agricultural sector and mitigate challenges caused by the pandemic, IFAD needs to focus on the development of the agri-business sector, enhance productivity and distribution, improve markets, and foster private sector enterprises, especially for women and youth. This should be coupled with addressing policy and regulatory impediments to competitiveness along the different value chains, building capacities and enhancing governance structures of farmer organizations, as well as reducing vulnerability of rural communities to the impacts of climate change.
7. **Poverty Profile:** Bhutan is well on track to graduate from Least Developed Country (LDCs) status in 2023 according to the UN's Committee for Development Policy (CDP). Over the last decade, the government has been able to reduce the number of extremely poor by two-thirds. While this marks a continuation of progress over previous years, the pace of poverty reduction has slowed down recently. Inequality is relatively high in regional comparison, with the Gini index estimated at 37.4 in 2017. As of 2017, less than 4 percent of Bhutanese live in multidimensional poverty according to the World Bank's Multidimensional Poverty Measure. This compares favorably against countries with similar income levels. However, the COVID-19 crisis is expected to lead to a moderate increase in poverty - 11.2 percent in 2020 in comparison to 10.7 percent in 2019, mainly due to high food price inflation and erosion of purchasing power among the poor who tend to be net buyers of food (WB 2021). Disruptions in production, transport, and sales of agricultural products have impacted the income of some farmers that are relatively more commercially oriented.
8. **Women:** According to the *Global Gender Gap Report 2021*, Bhutan is ranked 130 out of 153 countries (previously ranked 122 in 2018). Bhutan scored highly in key areas such as educational attainment, however with few women in parliament and ministerial positions, Bhutan ranked low in political empowerment. The unemployment rate in Bhutan stood at 3.4% in 2018, with 4.2% women unemployed against 2.7% men. Women have much lower participation in regular paid employment (18.4% as compared to 33.0% for men) and a more substantial engagement in the agricultural sector (63.2% against 46.6% for men)<sup>8</sup>. Women's unpaid domestic care work goes largely unrecognized. Women in Bhutan perform 71 percent of unpaid domestic care work, which is 2.5 times more than men and their contribution as a share of GDP is 11 percent, while men's contribution is 5 percent.<sup>9</sup>
9. **Youth:** Bhutan's population is predominantly young, with 60% of its population below the age of 25 years (UNFPA). This represents a positive force with enormous potential to contribute to development. Bhutan is faced with challenges of dealing with high youth unemployment which reached 22.6 percent in 2019 - of which women accounted for 11.9 percent (World Bank). Due to lack of productive employment opportunities, there is a significant rural-to-urban migration of youth. Creating employment for young people and investing in human capital is a top priority for Bhutan's government. This priority has become even more pressing since the Covid-19 pandemic started.

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<sup>6</sup> 12th Five Year Plan 2018-2023

<sup>7</sup> RGOB, UNDP, 2020. Rapid Socio-Economic Impact Assessment of COVID-19 on Bhutan's Tourism Sector

<sup>8</sup> Labour Force Survey Report 2018, <http://www.nsb.gov.bt/publication/files/pub3td3256de.pdf>

<sup>9</sup> Valuation of Unpaid Household Work and Care Services in Bhutan, National Commission for Women and Children (NCWC)

In July 2020, close to 30,000 Bhutanese were seeking jobs, including more than 13,000 who lost jobs domestically, and over 3,000 Bhutanese returnees who lost their jobs abroad (World bank, August 2021). To support integration and creation of diversified and lucrative economic prospects for youth, it is essential to facilitate access to finance and employment services, build entrepreneurial capacities and vocational skills, support investments across value chains and foster the engagement of youth in off-farm agriculture support services.

10. **Nutrition:** Bhutan is at a crossroad of a triple burden of malnutrition, brought about by modern lifestyle and its related health issues. Hunger is no longer a public issue - wasting has been brought down to 4 percent and underweight to 9 percent. Stunting, however, is persistent at 21 percent while overweight/obesity is emerging and increasing in Bhutan's population with respectively 11.4 being obese and 33.5 percent considered overweight. Micronutrient deficiencies remain a major public health issue<sup>10</sup>. The Ministry of Health has partnered with WFP and UNICEF for the revision of the National Health Policy (2020-30) and in developing the National Nutrition Strategy (2020-25). These policies aim to increase national goals and multi-sectoral collaboration required for effective national health and nutrition programmes and services. IFAD through CARLEP, has initiated a household-level nutritional enhancement program with the establishment of homestead nutrition gardens and small-scale poultry farming to diversify diets, enhance protein intake and increase income of poor and vulnerable households. Furthermore, linking of farmer groups with schools for supplying assorted vegetables, legumes, and dairy products such as eggs, yoghurt, and paneer (cottage cheese) is enhancing the nutritional quality of the diets of the school children. Similarly, linkages with hospitals have been established for provision of nutritious food. IFAD's nutrition sensitive programming offers an opportunity to make essential contributions to diversifying the crops that can contribute to a diversity of foods for meeting nutrient adequacy of diets.
11. **Climate change:** With a fragile mountainous ecosystem and high reliance on climate sensitive sectors such as hydropower and agriculture, Bhutan is particularly vulnerable to the adverse impacts of climate change<sup>11</sup>. Moreover, the country is also exposed to hazards such as flash floods, including glacial lake outburst floods (GLOFs), forest fires, storms, and landslides<sup>12</sup>. The impact of flooding on human health and livelihoods is expected to grow and could amount to 4% of GDP by the 2030s (ABD). Major crops are mostly rainfed or dependent on rain charged spring waters and streams. A more erratic rainfall pattern has been directly impacting both availability and amount of irrigation water. Smallholders are facing water shortage and the drying out of water sources is posing a further threat to agriculture and livestock<sup>13</sup>. Other impacts of climate change include extreme conditions such as long spells of dry season, unusually heavy monsoon rains, extreme hailstorm events, and outbreak of pest and disease incidences. The shift of agroecological zones altitudinally however provide new opportunities. Most villages across Bhutan are highly vulnerable to climate impacts, and have low adaptive capacity attributed to their limited resource base and precarious socio-economic status<sup>14</sup>.

## II. Rationale and time frame

14. Bhutan's agri-food production has not been able to keep pace with the increasing demand and a growing population. Imports have risen significantly while exports have failed to witness significant growth. Inherent structural and systemic challenges related to small and scattered land holdings, with minimal inputs and low mechanization possibilities, continue to result in high production costs and limited yield. Given the continued migration from rural to urban areas due to limited opportunities – mainly for youth – farm labour is becoming increasingly scarce and expensive.
15. Marketing and post-harvest processing are an important priority in transforming the nation's food

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<sup>10</sup> WFP Overview of Nutrition in Bhutan, December 2020

<sup>11</sup> Bhutan's Second Nationally Determined Contribution

<sup>12</sup> Climate Risk Country Profile: Bhutan (2021): The World Bank Group and the Asian Development Bank

<sup>13</sup> Bhutan's third national communication, Vulnerability and adaptation assessment report

<sup>14</sup> GNHC . (2017). *Strategic Program for Climate Resilience under the Pilot Program for Climate Resilience. Climate-Resilient and Low-Carbon Sustainable Development Toward Maximizing the Royal Government of Bhutan's Gross National Happiness*. Gross National Happiness Commission, RGoB

system and in generating income and securing the livelihoods of the smallholder farm producers. There is an urgent need to strengthen the post-farmgate food value chains of the agri-food system. This transformation has to be inclusive and foster productivity gains through sustainable production systems and greater resilience to climate change.

16. This Country Strategy Note (CSN) provides an overall framework for IFAD to support the Royal Government of Bhutan (RGoB) achieve its policy objectives in the agriculture and rural development sector and to guide IFAD's strategic approach to agricultural development. The CSN covers the period 2022-2023 for the IFAD12 lending cycle; it is fully aligned to RGoB's policies and aspirations of the 12th 5-Year Plan (2019-2023). The CSN is aligned with the policies of the national RNR Strategy 2040<sup>15</sup>, draft RNR Marketing Strategy (2021), Bhutan's Food Systems Pathways document submitted to the UN Food Systems Summit 2021<sup>16</sup>, Economic Contingency Plan (2020), Flagship Program for the Development of the Organic Sector 2018 – 2023, and the current United Nations Sustainable Development Partnership Framework (UNSDPF 2019-2023) - all of which directly contribute to Bhutan's efforts to achieve its key development priorities. IFAD has consulted with key government institutions, UN Agencies and development cooperation partners during the preparation of the CSN.
17. The RGoB and IFAD have a partnership of over 40 years, which includes investments in 8 projects for a total cost of US\$ 114,48 million, with over US\$ 70 million of IFAD financing, benefiting around 122,000 households. IFAD is the most important development partner of the Royal Government of Bhutan (RGoB) in the Eastern Region. Key investments have been channelled to production improvements in the crop and livestock sub-sectors, marketing and enterprise development, resilience building, rural infrastructure (irrigation, farm access roads, milk chilling and cold storage, and markets) and rural financial services. IFAD has worked with smallholder farming communities in some of the most remote areas of the country and has a comparative advantage in helping them to address some of their key constraints, improve their incomes and enhance their adaptive capacities. IFAD has also supported the government in policy processes relevant to poverty reduction and agricultural development.

### III. Strategic objectives

19. The Strategic Objectives of the CSN are aligned to key national policies and strategies listed above and also cater to emerging priorities of the RGoB. The government has identified rural-urban migration and youth unemployment as the main challenges facing the nation. The agri-food sector has significant potential to generate employment, specifically, self-employment opportunities for the youth. While continued attention will be paid to improving production in the crop, poultry and livestock sub-sectors, a greater focus will be directed to developing business enterprises along the different segments of the agri-food value chain.
20. Moreover, to meet organic food production and food self-sufficiency aspirations of the RGoB, an ecosystem of services that support agroecological farming systems will need to be created. This lends itself to developing various business opportunities for service provision to these diverse systems. This context makes it necessary to bring together the youth and investors into mutually beneficial partnerships that transform agroecological farming into a productive and economically lucrative venture.
21. Consistent with the above priorities and in line with IFAD's Strategic Framework, the following two strategic objectives will be pursued:

**SO1: Foster transformation of smallholder agricultural production into inclusive, equitable, diverse and resilient agri-food systems**

**SO2: Create an enabling environment for private sector enterprise development in the agri-food sector for engaging youth in lucrative commercial ventures**

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<sup>15</sup> Currently being revised to integrate the Food Systems Summit recommendations up to the period 2030

<sup>16</sup> IFAD supported MOAF's Policy and Planning Division (PPD) to undertake the sub-national and national dialogues and to prepare the FSS Pathways document. IFAD worked closely with the UNRCO, WFP and FAO in advancing this initiative.



22. The immediate results expected from the programme under this CSN is to support the stimulation of the agricultural sector and mitigate challenges caused by the COVID-19 pandemic. IFAD will focus on creating an agri-business sector through enhancing productivity, improving markets, and fostering private sector enterprises, especially for women and youth. Integrating gender considerations into targeting strategies will help tailor interventions that respond to the needs of the majority of the agriculture labour force that is made up of women. This will be coupled with addressing policy and regulatory impediments to competitiveness and private sector engagement along the different value chains, building capacities and enhancing governance structures of farmer organizations, as well as reducing vulnerability of rural communities to the impacts of climate change.

#### **IV. Planned IFAD engagement**

23. IFAD will use its Performance-Based Allocation System (PBAS) funding of US\$ 8.9 million highly concessional loan under the IFAD 12<sup>th</sup> replenishment with the possibility of mobilizing an additional loan on Ordinary Terms from IFAD's Borrowed Resource Access Mechanism (BRAM)<sup>17</sup> to operationalize the Strategic Objectives under the CSN. IFAD's joint proposal with WFP for GAFSP grant financing was approved in December 2021 and an additional US\$12 million (with the possibility of another US\$1 million) will complement IFAD financing. Furthermore, efforts will be taken to leverage supplementary environment/climate grant financing to augment this financing envelope. These blended resources will enable the consolidation of gains made thus far, expansion of the geographic coverage as well as intensify the depth of interventions. The programme will scale-up successful IFAD activities and continue to support poor rural communities, improve their food and nutritional security, enhance their adaptive capacities and support investments and innovation for inclusive rural transformation.
24. IFAD's target group will continue to be smallholder farmers, women, women-headed households and youth. IFAD will explore innovative opportunities for youth to engage in farming (crop, poultry and livestock) and off-farm activities, including aggregation and collection, on-farm post-harvest processing, storage and cold chains, packaging and branding, value-added processing, transportation and distribution, wholesaling, retailing and export. Additionally, IFAD will examine the possible engagement of youth in support services like renewable energy technologies, organic inputs (soil stimulants, bio-compost, bio-pesticides), infrastructure maintenance, provision of labor-saving equipment, trading, input and equipment supply, financial and digital agri-services, and provision of technical advice to farmers (through a cadre of expert lead farmers and community animal health technicians). Those services can be attractive options for youth to get involved in entrepreneurial activities, capitalize on their interest in digital technologies and offer the potential for a decent income.
25. In addition to finance, one of the main enabling factors to facilitate development of youth enterprises is access to land. CARLEP has supported the Land Use Certificate (LUC) scheme with relative success. However, the sustainability of the LUC groups is under threat due to high drop-out rates as a result of the remoteness of the sites, limited water availability and lack of agricultural support services. IFAD commissioned an assessment on fallow and underutilized lands for facilitating agreements between landholders and youth cooperatives, and the National Land Commission Secretariat is using this assessment as a basis for establishing a National Land Bank that will help delineate fallow and underutilized lands across the country. This will provide an easier avenue for young entrepreneurs to lease land from private owners. Building on this example, IFAD will continue to work with the Policy and Planning Division (PPD) of MOAF to advance evidence-based policy guidance for supporting the transformation of the agri-food sector into a commercially oriented one, as well as identify and address policy and regulatory impediments to competitiveness and to sustainable agricultural commercialization, including on trade, marketing and access to

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<sup>17</sup> BRAM resources are available on ordinary terms. All resources intended for use in the BRAM must be aligned with: (i) IFAD's mandate and relevant Sustainable Development Goals; (ii) IFAD's objectives as currently set out in IFAD's Strategic Framework 2016-2025; and (iii) with the country strategic opportunities programme or country strategy note.

finance. Policies will need to be cognizant of engaging the private sector for effective food system transformation processes.

26. IFAD will remain committed to strengthening partnerships with government agencies and other partners, including MoAF, GNHC, sub-national entities, private sector, CSOs and other development cooperation partners to support smallholders with agricultural commercialization, enterprise development and employment generation. IFAD will expand its partnership with financial institutions to ensure youth have access to financial services to enable them to develop business ventures, as financing is key to enabling change and creating incentives for change.
27. IFAD will continue working with cooperatives and farmer groups – including women groups - to strengthen their capacities, build their governance structures and transform them into successful private sector entities capable of creating expanded and sustainable economic prospects, promoting agricultural commercialization, enhancing economies of scale and providing services - including marketing services - to smallholder farmers. This will also include supporting investments in innovation, user-friendly technologies and digitization in all aspects relevant to farming, information, communication and marketing.
28. IFAD will also prioritize investments in productive climate-resilient infrastructure that contributes to inclusive food system transformation. Inadequate rural infrastructure leaves communities isolated, holds back food value chain development, contributes to post-harvest food losses, and is associated with poverty and poor nutrition. IFAD will also continue its efforts to promote climate-smart agricultural approaches and technologies to reduce food insecurity and vulnerability of rural communities to the anticipated impacts of climate change.
29. In terms of the target areas, IFAD will build on its successful experiences in the eastern part of Bhutan. Furthermore, best practices and experiences of WFP, FAO, UNDP and the World Bank (especially the Food Security & Agriculture Productivity Project) will be harvested to inform IFAD's work. Based on the envelope of financing there is good potential for expanding the geographical coverage beyond the eastern region to create agricultural economic corridors along the main arteries for boosting commercialization.
30. The IFAD Bhutan country programme will be managed from the Nepal Country Office based in Kathmandu. This is expected to strengthen partnerships in the region and facilitate further south-south collaboration

## **V. Risk management framework**

31. The risks to project implementation include: Limited capacity of implementing partners, poor infrastructure and connectivity in the project area, limited capacities of farmers and their organizations to embark on agricultural commercialization, as well as effective engagement in needed policy work. The risks, their scale and the mitigation measures are elaborated below:

Potential Risks	Scale	Mitigation Measure
Limited capacity of implementing partners	<b>Low</b>	IFAD has managed to identify strong partners who have supported implementation of CARLEP activities and added value in terms of innovation. IFAD will continue engaging with its partners, and identify others to support its objectives.
Poor infrastructure and connectivity in the project area	<b>Medium</b>	The project staff will be located in the project districts and activities will be planned during seasons which do not inhibit travel.
Limited capacities of farmers and their organizations to embark on agricultural commercialization	<b>Medium</b>	IFAD will define a solid programme to build capacities and skills, including on governance, enterprise management, financial literacy, value addition and marketing.
Policy Engagement	<b>Medium</b>	IFAD, and through CARLEP, has some success stories to build on regarding policy work. IFAD will identify and pursue a well-defined policy agenda, allocate resources for implementation and technical assistance to identify and highlight policy issues and opportunities for policy advocacy in close collaboration with the government and other partners.
Climate change	<b>Medium</b>	IFAD will design its interventions to enhance adaptive capacities and build knowledge and skills to integrate climate-smart planning into policies, programmes and strategies. IFAD will also support the implementation of recommendations of the NDC document, including the introduction of climate smart agriculture practices, selection of drought tolerant crop varieties, strengthening climate information systems, climate proofing rural infrastructure and promoting climate smart innovative technologies.



## Appendix 1: Previous Country Strategy Note Completion Report

The review of the implementation of the 2019-2021 CSN is based on the analysis, reports and views shared recently by government officials and concerned private individuals during consultations and discussions on IFAD's 2022 - 2023 CSN and the UN Food Systems Summit Dialogues.

1. CARLEP is the main project under implementation during the 2019 - 2021 CSN period. The CSN enabled the inclusion of additional financing to CARLEP from IFAD's 11<sup>th</sup> Replenishment cycle. Therefore, the views and feedback on CSN 2019-2021 is directly or indirectly related to the implementation of CARLEP.
2. Overall, CARLEP has made good progress. Focusing its investments in the eastern region of the country, IFAD, through CARLEP, is benefiting one of the poorest and most remote areas in Bhutan. The region is also highly populated and has the highest food insecurity in the nation. CARLEP has a small but dynamic team working under the leadership of the Project Director.
3. CARLEP works in close collaboration with the implementing partners like RAMCO (Regional Agriculture Marketing and Cooperatives Office), ARDC (Agriculture Research & Development Centre) Wengkhari, and RLDC (Regional Livestock Development Centre) and the local government (district and Gewog) administrations.
4. Despite CARLEP's substantial achievements, feedback provided through consultations highlight several difficult challenges:
  - CARLEP may have spread itself too thinly, covering six widely spread eastern districts.
  - CARLEP has focused more on the production side compared to other post-production components of the value chain.
  - Market-oriented production has been identified as one of the main goals. But in every discussion, formal or informal, failure in market-oriented production is being identified as one of the major problems facing Bhutan's agri-food sector, especially in eastern Bhutan.
  - Similarly, there is a lot more that needs to be done regarding youth and private sector engagement, and enterprise development. There is also a need to look at sustainability of projects under the matching grants sub-component. Initially, there seems to have been a lot of interest from the youth but, over time, interest has waned.

### Suggestions:

#### 1. Enhance Production and Productivity

- 1.1 It is important to focus on interventions and programs that cover whole communities and larger number of households like providing better seeds and providing other inputs like organic fertilizers, feed and fodder, farm tools, equipment and spare parts made easily available to the farmers. Providing support to only selected individual households within a small community may adversely affect social cohesion. Farmers often say that they are all equally smallholders and poor and, therefore, all should receive support.
- 1.2 There is an urgent need to undertake market-oriented production in all the six districts by bringing together the technical experts from RAMCO, ARDCs, RLDCs, and other officials of agri-food sector and other stakeholders. There is also an urgent need to link the producers and aggregators to the existing enterprises like the Bhutan Agro Industry and maize processing plant in Lingmethang and encourage contract farming.
- 1.3 There is a need to strengthen the extension services in every Gewog in the six districts. The existing extension service system is considered to be very weak and ineffective. The lead farmer approach needs strengthening and expansion. Integration of core nutrition messages within agriculture extension services can build nutrition-oriented actions to assess and respond to the nutrition needs of farmers and farm households. This can inform and enable

them to improve household production and consumption for healthy diets and improve their family nutrition

- 1.4 Land development support is needed, especially to protect farming lands from floods, landslides, etc. and to prepare fallow lands for cultivation. Such supports would improve productivity and, at the same time, pave the way for small farm mechanization - otherwise shortage of farm labour will eventually make farming unsustainable in the long run.
- 1.5 Continue to provide solar/electric fencing and other related support, especially to protect crops from the wild animals.

## **2. Marketing and Market Access.**

- 2.1 Many investments in the past had been dedicated to strengthening marketing and market access, including IFAD's earlier projects such as the Market Access and Growth Intensification Project (MAGIP). Yet this remains the biggest challenge facing the agri-food sector and the weakest link in the agri-food value chain.
- 2.2 Looking at the example of Koufuku International, it may be a good idea to invest in a centrally located project like an integrated agri-food centre that provides facilities and services related to the middle and end value chains like aggregation, collection, processing, packaging, and transport and distribution.
- 2.3 There is a need to create more farmer groups and cooperatives and strengthen the existing ones, especially in areas of aggregation and marketing.
- 2.4 There is an urgent need for an integrated digital information system that connects buyer and sellers and other stakeholders, and provides real time information on production, market, pricing, weather, etc. It needs to be a centrally coordinated and user-friendly information system that seamlessly connects to social media platforms that are popular in the country.

## **3. Youth engagement and enterprise development.**

- 3.1 There is a feeling that the current model of support being provided to the aspiring youth in agri-food sector is not working and may not be sustainable. Support to youth needs to be packaged properly with training and skill development in commercial farming and basic entrepreneurship, as prerequisites.
- 3.2 Youth and private sector engagement programmes need to be promoted more proactively and strategically. Such support programmes need to be pursued in a more organized and coordinated manner.
- 3.3 Operating networks of three window farm shops (TWS) and collection centres, storage and cold chain facilities, and packing, grading and processing units in strategic locations is a good idea. However, as reflected in project documents, they should be established and operated based on professionally prepared business plans. Initially, such facilities could be established by the project and have interested youth entrepreneurs operate them under the overall management and supervision of the OPM, for a year or so. And gradually they could be taken over by the concerned youth as their own businesses.
- 3.4 While farming and other activities across the value chains, and technical trainings in farming take place in the project area, other youth and private sector engagement activities like mobilizing youth, entrepreneurship programs and trainings can be done more effectively in Thimphu. This is mainly due to the fact that most unemployed youth from eastern Bhutan and other parts of the country come to Thimphu in search of jobs and other opportunities and reside there. Moreover, most of the youth related business programmes including financial services are based in Thimphu or near Thimphu.

### **Overview: Implementation of CSN 2019-2021**

Intervention	Status/Remarks
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01	Enhance production and productivity of high value horticulture and livestock production.	A lot has been done and there is a need for continued support. Need to urgently initiate market-oriented production. Continue support in a more strategic manner. As far as possible, focus on programmes that benefits larger communities, instead of individuals.
02	Pilot test & promote high value crops, organic products, climate smart & permaculture techniques.	A lot has been done especially in terms of providing improved inputs, and climate smart & permaculture techniques. Effort is now needed in terms of coverage within the large project areas of the six districts.
03	Expand commercial farming, develop new farm enterprises.	A lot needs to be done in terms of market-oriented production, market access and new farm enterprises development.
04	Continue to invest in production practices that promote climate smart agriculture and infrastructure	A lot has been done, and there is now a need to increase coverage within the large project areas of the six districts.
05	Enhance role of private sector, building PPP	A lot needs to be done on this front, especially in engaging private sector in different stages of the value chain. The project can easily start with Bhutan Agro Industry and the Maize Processing Plants that are located close to the OPM in Mongar. Also, there are several animal feed production and processing businesses being established by private companies. The project may proactively pursue and establish mutually beneficial partnerships with them.
06	Improve production & market linkages and nutrition	Need to establish effective production and marketing linkages as a priority. Given that markets are a key determinant of access to food and diets, it is imperative to factor in diets and nutrition of smallholder farmers when selecting interventions for increasing production and commercialisation. A focus on food commodities, especially nutrient dense foods can contribute to improvements in diet quality of the target population.
07	Engage the youth in innovative opportunities for employment and entrepreneurship. Explore innovative opportunities for youth to engage in farming and in helping develop activities along the vegetable and dairy value chains as well as for promoting nutrition.	There is a lot that needs to be done on this front. Youth engagement for employment and entrepreneurship is a top national priority. There are many challenges and also many opportunities. May need to develop a comprehensive strategy and roll out, including complete and sustainable packages of support for gainful employment and to engage youth as change agents for healthy diets and nutrition improvement.
08	Link the farmers to the national school feeding programme.	A lot has been achieved on this front, including the inclusion of hospitals, but there are still some challenges. There is a need to expand the programme further to include other institutions like monastic organizations, military etc.
09	Focus on farmer capacity building, farmer institutions and investments in irrigation, water harvesting, land development, fencing to resolve long-standing issues of wildlife encroachments on farmland, and marketing infrastructure.	A lot has been achieved by the project on this front. But there is a lot more that needs to be done, especially in terms of coverage as the project area is spread across six districts.
10	Invest in improved domestic animal breeds	The project has achieved impressive results on the livestock production and value chain development front including the supply of improved domestic animal breeds.
11	Establish and strengthen farmers' groups and cooperatives to enable them to aggregate their production to attract	This is a link that needs to be developed and strengthened urgently to connect the farmers to the

	buyers, realize economies of scale and enhance their bargaining capacity with input suppliers and markets.	buyers. This is the missing link that can make commercial farming possible.
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## Impact and Outreach

Bhutan is considered a development success story, and IFAD, as one of the earliest development partners with over 40 years of partnership, has played a major role in this success. One of the most important achievements of the country is poverty reduction. Within a decade, between 2007 and 2017, Bhutan cut poverty by two-thirds and achieved lower middle-income country (LMIC) status. Poverty measured by the US\$3.20 poverty line (in 2011 PPP terms) fell from 36.4 percent in 2007 to 17.8 percent in 2012 and then 11.2 percent in 2020. An estimated 145,000 people, almost 25 percent of the population, were lifted out of poverty; and extreme poverty, measured at US\$1.90 per day, fell from 10.3 to 1.5 percent.

IFAD focuses its operations in the eastern part of the country where poverty, food insecurity and population density are highest. As of 2017, the US\$3.20 poverty rate was 17.4 percent in rural areas of Bhutan but only 1.6 percent in urban areas.

IFAD has financed eight development projects in Bhutan in the last forty years. Between 1980 and 2014, IFAD had invested in seven programs and projects in Bhutan directly benefiting: 92,060 households with an approved total of US\$52.9 million. Some of the key historical developments in the Eastern Region of Bhutan are the following: (i) rehabilitation of the irrigation sector in the early 1980s; (ii) introduction of improved agricultural practices in all the districts; (iii) building capacities of extension staff and farmers; (iv) and improving access to the farming communities through farm road construction (IFAD has financed the construction of 373 km of farm roads in the East, of a total farm road network of approx. 800 km).

Currently, RGoB is implementing the 8<sup>th</sup> program, the Commercial Agriculture and Resilient Livelihoods Program (CARLEP), which was approved in September 2015. Initial IFAD financing for this program included, a highly concessionary loan of USD 8.2 million, a grant of USD 1 million and an Adaptation for Smallholder Agriculture Programme (ASAP) grant of USD 5 million. Subsequently, additional financing of approximately USD 11.3 million, consisting of USD 10.3 million in highly concessionary loan and USD 1 million in grant was added. The goal of the program is to sustainably increase smallholder producers' incomes and reduce poverty through commercialization of production. This is to be achieved through climate resilient crop and livestock production in nationally organized value chains and marketing systems.

CARLEP is focusing on engaging smallholder farmers in commercialized agricultural production. To this end, significant investments are being made in developing climate resilient dairy and vegetable value chains in collaboration with the private sector. Extensive training is being undertaken to capacitate farmers to produce high quality vegetables for the domestic and cross-border markets, and to improve quality and volume of milk production. A partnership with Koufouko International Ltd (KIL) dairy processing plant is leading to an increase in production of high value cheese and yoghurt for export purposes. In support of the dairy and vegetable value chains, substantial investments in irrigation, climate smart agriculture, electric fencing, milk chilling, cold storage, and marketing is being undertaken. Furthermore, considering Bhutan's vulnerability to climate change impacts, a whole-of-village approach to building climate resilience is being pursued. Currently, 6 Climate Smart Villages have been established and it is anticipated that over 20 such villages will be established by the end of the programme. CARLEP is promoting home gardening and providing grain and vegetable seeds to the farmers to boost food and nutritional security. Also, adjustments are being made to project activities to align them with the government's food self-sufficiency and organic agriculture policies. In addition, efforts are being made to boost food production for the school feeding programme and for hospitals.

Drawing on the experience of past projects and the on-going CARLEP project, IFAD in collaboration with Rome-Based Agencies (RBA), is supporting the government with the development of the Renewable Natural Resources Strategy (RNR) 2040.



## Lessons Learned

- Climate Smart Villages is an approach where a landscape or micro-watershed unit is assessed with relation to current and anticipated climate change impacts. Based on the climate analysis, land and water management activities, crop selection for commercialization of vegetables, production intensification and development of dairy value chains can be determined. This approach while still in its nascent stage provides important lessons and a potential model for future farming at the national level.
- Innovations and investments in crops which have a potential for high returns to farmers should be tracked, documented and coupled with a market assessment to enable scaling-up, thus contributing to higher yields and consequently higher income to farmers. Mushroom spawn production championed by CARLEP is one such case in which the returns in just one year have been more than 50% on the capital investment.
- Bhutanese youth have a negative view of rural and farming life as being laborious, precarious and economically unremunerated. As a result, there is an increasing preference for white collar and salaried jobs in urban towns. Therefore, there is a need to bring about a paradigm shift in agriculture and affiliated businesses through branding it as a commercially viable and technologically driven. KM materials on success stories of youth should be developed and widely circulated to showcase its lucrateness and innovation.
- Despite gains made in the front of gender equality, rural women in Bhutan continue to carry a disproportionate share of care work while engaging in commercial activities to supplement household income. In addition, there is also a need for the project to understand the impact of challenges women and young girls face in public spaces on their mobility, security, personal dignity and on accessing opportunities. To combat this, further collaboration should be explored with CSOs and agencies working on women empowerment, including for example with Tarayana Foundation, a CSO that does very innovative work in the area of microfinance for women.
- Development of the farm sector to reduce rural poverty and enhance food security needs a two-pronged approach, combining strategies to enhance productivity and production at the farm hold level with proactive marketing support to ensure remunerative prices to farmers. The absence of an organized marketing system across the nation has limited entrepreneurial farmers to move into commercial production. Owing to the lack of organised marketing systems, smallholder farmers were unable to take advantage of the inter-regional markets
- Current crop production volumes are still low and farmers need to scale-up production. Establishing and strengthening of producer and marketing groups are vital to the successful intensification of agriculture production and marketing. There is also a need to better link agricultural and infrastructure support to take advantage of opportunities presented by the market.
- More commercially orientated farmers need to be engaged together with supplies of the right type of agricultural inputs, such as seeds, irrigation, soil fertility and pest management inputs and extension services. There are proven successes of market-focused production clusters, with scope for farmers to adopt a more commercial and market driven approach to their farming.



## Appendix 2: Social, Environment and Climate Assessment (SECAP)

### I. Introduction

- 1. This SECAP details the main social, environmental and climate change considerations that guide the Country Strategy Note (CSN) for Bhutan 2022-2023.** It has helped formulate the Strategic Objectives and main areas of intervention that IFAD should invest in. The study was carried out following the requirements set by IFAD's Operational Procedures and Guidelines for Country Strategies<sup>18</sup> (requiring "basic" SECAP Background Studies for Country Strategy Notes) and based on the 2021 edition of IFAD's Social, Environment and Climate Assessment Procedures (SECAP)<sup>19</sup>. The emphasis in this study is on identifying trends, risks and opportunities on thematic and subsector issues that will help orient IFAD's 12th Replenishment allocation of approximately USD 9 million for Bhutan. The SECAP preparatory study was informed by i) desk review of relevant national policies and strategies, ii) analysis of ongoing projects funded by IFAD and other development partners, and iii) virtual consultations with national stakeholders and experts. The report also analyses relevant institutional frameworks, country program evaluations and current environmental, social and climate change studies and assessments.

### II. Situational analysis and main challenges

- 2. Bhutan is a mountainous country with a small population scattered across mountains and valleys.** The elevation rises from about 150 meters above sea level in the south to over 7,000 meters in the north just within a horizontal distance of 100–150 KMs. The population of 771,612 is scattered across steep mountain slopes and valleys, many in remote and far-flung hamlets. Nearly half the land area is protected to help preserve biodiversity. With forest coverage exceeding 70 percent, Bhutan is the only carbon-negative country in the world, absorbing more greenhouse gas emissions (GHG) than it produces. Bhutan's independence throughout its history has helped preserve its rich cultural heritage and traditions. As its development policies demonstrate, Bhutan strives to be self-sufficient and to conserve its environment and culture (NSB, 2021) (GNHC, 2019). However, being a land locked and least developed country with a fragile mountainous ecosystem, high dependence of the population on agriculture and the significant role of hydropower for economic development places the country at risk from climate and other shocks (NEC, 2020).

#### 2.1 Socio-economic and nutritional assessment

##### *Overall poverty situation*

- 3. Bhutan is among the fastest-growing countries in the world.** Since early 1980s, annual real Gross Domestic Product (GDP) growth rate has been 7.5 percent. The country is approaching the threshold for upper-middle-income countries with Gross National Income (GNI) per capita of US\$2,970 in 2018. Bhutan reduced poverty by two-thirds, from 36 percent to 12 percent from 2007 through 2017, based on the \$3.20/day poverty line. Extreme poverty (\$1.90 per day) has been almost eradicated. However, poverty pockets continue to persist creating geographical imbalances in economic development and opportunities for youth employment.

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<sup>18</sup> See <https://www.ifad.org/en/document-detail/asset/39560257>

<sup>19</sup> See <https://www.ifad.org/en/-/social-environmental-and-climate-assessment-procedures>

- 4. The country's economy was seriously affected by COVID 19 impacts.** The Bhutanese economy recorded a growth of -10.08 percent in 2020, which is 15.83 percentage points drop as compared to a growth of 5.76 percent in 2019. The key sectors that contributed to the contraction of the economy were Mining & Quarrying at -81.84 percent; Hotel & Restaurants at -73.46 percent; Manufacturing, Construction, and Transport & Communication at -20.76 percent, -20.64 percent, and -14.65 percent respectively (NAS, 2021).

Figure 1: Bhutan Poverty and inequality status (Source: World Bank Poverty and Equity Brief, April 2021)

POVERTY	Number of Poor (thousand)	Rate (%)	Period
National Poverty Line	59.6	8.2	2017
International Poverty Line 47.9 in Bhutanese ngultrum (2017) or US\$1.90 (2011 PPP) per day per capita	11.5	1.5	2017
Lower Middle Income Class Poverty Line 80.7 in Bhutanese ngultrum (2017) or US\$3.20 (2011 PPP) per day per capita	90.6	12.2	2017
Upper Middle Income Class Poverty Line 138.7 in Bhutanese ngultrum (2017) or US\$5.50 (2011 PPP) per day per capita	290.2	38.9	2017
Multidimensional Poverty Measure		3.9	2017
<b>SHARED PROSPERITY</b>			
Annualized Consumption Growth per capita of the bottom 40 percent		1.63	2012-2017
<b>INEQUALITY</b>			
Gini Index		37.4	2017
Shared Prosperity Premium = Growth of the bottom 40 - Average Growth		-0.05	2012-2017
<b>GROWTH</b>			
Annualized GDP per capita growth		4.17	2012-2017
Annualized Consumption Growth per capita from Household Survey		1.67	2012-2017
<b>MEDIAN INCOME</b>			
Growth of the annual median income/consumption per capita		2.27	2012-2017

- 5. Impacts of COVID-19 were in all economic sectors.** Bhutan's economy contracted by 1.2 percent in the Financial Year (FY) 2020/21. Services sector output fell by 3.6 percent, as the tourism industry remained closed. While the hydropower sector supported industry sector growth, construction and manufacturing were adversely affected by labour shortages and high input prices. On the demand side, private consumption contracted due to domestic COVID-19 containment measures and lower incomes (WorldBank, World Bank, 2021)
- 6. Poverty status differs among the Dzongkhags (districts).** Bhutan is administratively divided into 20 Dzongkhag, which consist of 205 Gewogs ("blocks"), 4 larger towns ("Thromdes"), 18 Dzongkhag towns and 42 satellite towns. Bhutan's moderate rural poverty rate marks substantial disparity across Dzongkhags, with the headcount ratio, i.e. the proportion of people living below the national poverty line, in 2017 ranging from merely 0.4 percent in Paro to 38.6 percent in Dagana (NSB, 2019). Samtse has the poorest people (13.2 percent), followed by Dagana (12 percent) and Monggar (11.4 percent); together they account for more than a third of Bhutan's poor. Some of these Dzongkhags are also geographically remote, making access to services and markets difficult (WorldBank, NA).

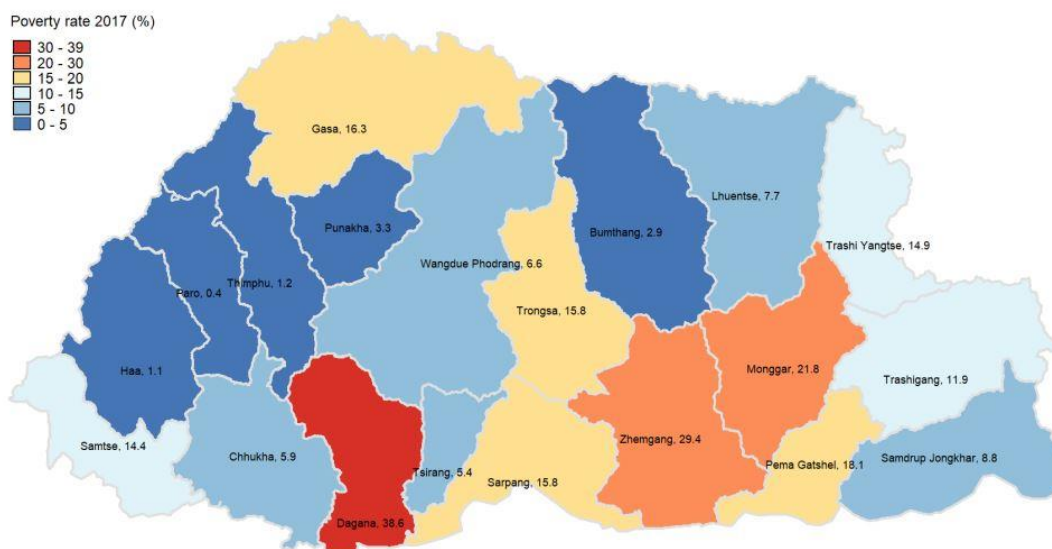


Figure 2 Dzongkhag poverty map (NSB, 2019)

7. **Causes of poverty are numerous going beyond lack of income and are self-reinforcing in nature.** Shortage of labour due to migration, lack of education, disabilities, and lack of infrastructure are some of the main compounding causes. The diverse characteristics and profile of the poor in Bhutan reveal the need for highly targeted and customized interventions to reduce poverty in the more deprived groups. The Bhutan Multi-Dimensional Poverty Index 2017 also found that the incidence of multi-dimensional poverty is determined by a range of factors including age, gender and education level of head of household (GNHC, 2019).
8. **Poverty in Bhutan is still predominantly a rural phenomenon.** As of 2017, the US\$3.20 poverty rate was 17.4 percent in rural areas of Bhutan but only 1.6 percent in urban areas. Therefore, the most effective and sustainable solution for poverty reduction is through intervention in the agri-food sector in the rural areas. IFAD's earlier and ongoing interventions through programmes like *Commercial Agriculture and Livelihoods Improvement Programme* (CARLEP) have played a major role in Bhutan's impressive success in poverty reduction, especially as IFAD focuses on some of the most remote areas of eastern Bhutan, a region with a high proportion of poor.

### Gender

9. **Bhutan ranks 5<sup>th</sup> among the South Asian countries according to the Global Gender Gap Report 2021.** Overall, the country is ranked 130 out of 156 countries (previously ranked 131 in 2020 and 122 in 2018). Bhutan scored highly in key areas such as educational attainment (117), however with few women in parliament and ministerial positions, Bhutan ranked low in political empowerment (137) (WEF, 2021).
10. **Women's economic engagement is less against men.** The country ranks 130 out of 156 in females' economic participation and opportunities (WEF, 2021). The unemployment rate in Bhutan stood at 5% in 2020 (3.4% in 2018), with 6% women unemployed against 4.1% men. Young females' unemployment is further worrisome, it is estimated 61.3% compared to 38.8% male. There are more males (37.0%) in 'regular paid employee' than females (19.7%). The proportion of females (58.8%) working in the agriculture sector is higher than that of males (41.7%). However, in service and industry sectors, the proportion of employed males is higher than that of females (NSB, 2020). Women's unpaid care work goes largely unrecognized. Women in Bhutan perform 71 percent of unpaid care work which is 2.5 times more than men and their contribution as a share of GDP is 11 percent, while men's contribution is 5 percent (NPWC, 2019).

- 11. Women’s opportunities and career choices are limited throughout their life cycle.** Indeed, powerful gender norms still dictate that child care and most household chores are women’s responsibility. Women are more likely to work in low-paying sectors like agriculture or are family workers. Women’s earnings average only about 75 percent of men’s, with some differences attributable to gaps in education and occupational segregation. The proportion of female managers in cottage and small industries (CSIs) in all sectors is also considerably lower, suggesting constraints on their entrepreneurial activities. While there are no particular gender differences in access to finance, neither are there regulations and provisions to encourage female entrepreneurship. Extension officers are in chronically short supply and female officers are even fewer, despite evidence that female farmers are more likely to consult female extension officers. The low literacy of Bhutanese women, particularly in rural areas, further limits their access to information and market (WorldBank, NA).
- 12. Women are more confined in household level works and have less participation in decision making.** The traditional beliefs have not restricted women’s involvement in agriculture, household decision-making, and property inheritance, but their activities outside the community are less encouraged, especially in rural areas (WorldBank, NA). Generally, women’s roles are confined to agricultural activities within the household, while men do off-farm or non-agricultural work. Women are also mainly involved in marketing of agricultural products in the local market (NEC, 2019). Women’s representation at decision-making level is comparatively lower than male counterparts in the Parliament and local government with only 15.27 percent and 11.6 percent respectively. Similarly, there are only 11.2 percent women at executive level in the civil service (GNHC, 2019).
- 13. The challenges facing the gender gap in Bhutan offers a good opportunity for IFAD’s interventions to make a big difference,** especially as IFAD’s programmes are focused on rural communities and agri-food sector. Gender mainstreaming is an integral part of IFAD’s programme design as is reflected in the CARLEP. Based on the findings of supervision reports, it is evident that CARLEP makes concerted efforts to support women in all six districts of eastern Bhutan. It is due to such interventions that Bhutan makes consistent progress in gender mainstreaming. The biggest gender gap exists in women’s representation at decision-making level. Here too there has been progress, even though it is at a slow pace, as it is mainly a socio-cultural based issue.
- 14. Gender issues shall be integrated across all climate change actions,** which will be informed by situational analysis of gender gaps and issues and the inter linkages with climate change scenarios for Bhutan. To this end, the identified gender aspects will be addressed through gender responsive climate actions, as outlined in the Climate Change Policy of the Kingdom of Bhutan 2020

## Youth

- 15. Bhutan has a positive youth force with enormous potential to contribute to development.** A young and more educated demographic profile offers opportunities for Bhutan’s next stage of development. The country’s population is predominantly young, with 60% of its population below the age of 25 years (UNFPA). The literacy rate of the youth population defined as age between 15-24 years is estimated at 93%. The literacy rate for urban youth is 97%, while it is 91% for the rural youth (NSB, 2017).
- 16. The opportunity of gainful employment for young people presents one of the key challenges in Bhutan today.** The overall youth unemployment rate is estimated at 22.6% (6,922 persons). Out of the total unemployed youth, about 38.7% are males and 61.3% are females (NSB, 2020). Youth unemployment is relatively high, especially in urban areas and among people with skills. The country is urbanizing rapidly, but because of its mountainous terrain, opportunities for agglomeration economies are limited while urban and rural areas are poorly connected economically.

- 17. Establishing an enabling environment for the private sector is critical to create more jobs, particularly for youth and in rural areas.** The potential for the private sector to create jobs is likely to be highest in agriculture/agribusiness, forestry, and tourism, given the country's comparative advantage in natural assets.
- 18. Factors affecting youth employment,** unemployment and under-employment can be attributed to demand and supply and include: rapid population growth (youth demographic profile), significant growth of school enrolment, limited employment absorption capacity in the public sector, underdevelopment of the private sector, rising trend of rural-urban migration, limited employment relevant education and training that results in young people leaving school without the skills needed for employment and the expectations of high salary on the part of the educated youth entering the economy (YouthPolicy, 2011). **It is difficult to attract educated youth to take up conventional farming,** as conventional farming is seen as a labour intensive and difficult job without secure and promising prospects (Dentrup, 2018). Most educated youths would prefer a secure government job. Due to intense workload, traditional farming approaches that demands more physical efforts, and risks associated with climate sensitive agriculture practices, educated youth prefer to migrate to urban areas. These educated youth groups need support in exploring alternative employment opportunities through modernizing agriculture, improving business literacy and entrepreneurship development, and easing access to finance. School dropouts and unskilled youth are more interested in skill development, agriculture with regular mentors, and access to finance. Beside others, one of the important projects to encourage youth groups to take up farming is the Land Use Certificate (LUC) programme. Under the LUC programme, government land is awarded to youth groups for integrated farming, including livestock, poultry and horticulture. Beside land, youth farmers under LUC receive other supports including finance and land development in different phases.
- 19. One of the gaps between male and female youths** is that the school dropout rate among young girls is higher than that of young male. This is mainly due to cultural practices; women usually shoulder the household responsibility—taking care of their younger siblings and helping parents in farm work. Possibility of early marriage and early pregnancy are higher, especially in poor households. Early marriage is also taken as a social security in the poor families. Upscaling the best practices of CARLEP, IFAD's focus will be further skill development, business literacy, access to finance, and creating a women entrepreneurs' network to grow their capacity.
- 20. The government accords high priority to youth and private sector engagement in the agri-food sector.** It recognizes the immense potential agri-farming sector holds in strengthening the nation's economy. With limited opportunity in manufacturing and service sectors, the RNR sector that is mainly made up of agriculture, livestock and forestry, offers the biggest potential for economic growth, private sector development and job creation. Beside agri-food production, there are good business opportunities all across the agri-food value chain – production, aggregation and collection, storage, processing, packaging, transportation, marketing and trading. CARLEP has been implementing youth engagement activities for around two years now and have gained valuable knowledge and experiences. By repackaging the youth and private sector engagement programmes based on the best practices and lessons learned through CARLEP, IFAD has the opportunity to make a huge contribution to the nation's development in general and agri-food sector and youth engagement and private sector development in particular. IFAD's intervention in this area could make an immense contribution to Bhutan's poverty reduction, job creation, economic recovery and growth, and food security.

#### ***Indigenous peoples and marginalized groups***

- 21. Indigenous tribal people account for around 15% of the population.** They live in scattered villages throughout the country. Among others, the nomadic yak herders locally known as “Brokpas”/ “Bjops” whose livelihoods depend on yaks and Doyas who mostly live southern-western Bhutan are the main indigenous groups. They have their own distinct language, dress,

culture and traditions. They receive special protection mainly for the maintaining the significance of their distinct culture. Even though they face problems due to insufficient pastures, climate changes, and other similar issues, they receive special care and support through programmes sponsored by the government, non-government agencies and national parks and protected areas.

## Nutrition

- 22. Nutrition is identified as one of the key national priorities in the 12th Five Year Plan (2019-2023).** National Nutrition Survey 2015 show that the child stunting prevalence still stands at 21.2%. Although stunting has dropped from 33.5% in 2010, regional disparities remain persistently elevated with 29.1% prevalence rate in the eastern region followed by 18.5% and 16.2% in the central and western regions respectively (National Nutrition Strategy and Action Plan 2021-2025). The level of stunting prevalence is high, of public health concern<sup>20</sup> and needs to be addressed through a mix of nutrition specific and nutrition sensitive interventions.
- 23. IFAD continues to make a significant contribution to Bhutan's health and nutritional goals.** Through IFAD's CARLEP, people in some of the remotest areas in eastern Bhutan are eating a lot more nutritious and healthy food due to enhancement of production in food crops, vegetables and dairy products. Moreover, IFAD's earlier interventions through support to school feeding programme has helped the country feed more nutritious foods, vegetables and dairy products to students and young children. IFAD should continue to have health and nutrition as an important component of any project or programme it undertakes under the new CSN.
- 24. Bhutan is rich in local food traditions, dietary practices and indigenous knowledge** which needs to be considered and respected in developing climate change plans and programmes. For example, whole grains such as [red rice](#) (like [brown rice](#) in texture, with a nutty taste, is the only variety of [rice](#) that grows at [high altitudes](#)), [buckwheat](#), and increasingly [maize](#) are traditionally consumed. Food intake analysis however shows inadequate animal source protein, fruits, and vegetables. It is essential, that traditional, desirable practices such as taking whole grain cereals, along with consumption of local animal breeds (that provide good quality protein and bioavailable micronutrients), herbs, spices (sources of antioxidants and immunological attributes), medicinal plants and lesser used neglected and underutilized species (NUS) which are locally grown and nutritious, should be promoted within a context of nutrition-sensitive agriculture and climate considerations (National Nutrition Strategy and Action Plan 2021-2025).
- 25.** The generally poor dietary diversity prevalent among the Bhutanese households is indicative of the inadequate intake of many micronutrients such as B vitamins, but also of iron, folate, vitamin A and possibly other key nutrients, such as zinc, found especially in fresh foods. Only 11.7% of young children are fed with minimum acceptable diet, 16.6% given iron rich food and 15.3% are provided with 4 or more food groups (NNS, 2016) towards achieving the target of reducing anaemia among women of reproductive age, with 35% of women being affected. There is insufficient data to assess the progress that Bhutan has made towards achieving the target for wasting; however, the latest data shows that 5.9% of children under 5 years of age are affected. This is lower than the average for the Asia region (8.9%). The prevalence of overweight children under 5 years of age is 7.6% and Bhutan is 'on course' to prevent the situation from increasing<sup>21</sup>.
- 26.** Limited progress is noted towards achieving the diet-related non-communicable disease (NCD) targets. The country has not shown progress towards achieving the target for obesity. The 15–

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<sup>20</sup> 20 to < 30 prevalence cut-off values are considered high for public health significance as per WHO

<sup>21</sup> Country Nutrition Profile, Global Nutrition Report 2021



69-year age group shows that 33.5% are overweight and 11.4% are obese compared to 27% men and 40% women who were overweight in 2014. 87% do not consume sufficient fruits and vegetables<sup>22</sup>. Overweight and obesity are underlying condition for NCDs.

27. While Bhutan's obesity prevalence is equal to the Asian regional average of 10.3% for women, it is lower than the regional average of 7.5% for men. Furthermore, diabetes is estimated to affect 13.2% of adult women and 13.9% of adult men.

## 2.2 Environment and climate context, trends and implications

28. **Bhutan is a mountainous country in the Eastern Himalayan ecosystem** with summits ranging from 160 meter (m) to over 7,000 m above sea level. The northern part of the country is characterized by snow-capped peaks of elevations above 7,300 m with abundant glaciers and alpine pastures. The country is bordered by mountains in the Tibet Autonomous Region, the Lesser Himalayas (Inner Himalayas), and Duars Plain along its southern border. About 72.3% of the country is covered by forest, approximately 1.6% glacier area and 13.8% land is agriculture (Climate Risk Country Profile: Bhutan, 2021).

29. **Forest are the dominant ecosystems in Bhutan** (GNHC, 2019). The country has committed to maintain 60% of its total land area as forest cover. There are 11 types of forest and rich biodiversity with altitudinal ranging from 200 meter to 4600 meters (NEC, 2019). Country's diversity includes more than 5,600 species of plants, nearly 700 species of birds and about 200 species of mammals (NBC, 2014).

30. **The aquatic ecosystems of Bhutan** consist mainly of rivers, lakes, marshlands and hot springs. Bhutan records more than 5,600 species of vascular plants of which approximately 94 percent are native species and about 144 species are endemic to Bhutan (GNHC, 2019).

31. **The climate change is affecting the forest and biodiversity** of the country causing more droughts and forest fires, loss of plants and animal species and changes in the state of some ecosystems (NEC, 2019). It also impacts the changes in vegetation and wild animal habitats. The National Biodiversity Strategies and Action Plan for Bhutan, 2014 identifies unsustainable agricultural practices, pollution, invasive species, human wildlife conflict, climate change, over-grazing, and waste as factors affecting the ecosystem (GNHC, 2019). And agriculture depredation from wild animal has been one of the major challenges facing rural farming communities.

Agro-ecological zone	Altitude (m)	Temperature °C			Rainfall (mm)
		Max	Min	Mean	
Alpine	>3 500	12.0	-1.0	5.5	< 650
Cool temperate	2 500-3 500	22.0	1.0	10	650-850
Warm temperate	1 800-2 500	26.0	1.0	13	650-850
Dry Sub-tropical	1 200-1 800	29.0	3.0	17	850-1200
Humid Sub-tropical	600-1200	33.0	5.0	20	1 200-1 500
Wet Sub-Tropical	150-600	35.0	12.0	24	2 500-5 500

Figure 3: Climate Status and Trend (Climate Risk Country Profile: Bhutan, 2021)

32. **The country's varied topography and geographical location dramatically varies climate.** There is significant seasonal range in temperatures: the summer months of June–August averaging temperatures of 24°C–29°C, compared to the winter months of December–February which are near 0°C, for the most recent climatology, 1991–2020. Average monthly rainfall

<sup>22</sup> NCD Step Survey, 2019, MoH/WHO

follows a similar pattern, in which considerably more rainfall occurs during the summer months (approximately 240 millimetres [mm]) than during the winter months (approximately 90 mm).

Monthly Climatology of Mean-Temperature and Precipitation in Bhutan from 1991-2020

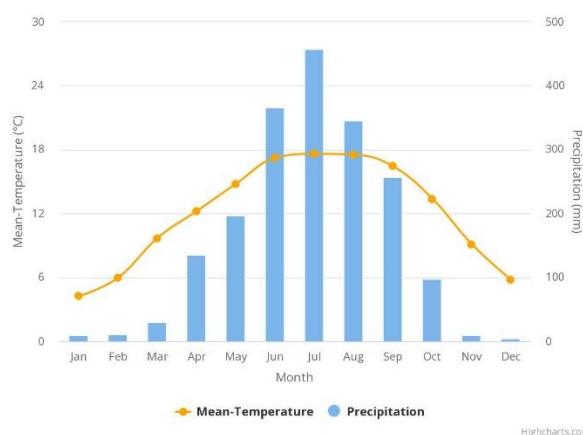


Figure 4 Bhutan monthly temperature and precipitation trend

**33. Bhutan is vulnerable to the adverse impacts of climate change.** There will be heat and cold snaps (extreme hailstorms), increased variation in water availability due to floods and droughts, a higher propensity for landslides, a shift of agroecological zones altitudinally, and potential forest dieback.

**Second Nationally Determined Contribution (NDC)**

**34. Bhutan submitted its Intended Nationally Determined Contribution (INDC) to the Paris Agreement** on 30 September 2015. It reiterates the commitment to remain carbon neutral and charts a path to enhance its mitigation targets and actions through sectoral Low Emission Development Strategies (LEDS) and National REDD+ Strategy and Action Plan 2020. The LEDS were developed for key sectors of human settlement, food security, industries, and surface transport. The sectoral strategies aim at decoupling economic growth and greenhouse gas (GHG) emissions through clean technology, innovation, renewable energy, and green jobs creation. While the 2nd NDC is ambitious and sets clear carbon reduction targets, Bhutan would require financial, technical and capacity building support from both national and international partners to ensure it meets its raised climate goals.

**35.** The following table summarizes a few potential areas of collaboration to support Bhutan’s second NDC targets.

**Table A: IFAD collaboration for second NDC implementation**

NDCs provision	IFAD’s support areas
<b>Mitigation</b>	
Forest conservation and management	Support on four identified strategic options: Strengthening Forest Management Practices; Integrated Land Use Planning; Climate Smart Primary Production; Improved Rural Livelihoods
Low Emission Development Strategy for Food security	Switch from synthetic to organic fertilizers; Improved agricultural practices; increased biomass through increased perennial crop production; Small and medium scale domestic biogas production; Improved dairy cattle production through breed improvement and feeding management
Low Emission Development Strategy for Human Settlement	Roll out of solar PV on buildings; Increase in composting and recycling; Wastewater management; Rollout of energy efficient appliances; Solar water heaters

Waste Management	Production, processing and marketing wastage management
Alternative Renewable Energy	Biogas, solar, waste-to-energy technologies
Adaptation	
	Support implementation of NAP identified activities in agri-rural development sector

- 36. Bhutan has already embarked on research and deployment activities on Sustainable Intensification (SI) and Climate Smart Agriculture (CSA) practices and technologies to strengthen resilience of smallholder livelihoods.** However, as global research and experience shows, “climate change adaptation requires going beyond a narrow intensification lens to include diversified farming systems, local adaptation planning, building responsive governance systems, enhancing leadership skills, and building asset diversity”. There is thus a need to further develop, scale-up and institutionalize existing good practice towards a more comprehensive and integrated approach to strengthening smallholder climate resilience.
- 37. CARLEP’s smallholder climate resilience strategy addresses climate vulnerability from the understanding of livelihood assets and their inter-relations.** CARLEP strives to increase smallholder resilience capacity, through a multi-level, integrated approach of interventions: i) intra-household (women and youth); ii) household-level (vulnerability targeting); iii) farm-level (nutrition, diversification, integrated climate sensitive farming and income generation); iv) community level (social capital as farmer groups, lead farmer model); and v) local institutions (extension service outreach of and access to value chains/markets, improved sustainability of operation and maintenance of infrastructure).
- 38. Climate change resilience thus needs to be addressed both at farm and community level as well as at institutional level.** For example, capacities at the local level are needed for adaptation planning, adoption of integrated farming systems, adoption of renewable energy technologies, as well as, linking agricultural production with markets from a value chain perspective.
- 39. Mainstreaming climate resilience has been an important part of IFAD’s interventions,** as reflected in CARLEP’s project report and implementation activities. IFAD should upscale and continue with strong climate smart strategies in its future interventions. IFAD may also draw lessons and best practices from the UN GCF funded project “Climate Resilience and Transformational Change in the Agriculture Sector.”

### *Innovative Financing*

- 40. Green Finance (NDC, 2021):** In line with the 21st Economic Century Roadmap a green finance roadmap is being developed in Bhutan. It aims to mainstream and bring about transformative changes in financing economic investments and sustainable development in Bhutan for the 21st Century. The initiative aims to (i) make the financial system of Bhutan more robust and resilient to external vulnerabilities in the wake of the COVID-19 Pandemic, (ii) channel lending towards products and services that can deliver both investible returns and environmentally positive outcomes, (iii) ensure green investments are prioritized over business-as-usual investment and to mobilize additional investments in Bhutan’s green sectors, (iv) accelerate the financial sector’s contribution towards transitioning to a low carbon economy by leveraging on modern technology and innovations.
- 41. Infrastructure Fund:** Given the significant capital costs associated with road and irrigation infrastructure, as reflected in Bhutan’s food systems national pathways, the establishment of an infrastructure fund to ensure quality and timely maintenance of agri-food related infrastructure is critical.

### **2.3 Target Group**

- 42. Along with current IFAD working six eastern Dzongkhags, the next investment needs to**

**target other areas as well.** To achieve sustained impact, during the next CSN, IFAD may continue to focus primarily on small householders in six eastern Dzongkhags of Lhuentse, Mongar, Pemagatshel, Samdrup Jongkhar, Trashigang and Trashiyangtse. However, based on government priority, need and opportunity to make greater impact, IFAD may scale-up its programme to cover other areas like Tsirang, Dagana, Sarpang, Zhemgang, Chhukha, etc. Within the programme areas, the most vulnerable poor and smallholders may be prioritized when allocating programme activities and benefits. Special efforts should be made to identify and facilitate inclusion of the poorest or most vulnerable households. As cross-cutting themes, in programme implementation, women and youth should receive priority.

### 3. Institutional analysis

43. **Ministry of Agriculture and Forests (MoAF)** is the leading ministry working with IFAD in coordination with Ministry of Finance (MoF) as the borrower. The MoAF has a mandate of removing rural poverty. The Departments of Agriculture (DoA), Forestry and Park Service (DoFPS), Livestock (DoL), Agriculture Marketing and Cooperatives (DAMC) and the Policy Planning Division (PPD) are the executive arms of the MoAF. At the dzongkhag (district) level, the MoAF has three offices from the line RNR sectors, i.e., agriculture, livestock and forestry, constituting the core staff responsible for the management, planning and execution of RNR development programmes. The Gewogs have three agricultural staff representing the line RNR sectors, who are the front-line staff (extension agents) working with farmers. Both the Agricultural Research Development Centre (ARDC) and Livestock Research Centre backstop the Extension Agents of both Agriculture and Livestock in the 205 sub-districts.
44. **The apex body for environmental management is the National Environment Commission (NEC)**, chaired by the Prime Minister. The Commission is represented by high level members from relevant ministries, Civil Society Organization and private sector. The National Environment Commission Secretariat functions as the Secretariat to the NEC. Then there other 10 ministries and agencies that work in the environmental, forestry and natural resource management sectors. However, the Department of Forest and Park Service is the focal or the competent authority that is tasked with the management of Bhutan's forest and biological resources.
45. There are a number of farmer groups (FG) and cooperatives in the agri-food sector, including conventional farming, organic farming, marketing, dairy farming, and poultry farming. Youth Development Fund (YDF) is the main registered CSO dedicated to youth. Other CSOs like BCMD (Bhutan Center for Media and Democracy) and government agencies also have youth programs in different areas. There are also many governmental and non-governmental agencies providing general entrepreneurship programs for unemployed youth. Beside DAMC (Department of Agriculture Marketing and Cooperatives), the Ministry of Agriculture and Forests have started providing entrepreneurship and other related trainings to youth aspiring to take up agri-farming businesses.

#### *Policy and regulatory frameworks*

46. **The Renewable Natural Resources (RNR) Strategy 2040**, covering the forests, agriculture, and livestock sectors, was adopted in 2021 and covers the AFOLU sector under the IPCC emissions source category. The RNR Strategy integrates resilience to climate change and low emission development as one of the key strategies to actualize transformational change in this integrated sector by building on the REDD+ Strategy, LEDS for Food Security 2021, and the National Strategy for Sustainable Socio-economic Development through the Commercialization of Organic Farming 2019 (NDC, 2021).

**47. The Climate Change Policy of the Kingdom of Bhutan 2020** was adopted with a vision for “a prosperous, resilient and carbon neutral Bhutan where the pursuit of gross national happiness for the present and future generations is secure under a changing climate.” The policy aims to (i) provide strategic guidance to ensure that Bhutan remains carbon neutral and protect the wellbeing of the people of Bhutan by adapting to climate change in an efficient and effective manner (ii) ensure meaningful participation of all relevant stakeholders in climate change action in a coordinated and coherent manner with clear roles and responsibilities and (iii) ensure that the challenges and opportunities of climate change are addressed at all appropriate levels, through adequate means of implementation (finance, technology, capacity building and awareness) and integration into relevant plans and policies (NDC, 2021).

**48. The national institutions for coordination of climate change actions** across key agencies and stakeholder groups have been revitalized with the Climate Change Coordination Committee (C4) from the erstwhile Multisectoral Technical Committee on Climate Change. In addition, a climate change ‘one stop platform’ is being set up to help coordinate multi-stakeholder dialogue to develop and implement climate related work in Bhutan, with the aim to improve coordination between the different climate-sensitive sectors, enhance knowledge management and improve reporting and monitoring of all climate actions in Bhutan (NDC, 2021).

**49. The Renewable Energy Master Plan (2017-2032)** was adopted as a strategy for the long-term implementation of renewable energy technologies. This master plan identified 39,462 MW of technically feasible small hydropower, solar and wind projects across the country. These renewable energy technologies provide a basis for both clean energy generation for mitigation and as adaptation to changing water flows and the impacts on hydropower in Bhutan (NDC, 2021).

#### **4. Environmental and social category**

**50. Based on the SECAP guideline, the environmental and social category for Bhutan is Moderate.** Bhutan is rich in forest, biodiversity and water resources. Land conversion, infrastructure development, and forest fires are key threats to forest and biodiversity; nevertheless, the loss is still minimal. However, exploitation of timber and fuel wood, wildlife poaching, unsustainable agricultural practices, pollution, invasive species, human wildlife conflict, climate change, over-grazing, and waste are the factors affecting the ecosystem. The protected areas and biological corridors are playing a vital role on biodiversity conservation. Bhutan is among one of the fastest growing countries and the multidimensional poverty rate has decreased significantly however, there are still significant pockets of poverty. Furthermore, there is still a gap between men and women in terms of employment opportunity, decision making and access to land.

#### **5. Climate risk category**

**51. The climate risk category of Bhutan is rated as high.** Bhutan is particularly vulnerable to the adverse impacts of climate change due to its fragile mountainous ecosystem and high reliance on climate sensitive sectors such as hydropower and agriculture. The country is exposed to hazards such as flash floods, including glacial lake outburst floods (GLOFs), forest fires, storms, and landslides. There is more likelihood of heatwaves and droughts affecting the lowland community more severely. The projected increase in temperature is likely to contribute to increasing snowmelt consequently affecting patterns of river discharge and water availability. Major crops are mostly rainfed or irrigated from rain charged spring waters and streams. Erratic rainfall patterns have been directly influencing both availability and amount of irrigation water leading to water stress in many locations. Unless addressed, productivity declines in smallholder agriculture and livestock is inevitable. Other impacts of climate change are from extreme conditions such as extended dry season, unusually heavy monsoon rain, extreme

hailstorm events, and outbreak of pest and disease incidences. Most villages across Bhutan are highly vulnerable to climate impacts and have low adaptive capacity as a result of their limited resource base and precarious socio-economic status.

## 6. Recommendations for project design and implementation

52. Through this CSN (2022-2023) period, IFAD has an opportunity to play an important role in transforming Bhutan's agri-food system and economic recovery from COVID-19 pandemic. Based on the findings from Bhutan's regional and national dialogues, and national food system transformation pathways submitted to the UN Food Systems Summit (FSS) in September 2021 and the lessons learned during the past two years of COVID pandemic, the government is in the process of reorganizing and reprioritizing the nation's plans and programmes, to meet the current and future challenges. Transformation of agri-food sector and youth and private sector engagement in agri-food sector are among the top priorities. COVID pandemic exposed the nation's food security and economic vulnerability. Every year Bhutan spends billions of Ngultrum (1 USD = Nu. 74.46) on import of agri-food products including cereals, vegetables, meat, and dairy products that worsens the nation's trade balance with India. Following the national pathways for food systems transformation submitted to the UN FSS and based on the current challenges facing the nation, the Ministry of Agriculture and Forests (MOAF) is in the process of formulating special plans and programmes to transform the agri-food sector through accelerated enhancement of agri-food production, value chain development and marketing, and youth and private sector engagement. With a sense of urgency, such special programmes and projects will be rolled out and implemented within the next two years, coinciding with IFAD's next CSN period.

53. IFAD's CARLEP is a well-designed project. It includes all the major issues facing the country and solutions that could transform the agri-food sector. IFAD's future projects and programmes in agri-food sector should take CARLEP's project design as its basis and improve upon it.

### 6.1 Recommendations on Gender and Social Inclusion

- i. Increase women's access to all opportunities and services: The programs should focus on the improving women and girls' equal access to all opportunities and services including employment, decision making, land rights and finance. The programs should adopt proactive targeting approach to benefit women, especially young, single, and very old aged category.
- ii. Increase easy access to information: Provide a broad range of relevant information related to farming, including new tools and technologies, finance, agri-inputs, post-harvest processing and value addition, and enterprise development.
- iii. Institution building: Support formation of women farmer/entrepreneur's groups and cooperatives.
- iv. Deliberate selection of economic opportunities and supply chains to be promoted that are inherently attractive and accessible to women while delivering good returns on labour.

### 6.2. Recommendations on nutrition within agriculture and climate change

From a nutrition sensitive programming perspective, there is need to align interventions with the National Nutrition Strategy and Action Plan (NNSAP) 2021-2025 that will coordinate closely with related strategies and plans to ensure best outcomes and optimize the use of resources, with a focus on interventions targeted to vulnerable populations in the context of a life cycle approach for prevention and control of malnutrition and disease. With a little less than a third using unimproved drinking water, risks are posed for water borne and food borne illness. Actionable and SMART indicators will need to be monitored and evaluated for programme implementation and nutrition outcomes.

### **6.3 Recommendations to enhance Environment and Climate change adaptation**

- i. Support to implement activities recommended by the second NDC.
- ii. Promote agroecology practices.
- iii. Build the knowledge of farmers on the merit of Climate Smart Agriculture. Capacitate project and stakeholders to integrate climate smart agriculture and climate proofing elements. It may include climate smart agriculture practices like conservation agriculture, selection of drought tolerant crop varieties, stress and disease tolerant livestock varieties, hay and silage making, soil and water conservation, agroforestry etc; strengthening climate information systems, climate proofing rural infrastructure, water harvesting, small scale irrigation and climate smart aquaculture.
- iv. Support ongoing NAP formulation process.
- v. Water shortage: Support for the climate resilient irrigation systems and sustainable stream management.

### **6.3 Recommendations to foster transformation of smallholder agri-food production**

- i. Initiate market-based production.
- ii. Encourage farmers to pursue integrated farming.
- iii. Encourage and promote contract farming.
- iv. Continue to create new farmers groups and cooperatives and strengthen the existing ones.
- v. Prioritize investments in infrastructure development like improved irrigation facilities, farm roads, land development, etc.
- vi. Focus on interventions that cover whole communities and larger number of households like providing better seeds and other inputs like organic fertilizers, feed and fodder, farm tools, equipment and spare parts, etc.
- vii. Provide support to protect crops from the wild animals.

### **6.4 Recommendations for youth and private sector engagement in agri-food sector**

- i. Start a one-stop youth and private sector engagement support service in Thimphu. Most youth engagement and business development services including financial institutes are based in Thimphu or near Thimphu. In addition, most youth from all across the country come to Thimphu in search of job and opportunities and reside here.
- ii. Develop a proper strategy for youth and private sector engagement in agri-food sector.
- iii. Based on lessons from CARLEP's youth engagement program, repackage youth support programmes. Go for an integrated and holistic approach.
- iv. Make entrepreneurship and practical training in farming a pre-requisite for youth interested in taking up farming.
- v. Initiate incubation and handholding programmes for aspiring youth entrepreneurs in agri-food farming, at least during the initial phase.
- vi. Prepare business plans and promote youth and private sector engagement across agri-food value chain—from production, aggregation and collection, storage, sorting, grading, and packing, processing, and value addition, transportation, and distribution, to marketing and trading. To this end, an emphasis on processing and preservation of micronutrient rich horticulture crops would also be needed for value addition, income, and nutrition.
- vii. Develop profitable hybrid and integrated model farms for youth that combines conventional and modern farming methods, deals with high value agri-food products for high-end markets and exports, and incorporates modern technologies and science.
- viii. Support concerned government agencies to provide legal instruments and fiscal and monetary incentives including subsidies to make farming profitable and meaningful for youth and private entrepreneurs.

### **6.5 Other Recommendations**

- i. Invest in marketing and market access infrastructure.
- ii. Invest in integrated value chain development.
- iii. Based on lessons and best practices of Koufuku International, invest in integrated agri-food processing centres.

- iv. Support government's agri-food based programmes to mitigate challenges caused by COVID-19 including economic recovery plans.
- v. Support implementation of action strategies included in Bhutan's national pathways to transform agri-food systems submitted to the UN in September 2021.
- vi. Support implementation of RNR Strategy 2040 (2030).

## 7. Monitoring and evaluation

54. Monitoring of the CSN and SECAP will be undertaken together with the monitoring of the on-going CARLEP project, and subsequently, together with the new project that will be designed in 2022. To make sure that the programmes achieve the desired impact, it will be important to include in the evaluation team a highly responsible and experienced Bhutanese consultant who remains aware of the actual impact being generated by the programmes. Otherwise, quite often, the evaluation team has no option but to depend on just the information provided by the project management and stakeholders and project activities they decide to have the team to visit. Such information may not match the actual performance of the programmes.

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