

Asian Development Bank and the International Fund for Agricultural Development

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THE PHILIPPINES

INTEGRATED NATURAL RESOURCES AND ENVIRONMENTAL MANAGEMENT PROJECT  
(INREMP)

**PROJECT DESIGN REPORT**

**Stage: Final Design Report**

Main Report and Annexes

ADB & IFAD JOINT MISSION

REPORT No. 3306-PH

September 2010

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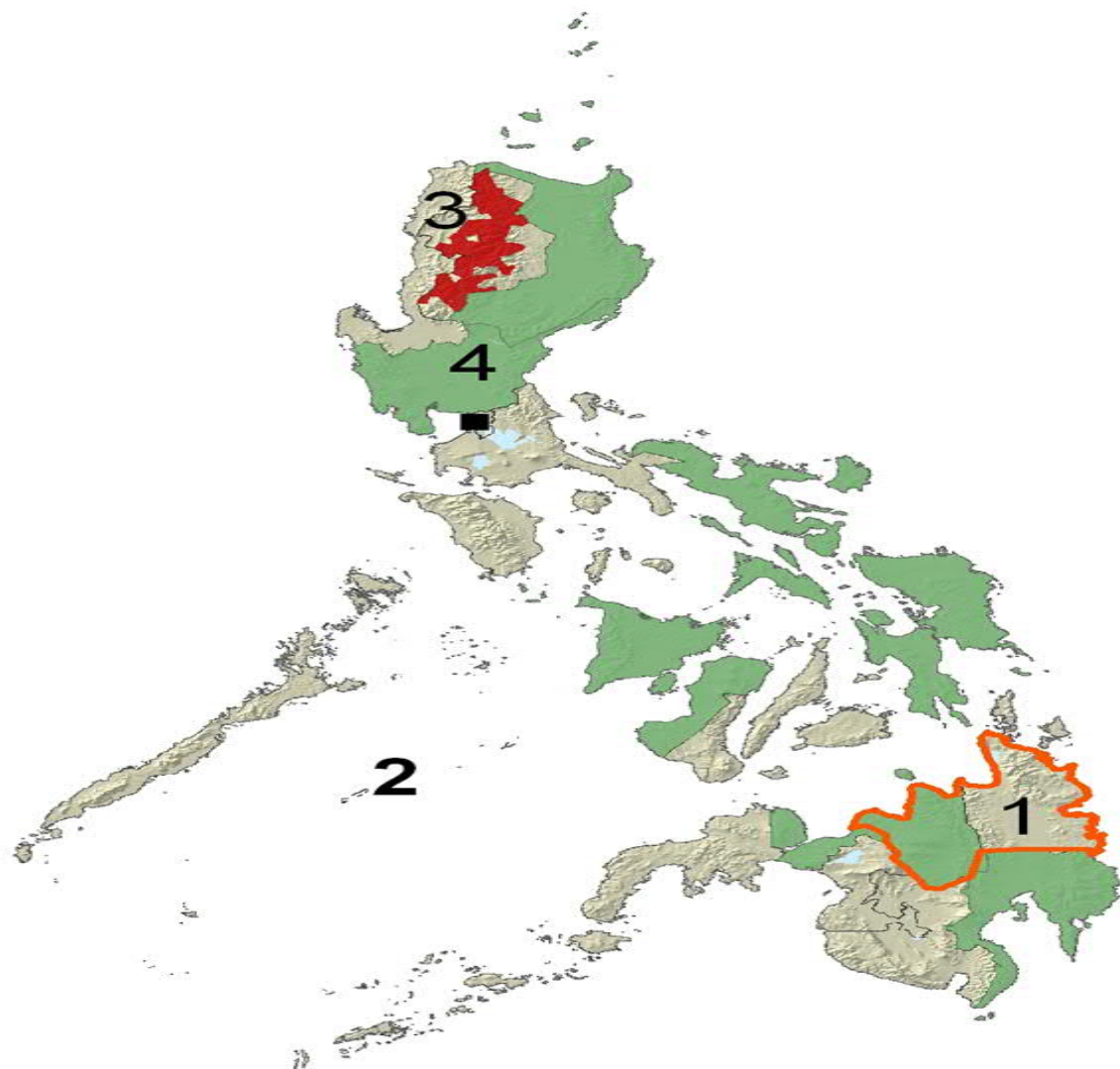
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2. Sector Analysis
3. Institutional Analysis
4. Past Experience & Lessons Learned
5. Detailed Description of Study Sites
6. Land Use Assessment
7. GIS Mapping, Modeling and Database Development
8. Land Management Regimes in URBs
9. Infrastructure Rehabilitation
10. Conservation Farming: Addressing the Needs for Livelihood Among the Poor within INREMP-URBs
11. Detailed Implementation Arrangements
12. Detailed Costs
13. Financial Management Including Flow of Funds
14. SIEE & Environmental Assessment Review Framework
15. Resettlement Framework
16. IP Development Framework
17. Gender Action Plan
18. Economic Analysis
19. Proposed Technical Assistance

**CURRENCY EQUIVALENTS**  
(Assumed US\$ rate as of September 2010)  
Currency Unit US \$  
US \$ 1.00 = PhP 47.00

**Abbreviations**

AD	Ancestral Domain
ADB	Asian Development Bank
ADSDPP	Ancestral Domain Sustainable Development and Protection Plan
ARMM	Autonomous Region for Muslim Mindanao (includes 5 provinces)
CBO	Community-Based Organization
CHARM	Cordillera Highland Agricultural Resource Management (project)
CLUP	Comprehensive Land Use Plan
DA	Department of Agriculture
DAR	Department of Agrarian Reform
DENR	Department of Environment and Natural Resources
DMC	Developing Member Country
ENRM	Environment and Natural Resources Management
FASPO	Foreign Assisted Special Projects Office
FLMA	Forest Land Management Agreement
FLUP	Forest Land Use Plan
FMB	Forest Management Bureau
GDP	Gross Domestic Product
ICRAF	International Center for Research in Agroforestry
IEE	Initial Environmental Examination
IFAD	International Fund for Agricultural Development
INREM	Integrated Natural Resources and Environmental Management
IP	Indigenous People
IPRA	Indigenous Peoples Rights Act
LGU	Local Government Unit
MFDP	Master Plan for Forestry Development in the Philippines
NAMRIA	National Mapping and Resource Information Authority
NCIP	National Commission on Indigenous Peoples
NEDA	National Economic Development Authority
NGA	National Government Agency
NGO	Non-Government Organization
NIPAS	National Integrated Protected Areas System
NPC	National Power Corporation
NSCB	National Statistics Coordination Board
PAMB	Protected Area Management Board
PES	Payment for Environmental Services
RBCO	River Basin Control Office
PO	People's Organization
TA	Technical Assistance
TWG	Technical Working Group
URB	Upper River Basin
USAID	United States Agency for International Development
WB	World Bank

## Map of IFAD Operations in the Country



- 4** Rapid Food Production Enhancement Programme
- 3** Second Cordillera Highland Agricultural Resource Management Project
- 2** Rural Microenterprise Promotion Programme
- 1** Northern Mindanao Community Initiatives and Resource Management Project

**PHILIPPINES  
INTEGRATED NATURAL  
RESOURCES AND ENVIRONMENTAL  
MANAGEMENT PROJECT**

**Chico River Basin**  
Northern Luzon  
Ifugao, Mountain Province, Kalinga  
Apaya (CAR), Cagayan (Region 2)  
Total Area: 455,000 Hectares

**Wahig-Inabanga River Basin**  
Central Visayas  
Bohol (Region 7)  
Total Area: 63,000 Hectares

**Upper Bukidnon River Basin**  
Northern Mindanao  
Bukidnon, Misamis Oriental,  
Lanao del Norte (Region 10),  
North Cotabato (Region 12)  
Total Area: 480,000 Hectares

**Lanao Lake River Basin**  
Northern Mindanao  
Lanao del Sur (ARMM)  
Lanao del Norte (Region 10)  
Total Area: 141,000 Hectares

**Legend:**  
River Basin  
National Capital  
Major City  
Provincial Boundary  
Boundaries are not necessarily authoritative.  
ARMM - Autonomous Region in Muslim Mindanao  
CAR - Cordillera Administrative Region

**Scale:**  
0 50 100 150  
Kilometers

**Geographical Features:**  
South China Sea, Pacific Ocean, Philippine Sea, Sibuyan Sea, Visayan Sea, Panay Gulf, Bohol Sea, Sulu Sea, Moro Gulf, Celebes Sea, Babuyan Channel, Leyte Gulf.

**Islands and Regions:**  
LUZON, VISAYAS, MINDANAO.

**Major Cities:**  
Manila, Cebu, Davao City, Zamboanga, etc.

**Coordinates:**  
119°00'E, 125°00'E, 16°00'N, 8°00'N.

**Watermark:**  
PROOF ONLY

**Cleared/Updated by:** NEERAJ JAIN, PhD  
BAREND FRIJLINK, SEOD  
12 June 2009

**Edited by:** RICARDO CHAN, OSEC  
12 June 2009

**Note:** First Proof, 24 April 2010

## **INTEGRATED NATURAL RESOURCES AND ENVIRONMENTAL MANAGEMENT PROJECT (INREMP)**

### **Final Project Design Report**

#### **I. INTRODUCTION**

1. The International Fund for Agricultural Development (IFAD) and the Asian Development Bank (ADB) jointly funded the Highland Agricultural Development Project (HADP) within the Cordillera Administrative Region (CAR) from 1986 to 1994, and the Cordillera Highland Agricultural and Resources Management Project (CHARMP1) from 1997 to 2004. These two projects addressed the issues related to sustainable natural resource management, agricultural development and the conflict of agricultural production and natural resource protection in CAR. During negotiations for CHARMP2 in 2008 the Government of the Republic of the Philippines (GOP) sought assistance from ADB and IFAD in scaling up CHARMP covering the other Regions of the Philippines. ADB acquiesced. As a response ADB and the GOP provided project preparatory technical assistance (PPTA) for preparing the Integrated Natural Resources and Environmental Management (INREM) Sector Development Program in July 2008.

2. Following the inception of the PPTA, ADB and GOP supported the preparation of a Feasibility Study for a sector-like Project and then developed a strategy and an investment plan for INREM for the period 2010–2020. The Department of Environment and Natural Resources (DENR) convened a multisectoral Technical Working Group (TWG), with representation from various government agencies to provide relevant technical information and guidance for the development of a project and the investment plan for INREM. The feasibility study, which became the Project Formulation of the sector Project of INREM, or Integrated Natural Resources and Environmental Management Project (INREMP), took note of lessons learned from CHARMP 1 and ongoing initiatives for CHARMP 2. During the negotiation between IFAD and the GOP for CHARMP 2, the latter sought co-financing assistance from IFAD for INREMP.

3. IFAD subsequently finalized in 2008 an IFAD Inception Report for INREMP that is essentially based on the findings of the IFAD Appraisal Mission fielded in early 2007 for the CHARMP 2 and the Post Appraisal Mission fielded in September–October 2007 to assist ADB, IFAD and the GOP in conceptualizing the INREM. The IFAD country programme management team (CPMT) endorsed the Inception Report and the Inception Memorandum of IFAD for INREM at its session held on 30 April 2008. IFAD Management subsequently approved these in 2008, signaling the official entry of INREMP into the IFAD pipeline.

4. The present final Project Design Report, prepared by an appraisal mission<sup>1</sup> that visited the country in August 2010, builds on the work undertaken by the initial sector study in the INREMP and the Formulation mission of INREMP in early 2008 and the feedback provided by IFAD's management including the Quality Enhancement Review (QER) held in June 2010.

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<sup>1</sup> The mission comprised of Ms Mary Ann Pollisco-Botengan (the Social Development and Rural Institutions Specialist), Mr David Colbert, Senior Environment Officer of the Investment Centre of the FAO (the Natural Resources and Environmental Management Specialist) and Mr Anura Herath, IFAD-Sri Lanka Country Officer (the Team Leader and Economist). Mr Yolando Arban, the IFAD-Philippines Country Officer joined the Mission on 9 August and assisted it in organizing and conducting its meetings and field visits. Mr. Sana F. K. Jatta, IFAD Country Programme Manager, joined the mission on the 20<sup>th</sup> of August, stayed in the country till the 31<sup>st</sup> August, guided the mission during the rest of its consultations, and participated in the debriefing sessions and both sessions of the Mission's wrap-up meetings, and undertook the field visits to CAR with Ms. Pollisco-Botengan.

## **II. STRATEGIC CONTEXT AND RATIONALE FOR IFAD AND ADB INVOLVEMENT, COMMITMENT AND PARTNERSHIP (KSF 1)**

### **A. Rural Development Context**

#### **Poverty and Natural Resource Management**

5. Agriculture, fisheries and forestry were the major source of income and employment in the economy during the period of 1950s to 1980s. The predominant subsector in agriculture is arable production. The share of the agriculture sector in the real GDP fell from 23.0% to 18.6% during 1986 – 2006 period. The share of the forestry subsector too declined from 1.7% to 0.1% during the same period, indicating rapid deforestation (see WP 2 for details). The share of agriculture is expected to decline further.<sup>2</sup> Although agriculture performed poorly in relative terms in the 1980s and 1990s, growth of the sector in absolute terms improved during 2001–2006, averaging about 3.7% per year.

6. The population below the poverty line increased by 2.59 million from 23.95 in 1997 to 26.54 million in 2000 and then to 27.6 million in 2006. Further the number of hungry people reached 12.2 million in 2006, almost 15% of the total population. The highest percentage of the poor are employed in agriculture and forestry subsectors. They are generally unskilled labour (70%) and have limited access to land and capital. The seasonality of agricultural production with low cropping intensities and low diversification has resulted in poor income from agriculture and unemployment (estimated at 8.42% in 2006) and underemployment (19.42% in 2006) in rural areas. The main causal factors include: (i) distortionary policies limiting farm and economic diversification; (ii) inadequate provision of public goods and biased nature of public expenditure in rural areas; (iii) limited access to productive resources including land and credit; (iv) unsustainable natural resource management; and (v) poor alignment of the institutional framework with the demands of the agriculture sector<sup>3</sup>. Resolving these factors and improving the productivity of the rural sector are key challenges facing the sector.

7. Poverty in the Philippine is mainly a rural phenomenon (see WP 1 for poverty details). Almost three out of four, or 73%, of the total poor people live in rural areas which results in a considerably higher poverty rate of 48.8% in these areas in comparison to 18.6% in urban areas.<sup>4</sup> The poverty situation is even worse among the Upland communities and particularly those who are living in Upper River basins (URBs) including the URBs selected as the Project area in comparison to the national average of 32.9% (2006). The rate changes from 37.2% in Bukidnon, 46.9% in Bohol, 58.5% in Lanao de Sur, and 63.1% in Apayao of the Cordillera Administrative Region (CAR). Indigenous peoples (IP) and other ethnic minorities (EM) constitute about 75% of the population that reside in the headwaters of the river basins and their poverty level is similar or more than their counterparts in the rural areas (see WP 1 for details).

#### **Performance Indicators and Analysis**

8. Underutilization and mismanagement of natural resources is a primary driver of the vicious cycle of poverty and environmental degradation in rural areas, particularly in URBs where economic production is largely based on land and other natural resources. The potential to alleviate poverty through natural resource management however has received scant attention. Further the impact of the deteriorating environment in the upper river basins has been neglected. Shortage of water for irrigation, power generation, and for industrial and domestic use is a direct result of poor environmental management. Further limited agricultural production due to lack of irrigation constrains development initiatives. The significance of the environment and natural resources (ENR) sector as a centerpiece of the country's natural resource base and ecosystems that impinges on the national productivity in the agriculture, forestry and fisheries sectors is therefore recognized by the government.<sup>5</sup>

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<sup>2</sup> ADB. 2007. *Philippines: Critical Development Constraints*. Manila.

<sup>3</sup> Agricultural and Rural Development Sector in the Philippines. ADB Rapid Sector Assistance Program Evaluation, SAP: PHI 2008-XX. August 2008.

<sup>4</sup> MTPDP, 2004.

<sup>5</sup> MPFD, 2003.



9. **Utilization of Land Resources.** With its large and growing population, and high vulnerability to natural disasters that is likely to be compounded by the impact of climate change, the Philippines needs to have its land resources managed effectively to strike the right balance between competing uses. About 38% of the country's agriculture is practiced on land with slopes more than 8%, which is the threshold at which erosion becomes problematic. Over 60% of that area is considered to be at risk of severe or moderate erosion which needs judicious land use practices (see WP 2 for details).

10. **Forest Products.** The Revised Master Plan for Forestry Development in the Philippines (MPFD, 2003) of the Department of Environment and Natural Resources (DENR) shows that the gross value added in forestry decreased steadily from PhP 2.3 billion in real terms in the 1980s to PhP 1.17 billion in 2000-2007. The figures capture only the monetary contribution to the economy, but not to the environment<sup>6</sup>. Environment is also affected. The steady decline in the quality and extent of forest cover has reduced the ability of forests to contribute positively towards water conservation and industrial raw materials supply. It also resulted in hitherto undetermined level of degradation in biodiversity resources (see WP 2 for details).

11. Since the 1960s, forest conversion and degradation took an alarming rate leading to a decline of the forest cover from about 17.8 million ha in 1934 to 7.2 million in 2003. Although there has been considerable investment in reforestation and commercial plantation establishment, only about 330,000 ha of plantations forest were recorded in 2005. From being a major log exporter during 1950-1970s the Philippines has now become a net importer of logs. The ban on the export of lumber resulted in a drop of the production from 1.5 million m<sup>3</sup> in the 1980s to only 288,000 m<sup>3</sup> in 2005. Similarly production of veneer and plywood decreased while domestic production was replaced by imports, which increased steadily after 1990, reaching a combined total of about 1.06 million m<sup>3</sup> (USD166M) in 2000. This has however decreased to 300,000 m<sup>3</sup> (USD123M) in 2007<sup>7</sup> (see WP 2 for details).

12. **Bio-diversity and Endemism.** The Philippines has several centers of biological diversity and endemism. More than half of about 1,130 terrestrial wildlife species are found only in the Philippines (see WP 2 for details). Its floral diversity consists of about 10,000 to 14,000 species of vascular and non-vascular plants and more than half of them are endemic. Many more species remain unknown. The Philippines is now considered to be one of the 17 mega-diversity countries, making Philippine biodiversity an integral part of the global heritage. The Philippines is in the list of 25 global biodiversity hotspots. The country however faces one of the highest levels of endangerment.<sup>8</sup> As noted in this report, the project includes a GEF grant for improving biodiversity conservation at one of the project sites.

13. **Water Resources.** Despite the high average rainfall (2000 mm), the country is estimated to have the second lowest available per capita freshwater in Asia. Freshwater supply is diminishing due to over-extraction of groundwater, water pollution, saltwater intrusion, denuded forests/watersheds and degraded catchment basins and, occasionally, the El Niño phenomenon. It is estimated that the total population served by potable water in the Philippines is about 80% and many Filipinos still do not have access to clean and affordable water<sup>9</sup> (see WP 2 for details).

14. **Hydropower.** About 18% of the nation's electricity is hydro-power, which has the additional benefit of avoiding emissions of CO<sub>2</sub>. However, this capacity is under threat, and is declining due to rapid siltation of reservoirs. It has caused the shortening of reservoir life-spans affecting both hydroelectric power and water supply. This issue is particularly important in Mindanao, where about 55% of the electrical power is hydro-power. The Lake Lanao URB is a major provider of hydropower for the Mindanao region and studies have shown that as a result of reduced water flow from the Lanao lake, power output is currently only about 50% of installed capacity (see WP 2 for details). An estimated 2.9

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<sup>6</sup> NSCB, 2009.

<sup>7</sup> This decrease may be explained by the significant increases in plantations productions in recent years, although import substitution from illegal sources may be substantial.

<sup>8</sup> Experts consider that the Philippines is in the midst of a biodiversity crisis as more than 93% of its original forest cover has been lost over the last 500 years and 418 threatened species are already in the 2000 IUCN Red List.

<sup>9</sup> MTPDP 2006-2010.

million ha of farmlands are within irrigation schemes, but the effective area currently productive is only 1.5 million ha due to shortages in water supply and siltation of the reservoirs.

## **B. Policy, Governance and Institutional Issues, Political and Economic Issues**

### **Policy**

15. Government has enunciated an array of sector policies, laws and regulations on forestry, protected areas, wildlife conservation, agriculture, public works, energy, air and water quality, waste management, and mining with significant implications for the management of URBs. Cutting across these sector policies are social policies such as devolution of government jurisdiction and responsibilities, indigenous peoples' rights and agrarian reform. Such a plethora of policies and supporting legislation is reflected in complex institutional arrangements with often overlapping responsibilities (see WP 3).

16. The government's long-term vision and plans for the forestry sector are embodied in the 25-year MPFD, formulated in 1990 and updated in 2003. In 1995 the government adopted community-based forest management (CBFM) as the national strategy to ensure the sustainable development of the country's forest resources. The National Integrated Protected Areas System (NIPAS) of 1992 supports the government's mandate to delineate and sustainably manage all protected areas in the country. By 1999, government adopted sustainable forest management as the official policy framework for all plans and programs in forest protection, development, and conservation. Further, the government has committed to various multilateral ENR related agreements.

### **Institutional Directions**

17. **DENR Initiatives.** In line with decentralization and shift from regulatory to a developmental agency, the DENR performs its forest management functions<sup>10</sup> with the assistance of staff bureaus namely, Forest Management Bureau (FMB), Protected Area and Wildlife Bureau (PAWB), and Ecosystem Research and Development Bureau. Present laws and regulations governing utilization and management of forest resources are still largely based on approaches and strategies formulated about 30 years ago<sup>11</sup>, when the country was timber abundant and having low population pressure. Therefore, much of the provisions have outlived their operational use. Current policies focus on much broader and multi-dimensional sustainable forest management, especially on community-based forest resource management, for which Revised Forestry Code 705 provides no framework (see WP 3 for details and other policies).

18. DENR has years of experience in managing and implementing foreign assisted projects. As of end of 2007, DENR had 33 on-going foreign assisted and special projects, of which seven are loans/loans with grants, with estimated total costs of US\$ 365 million. For 2009, DENR has a total of PhP 358.5 million loan proceeds in its appropriations for a total of PhP 542.5 million foreign Assisted Projects. Sources of loans are ADB, International Bank for Reconstruction and Development (IBRD) & Kreditanstalt fur Wiederaufbau (KfW)<sup>12</sup>. Such projects are implemented through the DENR's field offices, the Regional (ROs), Provincial Environment and Natural Resources offices (PENROs) and Community Environment and Natural Resources Offices (CENROs) (see WP 4 for details).

19. **Opportunities in ENRM for Rural Development and Poverty Reduction.** The watershed and ecosystems approach to natural resources management and environmental protection provides an effective paradigm for its proper and sustainable development. It considers the dynamic and complex interactions of living organisms, their physical surroundings and the natural cycle that sustains them as a functional unit. This approach provides a framework that balances the often conflicting and competing

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<sup>10</sup> DENR has the legal mandate to formulate policies and implement programs on natural resources and the environment. Its jurisdiction extends to most of public domain, classified forestlands, mineral lands, natural parks and reservations.

<sup>11</sup> PD 705 (May 19, 1975) known as the Revised Forestry Code of the Philippines.

<sup>12</sup> Budget Expenditure/Sourcing 2009, DBM

demands on natural resources and the environment so that the welfare of the succeeding generations are not sacrificed by present use.

20. With increasing water demand, there is a need to adopt a more integrated and holistic management of water resources such as the Integrated Water Resources Management (IWRM) approach. IWRM involves development and management of water, land and related resources within hydrological boundaries in a coordinated manner. It also optimizes economic and social welfare without compromising the sustainability of vital ecosystems.

### **Development coordination that supports the rationale for the project**

21. Within the GOP, institutional arrangements for development coordination are largely through NEDA. The MTPDP prepared by NEDA with sectoral inputs from line agencies serves as the development blueprint. At the national level, ongoing initiatives at development coordination is through the Philippine Development Forum (PDF) where country agencies and donors are provided the venue for policy dialogue.

22. Considering the highly politicized mode of initiative prioritization in the country, strong donor coordination and effective and efficient use of available donor and partner resources is imperative. The PDF working group on sustainable rural development of which ADB and IFAD are active members, provides a potent venue for development coordination (Annex 3).

## **C. The IFAD Country Projects<sup>13</sup>**

23. The conceptual framework and the project design of INREMP aim to upscale the experiences and lessons learnt about upland agriculture and natural resource management from a series of IFAD and ADB supported projects in the Philippines, particularly in the Cordillera highlands and Mindanao Island (see WP 4 for details). IFAD's contribution to INREMP draws from the interim evaluation of both the Cordillera Highland Agricultural Resource Management Project (1996-2004) and the Western Mindanao Community Initiatives Project (1999-2007), as well as the impact surveys and project completion report of the NMCIREMP. INREMP will be the first project having been designed under the IFAD Country Strategic Opportunities Programme (COSOP) for the Philippines (2010-2015). A key strategic objective of the IFAD's Results Based COSOP concerns upland areas development, focusing on the Indigenous Peoples (IPs), which will aim at enabling upland poor households in the 20 poorest provinces of the country exercise control over their resources and gainfully use these sustainably. This is at the core of the proposed INREMP. The proposal represents the conceptual framework of a possible sector wide programme for the uplands. Its main components include: (i) watershed management planning; (ii) promotion of sustainable livelihoods on the uplands; (iii) watershed rehabilitation and conservation; (iv) infrastructure development; and (v) programme management and coordination.

24. The financial contribution of IFAD to INREMP, estimated to be between USD 20 million, will be made available to the Government of the Philippines as a loan on intermediate lending terms.

## **III. POVERTY, GENDER, SOCIAL CAPITAL AND TARGETING (KSF 2)**

### **A. Geographic Coverage of the Project**

25. Project site selection was guided by the interagency TWG chaired by DENR, after consultations with different sectors and agencies. The TWG initially recommended that the PPTA study four representative river basins based on institutional priorities and availability of data for assessment purposes. The four river basins cover 23 watersheds extending to over 1.13 million hectares with an estimated population of around 1.8 million. Approximately 220,000 household beneficiaries are targeted under the Project covering nine provinces, 81 cities and municipalities, and some 1,332 barangays. Main

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<sup>13</sup> The Philippines: - Integrated Natural Resources and Environmental Management Programme – Joint ADB-IFAD Loan Fact Finding (Formulation) Mission – Supplementary Terms of Reference of the IFAD Team. August 2009.

beneficiaries are marginal households with small landholdings. IP groups and other ethnic minorities<sup>14</sup> (EM) constitute around 75% of the total beneficiaries that reside in headwaters of the river basins (see Tables 1 and 2 and WP 1 for details).

26. Together the four sites encompass the entire range of INREM issues ensuring that lessons learned there can be replicated across the country. Eventually, the four became the core INREMP sites as follows:

- a. Chico River Basin (Cordillera Region, Luzon), the headwaters of which form a triangle with those of the Agno and Magat (the location of the first ever IFAD supported project in the Philippines) rivers having hydropower facilities, ecologically significant but highly vulnerable to land conversion to high value agriculture, 95% IPs with 51.4% poverty incidence;
- b. Wahig-Inabanga River Basin (Bohol Province, Visayas), the smallest of the four URBs in terms of area and least populated, encompassing a large agricultural area with an irrigation dam servicing about 5,000 ha, having about 1% IPs and 46.9% poverty incidence;
- c. Bukidnon River Basin (Bukidnon and Misamis Oriental Provinces, Mindanao), comprising the upper portions of four river basins that rise on the slopes of Mt. Kitanglad, the Kalatungan Range, and the Muleta-Manupali Watersheds, the latter being the source of water for the 250MW Pulangi IV Hydro-power plant, providing 25% of Mindanao's power, 69% are IPs and 37.35% poverty incidence; and,
- d. Lake Lanao Watersheds (Lanao del Sur, Autonomous Region in Muslim Mindanao), the largest lake in Mindanao and the second largest in the Philippines with six hydroelectric plants installed downstream of Lanao Lake along the Agus River generating 62% of the electricity used by the people of Mindanao, 91% are ethnic minorities, and poverty incidence is 58.5%.

27. The Project is also expected to contribute to achievement of targets under the International Waters (IW) focal area. In Lake Lanao Basin, Bukidnon River Basins and Wahig-Inabanga River Basin, the Project will initiate interventions that are expected to contribute to the reduction of nutrient runoff from agricultural lands and agro-forestry areas, through the improvement of farming practices and restoration of vegetative cover to reduce soil erosion, siltation, sedimentation, and discharge of harmful pollutants that contribute to oxygen depletion in coastal waters of Iligan Bay, Macajalar Bay and Bohol Sea which are part of the coverage of the Coral Triangle Initiative.

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<sup>14</sup> EM of Lake Lanao known as Meranao, generally of Muslim affiliation; prefer to be identified as EM.

The Philippines: Integrated Natural Resources and Environmental Management Project  
PROJECT DESIGN REPORT - MAIN REPORT

**Table 1: INREM Area Coverage**

Geographic level	NO	CHICO	NO	WAHIG	NO	BUKIDNON	NO	LAKE LANA O	TOTALS
Component Watersheds	8		4		6		4		23
	1	Tabuk	1	Wahig-Pamaksalan	1	Kitanglad-Manupali	1	Bubong	
	2	Conner	2	Danao	2	Talakag	2	Malaig	
	3	Tuao	3	Dagohoy	3	Sumilao-MF - Malitbog	3	Taraka Gata	
	4	Balbalan	4	Inabanga	4	Malaybalay-Impasugong	4	Saguiaran-Marawi	
	5	Lubuagan			5	Baungon-Libona	5	West	
	6	Bontoc			6	Kalatungan-Muleta			
	7	Barlig-Tanudan							
	8	Bauko							
Region	1	CAR	1	Region 7	1	Region 10	1	ARMM	4
Province		5		1		2		1	9
	1	Apayao	1	Bohol	1	Bukidnon		Lanao del Sur	
	2	Benguet			2	Misamis Oriental			
	3	Ifugao							
	4	Kalinga							
	5	Mt. Province							
Municipality		20		15		19		27	81
	1	Balbalan	1	Buenavista	1	Baungon	1	Bacolod Grande	
	2	Banaue	2	Carmen	2	Cagayan de Oro	2	Balindong	
	3	Barlig	3	Dagohoy	3	Damulog	3	Bayang	
	4	Bauko	4	Danao	4	Dangcagan	4	Binidayan	
	5	Bontoc	5	Duero	5	Don Carlos	5	Bubong	
	6	Conner	6	G. Gernandez	6	Impasugong	6	Butig	
	7	Hungduan	7	Inabanga	7	Kadingilan	7	Ditsaan Ramain	
	8	Kabugao	8	Jagna	8	Kibawe	8	Ganassi	
	9	Lubuagan	9	Pilar	9	Kitaotao	9	Lumba-Bayabao	
	10	Natonin	10	Sagbayan	10	Lantapan	10	Lumbatan	
	11	Pasil	11	San Miguel	11	Libona	11	Lumbayanague	
	12	Pinukpuk	12	Sierra Bullones	12	Malaybalay	12	Madalum	
	13	Rizal (Liwan)	13	Talibon	13	Malitbog	13	Madamba	
	14	Sabangan	14	Trinidad	14	Manolo Fortich	14	Maguing	
	15	Sadanga	15	Ubay	15	Maramag	15	Marantao	
	16	Sagada			16	Pangantucan	16	Marawi City	
	17	Tabuk			17	Sumilao	17	Masiu	
	18	Tanudan			18	Talakag	18	Mulondo	
	19	Tinglayan			19	Valencia City	19	Pagayawan	
	20	Tinoc					20	Piagapo	
							21	Poona ayabao	
							22	Pualas	
							23	S.Dumalondong	
							24	Saguiaran	
							25	Tamparan	
							26	Taraka	
							27	Tugaya	
Barangays		259		130		212		731	1,332

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**Table 2: Summary Table of INREMP Sites**

No	URB / SWS	Area (km <sup>2</sup> )	% Of Total	Poverty Incidence*	No of Municipalities/ Cities Covered	No of Barangays	Covered Population	Population Density (km <sup>2</sup> )	No of Beneficiary Households	Est. % IP in Province/ URB	Ethnicity*	Characteristic*
	CHICO	4,545.52	40	51.4	45	259	379,713	83.54	33,460	95	Kanakan-ey, Applai, Bontok, Kalinga, Ifugao, Isneg	Homogeneous-Dominant
1	Tabuk	605.39	13		4	41	73,327	121.12	9,166			
2	Conner	568.48	13		3	20	42,170	74.18	5,271			
3	Tuao	796.81	18		7	8	120,655**	151.42	1,078			
4	Balbalan	776.75	17		5	42	24,583	31.65	3,073			
5	Lubuagan	729.24	16		6	50	38,167	52.34	4,771			
6	Bontoc	411.88	9		8	23	28,731	69.76	3,591			
7	Barlig-Tanudan	355.86	8		6	21	8,345	23.45	1,043			
8	Bauko	301.11	7		6	54	43,735	1.45	5,467			
	WAHIG-INABANGA	627.93	6	46.9	21	130	139,778	222.6	17,472	0.07	Eskaya	Homogeneous-Minority
1	Wahig-Pamaksalan	138.89	22		5	36	41,174	296.45	5,147			
2	Danao	133.39	21		5	18	14,616	109.57	1,827			
3	Dagohoy	216.37	35		7	32	46,370	214.31	5,796			
4	Inabanga	139.28	22		4	44	37,618	270.09	4,702			
	BUKIDNON	4,798.70	42	37.35	27	212	571,739	119.14	82,035	69	Bukidnon, Talaandig, Higaonon, Manobo, and Matigsalog	Heterogeneous-Minority
1	Manupali	509.57	11		3	16	59,299	116.37	8,471			
2	Talakag	650.07	14		1	21	31,801	48.92	4,543			
3	Sumilao-MF-Malitbog	1,326.05	28		4	32	91,264	68.82	13,038			
4	Malaybalay-Impasugong	525.85	11		4	45	178,614	339.67	25,516			
5	Baungon-Libona	948.21	20		5	34	91,887	96.91	13,127			
6	Kalatungan-Muleta	838.96	17		10	64	118,874**	141.69	17,340			
	LAKE LANAo	1,413.39	12	58.5	34	731	720,649	509.87	90,081	91	Meranao (with pockets of Higaonon, Kolibugan & Iranon)	Homogeneous-Dominant
1	Bubong	195.46	13.8		6	89	73,743	377.28	9,218			
2	Malaig	354.03	25		7	87	94,875	267.99	11,859			
3	Taraka Gata	547.89	38.8		7	199	170,007	310.29	21,251			
4	Saguiaran-Marawi	141.05	10		3	153	222,633	1,578.40	27,829			
5	West	174.96	12.4		11	203	159,391	911.01	19,924			
23	TOTALS	11,385.55		32.9 (National)	127/81***	1332	1,811,879	159.14	223,048	73.6	16	

\* NSO 2006

\*\* Included total population in the river basins with Cagayan of Region II and North Cotabato of Region XII.

\*\*\* Actual total is 81; avoided double counting as some municipalities straddle two or more watersheds.

## B. Rural Poverty, Information and Analysis

### National Poverty Scenario

28. Poverty<sup>15</sup>, compounded by inequality, is the foremost problem in the Philippines. In 2006, over 4.7 million Filipino families are considered poor, which is a 3% increase from 2003. The Philippine Poverty Threshold for 2006 increased by 22% from PhP 5,129 in 2003, which means that for a family of five, a monthly income of PhP 6,274 is needed to stay out of poverty (WP 1).

29. In 2006, eight out of the 20 poorest provinces are located in Mindanao, representing 12% of the total poor families in the Philippines. Poverty incidence is highest in the Mindanao regions of ARMM and Caraga. In terms of magnitude of poor families, Regions V and VI are the highest, representing 9.9 and 9.5 % of the total poor families nationwide, respectively. CAR has the lowest number of poor families in the country, with 4.3% of the total poor families in the country in 2006.

### Poverty at the Project Site Level

30. Table 3 presents the summary poverty statistics in the initial nine<sup>16</sup> provinces included in the Project. Within each of the identified nine provinces, poverty incidence varies with the top three being Apayao (63.1%) followed by Lanao del Sur (58.5%) and Kalinga (51.9%) (see WP 1).

**Table 3: Annual Per Capita Poverty Threshold, Poverty Incidence among families and among population in the Provinces of the identified Project Sites, 2006**

REGION	PROVINCE	Annual Per Capita Poverty Threshold (in Pesos)	Magnitude of Poor Population	Poverty Incidence Among Population	
				%	Rank
Philippines		15,057	27,616,888	32.9	
CAR	Apayao	17,837	67,907	63.1	4
CAR	Benguet	17,483	71,190	11.1	78
CAR	Ifugao	15,556	69,605	40.3	47
CAR	Kalinga	15,031	94,995	51.9	22
CAR	Mt. Province	16,785	74,512	50.4	26
VI	Bohol	13,610	532,711	46.9	37
X	Bukidnon	12,186	438,293	37.2	53
X	Misamis Oriental	14,787	478,387	37.5	51
ARMM	Lanao del Sur	16,567	442,338	58.5	9
Total		135,287	2,426,202		

Source: NSO 2006.

### Nature of Poverty at the Village Level

31. Site assessment was conducted and through root-cause analysis, it was determined that the following key issues are determinants of poverty in INREMP sites at the village level (WP 1 provides details):

- (i) Lack of Security of Tenure. Various tenurial conditions such as ancestral domain claims, sharing, leasing, and tax declarations are observed across sites. Noting that practically all lands are state-owned within upper river basins, various land uses are evident.

Average landholding by households in INREMP sites range from half (0.5) to 5.78 hectares. For communities in the Chico River Basin and Lake Lanao, average landholding is at half a hectare across the sample groups. In Wahig-Inabanga, average landholding is one hectare, similarly for mid-stream and downstream residents in Muleta-Manupali. Average landholding is highest in the upstream communities of Muleta-Manupali at 5.78 ha.

<sup>15</sup> NSCB, 2007.

<sup>16</sup> At Fact Finding, this was increased to 12 provinces.

Historically, upland dwellers, who were mostly indigenous people and the poor were gradually pushed upland by migrant settlers who took control of the highly arable lowlands, thereby effectively disenfranchising the indigenous people from control over the significantly more productive lands.

- (ii) Poor access to technological information. Of the four sites, the upstream communities of Wahig-Inabanga and Lake Lanao have the least access to information; generally limited to current events and government projects. Across all sites, the most accessed sources for different information types are radio and television followed closely by government personnel/technicians.
- (iii) Limited Support Services. The levels of satisfaction of the upstream, mid-stream and downstream communities across the four project sites vary significantly, although much of the social services and utilities are available and accessible within their respective barangays.

For the Chico River Basin upstream communities, education and electricity in up-stream communities is a major issue. For the mid-and downstream communities of the Chico River Basin it is water and health-services that are lacking. For Wahig-Inbanga, it is education that is lacking for upstream communities. In Lake Lanao delivery of all basic social services were deemed unsatisfactory by the residents except for electricity in the upstream areas. Muleta-Manupali upland residents, on the other hand, are completely satisfied with their access to all basic social services.

- (iv) Limited Access to Credit/Capital. Access to informal sources of capital is present in almost all the project areas, except for the Chico River Basin (mid-stream and downstream) and the upstream and downstream communities of Wahig-Inabanga. Quite notable is the presence of formal micro-finance institutions in all communities of Upper Bukidnon and midstream of Wahig-Inabanga. For the rest of the communities, financing is sourced through informal sources.
- (v) Low Agricultural Productivity. Across all areas, two cropping cycles are observed annually. Rice and corn are planted for the 1<sup>st</sup> cropping cycle and vegetables are the common option for the 2<sup>nd</sup> cropping. The Chico River Basin and Lake Lanao communities are limited to rice and vegetables, while the other two project sites have corn farmers. In Bukidnon (Muleta-Manupali) coffee is also grown to augment the income of the upland farmers. The average rice and corn yield ranges from 2 to 3 tons per ha per year for all areas except Lake Lanao where rice production averages 13.5 tons per year.
- (vi) Low Income and Household Consumption. Some mid- and downstream residents are able to augment their income from non-farming activities by an average of PhP 60,000 to PhP 90,000 per annum. In Lake Lanao, illegal logging activities have been documented. Upstream residents on the other hand, rely significantly on farming activities for income, which ranges from PhP 60,000 to PhP 90,000 per annum. Although the average annual household income of PhP 60,000 to PhP 90,000 appears significant, comparing the average income with the poverty threshold for the covered provinces of the project sites show that a person would need an average of PhP 15,032 to minimally cover basic needs. For the average family of 8 (in the project sites), the annual poverty threshold is PhP120,255, still 34% lower than the maximum average income of the typical upland farmer.

### C. The Target Group, Including Gender Issues<sup>17</sup>

32. The following are key stakeholder groups within the URBs: (i) Upland farmers, (ii) Indigenous peoples, (iii) Women, (iv) Internally displaced persons, and (v) Institutions (WP 1).

33. **Upland Farmers.** Poor upland farmers numbering about 17 million (30 percent of the total population) were ranked as the poorest *of the poor* as early as the 1990s by NEDA, followed by marginal lowland farmers, landless rural laborers, subsistence fishermen, and the urban poor.<sup>18</sup> Rural upland

<sup>17</sup> This section is based on Working Paper 1.

<sup>18</sup> Botengan, MP et al. (2001) Poverty Assessment In Project Areas And Impact Of Project Intervention On Poverty Reduction: The Social Dimensions. ADB TA 3282.



families became poor because of inaccessibility to growth and development centers, poor natural resource endowment, increase in population, low education, and unstable peace and order.<sup>19</sup>

34. In Project sites, the poverty level of upland farmers is evident in their modes of production illustrated by their respective farming systems. There are varying conditions and practices at the site level, which require the grouping of upland farmers into five dominant farming systems: highland, upland-migrant, upland-IP, valley, and communal forest farms. The classification largely is based on agro-ecological conditions, variations in farm management, farm size, and socioeconomic status of farmers.

35. **Indigenous People.** The total population of IPs within the country is estimated at 12 million to 13 million or about 18 percent of the Philippines population (UNDP-ILO Mission 1996) and divided into 110 ethno-linguistic groups. IPs have distinct perspectives on poverty.<sup>20</sup> Powerlessness, a lack of access to land and resources, poor education, insufficient income, and alienation from kin/clan and their traditional culture are the major dimensions of poverty cited. Key factors in reducing poverty among IP communities are: access to and control over ancestral land and domain, and the consistent delivery of basic services.

36. There are at least 16 IP groups recognized by the NCIP within INREMP sites and these are estimated to be not less than 70% of the total URB population. Poverty incidence generally is high compared to national poverty lines (refer to Table 2). A total of 981,694.6 ha are currently recognized as ancestral domains and these lands are either wholly within or partially overlapping INREMP sites.

37. **Women.** There exists inequality between males and females especially in terms of labor in the natural resources and agriculture sectors. Women appear to contribute more to, and therefore carry the greater burden of family upkeep than the men.<sup>21</sup> Village level consultations with local communities resulted in women being rated as moderately important but with much influence in community and household decision-making concerns especially marketing, credit, and household reproductive activities. Brought to a higher level of social interaction as in regional/provincial consultations, power relations can be described as subdued for women where they largely become silent participants to planning and decision-making specifically in regard to land and natural resources planning.

38. **Internally Displaced Populations of Mindanao.** The war in Mindanao in 2000 resulted to a displacement of 700,000 individuals comprising 7% of the total population of Mindanao (Balay-RIDP, 2000). Displaced persons constituted mostly Muslims. Affected families from the armed conflict in Mindanao totaled to 288,785 consisting of almost 1.5 million persons from 2000 to the first quarter of 2004. In 2008, the International Committee of the Red Cross (ICRC) serviced more than 84,000 people and the DSWD serviced 165,712 families in 121 LGUs in ARMM, Regions X and XI.<sup>22</sup>

39. **Institutional stakeholders.** Key institutions with mandated stakes in river basins identified at project preparation stage are (i) DENR, (ii) DA specific focus on the National Irrigation Administration (NIA), (iii) NCIP, (iv) Department of Agrarian Reform (DAR), (v) National Power Corporation (NAPOCOR), and (vi) Local Government Units (LGU).

#### **D. Targeting Strategy and Gender Mainstreaming**

40. **Targeting.** Rural areas with the highest rates of poverty and hunger at provincial, municipal and barangay levels are primary considerations in terms of targeting. Particular focus will be put on the poor provinces as defined by the Government<sup>23</sup>.

41. Upland areas, particularly in conflict-affected areas of the Cordillera Administrative Region and Mindanao Island (notably ARMM) have the highest concentrations of indigenous peoples in the country.

<sup>19</sup> Forest Development Center, College of Forestry, UP Los Banos. 1990.

<sup>20</sup> ADB, IP and Poverty Reduction, 2002.

<sup>21</sup> Philippine Human Development Report, 2005, 2<sup>nd</sup> ed

<sup>22</sup> DSWD 2004 and 2008 Accomplishment Reports.

<sup>23</sup> Using poverty incidence beyond 33% (2006 national reference).

Stakeholder identification and analysis are used to target those segments of poor and food insecure people that are also able to take advantage of the opportunities to be offered.

42. The identified target groups and geographical areas coincide with the most vulnerable sectors targeted by the Government's poverty reduction strategies. The development approach continues to focus on community-based participatory development modalities, using both community demand-driven approaches and local partnership- and linkage-building, especially with LGUs, as key implementing strategies. It will also support government policies for convergence of, and co-management by, the various rural agencies for sustainable rural development.

43. **Gender Mainstreaming.** A Gender Action Plan (GAP) has been prepared in close consultation with stakeholders that significantly include women and women leaders. This GAP is designed to address three key issues: empowerment for participation; empowerment for decision-making on natural resource management; and empowerment for improved access to services which will be in the end redound to decreased time and effort for performing household reproductive activities (see WP 17). To ensure women's participation, the Project will target the following<sup>24</sup>.

- a. Women's representation during consultations (30%).
- b. Committees to be established at least have 30% women in the membership.
- c. Gender Specialist included in production of training modules and establishment of trainers' pool.
- d. Gender sensitive training material in local dialects to be prepared in close consultation with beneficiaries.
- e. Hands-on attendees and beneficiaries of training activities at least 30% women.
- f. For infrastructure construction and local labour, at least 35% of local labour reserved for local rural women, particularly the poorer and more vulnerable.
- g. 50% beneficiaries of subsidized inputs will be women.

44. At the Project management level, the following will be observed:

- a. GAP implementation and reporting on gender related achievements reflected in quarterly progress reports to ADB and IFAD.
- b. Implementing agencies to appoint project staff as gender focal point responsible for monitoring GAP implementation.
- c. The terms of reference of all consultants will include responsibilities to ensure GAP implementation as related to their work.
- d. Gender-sensitization training carried out as part of project orientation, for all levels of staff, consultants, contractors, and facilitators.
- e. Both female and male staff given equal opportunity to participate in non-gender related training and capacity development programs.
- f. A national consultant on social development/gender recruited to (i) build capacity of project management units on gender responsive design and analysis; (ii) preparation of gender sensitive indicators; and (iii) preparation of checklists for evaluation of gender responsiveness of proposed subprojects.
- g. Sex-disaggregated indicators to be established for project performance monitoring and evaluation.
- h. Mid-term review Mission to assess gender related achievements and constraints to GAP implementation and propose adjustments for better project performance.

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<sup>24</sup> Percentages based on SA conducted where participation by females were documented as 10% or less and due consideration to IFAD-DAR standards.

#### **IV. PROJECT DESCRIPTION (KSF 3)**

##### **A. The Knowledge Base: Lessons from Previous/Ongoing ADB/IFAD Projects**

###### **IFAD Knowledge Base in the Philippines**

45. IFAD has one ongoing and three completed projects with concerns on natural resource management (NRM): Northern Mindanao Community Initiatives and Resource Management Project (NMCIREMP), 1<sup>st</sup> Cordillera Highland Agricultural Resource Management Project (CHARMP-1) jointly funded by ADB, and the Western Mindanao Community Initiatives Project (WMCIP) which were completed, and 2<sup>nd</sup> Cordillera Highland Agricultural Resource Management Project (CHARMP-2), which is on-going. Lessons from implementing the NRM component of these projects showed that (i) active participation of beneficiaries and other stakeholders in project selection, implementation, monitoring and evaluation improved long term project impact, (ii) respect of cultural structures, systems and practices and integrating them into the project's institutional framework and processes have improved project sustainability, (iii) land and water asset control by the communities led to improved resources management, and (iv) livelihood opportunities provided to the poor and advocacy to local community stakeholders improved protection of natural resources.

46. Lessons learned reveal that even as the INREM approach and project design focus on sustainability, there are some factors that can significantly affect results:

- a. Payments for environmental services (PES), while maximized to the extent possible from local, national and international sources, may still not be enough to cover the cost of conservation. The implication is that the GOP will still need to complement PES with public funding, especially in the early stages where PES is still to be realized;
- b. New potential sources of PES revenues, such as reduced emissions from degradation and deforestation (REDD), are still speculative at this time and will not likely be realized within the INREM Project timeframe;
- c. Productivity for uplands can be increased while reducing the impact on the environment with available advanced technology, but increased production will not translate to poverty alleviation within the Project timeframe if the global economic crisis persists; and
- d. Long-term success of INREM depends on communities (local, national and global) changing behaviors, which takes a longer timeframe than the proposed Project.

###### **ADB Knowledge Base in the Philippines**

47. The Bank has provided large investments in forestry and forestry-related projects including irrigation and fisheries totaling some \$ 624 million. In addition some seven million dollars worth of technical assistance in the form of grants had been provided to the government in cooperation with co-financiers. The Bank financed the following major forestry projects in the Philippines: the Forestry Development Project (Loan No. 667-PHI-\$34 million), the Forestry Sector Program (Loan Nos. 889/890-PHI-\$120 million), the Low Income Upland Communities Project (Loan No. 999-PHI-\$ 32 million), the Industrial Forest Plantation Sector Project (Loan No. 1106-PHI-\$ 25 million), and the Forestry Sector Project (Loan Nos. 1191/1192-PHI-\$100 million). These projects focused on (i) reforestation and watershed rehabilitation; (ii) involvement of communities in sustainable forest management; and (iii) sustainable production of timber and other forest products. One of the conclusions was that tree plantation establishment by communities and the private sector creates significant environmental and socioeconomic benefits for the common good. It is the main reason why the Government should share the cost of tree planting<sup>25</sup> (see WP 4 which details the lessons and their implication on the INREMP design).

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<sup>25</sup> Final Report on the Community-Based Forest Resources Management Project in the Philippines. ADB TA No. 3282-PHI. 2000.

48. Despite the substantial investment in various forestry sector projects, not all have achieved the intended goals. Some may be even considered failures. Nonetheless, their experiences yield important lessons and most significant of which are: (i) proper site selection and site-species matching, (ii) participation of community and other stakeholders in forest management, (iii) capacity building, (iv) incentives to participating communities, (v) NGO involvement, (vi) prudent financial management, and (vii) monitoring and evaluation.<sup>26</sup>

## **B. Opportunities for Rural Development and Poverty Reduction**

49. The cross-sectoral nature of URB management requires the INREM Project to address several issues: (i) fragmented and overlapping policies, legislation and institutional responsibilities; (ii) conflicting, contradictory or ambiguous regulations and institutional roles; (iii) insufficient capacity of concerned stakeholders to ensure sustainable management of critical watersheds; (iv) ineffective implementation and enforcement of forest and mining laws and regulations; (v) inadequate demarcation of boundaries; (vi) inadequate land tenure classification; and (vii) insufficient funding.

50. These issues, in turn, highlight the need for (i) effective institutional arrangements that resolve cross-sectoral conflicts to ensure sustainability and restoration of natural resources, (ii) sustained stakeholder participation; (iii) enhanced private sector participation and investment; (iv) strengthened technical and financial services to support upland livelihood and small business growth; (v) adoption of appropriate conservation farming practices, provision of market information, and promotion of market linkages for upland products; and (vi) raising awareness of the public and LGU officials on ways to address climate change through both adaptation and greenhouse gases (GHG) mitigation, and by making carbon stock management an integral component of watershed conservation to enhance prospects for attracting additional funds through PES, REDD, Global Environment Facility (GEF), Clean Development Mechanism (CDM), climate changed funds (CCF), voluntary carbon markets, and others.

51. This project is responsive to the concerns found in the Updated Medium Term Philippine Development Plan (MTPDP) of 2009<sup>27</sup>, specifically on Green Philippines, in support of two of four thematic areas, Sustainable Forest Management and Protected Area and Wildlife Management through INREMP. The project incorporates the concerns raised in the Sustainable Forest Management theme anchored on participatory approaches to tackle rehabilitation and restoration of degraded forestlands and protection of residual forest areas as well as promoting more environmentally sustainable farming practices, especially on steeply sloping land to reduce erosion of valuable topsoil. These measures will address concerns on food and water security and demand for forest products and promote social development and poverty reduction through effective management of the natural resource base. The management of Protected Areas covered by the second theme, is where the Project will emphasize the valuation of the environmental services in soil water and biodiversity conservation in order to generate payments from a wide range of beneficiaries to ensure sustainability of these services, including for example, payments under the proposed REDD initiative. Policy support is encouraging as regards the Sustainable Forest Management Bill and the National Land Use Bill.

52. By and large, INREMP is envisaged to meet the legitimate needs of poor people dependent on forest and upland resources by introducing sustainable land use systems and providing livelihood opportunities that can break the vicious cycle of poverty and land degradation.

## **C. Alignment with Country Rural Development Policies and ADB/IFAD Strategies**

### **The IFAD Country Strategy**

53. The Results Based-Country Strategic Opportunities Project (RB-COSOP)<sup>28</sup> is built on strong country ownership and is the end result of a long participatory process from 2004 to 2009. IFAD

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<sup>26</sup> *Ibid.* page 12.

<sup>27</sup> Covering 2006-2010; update focuses on remaining year of implementation of said MTPDP.

<sup>28</sup> Approved by the IFAD Board in September 2009.

continues to deepen its comparative advantage in the Philippines and improve its ability to discharge its mission, which is “enabling poor rural people to overcome poverty”.<sup>29</sup> Working with development partners is the key to fully exploiting this potential, within the context of the global emphasis on aid-effectiveness and a better division of labour among development agencies. IFAD’s country strategy continues to support the Government’s medium-term rural poverty reduction goals,<sup>30</sup> which are closely aligned to the Millennium Development Goals (MDGs). Three strategic objectives (SOs) are prioritized within the overarching goal that poor rural women and men in the rural areas of the Philippines are empowered to achieve higher incomes and improved food security<sup>31</sup>: (i) SO1: Upland poor households in the 20 poorest provinces; (ii) SO2: The entrepreneurial poor in selected rural areas; and (iii) SO3: Selected marginalized and poor communities dependent on coastal resources (see WP 2 for details).

54. INREMP is consistent with the 1<sup>st</sup> COSOP strategic objective of empowering upland poor women and men to achieve higher incomes and improved food security through enhanced access to and control over land and water resources and gainfully use these in environmentally sustainable endeavours, while gaining access to essential socio-economic public infrastructure. Key IFAD cross-cutting issues are likewise addressed by the Project, which include: (i) natural resources management within the context of climate change and natural disasters, particularly through mitigation and payment-for-environmental-services (PES) mechanisms for indigenous peoples; and (ii) support for the decentralization agenda towards LGUs and farmers’ organizations and their platforms.

### ADB's Strategy 2020

55. The Project is consistent with the three themes of ADB’s long-term strategic framework 2008–2020 (Strategy 2020). These are inclusive growth, environmentally sustainable growth, and regional integration. The framework focuses on integrated management of forests and other natural resources for sustainable delivery of ecosystem services, especially sustained water supply, biodiversity conservation, and carbon sequestration to serve the interests of local, national and global communities.

### Sector Strategy and Road Map

56. The Project is also in conformity with the Agriculture, and Environment and Natural Resources Sector Road Map for the Philippines. This proposes interventions in agriculture and rural development aiming at poverty reduction. Interventions include livelihood initiatives; and improvement of access to markets, public services, employment and commercial opportunities while sustaining the natural resources for future generations. The road map recommends that ADB continues to contribute in achieving the medium term Philippines development program objectives of “creating healthier environment for the population”. Rehabilitation and reforestation of watersheds, improving water quality, managing marine and coastal resources, and conserving biodiversity in river basin are integral parts of the medium term plan. These are envisaged under the Project.

## D. Project Goal and Objectives

57. The **Project Goal** is to reduce and reverse the severe environmental degradation taking place in the targeted four Upper River Basins with the expected outcome of increased rural household income and increased LGU revenues.

58. The **Project objectives** are to (i) develop and implement to the extent possible upper river basin management plans; (ii) provide increased incentives for rehabilitation of degraded river basins; and (iii) support capacity strengthening of the stakeholders of the Project. The Project will be implemented over a period of seven years.

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<sup>29</sup> IFAD Strategic Framework 2007-2010 (Rome, 2007).

<sup>30</sup> National Economic Development Authority, MTPDP 2004-2010, [www.neda.gov.ph/ads/mtpdp/MTPDP2004-2010/PDF/MTPDP2004-2010.html](http://www.neda.gov.ph/ads/mtpdp/MTPDP2004-2010/PDF/MTPDP2004-2010.html)

<sup>31</sup> Annex III, Philippines COSOP Results Management Framework (2008-2012).

59. The **project impacts** at goal level will be improved livelihoods of the communities living in targeted URBs. Effective provision of ecosystem and biodiversity services; increased incentives to upland communities and indigenous peoples; improved LGU management capacities, private sector participation to stabilize and/or increase beneficiary access to ecosystem services, and improved land-use and natural resource management efficiencies will contribute to attain the impacts noted above.

60. The **project outcome** will be: (a) local Government Units and People's Organizations/ Indigenous People's Organizations (POs/IPOs) will have increased revenues from watershed based enterprises, and watershed management and biodiversity protection; (b) participatory beneficiaries will have increased income from livelihood investments. The watershed based enterprises are expected to provide fees for watershed management and ecosystem services including water regulation and soil conservation, Reduced Emissions from Deforestation and Degradation (REDD+)<sup>32</sup>, and protection of aesthetic, biodiversity and environmental service values. This will contribute to the 1<sup>st</sup> outcome that is mentioned in (a) above. Revenues and/or alternative livelihood improvement incentives that will be generated from land management activities resulting from the ecosystem management will contribute to the 2<sup>nd</sup> outcome that is mentioned in (b) above.

61. **Project strategy.** The proposed implementation period of the Project will be seven years as the Project follows a chronological process approach in two phases:

- a. **Preparatory and mobilization Phase** wherein institutional capacity building, policy adjustments, resource assessment and management planning will be implemented; and
- b. **Field Investments Phase** where the field level implementation and project investment will be undertaken.

Proposed interventions under the Project will be area-based with active support of local communities and organizations, including the concerned local government units.

62. **The Project approach** will be the following which are based on the key lessons learned from past efforts:

- a. The sub-projects that will be identified for investment would use practical and simple approaches involving proven and tested tools /activities;
- b. The Project would ensure the beneficiaries' share in the project costs through counterpart financing for enhanced sustainability;
- c. The Project would establish a policy environment that facilitates private sector participation and that the policy over natural resource access would be consistent and stable over the long-term;
- d. The Project would ensure active participation of beneficiaries and other stakeholders in sub-project selection and design, implementation, monitoring and evaluation to sustain project impacts; and
- e. The Project will respect cultural structures, systems and practices, and integrating them into the project's institutional framework and processes.

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<sup>32</sup> REDD+ is a set of steps designed to use market/financial incentives in order to reduce the emissions of [greenhouse gases](#) through forest conservation, sustainable forest management and the enhancement of carbon stocks.

## **E. Project Components**

63. The Project has four components; (i) Development / Formulation of river basin/ watershed management and investment plans with supportive policy and regulatory framework; (ii) Small holder / commercial / institutional investments; (iii) Capacity strengthening for river basin management; and (iv) Project management and support services (see WP 11 for details of all four components).

### **Component 1: River Basin / Watershed Management and Investment Planning**

64. The main objective of this component is to support implementing the Project preparatory and mobilization Phase. DENR with support from the Project and its stakeholders will develop Indicative Development Plans for the four URBs. The land capability assessment, land use assessment, participatory mapping and river basin zoning, which will be developed by the Regional and Provincial Offices of the DENR with close consultation and participation of the relevant national and regional agencies and the Local Government Units (LGU), will be the basis of the indicative development plans. The Project will undertake these assessments and planning in 23 watersheds that are located in the four URBs. Watersheds will be demarcated using hydrological, biological and physical criteria to distinguish and identify appropriate investments. Planning instruments will be a product of land use capability assessment/studies that will similarly input to a national strategy for REDD. Physical boundary demarcation of management zones will be made<sup>33</sup>. Free, prior and informed consent (FPIC) of the communities will be included in the planning process, with due consideration given to existing Ancestral Domain Sustainable Development and Protection Plans (ADSDPP) (see WP 1). The experience that exists with IFAD in the preparation of participatory mapping and participatory planning will be effectively used to facilitate the planning process (see WP 7 for details). The participatory consultation process including mapping will be financed by both IFAD and ADB loans (see detail cost tables, WP 12).

65. The relevant government institutions like DENR and its line and attached agencies, DA and attached agencies, DAR, NCIP, NEDA, Protected Areas and Wildlife Management Bureau and geopolitical units (LGUs and barangays in particular) will draw Watershed Management Plans (WMPs) for each of the 23 watersheds, which will fall within the delineated upper river basins and will be in conformity with the indicative development plans. The plans would provide the basis for identifying and prioritizing sub-projects for INREMP investments.

66. The WMPs will respect existing tenurial arrangements and treat Ancestral Domains of the Indigenous People (IP) communities as distinct management units. The WMPs will also give due consideration to cultural and social impacts, especially on IPs, and will include culturally appropriate activities for promoting biodiversity conservation, climate change mitigation/adaptation, and protection of other environmental services provided by these watersheds. Modalities of Payment for Environmental Services (PES) will be explored for eventual institutionalization. For example, with support from GEF, the Project will facilitate establishment of a PES contract between eligible IPOs and the National Power Corporation in the Cordillera Administrative Region.

67. Multi-stakeholder consultative bodies will be created, to provide inputs to policy, guidance and oversight on implementation of management plans. To ensure greater and more meaningful participation, consensus-building and consultative mechanisms will be initiated for addressing issues raised by vulnerable groups such as IPs, women and children (see WP 1).

68. Complementing the above watershed management and planning activities of the Project, there will be additional GEF-financed planning activities specifically designed to attain incremental global environmental benefits in biodiversity conservation. These activities, which will support the establishment of a biodiversity corridor connecting two protected areas in the Cordillera headwaters of the Chico River

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<sup>33</sup> Any subsequent displacement of the economic activities of the communities due to zoning and land use planning should be based on scientific assessment by a third party, such as NGOs or academic/research institutions acceptable to the communities.

Basin, will include an inventory of the biodiversity, mapping of critical habitats, community-based planning within ancestral domains, and planning for the biodiversity corridor.

69. A geographical information system (GIS)-based database will be designed / established for performance monitoring, which will require the acquisition and analysis of remote sensing data and their validation.

70. The main activities and expected results of this component are the following and the log-frame and the cost tables provide quantities of these outputs (see WP 6 for the details):

- a. Assessment of current land uses – under this current land use will be assessed and mapped, data will be acquired through Aerial Photography and Satellite Imagery for land use planning and zoning of URBs for suitable interventions;
- b. Land use capability assessment and River Basin zoning will be undertaken with the help of satellite image analysis and mapping, Carbon baseline assessment will be carried out and systems will be established to monitor relevant changes, and forest physical boundaries are marked and delineated on the ground;
- c. Preparation of watershed management plans with the participation of stakeholders including assistance for ADSDPP formulation and enhancement. This also includes preparation of bio-diversity management plans in Chico river basin and its Ancestral Domains;
- d. GIS Data Base Installation where one URB GDSS central operations center and 30 GDSS nodes will be established and supported with financing for management;
- e. Watershed Management, Biodiversity conservation, Corridor planning, investment plans preparation including Biodiversity assessment and mapping, corridor planning in Chico River Basin with GEF Funds. For this activity the assistance of eight consultants will be provided (see WP 19 for details).

## **Component 2: Smallholder / Commercial / Institutional Investments**

71. Using the outputs of the first component, the Project will identify sub-projects for investments in the identified 23 watersheds in targeted four URBs. The investments under this component are categorized into five sub-components according to the nature of investments, namely: (a) conservation, rehabilitation and protection of URBs and state forest; (b) sustainable forest management, agro-forestry and commercial forestry; (c) rehabilitation and improvement of rural infrastructure; (d) conservation farming and livelihood support; and (e) investment in watershed management.

### **Sub-component 1: Conservation, rehabilitation and protection of URBs and state forest**

72. This sub-component has three main activities. **First**, the Project will support community based protection and monitoring of forests through voluntary undertaking and commitment of participating communities / POs /IPOs. It is expected that this activity involves monitoring, forest patrols and protection against intrusion, and unauthorized land conversion within conservation areas. No labour payment is foreseen but "block grants" will be provided to the POs and IPOs to meet the cost. A total of about 231,500 ha of forest lands in the four URBs will be targeted under this activity.

73. **Second**, the Project will finance afforestation and reforestation to be undertaken by the community. Four years of reforestation work of about 15,200 ha of degraded forest in the four URBs will be targeted under this activity. The community will be trained and given the responsibility to conserve and protect the areas afforested and reforested after four years of project support.



74. **Third**, natural regeneration of forest lands will be assisted. Target areas under this activity are degraded natural forest and brush-land with soil depth more than 0.5 m., which is about 78,800 ha in the four URBs out of potential area of about 200,000 ha. Areas covered under assisted natural regeneration (ANR) will be conserved and protected after four years of ANR activities. The community under close technical supervision will undertake the activity.

### **Sub-component 2: Sustainable forest management, agro-forestry and commercial forestry:**

75. The sub-component 2 has three main activities. **First** is sustainable forest management targeting 10,740 ha in the four URBs. The interventions include pre-harvest planning of natural forest, supervision and training of workers who are managing forest, and conducting demonstration for about two years on forest management.

76. **Second** activity is establishing agro-forestry. The Project together with the community contribution will establish 24,450 ha of agro-forestry in the four URBs. The land use assessment will determine the suitable areas. The Project support, which is 70% of the total cost, is available to establish agro-forestry gardens in the 1<sup>st</sup> year and maintain them for further three years. The balance cost of 30% is expected from the community as their labour and local material for the total duration of four years. In addition to financing, the Project will provide technical support for agro-forestry. Assistance of the World Agro-forestry Center (ICRAF) will be solicited for technical advice. There is a wide array of cultivation possibilities for agro-forestry interventions including pure perennials or combinations of annuals, perennials, and/or livestock systems. These will provide sustainable alternatives to poor farmers whose current practices on steep slopes and at higher elevations are environmentally damaging and degrading watersheds (see WP 8 about ICRAF involvement in agro-forestry and relevant activities).

77. **Third** is to support establishing commercial forestry plantations on degraded lands with moderate to gentle slopes where the risk of erosion is less. Correct species would be selected so that productivity could be maintained at a satisfactory level. For instance nitrogen fixing plants would be used to improve quality of soil in degraded lands (see WP 8). Suitable land for such plantations will be identified by the activities under Component 1. Two types of plantations will be promoted, generally in combination, with one being relatively large blocks of corporate plantations (to capture economies of scale for efficient management) and the other being smallholder plantations, either linked to the corporate schemes to benefit from technical support and markets, or as independent operations. The Project will support about 5,900 ha of plantation forest in the four URBs and finance 70% of the establishment and 3-year maintenance cost. The participating beneficiaries will have to share the balance 30%. Technical support too will be provided.

### **Sub-component 3: Rehabilitation and improvement of rural infrastructure:**

78. This will support rehabilitation and improvement of rural access roads; rehabilitation of communal irrigation systems (CIS); establishing potable water supply; and establishing / renovating social infrastructure such as community halls as demanded (see WP 9 for details). Rural access to include rehabilitation or improvement of existing and critical access road limited to the confines of the lower slopes of the URBs to facilitate mobility of LGUs, CSOs and communities in monitoring and protecting the resources. Project funds will not be used for funding rural roads leading to virgin forestlands and commercial forestry investments under INREMP. The Project will support rehabilitation or improvement of roads to disconnected barangays, farm to market roads (FMR) to link production areas along the lower slopes to the nearest towns, improvement of foot/animal trails with connecting foot bridges where standard FMR is not appropriate, and tramlines or small scale cable cars as conveyance mode for agricultural products in areas with substantial difference in elevation and where foot/animal trails are inappropriate due to very steep slopes. Potable water supply will include improvement and development of natural spring for Level II potable water supply, and provision of Level I (point source) where appropriate in lieu of Level II. The total project targets in the four URBs include about 560 km of rural

access infrastructure; CIS for about 3,000 ha; 275 units of potable water supply (Level II – Spring Development) schemes; 85 km foot trails and a few trading centers, warehouses etc..

79. Out of ADB's total commitment of US\$100 million earmarked to finance INREMP, agreement had been reached in 2008 between GOP, ADB, and IFAD, to channel an amount equivalent to US\$10 million through the Second CHARM Project for co-financing the rural infrastructure development of that project. The activities to be funded with these CHARMP-2 allocated funds will be in the areas covered by that project and be based on its respective plans and programs. These will also be financed under the sub-component 3. The investments will have to undergo environmental assessment and clearance by DENR like all investments under both CHARMP-2 and INREMP before implementation. It is noteworthy that the US\$10 million contribution of ADB to CHARMP 2 will cover all the six provinces of CAR where CHARMP-2 supports rural infrastructure development, while the rest of the ADB's total contribution to INREMP earmarked for CAR will be used for activities only in the Chico URB.

80. Proposed rural infrastructure sub-components will qualify for the project assistance only if the following general conditions are met (see WP 9 for details):

- a. The Municipal Local Government Units (MLGU), Barangay Officials and communities should be actively involved in the selection process, approve the planned proposals, willing to put up the required equity contribution and agree to maintain the completed facilities;
- b. Investment sites must be free from social and environmental problems and issues, or alternatively feasible mitigating measures will have to be provided; and
- c. Proposed activities must not be currently covered under any local or foreign funding sources other than INREMP.

#### **Sub-component 4: Conservation farming and livelihood support**

81. Under the integrated ecosystem management approach, the Project requires integrating interventions in conservation of closed canopy forests, rehabilitation and reforestation of degraded forests and woodlands, agro-forestry in areas subject to shifting cultivation, conservation farming in agricultural lands, and some areas where pasture improvement for livestock is supported with improvement of irrigation systems. This sub-component will also assist conservation farming and related livelihood activities. Most of the cultivated lands on steep slopes in URBs are state forest lands and the balance is in the category of alienable and disposable land. These lands are mostly occupied by poor farmers and generally engaged in *kaingin* (slash and burn agriculture). The Project will provide farmers with incentives to change their cultivation practices and adopt conservation farming systems in order to conserve soil and water, and retain soil nutrients to increase agricultural productivity. Meanwhile, farmers occupying state forest lands or the lands which forms part of a claim for an Ancestral Domain (AD) will also be provided with incentives and technical advice to change their intensive agricultural practices towards conservation farming.

82. The type of activities supported include contour farming, terracing, organic farming (to reduce contamination downstream), establishment of natural vegetative strips, bio-intensive gardening, *masipag* rice technology, small-scale agro-forestry intercropped with cash crops, community nursery establishment, and training on composting and vermin-culture. The Project will also provide a seed fund for replication / expansion of tested and mature technologies adopted by the poorest and vulnerable households with gender neutral equitable access to benefits. The Project is targeting to support about 14,300 ha of conservation farming (12,300 vegetable and 2,000 agro-forestry) in 410 identified Barangays.

### **Sub-component 5: Investment in watershed management**

83. The project will support three nurseries for Mossy Forest- Indigenous Spp establishment, 60 ha of Natural Regeneration of forest land in Chico river basin with Climate Change Funds; establishing 60 ha of Buffers with mixed vegetation cover to protect bio-diversity; providing seed capital for IPOs to initiate a Revolving Fund; establishing three Pilot demonstrations for emissions reduction monitoring; establishing 450 ha of Bioenergy Plantation in Bukidnon; and one study on establishment of Charcoal Retort with the private sector. Pilot activities for reducing CO<sub>2</sub> emissions to attract participation and support to PES, REDD and renewable energy investments are supported by way of:

- a. Community-based forest protection, regeneration, and agroforestry in order to mainstream biodiversity conservation in the agricultural production in landscape surrounding the biodiversity corridor;
- b. Community-based biodiversity conservation measures financed by a revolving fund established under the PES scheme to be created in the Cordillera Administrative Region;
- c. Pilot demonstration activities for CO<sub>2</sub> emission reductions related to land use, land use change and forestry (LULUCF) and REDD, including community-based forest protection, agricultural intensification, community forest management, and commercial forest management;
- d. Pilot application of more efficient technology for private sector charcoal production in Bukidnon (based on sustainably managed tree plantations for a continuous retort process) to mitigate the production of greenhouse gases (financed by the ADB Climate Change Fund);

84. Complementing the above subproject investments, the GEF grant will finance investments specifically designed to achieve incremental global environmental benefits in biodiversity conservation and climate change mitigation, with investments in REDD for mitigation relating to LULUCF.

85. The subprojects which are highlighted under five sub-components above will be implemented in the 23 watersheds in the targeted four URBs. The Project should consider the following conditions in implementation of these subproject activities (see WP 14 on environmental assessment):

- a. the subprojects must constitute a complete watershed unit;
- b. the activities should be ecologically significant in terms of biodiversity conservation and carbon sequestration potential;
- c. the interventions should not result in unmitigated environmental impacts;
- d. the subprojects should require urgent attention on state of watershed degradation and impacts on downstream communities;
- e. the Project should ensure willingness of the subproject beneficiaries to negotiate under the Payment for Environmental Services (PES) scheme of the Project;
- f. the subprojects should comply with the additional environmental safeguard measures as described in the sample IEEs; and
- g. subproject investments for livelihood enhancement will strictly adhere to prescriptions in adopted management plans.

### **Component 3: Capacity Strengthening for River Basin Management**

86. This component focuses on the enhancement / building of institutional and local stakeholder capacities for river basin management at various levels – national, river basin, Provincial LGU level, and watershed level - which requires a shift in focus from political to ecological/ hydro-geographic jurisdictions. The main areas of capacity improvements are the following.

- a. Strengthening of participatory planning processes within local institutions and existing community-based organizations;
- b. Enhancement of LGU, community, and NGO capabilities of developing land management systems that have reduced emissions and land degradation. Emphasis will be placed on the capacity building in the areas of institutional and policy support both at national, regional and LGU level on matters concerning incentives and disincentives on the use of private lands in the downstream of the URB including taxation issues;
- c. Implementation of technical extension – information, education, and communication (TE-IEC) programs to promote improved and more profitable farming systems and enhance awareness on appropriate land use, protection and conservation, climate change adaptation and mitigation, and conservation farming;
- d. Organization of Community Watershed Protection Brigades within the 23 component watersheds including wild land fire management;
- e. Formation of self-help groups composed of poor and vulnerable households for the replication/up-scaling/ expansion of tested and matured technologies, and the installation of policy, systems and procedures;
- f. Extension and training on micro, small, medium-sized agro-agribusiness and post-harvest management, business advisory, market linkages and linking to micro-credit/finance institutions;
- g. Formation of users' groups for operations and maintenance of infrastructure projects; and
- h. Awareness raising and capacity building for REDD / PES<sup>34</sup>

87. The Project will finance over 84,800 person days (pd) covering at least 19,000 recipients of capacity building / skills transfer inputs under above listed areas. Specifically it will support land use assessment and upper river basin management planning (16,500 pd); Technical extension information, education, and communication (5,000 pd); project management, financial accounting and procurement (8,243 pd); REDD technical capacity (4,000 pd); institutional policy support to LGUs (2,880 pd), DENR officials (970 pd); and rural infrastructure maintenance (47,250 pd). Many of these training programmes are explicitly included in the cost tables of the capacity building component. Others are built into the cost structure of the respective components and sub-components under workshops and seminars etc. which are not listed above.

#### **Component 4: Project Management with Support Services.**

88. The Project will support establishing a National Project Coordinating Office (NPCO) at the DENR which will be the lead executing agency of the Project. The NPCO will be staffed with a Project Director (on a part time basis) coming from the Forest Management Bureau (FMB) of the DENR. The **Project Director** would effectively coordinate the organic staff of the DENR that will be assigned to implement the Project. The following full-time staff will be contracted for the Project with the responsibilities listed. The responsibilities of the staff form the main functions of the NPCO.

- a. **Project Manager (Deputy Project Director)** would be the main focal point to liaise with ADB and IFAD and other development partners and be in charge of the regular day-to-day implementation of the Project at the central level including disbursement of project funds, financial management and reporting, coordination of all project activities of the different URBs to ensure consistency and synergies where appropriate, and coordination of the agencies attached to DENR, DA and Local Government Units among others. S/he will be working very closely with the Project Director. The responsibilities will also include negotiating with consultants, contracted service providers, and NGOs whose services will be required by the Project from time to time; facilitating the work of donor and

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<sup>34</sup> Some of PES awareness creation will be financed by the GEF grant

government supervision missions; and administering all Memoranda of Agreement with implementing agencies.

- b. **Social Development Specialist** will be mainly responsible for ensuring social safeguards being applied in project implementation; supervising selection of NGOs to undertake social preparations; overseeing poverty targeting approach; coordinating and supervising participatory consultation process of the communities in all stages of the Project; leading and advising implementation of the Gender Action Plan and social preparation of the Project; ensuring cultural structures, systems and practices of all communities (IPs, tribal groups and others) are integrated into the project institutional framework and processes; and providing technical advice and leadership to the regional and provincial level project staff in all social aspects of the Project through workshops, seminars and print media.
- c. **Development Communications Specialist** will support implementing Technical Extension, Information, Education and Communication (TE-IEC) programme of the Project. He, or preferably she, will also undertake assessing IEC needs in the project areas; coordinating and leading extensive consultations and preparing IEC strategies and communication plans for the Project based on such consultation and need assessments; developing appropriate technical extension materials; using / adapting existing communication media to carryout TE-IEC programme; organizing the studies to assess the effectiveness and impacts of TE-IEC programme, and helping the recruitment process of consultants in the IEC field.
- d. **Monitoring and Evaluation Specialist** will have the overall responsibility of implementing the M&E programme of the Project. The main responsibilities include updating / improving the result based log-frame of the Project using experiences on the ground; coordinating and mobilizing the staff of the existing M&E units at the DENR National, Regional and Provincial levels to undertake the project M&E system; leading and supervising the preparation of watershed maps and GIS-based information systems to monitor various aspects of land use changes in the project areas; developing and administering M&E data collection formats, databases, evaluation systems and reporting formats; initiating, coordinating and assisting project baseline studies, RIMS requirements in areas where IFAD is present, annual outcome surveys, mid-term reviews, project supervision missions, and the project completion review; and compiling, consolidating and presenting all progress reports.
- e. **Finance and Procurement Specialist** will be responsible for consolidating annual work programme and budget (AWPB) received from provincial and regional levels and other programme parties into the Project AWPB; ensuring sufficiency of all loan and grant funds in respective accounts and transferring funds to relevant project partners as agreed; managing the fund flow of the Project; financial monitoring and maintaining all financial records as agreed; timely preparing Withdrawal Applications to replenish IFAD and ADB loans and the GEF grant, as well as mobilizing counterpart funds from central and local government units; undertaking all procurement activities (goods, works and services including consultants and NGOs); coordinating project financial Audit in a timely manner; and undertaking capacity building of regional and provincial staff of national government agencies (NGAs) plus staff of provincial and municipal LGUs on all financial, accounting and procurements matters (see WP 13 to assess the training needs of the LGU staff in fiduciary matters).
- f. **Investment and Marketing Specialist** is responsible for assessing all sub-projects for their financial viability and making recommendation for improvements; taking the leading role in mobilization of private investment in the watershed enterprises; initiating and developing appropriate systems to implement Payment for Environmental Services (PES) charging to users of downstream benefits of watershed management; and developing market information dissemination systems for farm and non-farm producers in the URBs.

89. The new six staff members noted above will be recruited through open competitive procedures including advertisement in the local media. All things being equal (qualification, experiences etc.) preference shall be given to the staff of departments dealing with the sector (DENR, DA, DAR and NCIP). IFAD/ADB should review and provide no-objection for the recruitment of the Project Manager.

90. About 12 **Extension Officers** will also be contracted and assigned to the Municipal Level Watershed Project Coordination Office (WPCO) to facilitate the implementation of the field activities and train the community members by providing extension services and technologies. They will also be responsible to facilitate establishing and managing demonstrations in agro-forestry and conservation farming.

91. In order to provide technical assistance, a total of about 760 person months (PM) consisting of 25 PM international and 734 PM domestic consultants would be assigned to the Project. They are in the subject areas of Integrated Natural Resources and Forest Management; Climate Change and REDD; Institutional Assessment and Capacity Building; Land Use and Land Capability Assessment; Planning and Management; Geographical Information Systems (GIS) & Mapping; Policies (Institutions) and Legislation; Social Safeguards (including IPs and resettlement); Poverty and Gender; Information, Education and Communication and Public Participation; Environmental Safeguards and Cumulative Environmental Assessment; Strategic Environmental Assessment; Financial Management, Procurement and PBGS; Rural Infrastructure Engineering; Rural Infrastructure Economics; Resource Economics; Geographical Information Systems (GIS) based Database development for Project performance monitoring; Protected Area Management; Training and Capacity Building; Four Deputy Team Leaders with Natural Resources and Forestry background to be based at the river basins; international and local expertise on Biodiversity (assessment of Biodiversity Assets/Mapping); Watershed Management (International and local); Carbon Stock Assessment (international and local), and Legal and Institutional expertise (see WP 19 for details and ToRs of the consultants with these expertise).

92. The ADB and the IFAD loans would finance the salaries of the newly recruited staff. The Government of Philippines will finance the incremental cost of the project organic staff. ADB with IFAD co-financing will finance all the consulting services.

93. The Project with the support of its staff will encourage and assist LGUs to form clusters at watershed and river basin levels, as well as clarify national versus local decision-making roles. Therefore LGUs require extensive skills building on technical<sup>35</sup>, management<sup>36</sup>, and socio-economic<sup>37</sup> aspects. As such key management support activities that the Project will focus on include:

- a. Developing and operationalizing Monitoring and Evaluation system and linking it to GIS and MIS based (electronic M&E) systems to monitor Project progress;
- b. Creating and launching a Project website, posting all relevant and important documents (including project design documents, DMF, Project manuals, sub-project selection criteria etc) and regularly maintaining and updating website, and linking to relevant institutions such as NEDA and ADB;
- c. Enforcing regularly and effectively the rules and regulations required for effective implementation of URB management plans undertaken by concerned staff through field visits and patrolling in the 4 selected RBs;
- d. Formulating terms of reference and carrying out relevant studies required for project delivery, and feeding the results for project improvement and enhancement;
- e. Meeting project O&M costs and providing reports on status of project equipment;

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<sup>35</sup> Gathering and using relevant information for decision-making and strategic planning.

<sup>36</sup> Including stakeholder participation, consensus-building and conflict management.

<sup>37</sup> Equity in opportunities and benefits, incentives and assurances for private investments, etc.

- f. Carrying out and documenting gender and IP related safeguard studies (including monitoring of involuntary resettlements if there is any) and preparing annual reports for dissemination and inclusion in Project annual progress reports; and
  - g. Ensuring the full integration and complementarities of GEF-financed planning and investments with respect to biodiversity conservation and climate change mitigation with the watershed management planning and subproject investments under the Project.
94. The Project Log-frame shows the detail outputs of all the components. Working Paper 13 (Table 1) describes in detail the implementation mechanism of each component with institutional responsibilities.

## V. IMPLEMENTATION AND INSTITUTIONAL ARRANGEMENTS (KSF 4)

### A. Institutional Development and Outcomes

95. **Institutional Outcomes.** The Project is designed to achieve significant results in institutional development at the national, regional, provincial, local government and community levels. The whole thrust of Component 3 is to strengthen capacity for improved river basin management, including improving technical skills for land use assessment and upper river basin planning; strengthening participatory planning processes within local institutions and community-based organizations; enhancing the capabilities of LGUs, communities, and NGOs in developing land management systems that reduce emissions, etc. The institutional outcomes the Project intends to achieve obviously vary by level of Project implementation. At the local level it is LGUs, IPOs, community organizations, and NGOs with sufficient capacity to undertake effective watershed planning and management activities, infrastructure investments, and livelihood improvements. At the regional and provincial levels it is more emphasis on effective planning and coordination activities, including technical assistance and support to local institutions, thus enabling the local institutions to execute their implementation roles effectively. Finally, at the national level the thrust is effective overall policy and planning functions, particularly with respect to the convergence of policies and programs with the other NGAs involved in land use planning and management.

96. **Implementation Arrangements.** DENR will be the lead **Executing Agency (EA)** for the Project and will assume full responsibility for Project administration and management. An interagency **National Project Steering Committee (NPSC)** will be established to provide policy guidance for smooth Project implementation; it will be chaired by the Undersecretary of DENR and will be composed of senior officials from key institutional partners (See Annex 5 for the flow chart, Table 8.1 of Annex 8 for implementation details together with fund flow, and WP 11 for further details). In addition to the Chair the NPSC will comprise of the following or their representatives only: (i) Undersecretary of the Department of Agriculture, (ii) Undersecretary of the Department of Interior and Local Government, (iii) Undersecretary of the Department of Agrarian Reform, (iv) Deputy Director General for investment programming of the National Economic and Development Authority (NEDA), (v) the Chair of the National Commission on Indigenous Peoples (NCIP), (vi) the Administrator, National Irrigation Administration, and (vii) the Director, Bureau of Soil and Water Management. The Secretary of the NPSC will be the Project Director to be assisted by the Project Manager. The representatives of other relevant government departments / units may be invited to attend the meetings of the NPSC depending on the need. A **National Project Coordination Office (NPCO)** will be established at the DENR Central Office to oversee Project implementation. The **NPCO** will be headed by a **Project Director**, the Director of the Forest Management Bureau of the DENR, who will effectively coordinate the organic staff of the DENR assigned to implement the Project. He will be assisted in the day-to-day implementation of the Project by a full-time **Project Manager** (Deputy Project Director), who will manage the full-time staff contracted to support Project implementation<sup>38</sup> and also serve as the main focal point for liaising with ADB, IFAD and other development partners (See Annex 5 and WP 11 for details). Integration of the GEF-financed biodiversity conservation and climate change mitigation activities into the Project will be ensured at the national level

<sup>38</sup> The Project will contract full-time specialists for social development, development communications, finance and procurement, monitoring and evaluation, and investment and marketing. It will also contract an additional 12 extension officers to work at the municipal level.

by the Director of the Protected Areas and Wildlife Management Bureau of the DENR, with the support others like the Secretariat of the Convention on Biological Diversity..

97. At the regional level, the **DENR Regional Office (RO)**, through the **Regional Project Coordinating Office (RPCO)**, will provide support to Project implementation, with the Regional Forest Management Service Office as the focal point for coordinating all related work of the various DENR regional office units and the concerned PENROs and CENROs. The **DENR ROs**, through their Land Evaluation Parties (LEPs), shall undertake the necessary ground surveys, resource inventories and validation based on guidelines and standards provided by NAMRIA, which, in turn, will be based on guidance from the **NPCO**. In case the technical resources of NAMRIA are insufficient to provide the required analyses and information in a timely manner, other technical or professional organizations with like expertise may be contracted to augment and complement the expertise pool required. Project specific policy guidance and coordination of the interventions of the national government agencies (NGAs) in the region plus needed technical guidance will be provided to the **RPCO** by the existing **Regional Development Council (RDC)**, or an equivalent body, as in the case of ARMM<sup>39</sup> (See Annex 5 and WP 11 for details). Given the specific circumstances in each of the four upper river basins to be covered under INREMP, each Council will adopt a structure specific to it but following this framework. As an example, agreement was reached with the local executives of both LGUs and NGAs in CAR that in the case of the Chico URB this will be the **Chico Watershed Management Council (CWMC)**, which will be established by special order by the Lead Project Agency, DENR. The CWMC will be chaired by the RED of DENR-CAR, and co-chaired by the RED of NEDA-CAR, and its members will include representatives of the REDs of DA, DAR, DILG, NCIP, NIA, the Governors of the five provinces concerned (Benguet, Mountain Province, Kalinga, Ifugao, and Cagayan), and the RDC sectoral representative for IPs (who will represent NGOs too). The Project will support the council meetings and special studies and investigation on technical and policy matters as and when necessary. The regional level monitoring, financial and administrative functions will be carried out by the regional M&E and Administrative and Finance Support Unit of the DENR. The coordination of project activities within the region and supporting the NCPO to undertake its responsibilities are the main functions of the RPCO.

98. The Project requires the organization of a **Provincial Project Coordination Office (PPCO)** in the Office of the Provincial Governor in each participating province (clustered by river basin). The **PPCO** will be led and staffed by the **Provincial Planning and Development Office (PPDO)** or, when applicable, the **Provincial Government Environment and Natural Resources Office (PG-ENRO)**<sup>40</sup>, with seconded staff from DENR and other provincial offices of relevant national government agencies (NGAs) and will provide the necessary guidance and technical assistance to the implementing municipal LGUs, communities and other entities to undertake project activities including those funded by GEF and CCF. The **PPCOs** shall ensure coordination and undertake liaison works among various cooperating agencies (provincial government and NAs) at the provincial level. The **PPCO** will lead the URB management planning process. It shall also coordinate implementation of the URB and watershed management plans through the field investments component of the Project, which includes: URB community-based conservation, protection and rehabilitation of natural forests and pilot demonstration activities. Where needed a **Provincial INREMP Council** may be established to consist of the concerned Governor(s) and the chair of the Provincial Consultative Body for IPs; while the provincial offices of NCIP, NIA, DAR, and DENR will provide policy and technical guidance. In some cases this Provincial INREMP Council will not be necessary. This is the case for the Chico URB where it would be redundant if the CWMC is established. The Administrative and Finance Unit, as well as the Bids and Award Committee (BAC) of the host Provincial Local Government Unit within a clustered river basin/watershed may assist project implementation at that level.

99. At the municipal level, a **Watershed Project Coordination Office (WPCO)** shall be established under the office of the Municipal Mayor in cases where a watershed is under the full administrative

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<sup>39</sup> This may be unique to ARMM. There is a probability that the RDC-CAR may revert to such bodies as the Cordillera Executive Board (CEB) and the Cordillera Regional Assembly during project duration.

<sup>40</sup> LGU Environment and Natural Resources Officer is optional under the Local Government Code, hence not all LGU have such an office in their staff establishment (plantilla).



jurisdiction of a single municipality. In cases where a watershed straddles the administrative boundaries of several municipalities, a common **WPCO** for these municipalities will be based at the host municipality, the one which has the largest territorial jurisdiction over the watershed (see WP 11 and 13). The **WPCO** shall be headed by the Municipal Planning and Development Officer, and staffed by seconded personnel from various offices of the MLGU. The DENR CENRO and other NGAs will provide continuing services to enable the **WPCO** to lead the ground implementation of Project demonstration activities and rural infrastructure rehabilitation and improvement. The Mayors of the clustered Municipalities, CENROs, NCIP Service Centers, Municipal Agrarian Reform Officer (MARO), and concerned Municipal Tribal Chieftains will form a **Municipal INREM Council** to provide oversight in Project implementation. The INREM Council will be chaired by the Mayor of host municipality and co-chaired by other Mayors on a rotating basis alphabetically. In the case of the Chico URB, as an example, 8 such MICs shall be established to cover the 8 watersheds identified. Finally, a **Municipal Technical Working Group**, staffed with municipal engineers and municipal environment-natural resources officers, and municipal agricultural officers, will provide technical guidance for implementation. The Technical Working Group will be chaired by the DENR-CENRO or Municipality Planning and Development Officer depending on the sub-project. The Admin and Finance and the M&E Units of the host municipal councils will assist project monitoring implementation at this level.

100. **Project start-up work.** There is a need for substantial amount of preparatory work to be undertaken by the DENR and other implementation partners to ensure the smooth implementation of INREMP, for which IFAD and ADB have provided (or shall provide as needed) some grant resources. This is particularly useful in view of lack of understanding of the staff of the institutions that are identified as project parties/partners about their role and responsibilities of the Project. Therefore a series of stakeholder sensitization workshops at the national and provincial levels will be held immediately before and after the project negotiations. The other project start-up activities to ensure a smooth implementation include supporting the preparation of a memorandum of agreement (MOA) between the authorities of the Lanao del Sur and the ARMM (see Annex 8 for details), information campaigns to appraise all the concerned LGUs about the need for counterpart funding for rural infrastructure, updating the PAM taking into account the revisions presented in this design report, and the launching of the project (start-up seminar at the national) and other activities that may be identified by DENR and are acceptable to ADB and IFAD.

## **B. The Collaborative Framework**

101. A long implementation period of seven years is considered necessary to undertake consolidation and strengthening of institutional capacities and policy framework for project investments. These will be based on technically guided land use plans and zoning to ensure adoption of sustainable agriculture, forestry and other natural resources conservation and management practices. Roles of the partner agencies including the private sector, upland farmers' and peoples' organizations must be understood and accepted, especially with respect to PES, to sustain the impacts of development initiatives. Similarly, the need for appropriate policies with adequate focus on social and environmental safeguards to facilitate decentralized level of coordination and operations takes time to articulate, to be tested and ultimately, accepted as government policy. See Annex 6 for Implementation Schedule and Working Paper 11 for details.

102. **Integration within the ADB/IFAD Country Programmes.** The financial contribution of IFAD to INREMP will focus on, but not limited to, project watersheds in the Upper Bukidnon River Basins and other suitable areas. Activities for IFAD funding will commence after completion of Land Capability Assessment and River Basin Zoning. Specifically, it will start with Participatory Planning. IFAD, through INREMP, shall ensure support is provided for food security of poor upland farming households who will participate in river basin/watershed management and investment planning and direct URB investments, livelihood enhancement and environmental protection. IFAD resources will not be used for funding the commercial forestry plantations under component 2.

103. Drawing from the lessons of past IFAD NRM-related projects, URB investments should support the immediate needs of the productive poor and the vulnerable upland farming households. However,

special attention shall be provided for vulnerable farming households because they are generally the food poor. Technology transfer-related trainings with material support may enable them to build their capacity and become productive farmers. However in order to achieve the desired results, provisions of support will be guided with basic principles and processes as noted below:

- a. Local participatory planning process will be applied in identifying livelihood support for the productive and/or enterprising poor and vulnerable farming households. These will be community driven, need-based, gender responsive, socio-culturally acceptable, and technically and environmentally viable.
- b. The potential opportunities for introducing new farming systems will be shown through demonstrations and trials of appropriate, proven, and environment-friendly upland farming technologies. Expansion and / or intensification of existing private sector-led production systems to strengthen local economic growth and jobs generation will be promoted.
- c. Strategic partnering and resource-sharing will be adopted in the implementation of the livelihood enhancement related-projects.
- d. Measures and processes are instituted at the onset of Project support to ensure ownership and sustainability. The livelihood enhancement activities are undertaken in a sustainable manner.

104. Project management through the WPCO shall ensure that the livelihood support for the poor will directly benefit the poor upland farmers and they: (i) become entrepreneurs and have access to micro-credit and markets; (ii) engage in agriculture-based and environmental-friendly livelihood endeavors possessing improved capacities in meeting basic needs requirements; and (iii) diversify and expand the agro-based livelihood activities so that they eventually become entrepreneurs.

105. The rural infrastructure requirement to carryout INREMP investment is also a key concern. That will primarily be in support to sustainable farming practices as well as to enhance the natural resource management and coordination capability of the local government units and the communities by providing access to the areas within the River Basins. The identification of rural infrastructure requirements for INREMP will be guided by the results of the participatory management planning and be further validated with the affected farming households and local institutions during sub-project designing stage. Sustainability schemes and mechanisms will be put in place at the designing stage of every infrastructure project and institutionalize its operations and maintenance.

106. **Community consultation.** The consultation process should take note of the importance of ensuring free, prior and informed consent of the communities, including the IP and agrarian reform beneficiary communities, through effective consultations during the planning process and beyond. The NGOs, selected through an open competitive and bidding process, would be contracted to facilitate the consultations. For an NGO to be considered eligible for bidding and finally to be selected the NGO should obtain a certification of acceptance from the IP community, validated and confirmed by NCIP, through a process to be described in the Project Administration Memorandum (PAM) and to be acceptable to both ADB and IFAD. In some cases the NCIP may sit on the selection committee for NGO contracts, as is the case already under the CHARMP-2. The government institutions at national, regional and the provincial level have agreed to the process and the process should take place during the 1<sup>st</sup> and 2<sup>nd</sup> year of the Project (see Annex 12 on IP development framework).

107. **Involuntary settlements.** The appraisal noted that there will be no permanent physical displacement of URB stakeholders. Should there be temporary physical displacement and / or restriction to access, the Framework documents on Involuntary Resettlement (see Annex 11) and IP Development Framework (see Annex 12), as endorsed by the National Commission on Indigenous Peoples to the Executing Agency (DENR), NEDA, ADB and IFAD, will serve as guide. Provisions on free and prior informed consent through prescribed disclosure mechanisms and grievance redress will be observed, which will be implemented by participating NGOs as third party implementers acceptable to ADB and

IFAD, and monitored by NCIP. The NGOs who are implementing consultations should use science based information generated either by them directly or using academic institutions acceptable to the Project to support the consultation process and guidance on temporary physical displacement or economic displacement.

### **C. Results-Based M&E**

108. The Project will mobilize consultant support to design a results based monitoring and evaluation system, GIS-based database management for M&E, and MIS system. The consultant will provide specific and very technical input to the M&E Specialist of the Project to establish and manage the system, who will in turn train the organic staff of the DENR at regional and provincial levels to provide input to the M&E system. Lessons learned from the presently on-going projects will be integrated to strengthen the system.

109. The overall M&E system will consist of regular reports and process monitoring by the NPCO for the overall Project. The information will come from the M&E staff of the existing M&E units of the regional and provincial levels, implementing partners and from the programme's financial accounts maintained by the PMU. Indicators to be monitored will include the results and impact monitoring system (RIMS) indicators for the areas where IFAD is operating, and the results based monitoring indicators consisting input, output, outcome and impact indicators that are presented in the Project Log-frame and any more that will be formulated during implementation. These indicators will include social, environmental and economic dimensions. The existing M&E staff will prepare the quarterly and annual progress reports at each level and the M&E Specialist will consolidate these to prepare the project level reports to be presented to GOP, IFAD and ADB. Submission of annual and bi-annual progress reports to IFAD and ADB is a mandatory function of the NPCO.

110. The baseline survey will be carried out in the four URBs at the commencement of the Project which include baseline status of demographic, socio-economic, environmental, natural resources and GIS based land use information. This will be contracted out to a team of consultants. They will be selected using a competitive and transparent manner acceptable to ADB and IFAD.

111. Performance and benefit monitoring will be undertaken periodically (annually from the end of the second project year) through an independent contracted organization or institution. An independent institution will undertake social and environmental compliance monitoring as well as the magnitude and quality of environmental services developed by the Project. Semi-annual project reviews and a full review of project performance by the end of the third and fourth year of implementation will be undertaken. Monitoring and evaluation will be participatory where stakeholders will be responsible for tracking their own progress, subject to standard procedures. The GIS-based mapping in the project areas with project interventions will be extensively used as a monitoring tool to demonstrate the project progress on the ground. The M&E staff will be provided with required training, equipment, computer facilities with software and other material to undertake participatory GIS mapping.

112. In addition to normal monitoring, the Project will be reviewed/supervised jointly at least twice a year by ADB, IFAD, and GOP. In the fourth year of project implementation (between the 36<sup>th</sup> and 48<sup>th</sup> month after effectiveness), ADB, IFAD, and GOP will conduct a midterm review to assess progress, examine the continued validity of design assumptions and to identify the needs for any adjustments in the design or implementation arrangements. The M&E unit will also undertake an impact assessment just before closing the Project in the seventh year. Teams of consultants will be used for both purposes.

## **VI. PROJECT COST, BENEFITS, AND FINANCING**

### **A. Project Cost and Financing**

113. **Project Costs.** Total estimated project cost is US \$ 154.132 million (Php 8,541.725 million). The base cost is US\$ 135.27 million or Php 6,425.2 million. Cost of the five components of the Project are (i) Component 1 - Development / Formulation of river basin / watershed management and investment plans: US \$ 12.16 million (Php 576.9 million) which is 9% of the total base cost; (ii) Component 2 - Small

holder / commercial / institutional investments: US \$ 112.1 million (PhP 5,325.2 million), 83% of the base cost; (iii) Component 3 - Capacity strengthening for river basin management: US\$ 2.417 million (PhP 114.56 million), 2% of the base cost; and (iv) Component 4 - Project management and support services: US \$ 8.599 million (PhP 408.485 million), 6% of the base cost. In addition, the total project cost includes US \$ 6.136 million physical contingencies (5% of the total project cost), US \$ 4.152 million price contingencies (3% of the total project cost) and US \$ 6.059 million taxes and duties (see Table 4).

114. **Project Financiers.** As shown in Table 5, the Project is multi-financed with a loan of US \$ 100 million from ADB which finance 64.9% of the total project cost; US \$ 20 million from IFAD covering 13%; US \$ 2.5 million (1.6%) from GEF; US \$ 1.41 million (1%) from ADB-CCF (climate change fund); and the balance from the GOP including LGUs and the beneficiaries.

115. **Project Expenditure Categories.** The expenditure (or disbursement) categories by financiers are presented in Annex 4. Investment cost of the INREMP takes 90.5% of total the project cost while the recurrent cost takes 4% and the balance 5.5% is for the interest and commitment charges for the ADB loan only. Working Paper 12 presents the cost of the Project in detail.

116. The Government of the Philippines, through the DENR, has requested a loan of \$100 million equivalent from ADB's ordinary capital resources and \$ 20 million equivalent from IFAD to help finance the Project. The ADB loan will have a 20-year term, including a grace period of 8 years, an interest rate determined in accordance with ADB's London interbank offered rate (LIBOR)-based lending facility, a commitment charge of 0.15% per annum and other terms and conditions set forth in the draft loan agreement. The GOP has provided ADB with (i) reasons for its decision to borrow under ADB's LIBOR-based lending facility based on these terms and conditions, and (ii) an undertaking that these choices were its own independent decision and not made in reliance on any communication or advice from ADB.

117. As requested by the GOP, IFAD will provide a US\$ 20 million loan subject to intermediate terms and conditions for middle-income countries, which currently includes a 20-year term and a grace period of 5 years. IFAD funds are expected to finance all activities resulting from land use and capability assessment within selected watersheds. IFAD's interest in Lanao shall focus on, but not be limited to, participatory management planning and provision of livelihood support for the poor. In addition to the two loans, GEF, ADB-CCF, National Government, LGUs and beneficiaries will finance the Project. Table 5 summarizes the financing plan of the Project.

118. Grant financing is expected from GEF (US\$2.5 million equivalent) and from the ADB Climate Change Fund (US\$1.4 million). In the case of the proposed grant funding from GEF, the financing has been approved by the GEF Council in August 2010. To avoid any project delay, the ADB Board is requested to approve the administration of the proposed grant, in an amount not exceeding the equivalent of US\$ 2,500,000, which has been confirmed by GEF subsequent to the date of Board approval. Approval of the GEF grant will be reported to the ADB Board in accordance with the standard reporting procedures.

119. The Government will provide funding equivalent to US \$ 6.896 million to the project cost. It includes US \$ 5.683 million for taxes and duties, US \$ 1.213 million as recurrent cost for project staff, facilities and management. Further GOP will finance US \$ 8.035 as interest to the ADB loan during implementation and commitment charges to ADB amounting to US \$ 535,000. Local government units will finance US\$ 7.481 million, and the beneficiaries, US\$ 9.32 million in-kind. ADB will provide a CDTA of US\$ 0.8 million. In the event of a shortfall in the required finances, GOP assures that it will make up any funding gap.

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**Table 4: Component Project Cost Summary**

Components Project Cost Summary	(PhP '000)					(\$ '000)				
				%	% Total				%	% Total
	Local	Foreign	Total	Foreign Exchange	Base Costs	Local	Foreign	Total	Foreign Exchange	Base Costs
A. River Basin and Watershed Management Plans	482,921	94,032	576,952	16	9	10,179	1,985	12,163	16	9
<b>B. Smallholder/Commercial/Institutional Investments</b>										
1. Conservation, rehabilitation and protection of URB Basin State forests	2,017,026	-	2,017,026	-	31	42,455	-	42,455	-	31
2. SFM, agroforestry & commercial forest plantation with community participation	870,378	26,587	896,964	3	14	18,321	560	18,881	3	14
3. Rehabilitation and improvement of rural infrastructure	1,483,370	496,055	1,979,425	25	31	31,220	10,440	41,661	25	31
4. Conservation farming and livelihood support	367,208	19,188	386,395	5	6	7,729	404	8,132	5	6
5. Investment in Watershed Management	43,204	2,169	45,373	5	1	919	46	965	5	1
<b>Subtotal Smallholder/Commercial/Institutional Investments</b>	4,781,185	543,999	5,325,184	10	83	100,644	11,450	112,094	10	83
C. Enhanced Capacity for River Basin and Watershed Management	110,070	4,490	114,560	4	2	2,322	95	2,417	4	2
D. Project Management Support	370,527	37,957	408,485	9	6	7,800	799	8,599	9	6
<b>Total BASELINE COSTS</b>	5,744,704	680,477	6,425,181	11	100	120,945	14,329	135,274	11	100
Physical Contingencies	258,639	32,895	291,534	11	5	5,444	692	6,136	11	5
Price Contingencies	1,228,997	129,635	1,358,633	10	21	3,739	413	4,152	10	3
<b>Total PROJECT COSTS</b>	7,232,340	843,007	8,075,348	10	126	130,128	15,435	145,563	11	108
Interest During Implementation	435,987	-	435,987	-	7	8,035	-	8,035	-	6
Commitment Charges	30,391	-	30,391	-	-	535	-	535	-	-
<b>Total Costs to be Financed</b>	7,698,718	843,007	8,541,725	10	133	138,698	15,435	154,132	10	114

**Table 5: Project Component Cost with Financiers**

Components by Financiers (\$ '000)	GVNT		ADB		IFAD		GEF		CCF		LGUs		BENEs		Total		For. Exch.	Local (Excl. Taxes)	Duties & Taxes
	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%			
A. River Basin and Watershed Management Plans	1,266	9.8	8,605	66.4	1,332	10.3	1,483	11.4	280	2.2	-	-	-	-	12,967	8.4	2,099	9,602	1,266
<b>B. Smallholder/Commercial/Institutional Investments</b>																			
1. Conservation, rehabilitation and protection of URB Basin State forests	-	-	39,998	87.1	5,660	12.3	-	-	263	0.6	-	-	-	-	45,921	29.8	-	45,921	-
2. SFM, agroforestry & commercial forest plantation with community participation	0	-	14,120	69.2	-	-	-	-	240	1.2	-	-	6,051	29.6	20,411	13.2	605	19,806	-
3. Rehabilitation and improvement of rural infrastructure	3,400	7.6	29,394	65.7	4,598	10.3	-	-	-	-	6,137	13.7	1,225	2.7	44,754	29.0	11,291	29,687	3,777
4. Conservation farming and livelihood support	7	0.1	2,831	32.1	5,969	67.8	-	-	-	-	-	-	-	-	8,807	5.7	437	8,362	7
5. Investment in Watershed Management	13	1.3	-	-	-	-	524	54.2	431	44.5	-	-	-	-	968	0.6	46	909	13
<b>Subtotal Smallholder/Commercial/Institutional Investments</b>	3,420	2.8	86,343	71.4	16,226	13.4	524	0.4	934	0.8	6,137	5.1	7,277	6.0	120,862	78.4	12,380	104,685	3,796
C. Enhanced Capacity for River Basin and Watershed Management	192	7.5	1,598	62.2	234	9.1	349	13.6	195	7.6	-	-	-	-	2,569	1.7	100	2,276	192
D. Project Management Support	2,017	22.0	3,454	37.7	2,207	24.1	143	1.6	-	-	1,344	14.7	-	-	9,165	5.9	856	7,505	805
<b>Total PROJECT COSTS</b>	6,896	4.7	100,000	68.7	20,000	13.7	2,500	1.7	1,410	1.0	7,481	5.1	7,277	5.0	145,563	94.4	15,435	124,069	6,059
Interest During Implementation	8,035	100.0	-	-	-	-	-	-	-	-	-	-	-	-	8,035	5.2	-	-	-
Commitment Charges	535	100.0	-	-	-	-	-	-	-	-	-	-	-	-	535	0.3	-	-	-
<b>Total Disbursement</b>	15,465	10.0	100,000	64.9	20,000	13.0	2,500	1.6	1,410	0.9	7,481	4.9	7,277	4.7	154,132	100.0	15,435	124,069	6,059

120. Following the procedures for Official Development Assistance (ODA) projects, the proceeds of the ADB and IFAD loans will be released to the Bureau of Treasury, further released to the Executing Agency (EA), DENR, by DBM through budgetary allocations, with fund flows to: (i) DENR Central Office, (ii) four DENR Regional Offices; (iii) Municipal Development Fund Office (MDFO), subject to cost sharing prescribed in the LGU Financing Policy Framework 41 and the Performance Based Grant System (PBGS) for LGUs; and (iv) DA (\$10 million allocated for Livelihood Enhancement through rehabilitation of rural infrastructure), which is implementing CHARMP 2 in the six provinces of the Cordillera Administrative Region, where the Chico River basin is also located. Proceeds from the GEF grant will follow the same process with fund flows limited, however, to the DENR Central Office and the four DENR Regional Offices.

## B. Project Benefits

121. **Economic and financial benefits.** The Project targets an approximate total of 220,000 direct beneficiary households. They include local level stakeholders, public utilities and their customers, and river basin stakeholders. The global community will indirectly benefit through enhanced environmental services. Majority of the direct beneficiaries are from vulnerable and marginalized sectors. It is recognized that the targeted local level groups have limited influence. However the Project ensures that vulnerable sectors and communities are addressed and benefits equitably distributed through (i) consolidated consultation and participation plan, (ii) economic Resettlement Framework (see WP 15), (iii) Indigenous Peoples Development Framework, and (iv) Gender Action Plan (GAP). The GAP is designed to benefit women in terms of empowerment for participation and decision-making on NRM, capacity building and improved access to services.<sup>42</sup>

122. Further, the Project's social inclusion process of empowerment and participation will give vulnerable stakeholders equitable access to project benefits. Specifically, a special window will be provided for livelihood support to the poor using IFAD-tested methodologies in the country by way of matching livelihood packages with corresponding stratum among the poor and vulnerable sector. The project will promote sustainable farming and agro-forestry production practices that are designed to increase farm productivity but at the same time do not impair biodiversity and environmental quality (see WP 10). Rehabilitation of farm-to-market roads will improve access to local communities for better delivery of social services like education and health and for improved access to market as well as other social services. Construction of trading centers will lessen transaction costs for farm products and the possibilities for increased profit among local producers in the URBs.

123. Approximately 220,000 households will benefit from increased incomes generated from environmental services, sustainable forestry, agro-forestry, agricultural activities, rural infrastructures, and drinking water supplies initiated and supported by the Project (see WP 18 for details in all types of benefits). Public utilities, other productive enterprises and downstream farmers that utilize water for a variety of purposes will benefit from improved quality and reliability of water resources provided within the targeted river basins at reduced costs. This will enable them to increase their productivity and avoid some of the costs currently incurred as a result of the irregular flow and polluted nature of the water supply. The population within the river basins and targeted local governments (see Table 2 for the sites), the majority of which is categorized as low-income class municipalities, will benefit from increased economic activity and greater security from the adverse impact of climate change and natural disasters (see WP 5 for targeted municipalities).

124. **Policy and institutional benefits.** The Project will strengthen institutions that manage the URB, through: (i) clarification and realignment of roles whereby LGUs take primary management responsibility and DENR plays the enabler role; (ii) legally binding obligations on decision-makers to make rational, science-based and transparent decisions based on a comprehensive appraisal of technical, costs and benefits, and a consultative process involving all stakeholders; and (iii) developing LGU skills to manage

<sup>41</sup> As approved by the NEDA Board in March 2003.

<sup>42</sup> Indigenous peoples and marginal farmers, women, persons to be displaced from sources of livelihood due mainly to restricted access to farms and communal woodlands, and people in conflict-affected areas of Muslim Mindanao.

URBs as an enterprise and institutionalize the process for evaluation and collection of PES in order to generate revenues from natural resource uses (national and global sources). The Project will also strengthen access rights through more stable tenure instruments.

125. **Environmental Impacts.** Overall, Project interventions in field investments in reforestation, ANR, forest protection, demonstrations in commercial tree plantations and agro-forestry, will generate positive environmental impacts, as discussed above under economic benefits, from reduced soil erosion and sedimentation of water systems; increase of ground water/ aquifer recharge; carbon sequestration; protection/increase of biodiversity; improvement of water run-off and conservation of soil nutrients; reduced occurrence of drought, floods and landslides; reduction of poverty and improvement of the economic condition of people living in the river basins. These benefits outweigh the minimal and temporary adverse impacts occasioned by the implementation of these interventions, which could easily be mitigated by the adoption of the environmental monitoring/management plan and the observance of additional environmental safeguards, as outlined in the initial environmental examination, or IEE, (see WP 14 for details).

## Financial Analysis

126. For the purpose of the financial and economic analyses of the Project, five enterprise models representing sub-projects (see WP 14 for details of sample sub-projects in the four URBs and WP 9 for cost assumptions for infrastructure work) with quantifiable benefits were used, namely: (i) small-scale communal irrigation systems (CIS) rehabilitation and improvement; (ii) rural access roads rehabilitation and improvement; (iii) communal drinking water supply; (iv) agro-forestry; and (v) plantation forestry. The financial benefits under these models under “with-project” and “without-project” scenarios have been analyzed and presented in Working Paper 18 in detail. The quantifiable benefits are increased paddy production due to yield and cropping intensity increase attributing to CIS; cost saving of traffic and induced farm production attributing to access roads; time saving and health benefits attributing to drinking water supply; production of perennial / annual crops and livestock attributing to agro-forestry; and timber production attributing to plantation forestry.

127. The Financial Net Present Values (FNPV) of enterprise models in all proposed project sites are positive (ranging from PhP 7,100 for the Bauko communal irrigation system sub-project to PhP 273,862 for the plantation forestry). A positive FNPV indicates that the project’s total discounted benefit is greater than the total discounted cost hence the sub-project is feasible. Meanwhile, the Financial Internal Rates of Return (FIRR) of all investment models across proposed project sites are greater than the assumed hurdle rate of 15% per year which indicates the opportunity cost of money. FIRR estimates range from 13% (for the Bauko communal irrigation system) to 40% (for plantation forestry). The FIRR represents the average earning power of the money used in the project over the project life. The FIRRs of the investment models are greater than the hurdle rate of 15%, except in one case (see Table 6) indicating all sub-projects are financially feasible (see WP 18 for details of the financial analysis).

**Table 6: Results of the financial analysis of enterprise models of INREMP**

Sub-projects	IRR / NPV (PhP 1000)	Bauko	Bohol	Bukidnon	Lanao	All URBs
CIS:	IRR	13%	17%	21%	17%	17%
	NPV	7	8	28	9	13
Access roads	IRR	37%	24%	30%	23%	29%
	NPV	2,942	1,014	1,867	861	1,671
Drinking water supply	IRR				31%	31%
	NPV				9,697	9,697
Agro-forestry	IRR					25%
	NPV					60,037
Plantation forestry: Model 1	IRR					40%
	NPV					273,862

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Plantation forestry: Model 2	IRR					20%
	NPV					9,697

## Economic Analysis

128. The assumptions used for the economic analysis of the whole Project are spelled out in detail in Working Paper 18. The key assumption include: (a) an analysis over a period of 25 years; (b) variable Standard Conversion Factor ranging from 0.80 to 1.14 (see WP 18 for details); (c) an opportunity cost of labour equal to 60% of the market rate in view of the relatively high levels of unemployment in the project area; (d) products and agro-inputs which are internationally traded being valued at their border prices (such products are paddy, corn, coffee and such agro-inputs are all agro-chemicals, and chemical fertilizer); and (e) all other tradable goods being valued at a shadow exchange rate of 1.2. The economic analysis is based on incremental cash flows. These and the detailed cash flows for each enterprise model for each URB are given in Working Paper 18. The total project targets of the activities that were considered for economic analysis are presented in Table 7.

**Table 7: Total targets of the Investment Models by Upper River Basin**

Investment Model (Subproject Type)	Upper River Basin				Total
	Chico	Wahig- Inabanga	Upper Bukidnon	Lanao	
Communal Irrigation System (ha)	1,400	250	290	1,100	3,040
Rural Access Roads (km)	220	80	100	160	560
Drinking Water System (unit)	125	20	30	100	275
Agro-forestry (ha)	3,900	1,500	16,650	2,400	24,450
Commercial Forest Plantation (ha)	3,990	70	1,540	350	5,950

129. **Project costs** in their financial terms are presented in Annex 4. These costs have been converted to economic values by making necessary adjustments. The economic analyses include the investment and incremental recurrent costs of the Project components. The incremental Project costs in economic prices have been calculated by the removal of price contingencies and taxes and duties. The economic value of physical contingencies has been included. The SCF varying from 0.8 to 1.14 was used in the conversion as appropriate. No residual values were used to account capital investment of forest lands, communal irrigation systems and land for commercial forestry. The economic costs and benefit items are presented in Appendix Tables indicated in the text.

130. **Project benefits** at the Project level are adjusted to a 30 percent level (of the total computed project benefits) to account for the non-marketable product surpluses (i.e. in the case of agro-forestry, rural access roads and commercial forestry), possible non-optimality of product combinations, and other plausible pecuniary factors. These are presented in details in Working Paper 18.

131. **Results:** The overall economic internal rate of return (EIRR) of the Project is estimated at 22% over a period of 25 years. NEDA recommends 15% as the opportunity cost of capital. The Project returns on the base case are well above this rate making the investment worthwhile in economic terms. The Project is therefore economically viable.

132. The results of the sensitivity analyses are presented in Table 8. An increase in the costs of the Project by 10% would reduce the EIRR to about 21% which is still higher than the opportunity cost of money but indicates that the Project is sensitive to cost escalation. It is likely that the Project would face delays in implementation due to various reasons such as inter-agency coordination, capacity building, several start-up activities on the ground etc. The Project is sensitive to delays in implementing the sub-projects. One-year and two-year delay would reduce the EIRR to 19% and 17% respectively in the base



case. If there is one year delay together with 10% cost escalation, the EIRR will drop to 17% which is drastic.

**Table 8: Results of the sensitivity analysis – 25 year planning period**

Sensitivity Parameter	Economic IRR	Economic IRR: One year delay in commencing sub-Projects	Economic IRR: Two years delay in commencing sub-Projects
Base case	22%	19%	17%
10% increase in all cost	21%	17%	16%
10% decrease in all benefits	21%	18%	16%
Both 10% cost increase & 10% benefits decrease	19%	15%	15%

133. A 10% decrease in benefit of the sub-projects would reduce to EIRR to 21% and with one year delay to 18%, which is again drastic. This too shows the sensitivity to changes of the benefit structure. A less likely event of a simultaneous 10% cost escalation and 10% benefit reduction will reduce the EIRR substantially to 19% but still economically viable in comparison to the opportunity cost of money. However if this scenario is combined with the one year delay in getting benefits the Project becomes economically unviable. The sensitivity analysis indicates that the Project is sufficiently robust and will remain economically viable under foreseeable adverse conditions. However as the analysis indicated, the delays in realizing benefits should be avoided to maintain the economic viability of the Project.

### C. Procurement, Accounts, and Audit

134. **Procurement.** All procurement to be financed under an ADB and IFAD loans will be carried out in accordance with ADB's Procurement *Guidelines* (2007, as amended from time to time). ADB will administer the IFAD loan too and as such ADB *Guidelines* will be used. Force Account procedures will be used for procurement of labour since the works are small in scale and undertaken in remote locations. All civil work contracts exceeding \$100,000 and less than \$5,000,000 will be procured through the national competitive bidding procedure. Most rural infrastructure construction will be undertaken using labor-intensive methods, with arrangements for local communities to participate through equity contributions in the form of labor, materials, or cash. Community participation in procurement of rural infrastructure works will be supported for small works of up to \$10,000. Under certain conditions, if communities have successfully participated in procurement before, they may participate in schemes of up to \$30,000 in value. Multiple small-scale field expenditures will be funded to a large extent on a statement of account basis through national competitive procedures unless there are grounds for single source selection.

135. The IFAD Procurement Guidelines will guide the procurement of goods, works and services in IFAD funded activities. When there are divergences between the GOP guidelines and those of IFAD, the IFAD guidelines will take precedence. Procurement of goods and services under IFAD funds will be as per guidelines noted below. Procurement ceilings will be as follows:

- a. Direct purchases for the procurement of goods and services worth USD 25 000 and less;
- b. Local shopping of goods and works, obtaining pro-forma invoices from at least three different suppliers, for contracts exceeding USD 25 000 but less than USD 100,000;
- c. National competitive bidding for contracts exceeding USD 100,000 but less than USD 1,000,000;
- d. International competitive bidding for contracts worth USD 1,000,000 or more.

136. IFAD prior review will be required for commitments exceeding USD 200 000 for the procurement of goods and services. For consultant services, prior review will be required for contracts exceeding

USD 100 000. Annex 7 outlines the conditions that will apply for ADB prior review. Efforts will be made to ensure the harmonization of the IFAD and ADB conditions applicable to INREMP.

137. In consideration of the service maintenance that local suppliers can provide, the DENR-Regional Office or PENRO will undertake procurement required by the LGUs nearest to the PENRO. Actual procurement will depend on the commitment or assured participation of LGUs. Equipment for LGUs is packaged for at least 8 municipalities each. DENR-Field Office will procure through its bids and awards committee (BAC) in accordance with ADB's and IFAD guidelines on Procurement. Procurement of goods valued at less than \$100,000 will be undertaken through the shopping method under ADB's *Procurement Guidelines*. Goods valued at \$100,000 or more but less than \$500,000 will be through national competitive bidding. All equipment valued at \$500,000 or more will be procured under the international competitive bidding procedure.

138. Procurement under the rural infrastructure component will be the main responsibility of the municipal LGU through its BAC in accordance with ADB's *Procurement Guidelines*. Procurement of equipment and materials for schools less than \$100,000 can be done through the national competitive bidding. See Annex 7 for details. The IFAD loan shall be administered by the ADB as its cooperating institution for INREM. IFAD shall therefore use ADB's procurement and disbursement procedures of the project.

139. **Consulting Services.** Consultants to be engaged will be recruited through a firm using Quality and Cost Based Selection (QCBS - 80:20) under both IFAD and ADB loans.<sup>43</sup> Consulting services will be contracted to provide guidance and training to implementing agencies, in particular, the concerned LGU staff primarily during the first two years of implementation. Advance contracting, will be used for consultant recruitment, but not retroactive financing. Working Paper 18 presents a summary of Consulting Services.

140. **Anticorruption Policy.** ADB's *Anticorruption Policy* (1998, as amended to date) was explained to and discussed with the GOP and DENR and the EA. Consistent with its commitment to good governance, accountability, and transparency, ADB reserves the right to investigate, directly or through its agents, any alleged corrupt, fraudulent, collusive, or coercive practices relating to the Project. The IFAD's "zero tolerance" and Anti-Corruption Policy (2005) is broadly in line with the ADB's and shall apply a zero-tolerance policy where it has determined to enforce a range of sanctions in accordance with the provisions of applicable IFAD rules and regulations and legal instruments.

141. **Disbursement Arrangements<sup>44</sup>.** Following the procedures for Official Development Assistance (ODA) projects, the proceeds of the ADB and IFAD loans will be released to the Bureau of Treasury, further released to the executing agency (EA), DENR, by DBM through budgetary allocations. DENR will disburse and account for Project funds except for Livelihood Enhancement or infrastructure project funds that will be implemented by the LGUs, which will be channeled through the MDFO, subject to cost sharing prescribed in the LGU Financing Policy Framework<sup>45</sup>. The Performance Based Grants Scheme for LGUs will also be released through the MDFO, in accordance with arrangements acceptable to ADB and IFAD. For activities that will be implemented by the DENR Field Offices, and other participating agencies such as NAMRIA, funds will be transferred by DENR-Central Office (CO) through sub-allotments. For activities that will be undertaken by other entities, private organizations, NGOs/POs/LCOs or LGUs, DENR will execute a Memorandum of Agreement to define responsibilities of each including the terms and conditions for the release or transfer of funds for said activities (see Annex 8 and WP 13 for details).

142. The Project will be carried out on a grant-equity mix following the current national government cost sharing policy where the Project interventions would mostly fall under Cluster 2 (see Annex B of the Working Paper 13 for clear details of the NG-LGU Cost-Sharing Policy). The maximum grant available to 5<sup>th</sup> and 6<sup>th</sup> class municipalities in Cluster 2 is only 50% of the total sub-component cost with the remaining

<sup>43</sup> In line with ADB's *Guidelines on The Use of Consultants by Asian Development Bank and Its Borrowers* (2007).

<sup>44</sup> This section is based on the extensive details presented in Working Paper 13.

<sup>45</sup> As approved by the NEDA Board in March 2003.

50% to be shouldered by the LGUs as counterpart either taken out of their IRA or by availing a loan package from other funding sources. The Appraisal noted that the LGUs will have budgetary limitations to provide their counterpart funds for infrastructure development activities of the Project. It was noted that LGUs in Lanao del Sur could contribute only about 10% as counterpart funds to finance the infrastructure development cost. The Feasibility study of INREMP noted that about 70% of the LGUs in the project have similar financial constraints. The Government should therefore consider allowing needy LGUs to contribute a more affordable level of counterpart funds, where possible. Alternatively other relevant government departments such as Department of Public Works and the Department of Social Welfare and Development would be encouraged to provide supplementary funding as counterpart funding for infrastructure component. As the Appraisal noted if the investment plans can be formulated well in advance then there is a possibility for some Provincial Governors, if requested, to provide financial support from their provincial budget. The planning process should take this option into careful consideration. Counterpart requirements of LGUs in monetary terms are presented in Table 5. DENR, as the Lead Project Agency should communicate at the project start-up to all concerned LGUs to ensure that they fully understand and agree on the levels of their respective counterpart requirements for the Project to cover their watershed or river basin.

143. The \$10 million allocated for Livelihood Enhancement through rehabilitation of rural infrastructure, as part of the ADB loan, will be released directly to DA, which is implementing CHARM 2 in the six provinces of the Cordillera Administrative Region, which is where the Chico River basin is located. The activities to be funded with these CHARMP-2 allocated funds will be in the areas covered by that project and be based on its respective plans and programs. With a view to speeding up the withdrawal process, DA will process the withdrawal applications concerning these ADB co-financed activities directly with the ADB, with a copy to DENR for information, record keeping, and monitoring of the use of funds.

144. **Accounting, Auditing, and Reporting.** Receipts and disbursement of Project Funds will be recorded and monitored through a Special Account exclusively for the Project in the books of accounts at DENR-Central Office and concerned Field Offices and the MDFO. The LGU shall likewise open and maintain a Special Account in their books of accounts for General Fund exclusively for transactions of the Project. The LGUs will further be required to open accounts with the authorized government depository bank for funds from MDFO and another for their share of the Project cost. The New Government Accounting System (NGAS/eNGAS) accounts and prescribed methods as prescribed by the Commission on Audit (COA) will be used in accounting for the Project funds. The NPCO shall ensure that all accounts at the Central Office and Field Offices are consolidated and audited by the Commission on Audit (COA) or other auditors acceptable to ADB and IFAD.

## VII. PROJECT RISKS AND SUSTAINABILITY (KSF 5)

### A. Risk Analysis

145. At the **impact level**, it is assumed that economic growth of the country remains steady and moderate to stabilize prices and demand for products and services. It is further assumed that the impact of natural disasters (typhoons, erratic rainfall, and prolonged drought) can be mitigated with appropriate measures. Identified risks are (i) GOP's enabling policy reforms and adjustment of implementing procedures delayed, (ii) Political instability or partisan rivalry prevent multi-stakeholder institutions from functioning properly or gaining consensus, (iii) Revenue streams from REDD, CDM, other local PES mechanisms are not realized, and (iv) Extreme weather events (excessive rainfall or extended periods of drought) caused by climate change impact negatively on natural re-growth of vegetation and consolidation of biodiversity and ecosystem services (non-stabilization of water flows downstream).

146. Assumptions at the **outcome level** are (i) Government's timely approval of land use assessment and zoning to facilitate demarcation, and (ii) Appropriate government directives enable convergence and respective mandates of concerned institutions. Prevailing risks are (i) Delays in mainstreaming institutional convergence under a decentralized natural resource management framework, (ii) Change in government priorities may favor large-scale unsustainable resource exploitation, and (iii) Delays in approval of INREM based management plans for selected URBs.

147. At the **output level**, the following are assumed: (i) Timely and qualified staff resources are made available for design and implementation of URB Management Plans, subproject proposal and monitoring of investment projects, (ii) GOP budgetary support for implementation of various activities continues, (iii) Adequate incentives for community participation exist and in place specifically in terms of learning diversification of agricultural techniques, (iv) Potential negative climate change impacts are appropriately addressed and can be mitigated, and (v) Delays in government procurement can be minimized. Identified risks are (i) High staff turnover, (ii) GOP budgetary support dwindles, (iii) Unanticipated magnitude of the risks resulting from climate change, (iv) Armed conflict (political and tribal) persists, (v) Local communities become increasingly disillusioned thus are not willing to cooperate, and (vi) Technical extension and IEC services provided by institutions / government agencies are unsatisfactory.

148. The assessment of these critical risks to Project outputs, impacts, and outcomes and the measures proposed for managing these risks are shown in the following Risk Assessment and Risk Management Plan.

### RISK ASSESSMENT AND RISK MANAGEMENT PLAN

Risks	Assessment Without Mitigation	Management Plan	Assessment with Mitigation
<b>Implementation Delays.</b> (i) The bureaucratic process in the Philippine government may take a longer period to establish the necessary policy reforms and adjustments under the Project.	High	It is important to secure commitments from the Government that the needed policy reforms will be reviewed and adopted in a specified time	Low
(ii) Mainstreaming institutional convergence under a decentralized natural resource management framework might encounter resistance from the national government, particularly the DENR.	High	Local Government Code of 1991 (RA 7160) will be reviewed and decentralization of powers will be reiterated in national workshops. Environmental management capacities at the local level will likewise be strengthened with training and purchase of equipment.	Medium
(iii) The complicated and undefined tenurial arrangements for forestry resources may stall the approval of INREM based management plans for selected URBs.	High	Prior to Project implementation, tenurial arrangements will be defined and agreed upon so as to identify which government agency has the jurisdiction and authority to approve the said plans.  For all the said risks, close coordination with the Government counterparts will be done while supervision and feedback monitoring will be conducted on a regular basis.	Low
<b>Budgetary support</b> from the national and local government might dwindle over time	Medium	Budget programs from the DBM will be secured to ensure that sufficient funds from the Government will be committed to the Project. Likewise,	Low

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Risks	Assessment Without Mitigation	Management Plan	Assessment with Mitigation
		<i>Sanggunian Bayan</i> resolution will be secured from the participating local governments to serve as a binding agreement to honor commitments and obligations even beyond the current administration's tenure. Such resolution will allow Internal Revenue Allotment (IRA) intercept from DBM to LGUs.	
<b>Political situation</b> in some sub-Project sites may worsen as a result of political infighting.	High	Project activities will be suspended in areas where peace and order instability persists until peace prevails. However, activities in other sites will be continued. This is to minimize Project inputs in unstable communities yet maximize outcomes in peaceful ones.	Low
<b>Revenue streams</b> from REDD and local PES mechanisms are not realized	Medium	Revolving funds will be established to provide seed capital requirements. The revolving funds will have flexible financing schemes for Project beneficiaries and will consider their repayment capacities. The implementation of PES, on the other hand, will be institutionalized through local ordinances.	Low
<b>Governance.</b> Poor governance and corruption may distort the process of development, and have a disproportionate impact on the poor.	Medium	ADB's <i>Anticorruption Policy</i> (1998, as amended to date) will be explained to and discussed with the EA and IAs. Following ADB's <u>governance and anticorruption policies</u> and <u>Second Governance and Anticorruption Action Plan</u> (2006), executing agency (EA) and implementing agencies (IAs) are expected to mitigate governance and corruption risk by improving financial management, strengthening procurement systems, and combating corruption through preventative enforcement and investigative measures, throughout project implementation. ADB will review EA and IAs' performance in terms of governance through project administration including review missions.	Low
<b>Procurement.</b> The executing agency (EA) and implementing	Medium	During project preparation, a capacity development workshop for	Low

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Risks	Assessment Without Mitigation	Management Plan	Assessment with Mitigation
agencies (IAs) have the capacity for procurement and the use of consultants but with less experience in ADB's procedures.		procurement will be held for EA and IAs. Once the procurement plan is prepared and approved, ADB will engage a procurement specialist to assist EA and IAs in conducting procurement of works and goods and recruitment of consultants for project management and a nonstructural component of the project. Standard NCB documents for works and goods will be drafted and will be approved by ADB.	
<b>Physical Risks.</b> Extreme weather events (excessive rainfall or extended periods of drought) caused by climate change impact negatively on natural re-growth of vegetation and consolidation of biodiversity and ecosystem services (non-stabilization of water flows downstream).	High	Project investments in forest management, reforestation, conservation farming, etc. address potential climate impacts. GEF and ADB CCF investments address climate change adaptation and mitigation: (i) pilot demonstration activities for CO <sub>2</sub> emission reductions related to LULUCF and REDD, including forest protection, agricultural intensification, community forest management, and commercial forest management; and (ii) pilot application of more efficient technology for private sector charcoal production in Bukidnon (based on sustainably managed tree plantations for a continuous retort process) to mitigate the production of greenhouse gases.	Medium
Overall	Medium		Low
ADB = Asian Development Bank, DBM = Department of Budget Management, DENR = Department of Environment and Natural Resources, EA = Executing Agency, IA = Implementing Agency, IRA = Internal Revenue Allotment, LGU = local government unit, PES = payment for environmental services, REDD = reduced emissions from deforestation and degradation, URB = upper river basin			

## B. Exit Strategy and Post-Project Sustainability

149. Deficiencies in capabilities, whether in project implementation or environment and natural resource management, are the subject of the capacity building activities in Components 2 and 3. If successful these will ensure the sustainability of project activities and benefits beyond the life of the project. Technical Assistance is provided for rural infrastructure that focuses on strengthening LGU capacities in planning and O&M. Project interventions in the form of policy recommendations, especially with regard to harvesting of forest products, are expected to provide sufficient stimulus for the private

sector to invest and carry on activities on their own financing. PES is assumed to be the key to the sustainability of INREMP interventions in the LGUs with PBGS designed to ensure sustainability of ENR governance and fiscal reforms.

### **C. Environmental Impact**

150. The Project has been categorized as environmental category B. This rating will be enforced through selection criteria for subprojects to ensure that no subproject under any component will exceed this rating. Because of the emphasis placed on land suitability zoning and planning; stabilization of shifting cultivation; biodiversity conservation and protection of natural resources; climate change adaptation and mitigation, conservation farming, and improvement and rehabilitation of rural infrastructure along existing alignments and rights of way, the overall environmental impact is expected to be generally positive. The main environmental issues to be faced by the subprojects will primarily be on account of minor potential disturbances from rural infrastructure development. Environmental Assessment consisting of an initial environmental examination (IEE) and preparation of a Summary IEE (SIEE) for each of the four sample subprojects has been completed (see WP 14). These SIEEs include an Environmental Assessment and Review Procedures Framework to guide the EA and the implementing agencies in the preparation of environmental assessment reports for additional subprojects for investment during implementation.

151. The Project is very likely to produce substantial and positive environmental impacts in the river basins. Overall, the Project interventions in field investments in reforestation, assisted natural regeneration, forest protection, demonstrations in commercial tree plantations and agro-forestry, will generate positive environmental impacts, as discussed under economic benefits above, from reduced soil erosion and sedimentation of water systems; increase of ground water/aquifer recharge; carbon sequestration; protection/increase of biodiversity; improvement of water run-off and conservation of soil nutrients; reduced occurrence of drought, floods and landslides; reduction of poverty and improvement of the economic condition of people living in the river basins. These benefits outweigh the minimal and temporary adverse impacts occasioned by the implementation of these interventions, which could easily be mitigated by the adoption of the environmental monitoring/management plan and the observance of additional environmental safeguards, as outlined in the IEE (see WP 14).

152. The Project's livelihood enhancement component, through rehabilitation and improvement of rural infrastructure, is expected to produce positive environmental and economic impacts in the long run. Any potential negative impacts that may be caused by construction of rural infrastructure like access roads, communal irrigation systems and potable water systems are temporary and minimal, which can also be reduced by observance of appropriate safeguards and the adoption of an environmental management/monitoring plan, as described in the IEE.

153. **Overall**, the Project has potential to generate an array of benefits. As a sector characterized by uneven policy and enforcement from the center, forestry governance can be stabilized and made more accountable with greater management authority and institutional development at local levels. Moreover, the Project can facilitate suitable development to increase livelihood and revenues, which in turn can help finance sustainable conservation. On the other hand, the complexity of the challenge necessarily poses a number of risks. However, since risks that are either mitigated or are less than likely to be detrimental, the preponderance of realizable positive outcomes provides the rationale for pursuing the Project.

## **VIII. INNOVATIVE FEATURES, LEARNING AND KNOWLEDGE MANAGEMENT (KSF 6)**

### **A. Innovative Features**

154. There are seven special features of INREMP; (i) Phased implementation (see WP 11), (ii) Stakeholder participation (see WP 1, 15, 16 & 17), (iii) Global Environment Facility and ADB Climate Change Fund (see WP 8), (iv) Involuntary resettlement (see WP 15), (v) Indigenous peoples (see WP 16), (vi) Gender action plan (see WP 17), and (vii) TA on strengthening local government unit (LGU) capacities in planning and operations and maintenance (O&M) of rural infrastructure (see WP 9).

155. **Phased Implementation.** Phased implementation is devolution and viewed as decentralized planning, decision-making, and benefit sharing. This is not just from central government to LGUs and communities, but also in terms of institutional flow from central to regional offices as well as other line agency staff and attached units of the Executing Agency. The Project will be implemented through a process approach using step-by-step actions. Land use planning, land capability assessment, classification and zoning, sub-project identification and investments are the major steps. These will ensure appropriate land use, including reservations for biodiversity conservation; carbon sequestration; conservation farming; production forestry; and agro-forestry for stabilizing shifting cultivation. Such activities will mitigate potentially adverse impacts of inappropriate land use. Similarly, an appropriate and enabling policy environment will lead to investments by private sector in commercial forestry, conservation farming, agro-forestry, agro-processing, and other livelihood activities. A general strategy will be to institutionalize PES by communities and establish a legal framework for effective local management of URBs through multi-sectoral bodies.

156. In the context of current national laws, policies, and implementation rules, phased devolution through the Project will need to comply with the conditionality stipulated in Working Paper 3 on institutional arrangements for full INREMP implementation and enable PES operationalization, summarized as follows:

- a. Presidential Executive Order (EO) on Phased Devolution of ENR to (i) authorize LGUs to legislate land use zones in state forestlands within watersheds in their jurisdiction in accordance with INREMP principles and national standards and decide and give authority to entities (community PO/IP or corporate) on access to natural resources in their jurisdiction, based on national technical standards, and approved watershed management plans; and (ii) transfer to LGUs the authority to negotiate and collect government shares in forestland management agreements, subject to standards set by DENR (and NCIP, in the case of ancestral domains/lands titles). The Executive Order has to be sufficiently complete and detailed to be immediately implementable. Since INREMP is anchored on devolution, this is a precondition for project implementation – guaranteed to be issued, even if the issuance takes time. The devolution process is time-bound and performance-bound, but definite and not discretionary or arbitrary.
- b. Review and amend DENR administrative orders, regulations, and operations orders on rights of tenure instruments holders (family, community and corporate) particularly on rights to ENR resources, and liberalize permit rules on trade of self-produced forest products. This will assure tenure and user rights and guarantees ownership over cultivated crops (including trees and other non timber forest products).
- c. LGU (provincial and municipal) ordinance to capture PES and other applications of various environmental regulations, incentives, and restrictions to enhance or restrict actions for improving the protection, management, and development in the URBs. This will establish the link between LGU investments in watershed management and beneficiaries of watershed services, as basis for assessment of fees to sustain watershed management initiatives and collect appropriate fees from beneficiaries. It will likewise install the necessary mechanisms for plow-back of PES to investment in watersheds improvement.

157. **Stakeholders Preparation.** An intensive social preparation program to increase awareness and capacity for community-beneficiaries as well as institutional implementers and partners will be undertaken to prepare stakeholders, LGUs included, to actively participate in project activities and discourage fragmented LGU participation within URBs (see WP 1). The Project will coordinate with the PBGS Technical Committee and Steering Committee on adopting Performance Based Grant System (PBGS) for INREM. Under the PBGS, the LGU signs a MOA to participate and commit to submit itself for periodic assessment after establishing its status in the subject area of performance. PBGS provide grants, which the LGU can use for Capital or Capability Building.



158. It is similarly imperative that initial stakeholder preparation focus on clustering of stakeholders into watershed management units as identified by INREMP to be SWS. The concept may not be new, but the efforts required among LGUs in particular will be innovative most especially since clustering is the most crucial among the stipulated criteria prior to investments

159. **Special Features. Global Environmental Facility and ADB Climate Change Fund.** The Project will mainstream climate change adaptation and mitigation through subproject investments, supplemented by GEF and ADB CCF grants for: (i) adopting appropriate climate-change adaptation measures in upland production systems (GEF); (ii) establishing and verifying REDD demonstration areas and activities in the river basins (GEF); and (iii) establishing biomass energy forest plantations and a charcoal retort in Bukidnon (ADB CCF). The Project will also provide investments and grants to mainstream biodiversity conservation in production landscapes through PES agreements between IPOs/POs and downstream ecosystems-services beneficiaries, initially with GEF support in the tri-boundary area of the Chico-Agno-Magat River Basins in the CAR, between three IPOs and the National Power Corporation. The possibility of bundling PES payments and REDD credits will be explored.

## **B. Project Knowledge Products and Learning Processes**

160. Project knowledge will be mainly generated through its M&E system. Through project reports, the management will be able to identify lessons from project implementation which will be used for the regular Project management and for its strategic planning. The project will prepare semestral and annual progress reports, which will show the project's accomplishments, problems encountered, solutions taken and way forward. Regular reporting will be complemented by studies on special features of the Project. This may be in the form of case studies or systematization documentation. Results of these studies will be disseminated to Project management, implementing partners from the national to municipal levels, and to other project stakeholders.

161. Participatory GIS based mapping will be prepared and used as a part of the project monitoring system. These will be watershed level detailed maps and will be used as knowledge products of the Project. It was noted that many project partners have incomplete maps of the project areas in terms of information and scale. The maps produced by the Project therefore will be useful as a monitoring tool as well as a knowledge product.

162. The project will also benefit from the supervision and implementation support missions and annual outcome surveys that IFAD encourages to undertake. These missions will be mounted jointly by ADB and IFAD. At the end of every mission, the government and donor agencies will agree on specific actions to improve implementation efficiency and effectiveness of the Project in achieving its intended goals and objectives. Mission reports will be provided to the Project.

163. To influence policies that relates to natural resource and environmental management, the Project will raise issues and concerns for policy consideration through its national project steering committee. Since this committee is composed of oversight agencies like the NEDA and the DBM, it is expected that the issues will be further discussed by respective oversight agencies. Furthermore, the project may come up with policy related studies as a result of discussions at the national project steering committee.

## **IX. CONDITIONS AND ASSURANCES**

164. The Government of Philippines has assured ADB and IFAD that implementation of the project shall conform to all applicable ADB and IFAD policies including those concerning anticorruption measures, procurement, consulting services, and disbursement as described in detail in the PAM.

165. The Government of Philippines has agreed with ADB and IFAD on certain covenants for the project, which are set forth in the loan agreement and project agreement.

166. The executing agency (EA), DENR, shall review the extent of implementation of DENR Administrative Order No. 2010-07 (March 12, 2010): [Guidelines on the Continuing/Phased Devolution of Environment and Natural Resources (ENR) Functions to Local Government Units (LGUs) by March 2011, and commits to an interagency agreement between DENR and LGUs, concurred in by NGAs concerned, or a Presidential Executive Order, for a roadmap towards fully attaining, by December 2015, the policy objectives of the Local Government Code and the INREM approach with respect to river basins, watersheds, environment and natural resources management.

167. The EA shall update, by March 2011, the Philippines Master Plan for Forestry Development (revised 2003), and promulgate administrative measures, including if necessary, Presidential Executive/Administrative Order(s), to effectively implement the said Plan, incorporating therein the requisite measures to implement: EO 318(2004) [*Promoting Sustainable Forest Management in the Philippines*]; EO 263 (1995) [*Community Based Forest Management Strategy*]; EO 606 (*Sustainable Upland Development*), and the *Philippines National Framework Strategy on Climate Change – 2010-2022* (2010).

168. The EA, in coordination with stakeholders, shall cause a draft legislation – a Philippines Sustainable Forest Management Act (SFMA) – to be filed for consideration of the Philippines Congress – by March 2011.

169. ADB and IFAD reserve the right to investigate, directly or through its agents, any violations of the Anticorruption Policy relating to the project. All contracts financed by ADB shall include provisions specifying the right of ADB and IFAD to audit and examine the records and accounts of the executing agency and all project contractors, suppliers, consultants and other service providers. Individuals and/or entities on ADB's and IFAD's anticorruption debarment list are ineligible to participate in ADB/IFAD-financed activities and may not be awarded any contracts under the project. To support these efforts, relevant provisions are included in the [loan agreement/regulations/grant regulations and the bidding documents] for the project.

170. Before the start of any procurement under national competitive bidding, ADB, IFAD, and the government will review the public procurement laws of the national and sub-national governments to ensure consistency with ADB's Procurement Guidelines (2007, as amended from time to time). All consultants and [nongovernment organizations (if any)] will be recruited according to ADB's Guidelines on the Use of Consultants (2007, as amended from time to time). The loan proceeds will be disbursed in accordance with ADB's *Loan Disbursement Handbook* (2007, as amended from time to time).

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REFERENCES

- ADB. 2007. *Philippines: Critical Development Constraints*. Manila.
- \_\_\_\_\_. A Study on Results Based Planning in the Philippine Rural Development Sector (Background Paper for ADB TA 7190-PHI: Harmonization and Development Effectiveness), 2009.
- \_\_\_\_\_. Operational Manual Section F3, 25 September 2006
- \_\_\_\_\_. A Study on Results Based Planning in the Philippine Rural Development Sector (Background Paper for ADB TA 7190-PHI: Harmonization and Development Effectiveness), 2009.
- \_\_\_\_\_. Operational Manual Section F2, 25 September 2006
- \_\_\_\_\_. Poverty in the Philippines: causes, constraints, and opportunities. Mandaluyong City, Philippines. 2009.
- \_\_\_\_\_. *Guidelines on The Use of Consultants by Asian Development Bank and Its Borrowers (2007)*.
- \_\_\_\_\_. Agricultural and Rural Development Sector in the Philippines. ADB Rapid Sector Assistance Program Evaluation, SAP: PHI 2008-XX. August 2008.
- \_\_\_\_\_. Final Report on the Community-Based Forest Resources Management Project in the Philippines. ADB TA No. 3282-PHI. 2000.
- DA-DLR-DENR National Strategic Planning Workshop on Convergence Program Towards Sustainable Rural Development. 24-26 August 2005. Development Academy of the Philippines, Tagaytay City.
- DENR, CI, UP-CIDS, 2002. *Philippine Biodiversity Conservation Priorities: A Second Iteration of the National Biodiversity Strategy and Action Plan*.
- DSWD 2004 Accomplishment Report.
- DSWD 2008 Accomplishment Report.
- Executive Order 606, Feb 27, 2007. Pursuing Sustainable Upland Development Anchoring on Food, Wood and Non-Wood Security and Economic Productivity and Providing the Mechanisms for its Implementation and for other Purposes. Malacanang. Results Based Planning and Budgeting Systems in the Philippine Rural Development Sector 31.
- FMB/DENR, 2003. Philippines C&I for SFM and Audit System
- IFAD. Annex III, Philippines COSOP Results Management Framework (2008-2012).
- \_\_\_\_\_. The Philippines: - Integrated Natural Resources and Environmental Management Programme – Joint ADB-IFAD Loan Fact Finding (Formulation) Mission – Supplementary Terms of Reference of the IFAD Team. August 2009.
- \_\_\_\_\_. Strategic Framework 2007-2010 (Rome, 2007).
- Indigenous Peoples Rights Act (IPRA) 1997.
- Joint Memorandum Circular No. 1 Series of 1999 "Creation of an Inter-Departmental Steering Committee and Technical Working Group for the Application and Monitoring of a Common Sustainable Rural Development (SRD) Framework", Malacanang, January 26, 1999.
- Joint Memorandum Circular No. 1 Series of 2004. Guidelines for the Operationalization of the Reactivated DA-DAR-DENR Convergence Program Towards Sustainable Rural Development. 18 October 2004.
- Land Reform, Rural Development, And Poverty In The Philippines: Revisiting The Agenda. Technical Working Paper. World Bank in the Philippines. 2009.
- MPFD, 2003.
- MTPDP, 2004.
- National Economic Development Authority, MTPDP 2004-2010, [www.neda.gov.ph/ads/mtppdp/MTPDP2004-2010/PDF/MTPDP2004-2010.html](http://www.neda.gov.ph/ads/mtppdp/MTPDP2004-2010/PDF/MTPDP2004-2010.html)
- NCIP guidelines on Free and Prior Informed Consent (FPIC) 2006
- NSCB, 2007.
- \_\_\_\_\_. 2008.
- \_\_\_\_\_. 2009.
- Philippine Human Development Report, 2005, 2nd ed
- William G. Deutsch, Allison L. Busby, Jim L. Orprecio, Janeth P. Bago-Labis, Estela Y. Cequiña. Community-based water quality monitoring: from data collection to sustainable management of water resources, (2000).

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## ANNEXES

### Annex 1: (a) Project Logical Framework (IFAD Format)

Narrative Summary	Verifiable Indicators	Means of Verification	Assumptions/Risks
<b>Goal</b>			
Rural poverty reduction and improvement of livelihoods of 220,000 poor households living in targeted URBs achieved.	<b>By Project completion in 2018 (baseline 2011)</b> -20% to 40% of targeted HHs will be raised above the poverty line; -10% to 20% increase in household assets ownership index; -15% to 25% reduction in prevalence of chronic child malnutrition.	-Poverty incidence; Baseline and impact surveys; -RIMS surveys in Bukidnon.	
<b>Purpose</b>			
Natural resource (including land) management efficiencies, effective provision of ecosystem services and livelihood systems of the beneficiaries improved.	<b>By 2018 in target URBs</b> -50% of targeted URBs will be under science based land use systems; - 20% increase in revenue of LGUs and POs/ IPOs from watershed-based enterprises, watershed management and biodiversity protection through PES; - 30% increased income from livelihood investments for beneficiaries	-Participatory mapping; - Approved biodiversity corridor maps & regulation -Household surveys; -DENR annual progress reports -Baseline & impact surveys.	<ul style="list-style-type: none"> <li>▪ Week institutional arrangement to manage watershed base issues where institutional convergence is needed</li> <li>▪ Revenue streams from REDD, CDM, other local PES mechanisms are not realized in time</li> <li>▪ Extreme weather events impact services</li> </ul>
<b>• Project/Component Outputs</b>			
<u>Component 1:</u> River Basin / Watershed Management and Investment Planning	- 1.1 mn ha mapped; 162 maps of Land Use Capability Assessment & URB Zoning;& 560,000 ha assessed for Carbon Baseline; -3,500 participatory management plans & bio-diversity planning prepared with GEF support; - one URB GDSS central operations center established & managed - 85 ha biodiversity inventory, habitat mapping & corridor planning.	<ul style="list-style-type: none"> <li>▪ Project baseline survey;</li> <li>▪ Review Mission reports and Project progress report;</li> <li>▪ Satellite imageries /maps</li> <li>▪ Land use and investment plans</li> <li>▪ Watershed management plans</li> </ul>	<ul style="list-style-type: none"> <li>▪ High staff turn over</li> <li>▪ Armed conflict (political and tribal) persists</li> <li>▪ Local communities unwilling to cooperate</li> <li>▪ Zoning and land use system contradict with ADSDPP activities targets</li> <li>▪ Inter agency convergence is delayed</li> </ul>
<u>Component 2:</u> Small Holder / Commercial / Institutional Investments	- 231,580 ha of forest lands monitored against unauthorized land use; - 15,200 ha reforested & 78,800 ha assisted for natural regeneration; - 24,450 ha of agro-forestry & 5,900 ha of commercial forestry; - 560 km of rural access road rehabilitated; -3,000 ha of CIS rehabilitated; 275 potable water supply schemes; & 85 km foot trails established; - one trading center with a warehouses established - 14,300 ha of conservation farming established - 3 nurseries for Mossy Forest- Indigenous Spp established; -60 ha assisted in Natural Regeneration in Chico river basin with Climate Change Funds; -60 ha established with buffers to protect bio-diversity; - -3 Pilot demonstration activities for emissions reduction established -450 ha Bioenergy Plantation In Bukidnon established	<ul style="list-style-type: none"> <li>▪ Progress reports from all parties of the Project</li> <li>▪ Interventions tracking and evaluation reports</li> <li>▪ Technology evaluation reports</li> <li>▪ Trust agreements/ covenants/MOAs</li> <li>▪ Supervision mission reports</li> <li>▪ Annual outcome surveys</li> </ul>	<ul style="list-style-type: none"> <li>▪ Inadequate incentives for community participation</li> <li>▪ Difficult to address and mitigate potential unanticipated negative climate change impacts</li> <li>▪ GOP budgetary limitation to support for implementation of various activities</li> <li>▪ Armed conflict (political and tribal) persists</li> <li>▪ Local communities become increasingly disillusioned</li> </ul>
<u>Component 3:</u> Capacity Strengthening for River Basin Management	-84,800 person days (pd) trained in covering at least 19,000 recipients of capacity building for: (i) land use assessment and URBMP (16,500 pd); (ii) Technical extension (TE) information, and communication (IC) (5,000 pd); (iii) project management, financial accounts / procurement (8,243 pd); (iv) REDD technical capacity (4,000 pd); (v) inst. & policy support to LGUs (2,880 pd) and DENR (970 pd); and (vi) rural infrastructure maintenance (47,250 pd); - LGUs, communities and NGOs' capacity improved to develop land management systems that reduce emissions; and - 23 Community Watershed Protection Brigades organized within the 23 component watersheds	<ul style="list-style-type: none"> <li>▪ Progress reports</li> <li>▪ Training evaluation reports</li> <li>▪ Quality management plans</li> <li>▪ Project Monitoring reports</li> <li>▪ LGU budget allocation reports</li> <li>▪ Supervision mission reports</li> <li>▪ Annual outcome surveys</li> </ul>	<ul style="list-style-type: none"> <li>▪ Communities see insufficient incentives in learning diversification of agricultural techniques</li> <li>▪ Technical extension and IEC services provided by institutions / government agencies is less effective</li> <li>▪ Trained staff has high turnover</li> <li>▪ LGU interest is more on other involvement with short term gain and immediate political interests</li> </ul>

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**ANNEX 1(B): DESIGN AND MONITORING FRAMEWORK (ADB FORMAT)**

Design Summary	Performance Targets and/or Indicators	Data Sources and/or Reporting Mechanisms	Assumptions and Risks
<b>Impact</b> Improved livelihoods in the URBs through effective provision of ecosystem and biodiversity services.	<b>By 2030</b> <ul style="list-style-type: none"> <li>Model livelihood improvement actions are replicated in 50 URBs at the local and landscape level across the Philippines</li> <li>12 million beneficiaries with improved access to environmental services</li> </ul>	<ul style="list-style-type: none"> <li>Project post-evaluation report</li> <li>Income and poverty statistics of national and local governments</li> </ul>	<b>Assumptions</b> <ul style="list-style-type: none"> <li>Economic growth of the country remains steady and moderate</li> </ul> <b>Risks</b> <ul style="list-style-type: none"> <li>GOP's enabling policy reforms and adjustment of implementing procedures delayed</li> <li>Political instability or partisan rivalry prevent multi-stakeholder institutions from functioning properly</li> </ul>
<b>Outcome</b> LGU and PO/IPO based watershed enterprises generating revenues for livelihood investments focused on watershed management, climate change mitigation, and biodiversity conservation.	<b>By 2017</b> <ul style="list-style-type: none"> <li>Diversified and increased income of 220,000 households in targeted local populations.</li> <li>77 local institutions establish regulatory frameworks &amp; enforce local regulations covering zoned areas on watershed maps.</li> <li>Average wet and dry season water flows from headwaters maintained in four pilot URBs as compared to baseline of 2011/2012;</li> <li>No net loss of Montane Cloud Forest in INREM areas</li> <li>Reduced soil erosion and human-induced landslides in INREM areas compared to 2011/2012</li> </ul>	<ul style="list-style-type: none"> <li>Project baseline survey and Project RME reports;</li> <li>Review Mission reports and Project progress report</li> <li>Project completion report</li> <li>Approved biodiversity corridor maps and regulation</li> <li>DENR and NAMRIA updates on forest cover, CO<sub>2</sub> emissions and biodiversity trends</li> <li>Household surveys</li> <li>Watershed Management Plan documents</li> <li>DENR-RBCO and NEDA annual reports,</li> <li>Income Class ranking of river basin LGUs and HH in IPO areas</li> <li>BLGF's Income Classification of LGUs (every four years)</li> </ul>	<b>Assumptions</b> <ul style="list-style-type: none"> <li>Government's timely approval of land use assessments/ and zoning plans</li> <li>Appropriate Govt. directives enabling convergence of respective institutional mandates</li> <li>Government counterpart funds are timely and adequate</li> </ul> <b>Risks</b> <ul style="list-style-type: none"> <li>Delays in approval of management plans for selected URBs.</li> <li>Revenue streams from REDD, CDM, other local PES mechanisms are not realized</li> <li>Extreme weather events impact negatively on ecosystem services</li> </ul>
<b>Outputs</b> 1. Environmentally sound river basin/watershed management and investment plans developed and implemented to place 1.13 million hectares under improved management  2. Smallholder, commercial and institutional investments increased in conservation and economic productivity enhancement in the forestry, agriculture and tourism	<b>By 2017:</b> <ul style="list-style-type: none"> <li>Supportive policy and regulatory framework in place</li> <li>River basin "indicative development plans" and watershed management plans adopted with stakeholder participation in four sample sites and extending to a coverage of 1.13 million ha;</li> <li>77 Watershed management and investment plans established as the basis for PES charges and achieving rural poverty, national biodiversity and climate change adaptation and mitigation targets through a strong consensus building approach</li> <li>Community-based protection of over 200,000 ha;</li> <li>Rehabilitation of 81,000 ha out of a potential area of about 200,000 ha through reforestation and assisted</li> </ul>	<ul style="list-style-type: none"> <li>Project baseline survey and Project RME reports;</li> <li>Review Mission reports and Project progress report</li> <li>Project completion report</li> <li>DENR and NEDA annual reports</li> <li>Satellite imageries/maps from NAMRIA and other sources</li> <li>LGU Comprehensive/ Forest LUPs and Investment Plans</li> <li>PAMB Management Plans</li> <li>DENR watershed reports and management plans</li> <li>River Basin Development and Management Plans</li> </ul> <ul style="list-style-type: none"> <li>Progress reports</li> <li>Interventions tracking and evaluation reports</li> <li>Technology evaluation reports</li> <li>Trust agreements/</li> </ul>	<b>Assumptions</b> <ul style="list-style-type: none"> <li>Timely and qualified staff resources are made available for design / implementation of URBMP</li> <li>GOP budgetary support for implementation of various activities continues</li> </ul> <b>Risks</b> <ul style="list-style-type: none"> <li>High staff turn over</li> <li>GOP budgetary support dwindles</li> <li>Unanticipated magnitude of the risks resulting from climate change</li> <li>Armed conflict (political and tribal) persists</li> <li>Local communities are not willing to cooperate / IPOs bar access of surveyors and officials to CAD-T areas</li> </ul> <b>Assumptions</b> <ul style="list-style-type: none"> <li>Adequate incentives for community participation exist and in place</li> <li>Infrastructure investments improve support for intensive</li> </ul>

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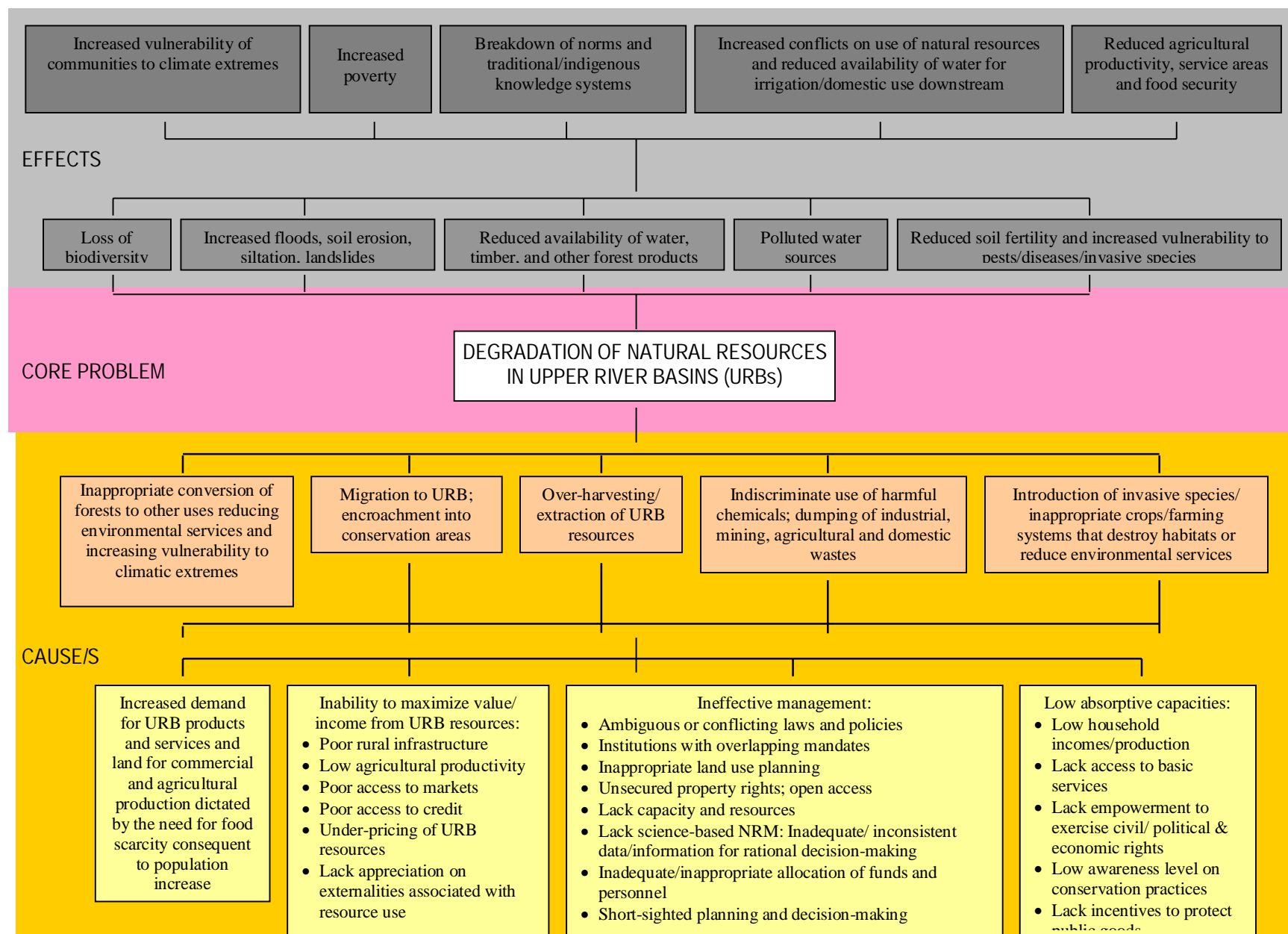
Design Summary	Performance Targets and/or Indicators	Data Sources and/or Reporting Mechanisms	Assumptions and Risks
sectors	<p>natural regeneration (ANR);</p> <ul style="list-style-type: none"> <li>▪ Pilot demonstrations of 1790 ha of sustainable forest management covering natural forest; 16,300 ha of agro-forestry with community participation and 4,250 ha of commercial plantation;</li> <li>▪ Conservation farming demo covering 9,780 ha of vegetative strips and 740 ha of on-farm agro-forestry;</li> <li>▪ Pilot activities for reducing CO<sub>2</sub> emissions to attract REDD / PES and renewable energy investments</li> <li>▪ 560 km of rural access infrastructure, 85 km of foot trails, and 1 provincial trading center;</li> <li>▪ 3,040 ha of improved Communal Irrigation Systems</li> <li>▪ 275 Potable Water Supply units;</li> <li>▪ Seed fund for replication/ expansion technologies adopted by poor/ vulnerable households with gender neutral equitable access to benefits</li> </ul>	<p>covenants/MOAs</p> <ul style="list-style-type: none"> <li>▪ Monitoring reports on HH poverty and costs of access to public services</li> <li>▪ Progress Reports from infrastructure units of LGUs and DA</li> </ul>	<p>agriculture by communities and reduce transaction costs of access to public services</p> <ul style="list-style-type: none"> <li>▪ Potential negative climate change impacts are appropriately addressed and can be mitigated</li> <li>▪ Staff resources are made available for Sub-Project proposal development and monitoring of investment projects</li> <li>▪ GOP budgetary support for implementation of various activities continues</li> </ul> <p><b>Risks</b></p> <ul style="list-style-type: none"> <li>▪ High staff turn over</li> <li>▪ GOP budgetary support dwindles</li> <li>▪ Unanticipated magnitude of the risks resulting from climate change</li> <li>▪ Armed conflict (political and tribal) persists</li> <li>▪ Local communities become increasingly disillusioned</li> </ul>
3. River basin and watershed management capacity and related governance mechanisms strengthened	<ul style="list-style-type: none"> <li>▪ 84,800 person days (pd) covering at least 19,000 recipients of capacity building / skills transfer inputs for: (i) land use assessment and URBMP (16,500 pd); (ii) Technical extension (TE) information, and communication (IC) (5,000 pd); (iii) project management, financial accounts / procurement (8,243 pd); (iv) REDD technical capacity (4,000 pd); (v) inst. &amp; policy support to LGUs (2,880 pd) and DENR (970 pd); and (vi) rural infrastructure maintenance (47,250 pd);</li> <li>▪ LGUs, communities and NGOs capable of developing land management systems that have reduced emissions</li> <li>▪ Community Watershed Protection Brigades organized within the 23 component watersheds;</li> </ul>	<ul style="list-style-type: none"> <li>▪ Progress reports</li> <li>▪ Training reports</li> <li>▪ Quality management plans</li> <li>▪ Project Monitoring reports</li> <li>▪ Reports on technology adoption rates (e.g. soil conservation measures / conservation farming)</li> </ul>	<p><b>Assumptions</b></p> <ul style="list-style-type: none"> <li>▪ Staff turn over is limited</li> <li>▪ Communities see sufficient incentives in learning diversification of agricultural techniques</li> </ul> <p><b>Risks</b></p> <ul style="list-style-type: none"> <li>▪ High staff turn over</li> <li>▪ GOP budgetary support dwindles</li> <li>▪ Armed conflict (political and tribal) persists</li> <li>▪ Technical extension and IEC services provided by institutions / government agencies unsatisfactory</li> </ul>
4. Project management and support services delivered	<ul style="list-style-type: none"> <li>▪ Annual and 6 monthly workplans and budget disbursement requests submitted on time</li> <li>▪ Central and regional procurements done by end 2011 and all project coordination offices functional</li> <li>▪ Project M&amp;E, including GIS-based database established with a national hub and provincial and watershed-</li> </ul>	<ul style="list-style-type: none"> <li>▪ Progress reports</li> <li>▪ Project Monitoring reports</li> <li>▪ Supervision reports</li> <li>▪ External evaluation reports</li> </ul>	<p><b>Assumptions</b></p> <ul style="list-style-type: none"> <li>▪ Staff turn over is limited</li> <li>▪ Delays in government procurement can be minimized</li> </ul> <p><b>Risks</b></p> <ul style="list-style-type: none"> <li>▪ High staff turn over</li> <li>▪ GOP budgetary support dwindles</li> <li>▪ Armed conflict (political and tribal) persists</li> </ul>

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Design Summary	Performance Targets and/or Indicators	Data Sources and/or Reporting Mechanisms	Assumptions and Risks
	<ul style="list-style-type: none"> <li>level nodes and performance-based grant monitoring system</li> <li>▪ Community based environmental monitoring of PES</li> </ul>		

ADB = Asian Development Bank; CO<sub>2</sub> = carbon dioxide; DENR = Department of Environment and Natural Resources; FMB = Forest Management Bureau; GOP = Government of the Republic of the Philippines; IEC = information, education and communication; INREM = integrated natural resources and environmental management; LGU = local government unit; NAMRIA = National Mapping and Resource Information authority; PES = payments for environmental services; REDD = reduced emissions from deforestation and degradation; TE-IEC = technical extension, information, education and communication; IP = indigenous people; URB = upper river basin; URBIS = URB investment strategies for sustainability; URBMP = URB management plans

## Annex 2: Problem and Constraints Analysis





### **Annex 3: Development Coordination**

#### **MAJOR DEVELOPMENT PARTNERS: STRATEGIC FOCI AND KEY ACTIVITIES**

1. Tables 1 and 2 and present the key development partners. Table 1 shows the initiatives and investments poured into the Department of Environment and Natural Resources (DENR) through time and Table 2 presents investments throughout the sector covering three institutions: (i) DENR, (ii) Department of Agriculture (DA), and (iii) Department of Agrarian Reform (DAR).
2. The top five donor-funding (both grant and loan) under DENR are Japan, ADB, mixed financing, UN group, and the US. Japan funded the most projects under the DENR (16.4%) as early as 1976 to date. Under loan arrangements, ADB had the most (12), followed by WB (7), and mixed financiers (3). Under the grant modality, the most came from Japan (36) followed by mixed financiers (27), the UN group (21) and the US (20). Grant money largely focused on research and development (capacity building).
3. Thematically within the AENR sector, Table 2 shows that of the current initiatives, most (42.7%) of the funds are concentrated on environmental sustainability, followed by sustainable economic growth (30.1%), capacity development (20.9%) and inclusive social development (6.3%). Of the four themes, and based on largest single input within the theme, most are coursed through the DA except for capacity development under the DENR as funded by the WB. Sustainable economic growth has greatest financial inputs through the ADB-DA; inclusive social development through the IFAD/FAO-DA; Environmental sustainability with WB-DA, ADB/ IFAD/OFID-DA and ADB/GEF-DENR; and capacity development with WB/GEF-DENR.

#### **INSTITUTIONAL ARRANGEMENTS AND PROCESSES FOR DEVELOPMENT COORDINATION**

4. Within the GOP, institutional arrangements for development coordination is largely through the National Economic Development Authority (NEDA) which starts from the Regional Development Councils onto the NEDA-Central Office from project planning onto monitoring and evaluation. The Medium-Term Philippine Development Plan (MTPDP) prepared by NEDA with sectoral inputs from line agencies serves as the development blueprint.
5. At the national level, ongoing initiatives at development coordination is through the Philippine Development Forum (PDF) where country agencies and donors are provided the venue for policy dialogue.
6. Based on a recent study by the ADB<sup>46</sup> and specific to the three agencies (DENR, DA, and DAR), the "Convergence Initiative Towards Rural Sustainable Development" of the three rural development agencies DA, DAR and DENR was established by virtue of the Joint Memorandum Circular (JMC) No. 1 Series of 1999.<sup>47</sup> From then, a series of political changes and decreasing commitment on the part of the political leadership of the three departments, the initiative was revived in 2004 through Joint Memorandum Circular No. 1 Series of 2004<sup>48</sup> that reconvened the TWG and the Steering Committee and extended the initiative from a convergence site approach to a nation wide coverage. In 2006, the Joint Memorandum Circular No.1 officially tasked the development of 2 million ha of land for agribusiness including coastal zones and land for aquaculture (until 2010).<sup>49</sup> The JMC also adopted a guide for implementation. Additional emphasis to the whole issue of rural development and natural resources management was given by Executive Order 606 of 27 February 2007.<sup>50</sup> This document established the Sustainable Upland Development (SUD) program of DENR.

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<sup>46</sup> A Study on Results Based Planning in the Philippine Rural Development Sector (Background Paper for ADB TA 7190-PHI: Harmonization and Development Effectiveness), 2009.

<sup>47</sup> Joint Memorandum Circular No. 1 Series of 1999 "Creation of an Inter-Departmental Steering Committee and Technical Working Group for the Application and Monitoring of a Common Sustainable Rural Development (SRD) Framework", Malacanang, January 26, 1999.

<sup>48</sup> Joint Memorandum Circular No. 1 Series of 2004. Guidelines for the Operationalization of the Reactivated DA-DAR-DENR Convergence Program Towards Sustainable Rural Development. 18 October 2004.

<sup>49</sup> DA-DLR-DENR National Strategic Planning Workshop on Convergence Program Towards Sustainable Rural Development. 24-26 August 2005. Development Academy of the Philippines, Tagaytay City.

<sup>50</sup> Executive Order 606, Feb 27, 2007. Pursuing Sustainable Upland Development Anchoring on Food, Wood and Non-Wood Security and Economic Productivity and Providing the Mechanisms for its Implementation and for other Purposes. Malacanang. Results Based Planning and Budgeting Systems in the Philippine Rural Development Sector 31.

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7. By 2007, Executive Order 606, Joint Memorandum Circular DA-DAR-DENR-DILG-LMP No. 2007-02 operationalized the provisions and developed guidelines for implementation with the Steering Committee chaired by DENR. The upland interventions are based on DENR's framework in Sustainable Forest Management (SFM) and Community-Based Forest Management (CBFM) with DA providing expertise on Upland Agricultural Extension Delivery (UAED). DAR is responsible for capacity building, DILG to ensure cooperation of LGUs, and the National Commission on Indigenous People (NCIP) to oversee upland development activities with regard to ancestral domains and the protection of indigenous people's rights.

8. The three agencies still pursue their own frameworks and mandates. Through time, the convergence initiative developed its own ecosystems approach with efforts to integrate various departmental concepts. The ADB study concludes with a reminder that a joint approach of how to divide tasks and intervention of the agencies based on the ecosystem approach still requires clarity.

**RECOMMENDATIONS**

9. It is strongly recommended that development coordination should harness strengths and mandates of existing institutions at the systemic level. Considering the highly politicized mode of initiative prioritization in the country, strong donor coordination and effective and efficient use of available donor and partner resources is imperative. The PDF working group on sustainable rural development of which ADB is an active member, provides a potent venue for development coordination.

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**TABLE A 3.1: LIST OF COMPLETED/COMPLETING EXTERNAL ASSISTANCE TO THE DENR**

FUNDING	EARLIEST FUNDED PROJECT		LATEST FUNDED PROJECT		FINANCING MODALITY		TOTAL	
	Year	Project Title	Year	Project Title	Loan	Grant	N	%
JAPAN	1976	RP Japan Technical Cooperation Project	2008	Enhancement of Hydrographic Capabilities for Navigational Safety Study for Mapping Policy & Topographic Mapping for Integrated Natl Devt Plan	1	36	37	16.4
Mixed Financing ADB UN GROUP	1987	Bamboo Research & Devt Project	2009	Application of an Integrated Exploration Strategy for Precious and Base Metal Mineralization in the Bicol Peninsula	3	27	30	13.3
	1979	Allah Valley Watershed Devt Project	2001	Samar Island Biodiversity Conservation Project	12	17	29	12.9
	1987	Forestry Master Plan Phase I	2004	Low Income Upland Communities Project (LIUCP)		21	21	9.3
				ENR Shell Program: Environment & Natural Resources (ENR) Framework Devt & Implementation				
				Public & Private Sectors Convergence for Solid Waste Co-Governance in Urban Poor Communities				
US	1981	Buhi/Lalo Upland Devt Pilot Project	2004	NRMP-Phils Environmental Governance Program (ECOGOV)		20	20	8.9
WB	1978	Abra Pine Plantation Devt Project	2006	Community-Based Resource Mgt Project (CBRMP) –Envi Technology Transfer Component	7	6	13	5.8
AUSTRALIA	1986	ASEAN Australian Coastal Living Resources Project (I & II)	2008	R&D Project on "Improving Financial Returns to Smallholder Tree Farmers in the Phils	1	11	12	5.3
SWEDEN	1998	SSC Topo Mapping	2007	Coastal Hazards Mgt Program		12	12	5.3
GERMANY	1982	National Cartographic Center Project	2006	FS for Community-Based Forest & Mangrove Mgt Project in Panay & Negros	1	10	11	4.9
CANADA	1987	Bliss Waste Mgt Project	2006	Mgt, Risk Assessment & Capacity Building on POPs		9	9	4.0
EU	1982	Palawan Integrated Area Devt Project	2005	ASEAN Regional Centre for Biodiversity Conservation (ARCBC)		7	7	3.1
NETHERLANDS	1990	Effects of Land Titling on the Adoption & Conservation Oriented Farming Technologies in the Uplands	2003	FS in the Philippine Projects & Activities Pursuant to the Country's Maritime Claims under the Law of the Sea		5	5	2.2
NEW ZEALAND	1979	ASEAN New Zealand Afforestation Project	1995	ASEAN New Zealand Inter Institutional Linkages Programme		4	4	1.8
DENMARK	1990	Pasig River System Rehab & Restoration Project Prepn	1999	Pasig River Rehab Program Phase II		3	3	1.3
FRANCE	1987	RP France Geodynamics & Metallogenesis- Northern Luzon	1992	SEAMEO France: Methodology & Training & Monitoring of Deforestation Using Satellites		3	3	1.3
ITTO	1998	Developing Tropical Forest Resources Through Community-Based Forest Mgt	2006	Adoption & Implementation of an Appropriate System of Criteria & Indicators (C & I) for Sustainable Forest Management		3	3	1.3
KOREA	1992	Geological & Geo Chemical Exploration of Panaon Island, Leyte	2004	Geology & Mineral Potential of the Malimono-Cabadbaran Area of the Surigao Mineral District, Phils: RP-Korea Joint Investigation Project		3	3	1.3
BRITAIN	1996	Development of Bentonites for Use in Urban Project Bentoda				1	1	0.4
GOP (Fund 102)	2001	Itogon Integrated Watershed Mgt Project				1	1	0.4
SINGAPORE	1992	Urban Forestry Program (FS)				1	1	0.4
<b>TOTAL</b>					<b>25</b>	<b>200</b>	<b>225</b>	<b>100.0</b>

Source: DENR Listing of foreign assisted projects, 2009.

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**TABLE A 3.2: CURRENT MAJOR DEVELOPMENT PARTNERS**

Sectors and Themes <sup>a</sup>	Development Partner	Project Name	Duration	Amount
Sector/subsector: Agriculture and Natural Resources, (Agriculture, Forestry, Infrastructure, Water, Energy)				
Theme(s) (sub-theme(s)):				
<b>Sustainable Economic Growth</b> , (promoting economic efficiency and enabling business environment, payment for environmental services)	ADB-DA	Infrastructure for Rural Productivity Enhancement Sector Project (InfRES): <u>Coverage</u> – Regions IVB (except Palawan), V, VIII, IX, X, XI, XIII, and ARMM	Feb 02 – Jun 10	PhP 6,849,000,000
	KOICA-DA	Establishment of Modern Rice Processing Complex in the Philippines: <u>Coverage</u> – Regions I, VI, VII, and XI – Grant	Jan 09 – Dec 12	PhP 785,450,000
	WB/AusAid - DENR	Second Land Administration and Management Project (LAMP2): <u>Coverage</u> - Regions VII, VIII & X	Oct 05 – Mar 11	US\$ 40.593 M
<b>Inclusive Social Development</b> , (widening access to markets and economic opportunities, indigenous peoples)	IFAD/FAO - DA	Rapid Food Production Enhancement Program: <u>Coverage</u> – Regions II, III, V, VI, VIII, X, and XI	Jan 09 – Dec 15	PhP 1,942,998,890
	JBIC-DAR	Agrarian Reform Infrastructure Support Project III (ARISP III): <u>Coverage</u> – 54 provinces	Apr 08 - Apr 14	PhP 15,928,000
	ADB-DAR	Agrarian Reform Communities Project (ARCP II): <u>Coverage</u> – Regions IV-B, V, VI, VIII, IX, and ARMM	2009-2014	PhP 17,294,420
<b>Environmental Sustainability</b> , (natural resources conservation, global and regional trans-boundary environmental concerns, environmental policy and legislation, biodiversity conservation, climate change adaptation and mitigation)	France-DAR	Tulay ng Pangulo Para sa Kanularan Pang Agraryo: <u>Coverage</u> – Nationwide	2008-2012	PhP 36,949,120
	ADB/IFAD/ OFID - DA	Cordillera Highland Agricultural Resource Management Project Phase II	Jan 08 – Dec 14	PhP 3,056,056,000
	WB-DA	Mindanao Rural Development Program (MRDP) – APL2: <u>Coverage</u> – Regions IX, X, XI, XII, XIII, and ARMM	Jun 07 – Jun 12	PhP 6,766,650,000
	FAO-DA	Strengthening Philippines Capacity to Adapt to Climate Change (SPCACC): <u>Coverage</u> – Cordilleras – Grant	Oct 08 – Sept 10	PhP 36,140,000
	FAO-DA	Strengthening Capacities for Climate Risk Management and Disaster Preparedness in Selected Provinces of the Philippines (Bicol Region) – Grant	May 09 – Jul 11	PhP 20,167,000
	Public Law 480 - DA	Enhancing the Implementation of Integrated Pest Management to Improve Farmer Competitiveness, Minimize Environmental Risks and Ensure Food Security and Safety (IPM): <u>Coverage</u> – Regions I, II, and III	Jan 06 – Dec 09	PhP 69,000,000
	KFW-DENR	Community-Based Forest and Mangrove Management Project in Panay and Negros (CBFMMP)	Dec 08 - Dec 15	US\$ 12.64 M
	ADB/GEF - DENR	Integrated Coastal Resources Management Project (ICRMP): <u>Coverage</u> – Regions II, III, V, VII, XI, IV-B	Mar 07 – Jun 13	US\$ 62.32 M
	ADB - DENR	Southern Philippines Irrigation Sector Project (SPISP) - Watershed Management Sub-Component	Mar 1999 – Jun 10	US\$ \$1.63 M
	Public Law 480 - DA	Expanded Human Resource Development Program Phase II (EHRDP): <u>Coverage</u> – Nationwide	Jan 01 – Dec 10	PhP 500,000,000
<b>Capacity Development</b> , (Institutional development, organizational development)	Public Law 480 - DA	Strengthening the Livestock Biotechnology Center	Jan 08 – Dec 10	PhP 391,000,000
	Public Law 480 - DA	Accelerating the Genetic Resources Improvement Program for Beef Cattle and Small Ruminants Production Support Service	Jan 08 – Dec 10	PhP 399,802,000
	WB/GEF - DENR	National Program Support to Environment and Natural Resource Management Project (NPS-ENRMP): <u>Coverage</u> – Nationwide	Nov 07 - Dec 12	US\$ 114 M

Source: GOP listing of ongoing foreign-assisted projects, November 2009.

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**Annex 4: Detailed Cost Estimates (see WP 12 for the full set of cost tables)**  
**Table 4.1: Detailed Cost Estimates: Cost Estimates by Expenditure Category**

INREMP Expenditure Accounts Project Cost Summary	(P '000)					(\$ '000)				
				%	% Total				%	% Total
	Local	Foreign	Total	Foreign Exchange	Base Costs	Local	Foreign	Total	Foreign Exchange	Base Costs
<b>I. Investment Costs</b>										
<b>A. Civil Works</b>										
ADB-funded Civil Works	1,040,969	379,035	1,420,004	27	22	21,909	7,978	29,887	27	22
IFAD-funded Civil Works (Bukidnon only)	157,308	67,418	224,726	30	3	3,311	1,419	4,730	30	3
LGU_Counterpart Civil Works	115,738	49,602	165,340	30	3	2,436	1,044	3,480	30	3
<b>Subtotal Civil Works</b>	<b>1,314,016</b>	<b>496,055</b>	<b>1,810,071</b>	<b>27</b>	<b>28</b>	<b>27,656</b>	<b>10,440</b>	<b>38,096</b>	<b>27</b>	<b>28</b>
<b>B. Equipment</b>										
Vehicles	13,121	19,681	32,802	60	1	276	414	690	60	1
Vehicles (IFAD)	4,211	6,316	10,526	60	-	89	133	222	60	-
GIS Network-Computer Package	13,449	20,174	33,623	60	1	283	425	708	60	1
IFAD_GIS Network-Computer Package	3,622	5,433	9,055	60	-	76	114	191	60	-
GEF-Funded Computer Packages	864	1,296	2,160	60	-	18	28	46	60	-
<b>Subtotal Equipment</b>	<b>35,266</b>	<b>52,899</b>	<b>88,166</b>	<b>60</b>	<b>1</b>	<b>742</b>	<b>1,114</b>	<b>1,856</b>	<b>60</b>	<b>1</b>
C. Satellite Images & Data Acquisition	21,676	32,514	54,190	60	1	456	684	1,141	60	1
<b>D. Conservation Forestry</b>										
Protection & Monitoring	198,088	-	198,088	-	3	4,169	-	4,169	-	3
IFAD_Protection & Monitoring	101,223	-	101,223	-	2	2,130	-	2,130	-	2
CCF-Funded Protection & Monitoring	12,377	-	12,377	-	-	263	-	263	-	-
Establishment & Maintenance Costs	1,558,602	-	1,558,602	-	24	32,804	-	32,804	-	24
IFAD_Establishment & Maintenance Costs	146,736	-	146,736	-	2	3,088	-	3,088	-	2
GEF-Funded Conservation Forestry	16,991	-	16,991	-	-	362	-	362	-	-
<b>Subtotal Conservation Forestry</b>	<b>2,034,016</b>	<b>-</b>	<b>2,034,016</b>	<b>-</b>	<b>32</b>	<b>42,817</b>	<b>-</b>	<b>42,817</b>	<b>-</b>	<b>32</b>
<b>E. Commercial Forestry</b>										
CCF-Funded Sustainable Management	25,809	793	26,603	3	-	549	17	566	3	-
Establishment & Maintenance Costs	601,746	18,611	620,357	3	10	12,665	392	13,057	3	10
Beneficiary Contribution to Costs	257,891	7,976	265,867	3	4	5,428	168	5,596	3	4
<b>Subtotal Commercial Forestry</b>	<b>885,447</b>	<b>27,380</b>	<b>912,827</b>	<b>3</b>	<b>14</b>	<b>18,642</b>	<b>576</b>	<b>19,218</b>	<b>3</b>	<b>14</b>
<b>F. Livelihood Inputs</b>										
Livelihood Inputs (except Bukidnon)	115,800	6,095	121,895	5	2	2,437	128	2,566	5	2
Livelihood Inputs (Bukidnon only)	248,766	13,093	261,859	5	4	5,236	276	5,511	5	4
GEF-Funded Livelihood Inputs	7,144	376	7,520	5	-	152	8	160	5	-
<b>Subtotal Livelihood Inputs</b>	<b>371,710</b>	<b>19,564</b>	<b>391,274</b>	<b>5</b>	<b>6</b>	<b>7,825</b>	<b>412</b>	<b>8,237</b>	<b>5</b>	<b>6</b>

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**Table 4.1: Detailed Cost Estimates: Cost Estimates by Expenditure Category .. continue**

INREMP Expenditure Accounts Project Cost Summary	(P '000)					(\$ '000)				
				%	% Total				%	% Total
	Local	Foreign	Total	Foreign Exchange	Base Costs	Local	Foreign	Total	Foreign Exchange	Base Costs
<b>G. Consultants</b>										
Consultants - ADB	188,719	-	188,719	-	3	3,972	-	3,972	-	3
Consultants - IFAD	49,279	-	49,279	-	1	1,037	-	1,037	-	1
GEF-Funded Consultants	30,186	16,777	46,962	36	1	642	357	999	36	1
CCF-Funded Consultants	5,526	7,430	12,956	57	-	118	158	276	57	-
<b>Subtotal Consultants</b>	<b>273,709</b>	<b>24,207</b>	<b>297,916</b>	<b>8</b>	<b>5</b>	<b>5,769</b>	<b>515</b>	<b>6,284</b>	<b>8</b>	<b>5</b>
<b>H. Locally Contracted Services</b>										
Locally Contracted Services	46,742	2,460	49,202	5	1	984	52	1,036	5	1
GEF_Locally Contracted Services	12,544	-	12,544	-	-	267	-	267	-	-
<b>Subtotal Locally Contracted Services</b>	<b>59,286</b>	<b>2,460</b>	<b>61,746</b>	<b>4</b>	<b>1</b>	<b>1,251</b>	<b>52</b>	<b>1,302</b>	<b>4</b>	<b>1</b>
<b>I. Capacity Building, Studies and Survey</b>										
Capacity Building, Studies and Survey	130,930	6,891	137,821	5	2	2,756	145	2,901	5	2
Capacity Building, Studies and Survey_IFAD	28,484	1,499	29,983	5	-	599	32	631	5	-
GEF-Funded Capacity Building, Studies & Surveys	16,048	845	16,893	5	-	341	18	359	5	-
CCF-Funded Capacity Building, Studies & Surveys	12,724	1,459	14,183	10	-	271	31	302	10	-
<b>Subtotal Capacity Building, Studies and Survey</b>	<b>188,186</b>	<b>10,694</b>	<b>198,880</b>	<b>5</b>	<b>3</b>	<b>3,967</b>	<b>226</b>	<b>4,193</b>	<b>5</b>	<b>3</b>
<b>J. Incremental Operating Costs</b>										
1. Incremental Operating Costs	202,552	10,661	213,213	5	3	4,263	224	4,487	5	3
2. IFAD_Incremental Operating Costs	57,108	3,006	60,114	5	1	1,202	63	1,265	5	1
3. GEF_Incremental Operating Costs	19,713	1,038	20,751	5	-	419	22	442	5	-
<b>Subtotal ncremental Operating Costs</b>	<b>279,374</b>	<b>14,704</b>	<b>294,078</b>	<b>5</b>	<b>5</b>	<b>5,884</b>	<b>310</b>	<b>6,194</b>	<b>5</b>	<b>5</b>
<b>Total Investment Costs</b>	<b>5,462,687</b>	<b>680,477</b>	<b>6,143,164</b>	<b>11</b>	<b>96</b>	<b>115,009</b>	<b>14,329</b>	<b>129,338</b>	<b>11</b>	<b>96</b>
<b>II. Recurrent Costs</b>										
A. Recurrent Government Expenditure	117,357	-	117,357	-	2	2,470	-	2,470	-	2
B. O&M Community Infrastructure	56,054	-	56,054	-	1	1,180	-	1,180	-	1
C. O&M LGU Infrastructure	108,605	-	108,605	-	2	2,286	-	2,286	-	2
<b>Total Recurrent Costs</b>	<b>282,016</b>	<b>-</b>	<b>282,016</b>	<b>-</b>	<b>4</b>	<b>5,936</b>	<b>-</b>	<b>5,936</b>	<b>-</b>	<b>4</b>
<b>Total BASELINE COSTS</b>	<b>5,744,704</b>	<b>680,477</b>	<b>6,425,181</b>	<b>11</b>	<b>100</b>	<b>120,945</b>	<b>14,329</b>	<b>135,274</b>	<b>11</b>	<b>100</b>
Physical Contingencies	258,639	32,895	291,534	11	5	5,444	692	6,136	11	5
Price Contingencies	1,228,997	129,635	1,358,633	10	21	3,739	413	4,152	10	3
<b>Total PROJECT COSTS</b>	<b>7,232,340</b>	<b>843,007</b>	<b>8,075,348</b>	<b>10</b>	<b>126</b>	<b>130,128</b>	<b>15,435</b>	<b>145,563</b>	<b>11</b>	<b>108</b>
Interest During Implementation	435,987	-	435,987	-	7	8,035	-	8,035	-	6
Commitment Charges	30,391	-	30,391	-	-	535	-	535	-	-
<b>Total Costs to be Financed</b>	<b>7,698,718</b>	<b>843,007</b>	<b>8,541,725</b>	<b>10</b>	<b>133</b>	<b>138,698</b>	<b>15,435</b>	<b>154,132</b>	<b>10</b>	<b>114</b>

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**Table 4.2: Detailed Cost Estimates: Cost Estimates by Expenditure Category**

INREMP Expenditure Accounts by Components - Base Costs (\$ '000)	Smallholder/Commercial/Institutional Investments										
	River Basin and Watershed Management Plans	Conservation, rehabilitation and protection of URB Basin State forests	SFM, agroforestry & commercial forest plantation with community participation	Rehabilitation and improvement of rural infrastructure	Conservation farming and livelihood support	Investment in Watershed Management	Enhanced Capacity for River Basin and Watershed Management	Project Management Support	Physical Contingencies		
									Total	%	Amount
G. Consultants											
Consultants - ADB	655	-	-	99	56	-	521	2,642	3,972	5.0	199
Consultants - IFAD	-	-	-	-	-	-	-	1,037	1,037	5.0	52
GEF-Funded Consultants	786	-	-	-	-	-	141	73	999	-	-
CCF-Funded Consultants	276	-	-	-	-	-	-	-	276	5.0	14
Subtotal Consultants	1,716	-	-	99	56	-	662	3,751	6,284	4.2	264
H. Locally Contracted Services											
Locally Contracted Services	1,036	-	-	-	-	-	-	-	1,036	5.0	52
GEF_Locally Contracted Services	267	-	-	-	-	-	-	-	267	3.0	8
Subtotal Locally Contracted Services	1,302	-	-	-	-	-	-	-	1,302	4.6	60
I. Capacity Building, Studies and Survey											
Capacity Building, Studies and Survey	1,278	-	-	-	-	-	1,104	519	2,901	5.0	145
Capacity Building, Studies and Survey_IFAD	317	-	-	-	-	-	247	67	631	5.0	32
GEF-Funded Capacity Building, Studies & Surveys	151	-	-	-	-	-	208	-	359	-	-
CCF-Funded Capacity Building, Studies & Surveys	-	-	-	-	-	106	195	-	302	-	-
Subtotal Capacity Building, Studies and Survey	1,746	-	-	-	-	106	1,755	586	4,193	4.2	177
J. Incremental Operating Costs											
1. Incremental Operating Costs	4,285	-	-	-	-	-	-	202	4,487	5.0	224
2. IFAD_Incremental Operating Costs	922	-	-	-	-	-	-	343	1,265	5.0	63
3. GEF_Incremental Operating Costs	408	-	-	-	-	-	-	34	442	-	-
Subtotal ncremental Operating Costs	5,615	-	-	-	-	-	-	579	6,194	4.6	288
Total Investment Costs	12,163	42,455	18,881	38,195	8,132	965	2,417	6,129	129,338	4.7	6,136
II. Recurrent Costs											
A. Recurrent Government Expenditure	-	-	-	-	-	-	-	2,470	2,470	-	-
B. O&M Community Infrastructure	-	-	-	1,180	-	-	-	-	1,180	-	-
C. O&M LGU Infrastructure	-	-	-	2,286	-	-	-	-	2,286	-	-
Total Recurrent Costs	-	-	-	3,466	-	-	-	2,470	5,936	-	-
Total BASELINE COSTS	12,163	42,455	18,881	41,661	8,132	965	2,417	8,599	135,274	4.5	6,136
Physical Contingencies	536	2,110	944	1,745	407	3	94	299	6,136	-	-
Price Contingencies											
Inflation											
Local	1,283	9,482	3,934	7,060	1,786	-	363	1,705	25,612	-	-
Foreign	33	-	18	329	13	-	2	19	413	-	-
Subtotal Inflation	1,316	9,482	3,952	7,388	1,799	-	365	1,723	26,026	-	-
Devaluation	-1,048	-8,126	-3,365	-6,040	-1,531	-	-307	-1,456	-21,873	-	-
Subtotal Price Contingencies	268	1,356	587	1,348	268	-	58	268	4,152	4.4	182
Total PROJECT COSTS	12,967	45,921	20,411	44,754	8,807	968	2,569	9,165	145,563	4.3	6,318
Taxes	1,266	-	-	3,777	7	13	192	805	6,059	4.7	282
Foreign Exchange	2,099	-	605	11,291	437	46	100	856	15,435	4.6	712

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**Table 4.3: Detailed Cost Estimates: Cost Estimates by Financier (US \$ 1000)**

Disbursement Accounts by Financiers (\$ '000)	GVNT		ADB		IFAD		GEF		CCF		LGUs		BENEs		Total		For. Exch.	Local (Excl. Taxes)	Duties & Taxes
	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%			
<b>A. Civil Works</b>																			
Civil Works	2,877	8.9	29,300	91.1	-	-	-	-	-	-	-	-	-	-	32,176	20.9	8,630	20,670	2,877
Civil Works_LGU SHARE	0	-	-	-	-	-	-	-	-	-	3,763	100.0	-	-	3,763	2.4	1,129	2,258	376
<b>Subtotal Civil Works</b>	<b>2,877</b>	<b>8.0</b>	<b>29,300</b>	<b>81.5</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>3,763</b>	<b>10.5</b>	<b>-</b>	<b>-</b>	<b>35,939</b>	<b>23.3</b>	<b>9,758</b>	<b>22,928</b>	<b>3,253</b>
<b>B. Equipment</b>																			
Vehicles	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Equipment	67	12.0	489	88.0	-	-	-	-	-	-	-	-	-	-	556	0.4	333	156	67
<b>Subtotal Equipment</b>	<b>67</b>	<b>12.0</b>	<b>489</b>	<b>88.0</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>556</b>	<b>0.4</b>	<b>333</b>	<b>156</b>	<b>67</b>
C. Satellite Images & Data Acquisition	147	12.0	1,076	88.0	-	-	-	-	-	-	-	-	-	-	1,222	0.8	733	342	147
D. Conservation Forestry	-	-	39,998	100.0	-	-	-	-	-	-	-	-	-	-	39,998	26.0	-	39,998	-
E. Commercial Forestry	0	-	14,120	100.0	-	-	-	-	-	-	-	-	-	-	14,120	9.2	424	13,696	-
F. Livelihood Inputs (except Bukidnon)	0	-	2,778	100.0	-	-	-	-	-	-	-	-	-	-	2,778	1.8	139	2,639	-
G. Consultants	314	8.6	3,319	91.4	-	-	-	-	-	-	-	-	-	-	3,633	2.4	-	3,319	314
H. Locally contracted services	135	12.0	990	88.0	-	-	-	-	-	-	-	-	-	-	1,125	0.7	56	934	135
I. Incremental operating costs	552	12.0	4,051	88.0	-	-	-	-	-	-	-	-	-	-	4,603	3.0	230	3,820	552
J. Capacity Building	416	9.7	3,880	90.3	-	-	-	-	-	-	-	-	-	-	4,296	2.8	734	3,146	416
<b>K. IFAD Funded</b>																			
IFAD-funded Civil Works (Bukidnon only)	511	10.0	-	-	4,598	90.0	-	-	-	-	-	-	-	-	5,109	3.3	1,533	3,065	511
Equipment	25	12.0	-	-	180	88.0	-	-	-	-	-	-	-	-	204	0.1	123	57	25
Vehicle	71	30.0	-	-	167	70.0	-	-	-	-	-	-	-	-	238	0.2	143	24	71
Conservation Forestry	-	-	-	-	5,660	100.0	-	-	-	-	-	-	-	-	5,660	3.7	-	5,660	-
Livelihood Inputs (Bukidnon only)	0	-	-	-	5,969	100.0	-	-	-	-	-	-	-	-	5,969	3.9	298	5,670	-
Incremental operating costs	155	11.3	-	-	1,218	88.7	-	-	-	-	-	-	-	-	1,373	0.9	69	1,150	155
Consultants_IFAD	214	12.0	-	-	1,569	88.0	-	-	-	-	-	-	-	-	1,783	1.2	-	1,569	214
Capacity Building_IFAD	32	4.8	-	-	639	95.2	-	-	-	-	-	-	-	-	671	0.4	34	606	32
<b>Subtotal FAD Funded</b>	<b>1,008</b>	<b>4.8</b>	<b>-</b>	<b>-</b>	<b>20,000</b>	<b>95.2</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>21,007</b>	<b>13.6</b>	<b>2,199</b>	<b>17,801</b>	<b>1,008</b>
<b>L. GEF-Funded</b>																			
Computer Packages	6	12.0	-	-	-	-	40	88.0	-	-	-	-	-	-	46	-	28	13	6
Conservation Forestry	-	-	-	-	-	-	364	100.0	-	-	-	-	-	-	364	0.2	-	364	-
GEF Funded Livelihood Inputs	-	-	-	-	-	-	160	100.0	-	-	-	-	-	-	160	0.1	8	152	-
Capacity Building, Studies and Surveys	18	5.1	-	-	-	-	341	94.9	-	-	-	-	-	-	359	0.2	18	323	18
Consultants	62	6.0	-	-	-	-	971	94.0	-	-	-	-	-	-	1,033	0.7	359	612	62
Incremental operating costs	27	6.6	-	-	-	-	381	93.4	-	-	-	-	-	-	408	0.3	20	361	27
Locally Contracted Services	33	12.0	-	-	-	-	242	88.0	-	-	-	-	-	-	275	0.2	-	242	33
<b>Subtotal EF-Funded</b>	<b>146</b>	<b>5.5</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>2,500</b>	<b>94.5</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>2,645</b>	<b>1.7</b>	<b>433</b>	<b>2,067</b>	<b>146</b>
<b>M. CCF-Funded</b>																			
Commercial Forestry	-	-	-	-	-	-	-	577	100.0	-	-	-	-	-	577	0.4	17	561	-
Conservation Forestry	-	-	-	-	-	-	-	263	100.0	-	-	-	-	-	263	0.2	-	263	-
Capacity Building, Studies and Surveys	13	4.2	-	-	-	-	-	289	95.8	-	-	-	-	-	302	0.2	31	258	13
Consultants	9	3.2	-	-	-	-	-	280	96.8	-	-	-	-	-	289	0.2	166	114	9
<b>Subtotal CF-Funded</b>	<b>22</b>	<b>1.5</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>1,410</b>	<b>98.5</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>1,432</b>	<b>0.9</b>	<b>214</b>	<b>1,196</b>	<b>22</b>
N. Beneficiary Contribution	0	-	-	-	-	-	-	-	-	-	-	-	6,051	100.0	6,051	3.9	182	5,870	-
<b>O. Recurrent cost</b>																			
Recurrent Government Expenditure	1,213	47.4	-	-	-	-	-	-	-	-	1,344	52.6	-	-	2,556	1.7	-	2,556	-
O&M Community Infrastructure	-	-	-	-	-	-	-	-	-	-	-	-	1,225	100.0	-	-	-	1,225	-
O&M LGU Infrastructure	-	-	-	-	-	-	-	-	-	-	2,374	100.0	-	-	2,374	1.5	-	2,374	-
<b>Subtotal recurrent cost</b>	<b>1,213</b>	<b>19.7</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>3,718</b>	<b>60.4</b>	<b>1,225</b>	<b>19.9</b>	<b>6,156</b>	<b>4.0</b>	<b>-</b>	<b>6,156</b>	<b>-</b>
<b>Total PROJECT COSTS</b>	<b>6,896</b>	<b>4.7</b>	<b>100,000</b>	<b>68.7</b>	<b>20,000</b>	<b>13.7</b>	<b>2,500</b>	<b>1.7</b>	<b>1,410</b>	<b>1.0</b>	<b>7,481</b>	<b>5.1</b>	<b>7,277</b>	<b>5.0</b>	<b>145,563</b>	<b>94.4</b>	<b>15,435</b>	<b>124,069</b>	<b>6,059</b>
Interest During Implementation	8,035	100.0	-	-	-	-	-	-	-	-	-	-	-	-	8,035	5.2	-	-	-
Commitment Charges	535	100.0	-	-	-	-	-	-	-	-	-	-	-	-	535	0.3	-	-	-
<b>Total Disbursement</b>	<b>15,465</b>	<b>10.0</b>	<b>100,000</b>	<b>64.9</b>	<b>20,000</b>	<b>13.0</b>	<b>2,500</b>	<b>1.6</b>	<b>1,410</b>	<b>0.9</b>	<b>7,481</b>	<b>4.9</b>	<b>7,277</b>	<b>4.7</b>	<b>154,132</b>	<b>100.0</b>	<b>15,435</b>	<b>124,069</b>	<b>6,059</b>

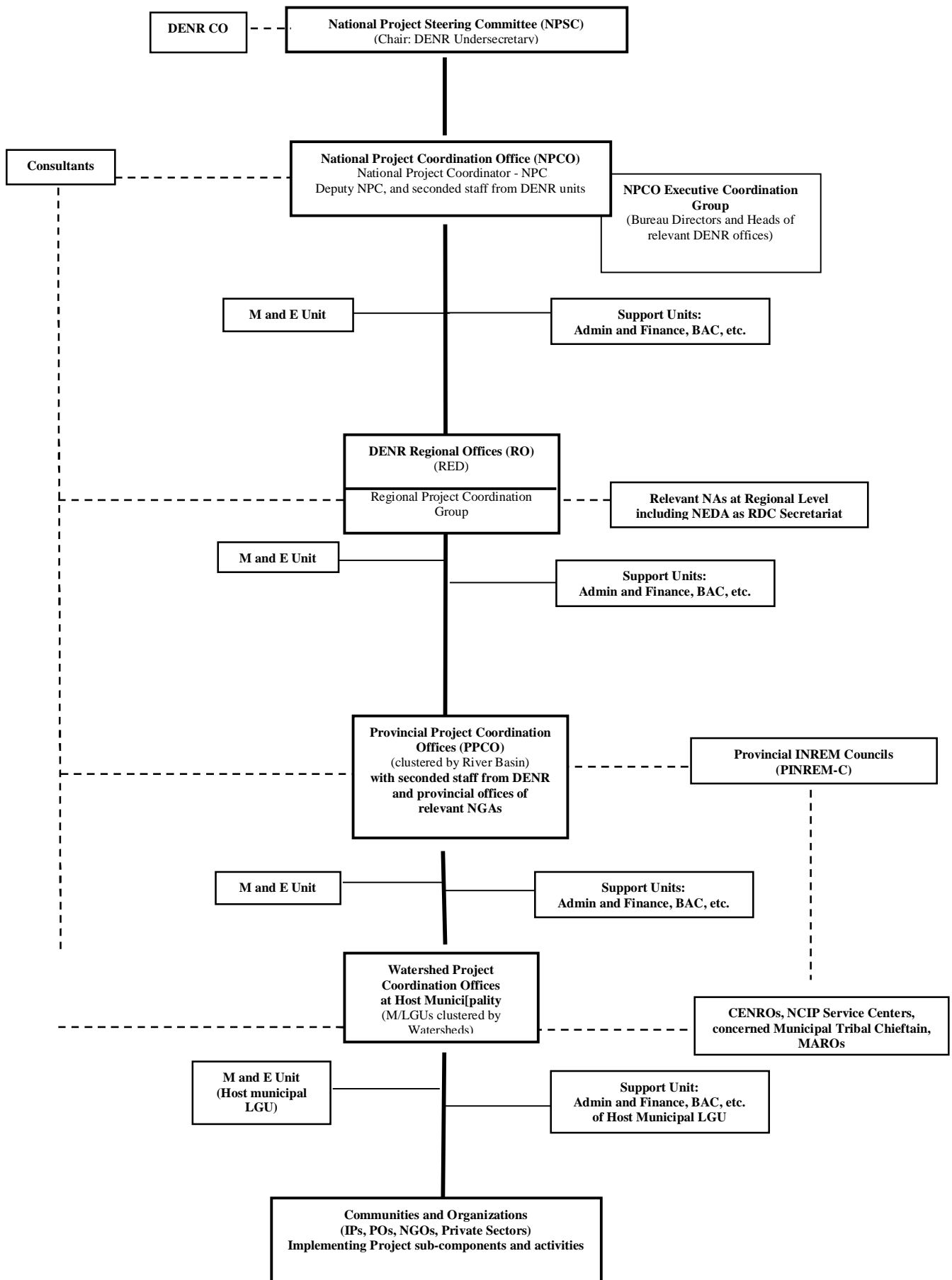


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**Table 4.4: Detailed Cost Estimates: Cost Estimates by Components (US \$ 1000)**

Components by Financiers (\$ '000)	GVNT		ADB		IFAD		GEF		CCF		LGUs		BENEs		Total		For. Exch.	Local (Excl. Taxes)	Duties & Taxes
	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%			
A. River Basin and Watershed Management Plans	1,266	9.8	8,605	66.4	1,332	10.3	1,483	11.4	280	2.2	-	-	-	-	12,967	8.4	2,099	9,602	1,266
<b>B. Smallholder/Commercial/Institutional Investments</b>																			
1. Conservation, rehabilitation and protection of URB Basin State forests	-	-	39,998	87.1	5,660	12.3	-	-	263	0.6	-	-	-	-	45,921	29.8	-	45,921	-
2. SFM, agroforestry & commercial forest plantation with community participation	0	-	14,120	69.2	-	-	-	-	240	1.2	-	-	6,051	29.6	20,411	13.2	605	19,806	-
3. Rehabilitation and improvement of rural infrastructure	3,400	7.6	29,394	65.7	4,598	10.3	-	-	-	-	6,137	13.7	1,225	2.7	44,754	29.0	11,291	29,687	3,777
4. Conservation farming and livelihood support	7	0.1	2,831	32.1	5,969	67.8	-	-	-	-	-	-	-	-	8,807	5.7	437	8,362	7
5. Investment in Watershed Management	13	1.3	-	-	-	-	524	54.2	431	44.5	-	-	-	-	968	0.6	46	909	13
<b>Subtotal Smallholder/Commercial/Institutional Investments</b>	3,420	2.8	86,343	71.4	16,226	13.4	524	0.4	934	0.8	6,137	5.1	7,277	6.0	120,862	78.4	12,380	104,685	3,796
C. Enhanced Capacity for River Basin and Watershed Management	192	7.5	1,598	62.2	234	9.1	349	13.6	195	7.6	-	-	-	-	2,569	1.7	100	2,276	192
D. Project Management Support	2,017	22.0	3,454	37.7	2,207	24.1	143	1.6	-	-	1,344	14.7	-	-	9,165	5.9	856	7,505	805
<b>Total PROJECT COSTS</b>	6,896	4.7	100,000	68.7	20,000	13.7	2,500	1.7	1,410	1.0	7,481	5.1	7,277	5.0	145,563	94.4	15,435	124,069	6,059
Interest During Implementation	8,035	100.0	-	-	-	-	-	-	-	-	-	-	-	-	8,035	5.2	-	-	-
Commitment Charges	535	100.0	-	-	-	-	-	-	-	-	-	-	-	-	535	0.3	-	-	-
<b>Total Disbursement</b>	15,465	10.0	100,000	64.9	20,000	13.0	2,500	1.6	1,410	0.9	7,481	4.9	7,277	4.7	154,132	100.0	15,435	124,069	6,059

### Annex 5: Project Organizational Structure



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**Annex 6: Implementation Schedule**

Sequence of Activities	Responsible Agency	Yr 0	Year 1		Year 2		Year 3		Year 4		Year 5		Year 6		Year 7		Yr 8
Project Start-up activities includes a series of stakeholder sensitization workshops be held immediately after the project negotiations, expected in November 2010; preparation of a memorandum of agreement (MOA) between the authorities of the Lanao del Sur and the ARMM, information campaigns to appraise all the concerned LGUs about the need for counterpart funding for rural infrastructure, updating the PAM, and the launching of the project start-up seminar at the national and regional level.																	
PREPARATORY	DENR (NPCO)																
Mobilization of staff and consultants, setting up Project organization at national, regional, provincial and municipal levels	NPCO/Consultants																
Procurement of satellite data, office equipment and facilities, consulting services	DENR (NPCO)/ FASPO																
Planning for INREMP Project Implementation: formulate and adopt, through administrative issuances, standards and guidelines to ensure consistent and effective implementation of INREMP processes and procedures [1].	<u>NPSC/TWG/NPCO,</u> <u>FASPO, NAMRIA &amp;</u> <u>RO focal persons</u>																
PROJECT-WIDE ACTIVITIES																	
Baseline survey/assessment for the Project & RIMS baseline	NPCO/Consultants																
Capacity building needs assessment in the PA, and initiation and completion of concerned staff enhanced through capacity building programs	NPCO/Consultants																
Development of geographical information system-based database including the training of staff and operations manual for the DENR Central and Regional staff and Provincial local government unit staff	NPCO/Consultants/																
Development of TE-IEC program for each selected RB	NPCO/Consultants																
Remote sensing data acquisition and analysis for natural resources for land use assessment and ground truthing for field verification.	NPCO/NAMRIA/ Consultants																
Land capability and participatory land use classification, zoning, approval, and adoption	NPCO/Consultants; NAMRIA; DENR Regional Offices; Provincial LGUs																
Development and implementation of carbon stock baseline assessments	NPCO, FMB, Consultants																
Design and commissioning of research and studies on various aspects of INREM including climate change related aspects	NPCO, ERDB, PAWB, Consultants																
Development and completion of detailed vulnerability and adaptation assessment plans	NPCO, LGUs, Consultants																
Development and adoption of Guides and Manuals on climate change mitigation and adaptation	NPCO, LGUs, Consultants																
Development and operation of Monitoring and Evaluation system linked to GIS database to monitor Project progress	NPCO, NAMRIA, LGUs, Consultants																
Preparation of URBMPs including private sector participation, based on inventories and analyses for conservation areas and buffer zones to support downstream investments, taking into account results of analyses and studies	NPCO, FMB, PAWB, DENR Field Offices, LGUs, Consultants																
SUBPROJECT-SPECIFIC ACTIVITIES																	

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1. Setting up of LGU level organizations for effective implementation	NPCO, DENR Field Offices, LGUs																
2. Issuance of enabling legislative instruments as prescribed in the URBMPs, including appropriate tenure and payment for environmental services, for local community participation in INREM	DENR Policy TWG, LGUs																
3. Initiate implementation of URBMPs in selected RBs by subprojects in accordance with agreed land use classification and zoning	DENR Field Offices, LGUs, Consultants																
4. Delineation and demarcation of forest boundaries, buffer zones, and land management zones based on URBMP prescriptions and zoning in the 4 selected RBs by subprojects watershed	DENR Field Offices, LGUs, Communities																
5. Selection of subprojects for field investments in accordance with selection criteria	Provincial PCOs, DENR Field Offices																
6. Initiate field implementation of URBMP including rehabilitation, protection and management of protected areas and other conservation areas with community participation; and forest-based sustainable livelihoods and rural infrastructure rehabilitation and improvements in production forest areas and agricultural land	LGUs (Provincial and Municipal), Communities, POs, IPOs, with DENR guidance																
7. Regular and effective enforcement of rules and regulations required for effective implementation of URBMP undertaken by participant-communities and project staff through field visits, monitoring and patrolling in the 4 selected RBs	Provincial and municipal LGUs, communities, POs, IPOs, with support of DENR field offices																
8. Implementation of TE-IEC in the 4 selected RBs	LGUs, with consultant support																
<b>ADDITIONAL SUBPROJECTS</b>																	
Based on the agreed criteria, select additional subprojects and undertake necessary assessment for preparation of subproject feasibility studies consistent with prescriptions in the URBMPs in 4 selected RBs	Provincial PCOs, Watershed Management Groups, Communities																
Continue field implementation of subproject activities as detailed in the URBMPs and more specifically identified in subproject feasibility studies following same procedure and timing as in the selected subprojects in 4 selected RBs	Provincial PCOs, Watershed Management Groups, Communities																
<b>PROJECT COMPLETION</b>																	
Upon termination/completion of Project, turn-over of Project assets to LGUs or DENR as appropriate or as agreed upon.	NPCO/Participating LGUs																
Preparation and submission of Project Completion Report	NPCO																
Final Accounting and Auditing of funds/disbursements	NPCO/All Implementing Units/ COA																
Evaluation of Project results and impacts	ADB/IFAD/DENR																

INREM = integrated natural resources and environmental management; NPCO: National Project Coordination Office; PPCO: Provincial Project Coordination Office; TE-IEC = technical extension, information, education and communication; URBMP = upper river basin management plan.

## Annex 7: Procurement Packages and Procurement Plan

### A. Process, Thresholds, and Reviews

#### 1. Project Procurement Thresholds

1. As IFAD and ADB agree, the following process thresholds shall apply to procurement of goods and works.

Procurement of Goods and Works	
Method	Threshold
International Competitive Bidding (ICB) for Works	Between \$1,000,000 and \$10,000,000,
International Competitive Bidding for Goods	Between \$500,000 and \$1,000,000
National Competitive Bidding (NCB) for Works	Beneath that stated for ICB, Works
National Competitive Bidding for Goods	Beneath that stated for ICB, Goods
Shopping for Works	Below \$100,000
Shopping for Goods	Below \$100,000
FBS	Below \$30,000

#### 2. ADB Prior or Post Review

2. Except as ADB may otherwise agree, the following prior or post review requirements apply to the various procurement and consultant recruitment methods used for the project.

Procurement Method	Prior or Post	Comments
<b>Procurement of Goods and Works</b>		
ICB Works	Prior	
ICB Goods	Prior	
NCB Works	Prior	
NCB Goods	Prior	
Shopping for Works	Post	
Shopping for Goods	Post	
<b>Recruitment of Consulting Firms</b>		
Quality- and Cost-Based Selection (QCBS)	Prior	
Quality-Based Selection (QBS)	Prior	
Fixed Budget (FBS)	Prior	
<b>Recruitment of Individual Consultants</b>		
Individual Consultants	Prior	

#### 3. Goods and Works Contracts Estimated to Cost More Than \$1 Million

3. The following table lists goods and works contracts for which procurement activity is either ongoing or expected to commence within the next 18 months (see Annex Table 1 below for the detailed procurement plan for the 1<sup>st</sup> 18 months of the project).

General Description	Contract Value (\$'000)	Procurement Method	Prequalification of Bidders (y/n)	Advertisement Date (quarter/year)	Comments
Satellite Images & Data Acquisition (4 packages)	1,222.3	NCB	Y	QI/2011	
Civil Works (45 packages)	41,055.5	NCB	Y	QII/2011	

ICB - international competitive bidding; NCB - national competitive bidding

#### 4. Consulting Services Contracts Estimated to Cost More Than \$100,000

4. The following table lists consulting services contracts for which procurement activity is either ongoing or expected to commence within the next 18 months, which are listed in Annex Table 1.

General Description	Contract Value ('\$000)	Recruitment Method	Advertisement Date (quarter/year)	International or National Assignment	Comments
Consulting services for Watershed Management, Biodiversity and Investment Plans	950.8	QCBS (80:20) – STP	Q1/2011	International and National	
Consulting services for Project Management and Implementation	4,148.5	QCBS (80:20) – FTP	Q1/2011	International and National	
Carbon Baseline Survey	573.4	QCBS (80:20) – STP	Q1/2011	International and National	
QCBS - quality and cost based selection; FTP - full technical proposal; STP - simplified technical proposal					

#### 5. Goods and Works Contracts Estimated to Cost Less than \$1 Million and Consulting Services Contracts Less than \$100,000

5. The following table groups smaller-value goods, works and consulting services contracts for which procurement activity is either ongoing or expected to commence within the next 18 months which are listed in Annex Table 1.

General Description	Value of Contracts ('\$000, cumulative)	Number of Contracts	Procurement / Recruitment Method <sup>1</sup>	Comments
GIS Data Base Installation	865.6	1	NCB	
4-wheel double cab pickup, for regional offices	110.2	4	shopping	
Motorcycles for Municipal Offices	632.2	4	shopping	
Computers/printers for provinces	82.6	4	shopping	
Computers/printers for Municipal Government Units	172.4	4	shopping	
Equipment for Project Performance, Monitoring & Evaluation (computer, software and peripherals)	36.0	1	shopping	
Consulting service for Project Performance, Monitoring & Evaluation	24.2	1	FBS (national)	

FBS - fixed budget selection; NCB - national competitive bidding

#### B. 18-Month Procurement Plan for IFAD and ADB

6. The following table provides the procurement plan (goods, works and consulting services) for the 1<sup>st</sup> 18 months of the project. It contains goods, services and works amounting to US \$ 8.171million.

**Annex Table 1: Procurement Plan for the 1<sup>st</sup> 18 months for IFAD and ADB**

Item No.	Component / activity	Description of Goods, works and services	Units	Quantity	Total Cost US \$ 1000	Method of selection	Advertising for EOI (date)	TOR/ Prequalified shortlist finalized (date)	RFP final draft forwarded (date)	ADB / IFAD'S Prior review for TOR Short list/ Final REP (date)	RFP / bid docs issued (date)	Proposals Received by the Project Authorities (Date)	Evaluation Finalized (Technical / # Combined/Draft Contract/Final Contract) (Date)	ADB / IFAD's No Objection (Technical / # Combined/Draft Contract/Final Contract) (Date)**	Financier	Services completed (date)
<b>Component 1: Land use assessment and planning</b>																
1		Satellite Images, Arial photos & Data Acquisition	packages	4	1141.00	NCB	1st Qrt 2011	1st Qrt 2011		2nd Qrt 2010		2nd Qrt 2010	2nd Qrt 2010	2nd Qrt 2010	ADB	3rd Qrt 2011
2		Carbon baseline survey	packages	1	100.00	QCBS	1st Qrt 2011	1st Qrt 2011	1st Qrt 2011	1st Qrt 2011	1st Qrt 2011	1st Qrt 2011	need to comply	2nd Qrt 2010	ADB	1st Qrt 2012
3		GIS Network-Computer Package	Units	1	603	NCB	2nd Qrt 2011	2nd Qrt 2011		need not comply	2nd Qrt 2011	2nd Qrt 2011	need not comply	need not comply	ADB	3rd Qrt 2011
		IFAD GIS Network-Computer Package	Units	1	150	NCB	2nd Qrt 2011	2nd Qrt 2011		need not comply	2nd Qrt 2011	2nd Qrt 2011	need not comply	need not comply	ADB	3rd Qrt 2011
		Consulting for planning & participatory mapping:ADB	Lump sum	1	950.80	QCBS	2nd Qrt 2011	2nd Qrt 2011	2nd Qrt 2011	need to comply	2nd Qrt 2011	3rd Qrt 2011	need to comply	need to comply	ADB	1st Qrt 2012
4		Consulting for planning & participatory mapping: IFAD	Lump sum	1	100.00	QCBS	2nd Qrt 2011	2nd Qrt 2011	2nd Qrt 2011	need to comply	2nd Qrt 2011	3rd Qrt 2011	need to comply	need to comply	IFAD	1st Qrt 2012
<b>Component 2: URB Field Investment</b>																
5		Civil work (roads, CIS, water supply, etc.) - Bukidnon	packages	1	400.0	NCB	2nd Qrt 2011	2nd Qrt 2011		need to comply	2nd Qrt 2011	3rd Qrt 2011	need to comply	need comply	IFAD	2nd Qrt 2012
6		Civil work (roads, CIS, water supply, etc.) - all other	packages	4	1,600.0	NCB	2nd Qrt 2011	2nd Qrt 2011		need to comply	2nd Qrt 2011	3rd Qrt 2011	need to comply	need comply	ADB	2nd Qrt 2012
<b>Component 3: Capacity Building</b>																
7		Capacity Building, Studies and Survey: ADB	Lump sum	Lsum	600.00	NCB	2nd Qrt 2011	2nd Qrt 2011		need to comply	2nd Qrt 2011	3rd Qrt 2011	need to comply	need comply	ADB	2nd Qrt 2012
8		Capacity Building, Studies and Survey: IFAD	Lump sum	Lsum	200.00	NCB	2nd Qrt 2011	2nd Qrt 2011		need to comply	2nd Qrt 2011	3rd Qrt 2011	need to comply	need comply	IFAD	2nd Qrt 2012
<b>Component 4: Project Management and Support Services</b>																
9		4-wheel double cab pickup for regional offices	units	3	75.15	LCB	1st Qrt 2011	1st Qrt 2011		need to comply	1st Qrt 2011	1st Qrt 2011	need to comply	need to comply	ADB	2nd Qrt 2012
10		4-wheel double cab pickup for regional offices - Region 10	units	1	25.05	LCB	1st Qrt 2011	1st Qrt 2011		need to comply	1st Qrt 2011	1st Qrt 2011	need to comply	need to comply	IFAD	2nd Qrt 2012
11		Computer Sets & printers for provinces	units	3	61.95	shopping	1st Qrt 2011	1st Qrt 2011		need not comply	1st Qrt 2011	1st Qrt 2011	need not comply	need not comply	ADB	2nd Qrt 2012
12		Computer Sets & printers for provinces - Region 10	units	1	20.65	shopping	1st Qrt 2011	1st Qrt 2011		need not comply	1st Qrt 2011	1st Qrt 2011	need not comply	need not comply	IFAD	2nd Qrt 2012
13		Motor Bikes for Municipal officers	units	3	474.15	LCB	1st Qrt 2011	1st Qrt 2011		need not comply	1st Qrt 2011	1st Qrt 2011	need not comply	need not comply	ADB	2nd Qrt 2012
14		Motor Bikes for Municipal officers - Region 10	units	1	158.05	LCB	1st Qrt 2011	1st Qrt 2011		need not comply	1st Qrt 2011	1st Qrt 2011	need not comply	need not comply	IFAD	2nd Qrt 2012
15		Computer Sets & printers for Municipal units	sets	4	129.30	shopping	1st Qrt 2011	1st Qrt 2011		need not comply	1st Qrt 2011	1st Qrt 2011	need not comply	need not comply	ADB	2nd Qrt 2012
16		Computer Sets & printers for Municipal M&E units- Region 10	sets	1	43.10	shopping	1st Qrt 2011	1st Qrt 2011		need not comply	1st Qrt 2011	1st Qrt 2011	need not comply	need not comply	IFAD	2nd Qrt 2012
17		Consulting services - ADB	Lump sum	Lsum	1030.00	QCBS	1st Qrt '10	1st Qrt '10	2nd Qrt 2011	need to comply	2nd Qrt 2011	2nd Qrt 2011	need to comply	need to comply	ADB	3rd Qrt 2011
18		Consulting services - IFAD	Lump sum	Lsum	250.00	QCBS	1st Qrt '10	1st Qrt '10	2nd Qrt 2011	need to comply	2nd Qrt 2011	2nd Qrt 2011	need to comply	need to comply	IFAD	3rd Qrt 2011
19		Consulting services for Project M&E	Lump sum	Lsum	18.15	FBS	1st Qrt '10	1st Qrt '10	2nd Qrt 2011	need not comply	2nd Qrt 2011	2nd Qrt 2011	need to comply	need not comply	ADB	3rd Qrt 2011
20		Consulting services for Project M&E	Lump sum	Lsum	6.05	FBS	1st Qrt '10	1st Qrt '10	2nd Qrt 2011	need not comply	2nd Qrt 2011	2nd Qrt 2011	need to comply	need not comply	IFAD	3rd Qrt 2011
21		Equipment for project performance, M&E (computers & other accessories etc): ADB	sets	1	27.00	shopping	1st Qrt '10	1st Qrt '10		need not comply	2nd Qrt 2011	2nd Qrt 2011	need to comply	need not comply	ADB	3rd Qrt 2011
22		Equipment for project performance, M&E (computers & other accessories etc):IFAD	sets	1	9.00	shopping	1st Qrt '10	1st Qrt '10		need not comply	2nd Qrt 2011	2nd Qrt 2011	need to comply	need not comply	IFAD	3rd Qrt 2011
Total (US \$ 1000)					8,171.8											
Total (Php million)					384.1											

9. Majority if not all rural infrastructure sub-components under INREMP financing are expected to be relatively small, involving small work contracts and are unlikely to attract international contractors.
10. In accordance to ADB procurement guidelines, contracts costing less than US\$2,000,000 equivalent will be awarded through National Competitive Bidding (NCB) and will be guided by R.A. 9184 otherwise known as the "Government Procurement Reform Act" as long as the provisions are consistent with IFAD and ADB Procurement Guidelines for civil works.
11. However, individual sub-components costing less than US\$100,000 may be implemented by LGUs through "Force Account" or by administration as long as the total value of all civil works carried out on "Force Account" basis for INREMP will not exceed in total of US\$16,000,000.
12. LGUs signifying intention to implement by "Force Account" will be evaluated by the NPCO, through the DENR Regional/Provincial Offices or the PPCO for technical and equipment capability and will secure authorization from this office. Procurement of "Goods" under "Force Account" works will also be guided by R.A. 9184 consistent with ADB Procurement Guidelines for goods.
13. Procurement of "Civil Works" and "Goods" will be the main responsibility of the municipal LGU through its duly constituted Bids and Awards Committee (BAC) in accordance with the provisions of R.A. 9184.
14. In support to the national government's employment generation program and in consideration that majority of the sub-components are small scale. Labor Based–Equipment Supported (LB/ES) methods of construction shall be adopted whenever possible. This should also allow communities to be engaged as "pakyaw" labor contractors to ensure full involvement as well as help in the process of people empowerment and in building up a sense of ownership and responsibility.
15. Regardless of whether implementation is carried out by contract or by LGU "Force Account" and pursuant to R.A. 5635 dated December 12, 1988, at least fifty (50) percent of the unskilled and thirty (30) percent of the skilled labor requirement shall be taken from the beneficiary community. Hence, beneficiaries within the community shall be the first priority in the selection of labor force. The women shall be given equal opportunity to join the labor force.
16. In involving community participation in undertaking Project activities, particularly in forestry protections, conservation, rehabilitation and reforestation, the NPCO shall propose procedures, specifications and contract packaging for the Project that are acceptable to ADB and IFAD for approval by the Government Procurement Policy Board (GPPB). Local community participation in service delivery is allowed under Sec 53.12 the IRR of RA 9184 if it will ensure project sustainability and meet social objectives, with the procedures subject to approval by the GPPB.
17. Where community, PO/IPO, private entity, NGO, or local government participation is in the nature of partner-implementer, the DENR can, directly or indirectly through its participating Regional or Provincial Offices, execute partnership agreements with the particular community or LGU for specific undertaking in their area with terms and conditions acceptable to ADB and IFAD.
18. DENR/NPCO and Project Implementing Agencies/Units will monitor and inspect all contractors' activities related to fund withdrawals and financial settlements. The NPCO will further ensure that all contracts financed by the Loan proceeds include provisions specifying the ADB's and IFAD's right to audit and examine the records and accounts of contractors, suppliers, consultants and other service providers as they relate to the Project.



## **Annex 8: Financial Management and Funds Flow**

1. The funds for the project (loan proceeds) will be treated like other regular receipts of the national government. It will be received by the Bureau of Treasury. It has to be covered by or within the budgetary/appropriation ceiling of the Agency for the year for Department of Budget and Management to issue its release to DENR, MDFO and DA. The release will follow the budget execution process of issuing the following authorities: (a) to incur obligation, the Special Allotment Release Order; and (b) to disburse, Notice of Cash Allocation. Transfer of funds to offices within the DENR will be done by issuing Sub-Allotment Advice or Notice of Transfer of Allocation, the process of transferring the authority to incur obligation to another office by the DENR CO. To transfer funds from the DENR to other government agencies for undertaking specific activities of the project, a Memorandum of Agreement will be executed between the concerned parties, specifying the terms and conditions of the release of funds and the responsibilities and obligations of each party. Funds for sub-projects for specific LGUs under Component 2.b, Enhancement of Livelihood through rehabilitation of rural infrastructures will be released through the Municipal Development Fund Office (MDFO) except for \$10 million of the amount allocated for Chico River Basin that will be released to the DA (*See Fund Flow*).
2. The LGUs will access funds for infrastructure projects through the MDFO like the Performance-Based Grants. Infrastructure projects will be funded following the "LGU Financing Policy Framework", approved by the National Economic Development Authority Board in March 2003 (see WP 13 for details). Details and the mechanics of Performance-based Grants will be developed for INREM to give incentives for improvement in the area of environment and natural resources management by the LGUs. This will have to be presented to and approved by the Performance-Based Grants Technical and Steering Committee.
3. Department of Finance will open imprest accounts for the Asian Development Bank (ADB) Loan with an authorized government depository bank for DENR, DA and MDFO. The LGUs will likewise open and maintain separate accounts with authorized government depository banks for the project funds they will receive. Disbursements and management of the accounts will be in accordance with the arrangements specified in the Loan Agreement of IFAD and ADB, and ADB's Loan Disbursement Handbook (2007).
4. DENR, DA, MDFO and the LGUs have full financial management services and follow the New Government Accounting System (NGAS) or eNGAS prescribed by the Commission on Audit. NGAS/eNGAS has many improved features and has adequate processing and reporting system to facilitate effective financial management of Project funds. Table 1 below presents the details by component.
5. DA will be responsible for the receipt, disbursement, accounting and auditing of the \$10 million of the allocation for sub-component 3 of Component 2 – Enhancement of Livelihood through rehabilitation of rural infrastructures in Chico River Basin. DA will coordinate with ADB and national oversight agencies for the administration of that portion of the Project Fund. LGU funds will be administered by the MDFO.
6. As a protected area, Lake Lanao River Basin falls within the jurisdiction of DENR-Region X. However, by location, it falls within the jurisdiction of Autonomous Regional Government in Muslim Mindanao (ARMM) and a Council was created to manage the river basin. (*See WP 11*) ARMM Organic Law (RA 9504) provides that it shall enjoy fiscal autonomy. Specifically, it provides – "The Regional Government shall enjoy fiscal autonomy in generating and budgeting its own sources of revenue, its share of the internal revenue taxes and block grants and subsidies remitted to it by the central government or national government or any donor."
7. Given this jurisdictional overlap and the complexity arising from that overlap, the DENR-Region X will undertake the regional level coordination and link the NPCO, DENR-ARMM and the LGUs to facilitate project implementation at Lake Lanao. At the Provincial level in Lanao del Sur, PG-ENRO will undertake the project activities under the 1<sup>st</sup> and the 2<sup>nd</sup> Components with the exception of Municipal LGUs implementing the infrastructure improvement activities. The activities under the 3<sup>rd</sup> Component will be commissioned to NGOs and academe who have had successful experience in the area. The Project will improve the capacity of the PG-ENRO and the LGUs. Funds will be released to the ARMM, which must

allocate to DENR-ARMM the amount for the implementation of the Component. Duties and responsibilities of the DENR-ARMM and all parties involved should be specifically stated in the Memorandum of Agreement (MOA) with ARMM for the implementation of the component. For the implementation of the Livelihood Enhancement through rehabilitation of rural infrastructures, the LGUs will be availed of the fund from the MDFO. The MOA between DENR and DENR-ARMM should specify that the MDFO will release funds directly to the LGU.

8. Of the cities and municipalities within the four river basins, 68% belong to 4<sup>th</sup> to 6<sup>th</sup> class,<sup>51</sup> 18.5% to 3<sup>rd</sup> class, 4.9% and 8.6% to 2<sup>nd</sup> and 1<sup>st</sup> class respectively. The income classification of the LGUs, which is based on the average regular income for at least four consecutive years, is indicative of LGU capacities in terms of human and financial resources.<sup>52</sup>

**Table 8.1 Implementation Arrangements and Fund Management**

Component	Lead Implementing Agency/Unit	Fund Administration-Flow
<p>1. Development of river basin/ watershed management and investment plans with supportive policy and regulatory framework; to include:</p> <p>1.1 Design and establishment of geographical information system (GIS)-based database for performance monitoring including the training of staff and operations manual for the DENR Central and Regional staff and Provincial LGU staff in the 4 selected river basins (RBs)</p> <p>1.2 Remote sensing data acquisition and analysis for natural resources for land use assessment and ground truthing for field verification for the 4 selected RBs</p> <p>1.3 Design and commissioning of research and studies on various aspects of INREM including climate change related aspects in the 4 selected RBs</p> <p>1.4 Development and completion of detailed vulnerability and adaptation assessment plans in the 4 selected RBs</p> <p>1.5 Land use and capability assessment and participatory land use classification, zoning, approval, and adoption in 4 selected RBs</p> <p>1.6 Development and implementation of carbon stock baseline assessments in the 4 selected RBs</p> <p>1.7 Development and adoption of Guides and Manuals on climate change mitigation and adaptation completed</p> <p>1.8 Delineation and demarcation of forest boundaries in consultation with local communities</p> <p>1.9 Delineation and demarcation of buffer zones, and land management zones based on URBMP prescriptions and zoning in the 4 selected RBs by subprojects</p> <p>1.10 Issuance of enabling legislative instruments as prescribed in the URBMPs, including appropriate tenure and payment for environmental services, for local community participation in INREM in the 4 selected RBs</p>	<p>The NPCO, with the assistance of NAMRIA, consultants, institutions and DENR-RO; participation of the offices of National Government Agencies at the province (National Irrigation Authority, National Commission on Indigenous People, National Power Corporation); guidance of the PINREM-C; and, participation of the municipalities/cities and communities in the area.</p>	<p>DENR-CO – thru the DENR-RO. Transfer of funds from CO thru sub allotment to ROs based on approved Work and Financial Plan.</p> <p>DENR-CO will transfer funds to NAMRIA and other implementing units based on a MOA and/or approved Work and Financial Plan (WFP) through sub-allotment or check payment.</p> <p>DENR CO or RO may opt to contract or sub-contract the undertaking of specific activities to other government agencies, private firms/ consultants.</p> <p>NPCO, IPEG will be responsible for the preparation/consolidation and submission of Withdrawal Application and Statement of Expenditures (SOEs) to ADB for timely funds releases.</p>

<sup>51</sup> Per DOF Income Classification of 2005 (NSCB Statistics)

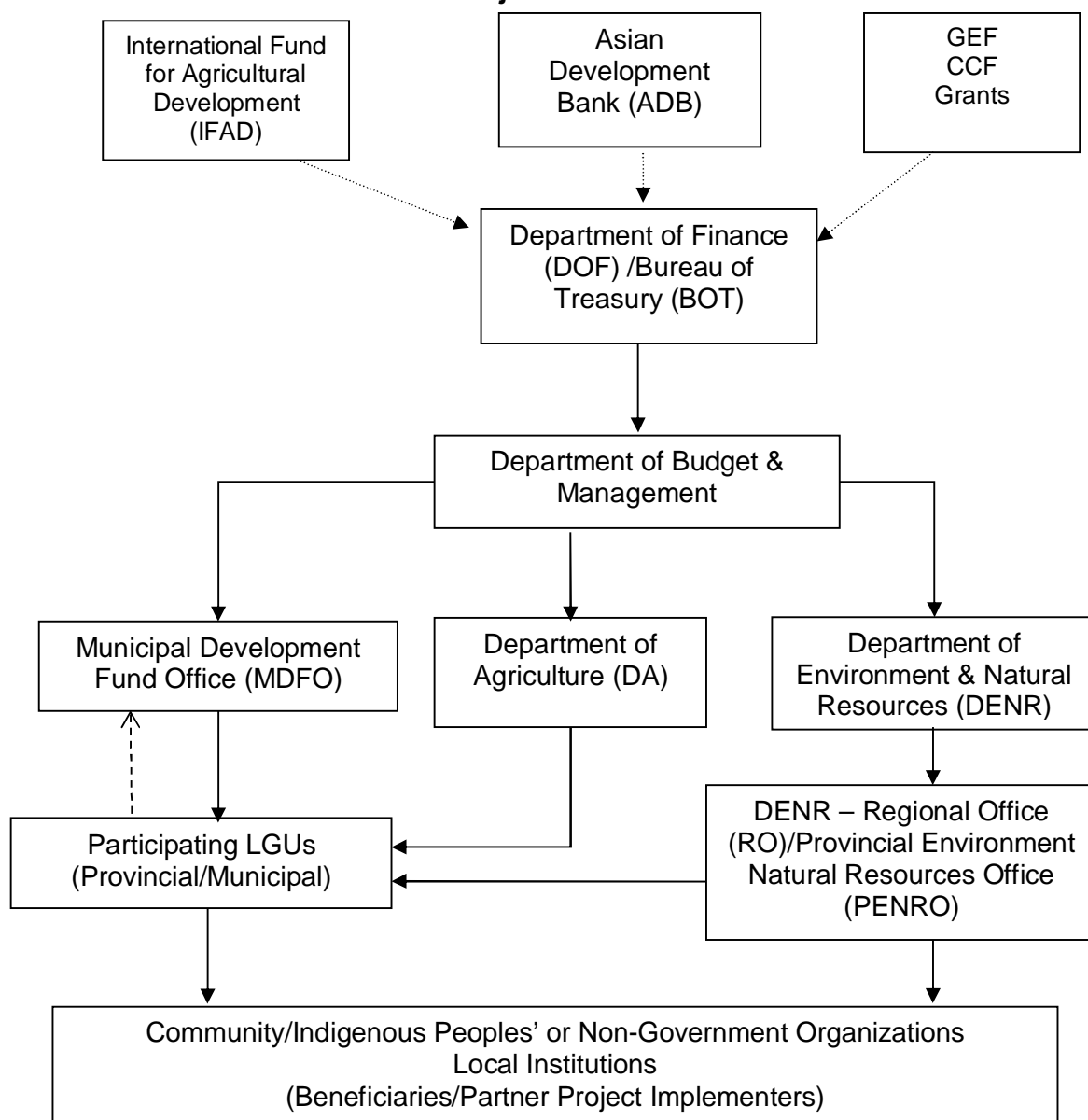
<sup>52</sup> The amount the LGU can allocate for salaries and wages as well as the salary grade-rates that it can use are determined according to its income class.

Component	Lead Implementing Agency/Unit	Fund Administration-Flow
<p>2. Small holder, commercial and institutional investments to include:</p> <p>2.1 Preparation of INREM Plans (INREMPs) including investment strategies for private sector participation, based on inventories and analyses for conservation areas and buffer zones to support downstream investments in the 4 selected RBs</p> <p>2.2 Initiate implementation of INREMPs in selected RBs by subprojects in accordance with agreed land use classification and zoning</p> <p>2.3 Initiate field implementation of URBMP including rehabilitation, protection and management of protected areas and other conservation areas with community participation; and forest-based sustainable livelihoods and rural infrastructure rehabilitation and improvements in production forest areas and agricultural land</p> <p>2.4 Based on the agreed criteria, select additional subprojects and undertake necessary assessment for preparation of subproject feasibility studies consistent with prescriptions in the URBMPs in 4 selected RBs</p> <p>2.5 Continue field implementation of subproject activities as detailed in the URBMPs and more specifically identified in subproject feasibility studies following same procedure and timing as in the selected subprojects in 4 selected RBs</p> <p>2.6 Provide infrastructure maintenance funding and carry out routine O&amp;M</p>	<p>Provincial Project Coordination Office, with the guidance of Provincial inter-Agency INREM Council, support of the PENRO/CENRO and offices of national agencies at the province will coordinate the implementation Component 2.</p> <p>The participating cities/municipalities will implement the activities on the ground.</p> <p>May be contracted directly to private or non-government organizations, communities, peoples' or farmer organizations as maybe recommended by PINREMC/PPCO</p> <p>Participating City/Municipal LGUs.</p> <p>The DENR- NPCO in close coordination with the Municipal Agriculture Office and municipal environment and Resource Officer (MENRO) of participating LGUs; and assistance/ participation of qualified service providers (e.g. academe, NGOs) in the area.</p>	<p>DENR – CO thru the Provincial or Municipal Government.</p> <p>A Memorandum of Agreement between the DENR and Provincial or Municipal LGU will be executed whereby the LGU will undertake specific activities of the Project and DENR will transfer the funds for the activities on certain conditions.</p> <p>Municipal Development Fund Office – Municipal LGUs (for infrastructure projects) subject to the NG-LGU cost sharing per "LGU Financing Policy Framework" of 2003</p> <p>DENR- CO through LGUs or Non-Governmental Organizations through MOA.</p>
<p>3. River basin and watershed management capacity building, to include:</p> <p>3.1 Capacity building needs assessment in the Project area, and initiation and completion of concerned staff enhanced through capacity building programs</p> <p>3.2 Development of TE-IEC program for each selected RB</p> <p>3.3 Field implementation of TE-IEC in the 4 selected RBs (including awareness raising)</p> <p>3.4 Implement capacity building and skills transfer training events covering natural resource management, climate change, mainstreaming of biodiversity, PES, and REDD</p>	<p>National Project Coordinating Office -DENR, with the participation of Forest Management Bureau, National Mapping and Resource Information Authority, Protected Area and Wildlife Bureau, Foreign Assisted and Special Project Office</p> <p>Assisted by Consultants, Consulting firms, International/Local Non-government Organizations, Academe or other institutions.</p>	<p>DENR-CO. With option to contract or sub-contract the undertaking of specific activities to other government agencies, private firms/consultants, LGUs and/or Non-Governmental Organizations.</p>
<p>4. Project management and support services, to include:</p> <p>4.1 Development and operation of Monitoring and Evaluation system linked to GIS &amp; MIS based (electronic M&amp;E) systems to monitor Project progress</p> <p>4.2 Create/ launch Project website; post all relevant and important documents (including project design documents, DMF, Project manuals, sub-project selection criteria etc) and regularly maintain and update website, and link to relevant institutions such as NEDA and ADB</p> <p>4.3 Regular and effective enforcement of rules and regulations required for effective implementation of URBMP undertaken by concerned staff through field visits and patrolling in the 4 selected RBs</p> <p>4.4 Carry out regular M&amp;E and integrate results in the 6 monthly and Annual Project Progress Reports</p> <p>4.5 Formulate terms of reference and carry out relevant studies required for project delivery; feed in results for project improvement and enhancement</p> <p>4.6 Cover project O&amp;M costs and provide reports on status of project equipment</p> <p>4.7 Carry out and document gender and IP related safeguard</p>	<p>National Project Coordinating Office -DENR, with the participation of Forest Management Bureau, National Mapping and Resource Information Authority, Protected Area and Wildlife Bureau, Foreign Assisted and Special Project Office</p> <p>Assisted by Consultants, Consulting firms, International/Local Non-government Organizations, Academe or other institutions.</p>	<p>DENR-CO. With option to contract or sub-contract the undertaking of specific activities to other government agencies, private firms/consultants, LGUs and/or Non-Governmental Organizations.</p>

Component	Lead Implementing Agency/Unit	Fund Administration-Flow
studies (including monitoring of involuntary resettlements) and prepare annual reports for dissemination and inclusion in Project annual progress reports		

DENR = Department of Environment and Natural Resources; DENR-CO = Department of Environment and Natural Resources Central Office;  
DENR-RO = Department of Environment and Natural Resources Regional Office; LGU = local government unit; URB = upper river basin.

# INREM Project Funds Flow



- > Funds are transferred based on approved Work and Financial Plan or Memorandum of Agreement
- - - - -> For Infra & Performance- Based Grants System; LGU applies to avail of the funds
- ➔ Funds are transferred through authorized government depository banks

GEF - Global Environmental Facility  
CCF - Climate Change Fund

## Annex 9: Summary IEE and Environmental Assessment Review Framework

1. The Project has been classified as environmental category B and will be enforced through selection criteria for subprojects to ensure that no subproject under any component will exceed this rating. IEEs/SIEEs of two sample subprojects selected for detailed study (out of 23 subprojects), namely a) Bauko subprojects in Chico River Basin; and (b) Bubong Watershed in Lake Lanao River Basin were prepared (See Supplementary Annex).

### I. Environmental Assessment of Sector Impacts

2. The Project interventions or major activities that may have potential environmental impacts are those under the field investment component: (i) forest protection, reforestation, assisted natural regeneration (ANR), and demonstration sites for sustainable forest management, agroforestry, commercial tree plantations, and (ii) rehabilitation/improvement of rural access infrastructure, communal irrigation schemes, and Level II potable water supply.

3. **Forestry.** For activities like patrolling and monitoring conservation/protected areas; reforestation and ANR of degraded areas; and demonstration sites for sustainable forest management, agroforestry and commercial plantations, the sector impacts are positive, such as reduction of soil erosion and sedimentation of water systems; increase of ground water/ aquifer recharge; carbon sequestration; protection/increase of biodiversity; improvement of water run-off and conserve soil nutrients; reduced occurrence of drought, floods and landslides; and improve economic condition of people living in the river basins. Based on the ADB Rapid Environment Assessment (REA) checklist for forestry, the only potential adverse impacts may come from effective forest protection activities during the operational phase, which may potentially reduce access to forest resources by the local people who depend on them (See Table 1).

**Table 1. Screening of activities and potential impacts according to operational stage**

Subproject major activities/interventions	Environmental Impacts		
	L/D	C/E	O/M
<b>Forestry:</b>			
Forest protection and monitoring	No	No	Yes
Reforestation	No	No	No
Assisted Natural Regeneration (ANR)	No	No	No
Demonstration Farm-Agroforestry & Tree Plantation	No	No	No
Road Access Rehabilitation	No	No	No
Communal Irrigation Rehabilitation	No	No	Yes
Potable Water System (Level 2)	No	No	No

L/D = Project location/ design; C/E = Project Construction/Establishment; O/M = Project operation/Maintenance;

No = no adverse environmental impacts; Yes = with potential adverse environmental impacts (to be addressed by mitigation measures)

4. **Infrastructures.** The potential impacts during the different stages of the infrastructure rehabilitation/improvement were also assessed against the ADB REA checklist provided for road, irrigation and water supply. There were no adverse environmental impacts except for irrigation during the operation/maintenance stage (See Table 1). There is a likely increase of irrigation water during the operation phase, which in turn will increase leaching of soil nutrients, change/degrade soil characteristics of farms, induce scouring of irrigation canals and reduce downstream water supply.

5. Table 2 shows the monitoring plan for the project.

**Table 2. Environmental Monitoring Plan**

Impacts to be Monitored	Monitoring Activity	Monitoring Party	Resources and Budget
Reduce access to forest resources due to effective forest protection	Patrolling/monitoring report of deputized forest officer/ watershed protection brigades every month	PPSO-EMU	Monitoring Funds of PhP6.16 million will be provided by the Project – (PhP 280,000 for 7 years per subproject)
Excessive use of irrigation water, which will increase leaching of soil nutrients, change/degrade soil characteristics of farms, induce scouring of irrigation canals and reduce downstream water supply	Monitoring to be done during the operation stage every quarter	Proponent-Municipality/ies	Monitoring funds will be provided by the proponent-Municipality, as part of their counterpart contribution

Impacts to be Monitored	Monitoring Activity	Monitoring Party	Resources and Budget
General condition of the subwatershed/ subproject	Sampling/survey	PPSO-EMU	Fund of PhP 7.519 for 7 years to be provided by the Project (
General condition of the water system	Water sampling every quarter per water system unit	PPSO-EMU	Fund of PhP3.121 million for Year 2 to Year 7 to be provided by the Project (PhP1,020/sampling x 4 quarters x 7 years x 210 units )

## II. Environmental Criteria for Subproject Selection

6. The environmental criteria to be used for the selection of subprojects (additional) are: (a) the subproject must constitute a complete watershed unit; (b) ecologically significant in terms of biodiversity conservation and carbon sequestration potential; (c) intervention will not result in unmitigated environmental impact; (d) the state of watershed degradation and impacts on downstream communities require urgent attention; (e) willingness of the subproject beneficiaries to negotiate under the Payment for Environmental Services (PES) scheme of the Project and (f) compliance with the additional environmental safeguard measures, as described in the sample IEEs. The subproject need not be located outside any environmentally sensitive or critical areas (like protected areas, national parks, very steep slopes, critical watershed, mangroves or wildlife sanctuaries) to be qualified, but it is essential that the potential adverse environmental impacts of the components are not significant so that it will not surpass environmental category B under ADB guidelines.

## III. Environmental Assessment and Review Procedures

7. Provincial Project Coordination Offices (PPCOs) will be established in the provincial offices of the Governors to facilitate and support implementation, including promulgation of required ordinances regarding management of natural resources within the jurisdiction of the province. An Environmental Management Unit (EMU), which will be designated/set-up in the PPCO, will be responsible for ensuring that the ADB and the Government's environmental requirements and procedures, including the preparation of Project Description Reports (PDR), Initial Environmental Examination Reports (IEER), or Initial Environmental Examination Checklists (IEEC), IEE and the corresponding mitigation measures are incorporated into every stage of the subproject/river basin proposed activities. A Provincial INREM Council (PINREM-C) consisting of relevant NGAs based at the provincial level will oversee and ensure compliance with the environmental assessment requirements. All subproject activities will be subjected to Government environmental assessment procedures and the required documents (PDR, IEER, IEEC as the case maybe), compliant with DENR-EMB guidelines, will be prepared. These documents will be consolidated by the PPCO-EMU into a draft IEE for the subproject following the ADB guidelines, which will be submitted to the DENR and ADB for approval.

8. The estimated total project cost of environmental assessment and management is PhP 37.371 million for capacity building, environmental consultancy, tools and laboratory fees, and operating and maintenance (O&M) expenses of environmental management activities from year 1 to year 7. The cost of environmental management staffing is included in the budget of their mother unit that assigned the personnel, while the cost of EIA report preparation, including travel and public consultation, is to be borne by the proponent.

## Annex 10: Summary Poverty Reduction and Social Strategy

### Country/Project Title: Philippines/Integrated Natural Resources & Environmental Management Project

Lending/Financing Modality: SDP

Project Loan

Department/  
Division:

Southeast Asia Department/Agriculture, Environment and  
Natural Resources Division

#### I. POVERTY ANALYSIS AND STRATEGY

##### A. Links to the National Poverty Reduction Strategy and Country Partnership Strategy

The proposed Integrated Natural Resources and Environmental Management Project (the Project) is responsive to the Medium-Term Philippine Development Plan (MTPDP), the Asian Development Bank (ADB) country operations business plan (2007–2008), the IFAD Country Strategic Opportunities Programme, the country poverty assessment (2004) and the Road Map for agriculture, environment and natural resources. The Project is consistent with the three themes of ADB's long-term strategic framework 2008–2020 (Strategy 2020)—inclusive growth, environmentally sustainable growth, and regional integration. The Project is likewise consistent with ADB's five core areas of operation for lending purposes: infrastructure, regional cooperation and integration, financial sector development, education, environment, and other areas such as health, agriculture, and disaster and emergency assistance, all point towards sustainable management of natural resources, which include the most critical resources—forests and water—which are intricately linked. (see WP 1).

##### B. Poverty Analysis

**Targeting Classification:** Targeted Intervention

##### 1. Key Issues

Potential primary beneficiaries of the Project include indigenous people (IP) and upland migrants who are among the poorest and long excluded from lowland and urban-biased development investments. Potential needs of beneficiaries in relation to the proposed Project are comprehensive and integrated in the management of watershed areas in the upper river basins (URBs). These include improvement of tenure security over natural resources; better access to markets, capital and services; sustainable management of the resource base; and the responsiveness of policies and institutions to poverty reduction and environmental management requirements.

The Government of the Philippines' (GOP) MTPDP 2004–2010 points out that underutilization and mismanagement of the nation's abundant natural resources are key causes of poverty, especially in the countryside. The potential of these natural resources to sustain poverty reduction programs has not been fully explored yet. Natural resources in watersheds of URBs comprise an estimated 45% of the country's total land area and directly supports approximately 30% of the population that include IPs. Steadily growing population pressure, displacement of marginal and IPs with traditional stewardship patterns in resource management, and the lack of legal and practical mechanisms for resource protection have all contributed to the conversion of watershed areas into marginal upland agricultural areas.

Watershed degradation in the URBs, with its consequent impacts on agricultural productivity, is a significant contributor to poverty, inequality, and loss of sustainable economic opportunities. In rural areas, where economic production is largely based on agriculture and natural resources, poverty and environmental degradation form a vicious cycle. Poverty incidence in the Philippines increased by 4.8% from 28.1% in 1997 to 32.9% in 2006. Amongst the provinces in the Project area, Apayao in the Cordillera Administrative Region (CAR) had the highest increase of 35.6% (27.5% in 1997 to 63% in 2006) in poverty incidence; Kalinga, also in CAR, had 13.2% increase (38.7% in 1997 to 51.9% in 2006); Bohol in Central Visayas recorded a 9.6% increase (37.3% in 1997 to 46.9% in 2006) and Lanao del Sur in Mindanao recorded a 2.9% increase (55.6% in 1997 to 58.5% in 2006). Decline in poverty incidence occurred in CAR in Ifugao with 17.4% (57.7% in 1997 to 40.3% in 2006), 6.2% in Mt. Province (56.6% in 1997 to 50.4% in 2006), Cagayan with 2.2% decrease from 25.3% in 1997 to 23.1% in 2006 and Bukidnon in Mindanao with 5.3% decrease from 42.5% in 1997 to 37.3% in 2006.<sup>53</sup> The annual per capita poverty threshold was estimated at PhP14,866 in 2007—a 51.0% increase over the 1997 threshold of PhP9,843.

Poverty in the Philippines is still largely rural as three of every four poor persons in the country are found in rural areas: they depend predominantly on agricultural employment and incomes.<sup>54</sup> The average annual household income within the Project sites range from PhP 60,000 to PhP90,000. For the average family of 8 in the project sites, the annual poverty threshold is computed at PhP 120,255. Given the average household income range in the project sites, a typical upland farming family within the project sites still need PhP 30,255 - PhP 60,255 per annum to be able to purchase and avail of the family's minimum basic needs. In some sites in the Project area, residents augment their household income from non-farming activities by about PhP100,000 per annum, through wage employment and resource use activities, i.e., charcoal making and illegal logging.

**Beneficiaries.** An estimated 220,000 household beneficiaries are targeted under the Project. Poverty incidence on average is about 47% across all sites.<sup>55</sup> Main beneficiaries are marginal households with small landholdings planted to rice, corn, coconut, sugarcane, vegetables and other crops. IPs<sup>56</sup> and other ethnic minorities<sup>57</sup> (EM) constitute around 75% of the total beneficiaries that generally reside in headwaters of the river basins. In Lanao del Sur, there are about 10,000 families in 76 barangays<sup>58</sup> who are victims of war in conflict-affected areas of Mindanao, where poverty is severe. It is also in these areas where wanton abuse of resources occurs through (i) illegal logging, (ii) conversion of forested lands to vegetable farms, and (iii) small scale mining/quarrying. These activities provide significant incentives for overexploiting the natural resource base.

The Project is aimed at enhancing security and harmony by engaging with the poorest; and working closely with communities. Anticipated benefits for participating households will be through (i) improvement of rural infrastructure that gives them access to markets, support services, and new/more

<sup>53</sup> NSCB, 2008.

<sup>54</sup> Land Reform, Rural Development, And Poverty In The Philippines: Revisiting The Agenda. Technical Working Paper. World Bank in the Philippines. 2009.

<sup>55</sup> Range of poverty incidence is from 37.35% in Bukidnon to 58.5% in Lanao del Sur; within CAR areas, it is 40.3% (Ifugao) to 63.1% (Apayao).

<sup>56</sup> Major IP groups are, from CAR - Kankana-ey, Apalai, Bontok, Kalinga, Ifugao, Isneg, and Tingguian; Bohol - Eskaya; Muleta-Manupali - Higaonon and Talaandig; Lake Lanao - Higaonon, Kolibugan, and Iranon.

<sup>57</sup> Major EM found in Lake Lanao known as the Meranao, generally of Muslim affiliation.

<sup>58</sup> Department of Social Welfare and Development, 2004.



investments sources as it facilitates linkages with private investment; (ii) creation of jobs through reforestation, rehabilitation, sustainable livelihood; and (iii) payment for environmental services (PES) for effective conservation and protection for the environment and natural resources. IPs will further benefit through the formulation/enhancement of their Ancestral Domain Sustainable Development and Protection Plans (ADSDPP) as part of the IP Development Framework (IPDF) towards rationalized and harmonized land use planning for investments. The Project will likewise ensure IP mandatory representation to various planning bodies, and uphold their indigenous knowledge systems and practices and customary laws in the management of natural resources.

The Project reaches out to the poorest municipalities, some of which are conflict-prone like Lake Lanao. It has been designed to reach poor *barangays*; the most severe in Tanudan, Kalinga at 88% (NSCB, 2003). In Lake Lanao, the immediate impact of watershed degradation is the reduction of rainfall by about 100 mm and 10 rainy days yearly, which has been going on for the last 10 years.<sup>59</sup> Continued siltation of Lake Lanao has seriously affected the volume of water that the lake can store affecting not only power generation but more significantly, the livelihood of the Maranao. The number of fish species of Cyprinidae endemic to the lake has significantly reduced, also adversely impinging on livelihood<sup>60</sup>. Similarly, stakeholders from the Chico River Basin have stated that there will be less irrigated area and less food production particularly rice five years from now should the issue of continued resource degradation be ignored.

By developing a sequential well-rationalized and participatory planning process, the Project is designed to reach vulnerable groups and create the possibility for their participation to be institutionalized in *barangay* and municipal development planning. The participatory planning process will ensure that local priorities will reflect the constraints of the poor as identified by them. Improved quality of life can be attained through access to social capital, services, and organizations. Adherence to ADB safeguard policies will doubly guarantee social inclusion and inclusive development, preventing and/or mitigating any possibilities of negative impacts.

## 2. Design Features

The Project is classified as a geographically targeted project largely based on the location of the Project sites within the poorest provinces and municipalities in the country: (i) Chico River Basin in the Cordillera Administrative Region; (ii) Wahig-Inabanga River Basin in Bohol (Region 7); (iii) Upper Bukidnon River Basin in Bukidnon (Region 10); and (iv) Lanao Lake River Basin in Lanao del Sur (Autonomous Region of Muslim Mindanao or ARMM) thus covering four regions, nine provinces, 81 municipalities, and 1,332 *barangays*.

The Project impact will be improved livelihoods in the URBs through effective provision of ecosystem and biodiversity services. Rural livelihood improvements in the URBs in the Philippines will be sustained by increased incentives to upland communities and indigenous peoples, improved LGU management capacities and private sector participation to stabilize and/or increase beneficiary access to ecosystem services and through improved land-use and natural resource management efficiencies.

**Project strategy.** The proposed implementation period will be seven years as the Project follows participatory and chronological or sequential process approach in the three components anchored on stakeholder preparation and capacity building that weld scientific and local knowledge. It also involves policy adjustments, resource assessment and management planning. The field investments phase will tackle rehabilitation, protection and management of protected areas, other conservation areas and forest-based sustainable livelihoods and rural infrastructure rehabilitation, and improvements, as well as livelihood support for the poor as dictated by the land use plans. Proposed interventions under the Project will be area-based with active support of local communities and organizations, including the concerned local government units. The Department of Environment and Natural Resources and its regional and provincial offices will provide over all guidance, technical support, supervision and monitoring. Stakeholder participation and consultation will be an integral part of the design of each subproject to be taken up during implementation.

## II. SOCIAL ANALYSIS AND STRATEGY

### A. Findings of Social Analysis: Key Issues

Key issues among the poor and vulnerable groups in the Project areas are: a) inability to maximize value/income from URB resources due to poor rural infrastructure, low agricultural productivity, poor access to markets, poor access to credit, under-pricing of URB resources, and lack appreciation on externalities associated with resource use; and b) low absorptive capacities for low household incomes/production, poor access to basic services, low empowerment to exercise civil/ political and economic rights, low awareness level on conservation practices, and lack of incentives to protect public goods. These lead to inappropriate conversion of forests to other uses, thereby diminishing environmental amenities and increasing migration to URBs; over-harvesting/ extraction of URB resources; indiscriminate use of harmful chemicals; dumping of industrial, mining, agricultural and domestic waste; introduction of invasive species; and inappropriate crops/farming systems that destroy habitats or reduce value of environmental services.

These key issues give rise to the core problem of natural resources degradation in URBs. Specifically, the core problem includes: (i) increased poverty, (ii) breakdown of norms and indigenous knowledge systems, (iii) resource-use competition, (iv) reduced agricultural productivity, service areas and food security; and (v) climate change vulnerability of communities.

### B. Consultation and Participation

1. Summary of the consultation and participation process during the project preparation.

Multistakeholder Consultations were conducted for Luzon, Visayas, and Mindanao (February 2009) among institutional stakeholders that included Department of Environment and Natural Resources, Department of Agriculture, National Commission on Indigenous People, National Water Resources Board, National Irrigation Administration, Department of Agrarian Reform, Local Government Units, financial institutions, National Power Corporation, Private Sector/Investors, Civil Society, and Water District offices -- all of these enabled the identification of URB localized stakeholders. The consultations further resulted in generating stakeholder perceptions as regards the various interests of all identified stakeholders within URBs, power dynamics and strengths and weaknesses of concerned government institutions.

From March to May 2009, village level consultations were undertaken across URBs with sample villages representing upstream, midstream and downstream sections of each river basin. Entry to villages was facilitated through multistakeholder consultations at the provincial and municipal levels. At the village level, focus group discussions and key informant interviews were utilized. Available secondary data were similarly collected across levels. Protocols were observed, especially in regard to consultations with IPs; the National Commission on Indigenous People (NCIP) coordinated all IP consultations.

<sup>59</sup> Pipalawan Naga. Save Lake Lanao Movement. 2008.

<sup>60</sup> *Ibid.*

2. What level of consultation and participation (C&P) is envisaged during the project implementation and monitoring?

☐ Information sharing ☐ Consultation ☒ Collaborative decision making ☒ Empowerment

3. Was a C&P plan prepared? ☒ Yes ☐ No

If a C&P plan was prepared, describe key features and resources provided to implement the plan (including budget, consultant input, etc.). If no, explain why.

The C&P is designed in a manner that specific plans are prepared for various stakeholder groups identified to be most vulnerable with the prevailing power dynamics at different interactive planes, in particular, women, IPs and ethnic minorities—the Muslims of Mindanao.

## C. Gender and Development

### 1. Key Issues

Household and community levels of interaction reflect strengths in the assertion of women in natural resources management especially marketing, credit, and household reproductive activities. Brought to a higher level, manifest interaction appears to be subdued and women largely become silent spectators to planning and decision-making specifically in regard to land use planning activities. Another key gender issue is the minimal and unsatisfactory access to social and financing services.

### 2. Key Actions

In its design, the Project ensures stakeholder participation and consultation across all components at implementation. The design and monitoring framework further includes a key performance indicator in terms of access to services specifically decreased transactional costs brought about by rural infrastructure rehabilitation and increased investments in river basins as a result of rationalized and harmonized planning. These issues are addressed and incorporated in the Gender Action Plan as well as the C&P Plan where women are identified as one of the critical groups for capacity building and increased awareness to environment and natural resource management. Information, education and communication and technical extension, training and consultation modules will be designed during implementation.

☒ Gender plan ☐ Other actions/measures ☐ No action/measure

### III. SOCIAL SAFEGUARD ISSUES AND OTHER SOCIAL RISKS

Issue	Significant/Limited/No Impact	Strategy to Address Issue	Plan or Other Measures Included in Design
<b>Involuntary Resettlement</b>	Involuntary resettlement <i>in the form of economic displacement and not physical</i> , will occur with the zoning and the subsequent restriction to hitherto accessible privately held, or ancestral, and/or communal properties of the local people, particularly IPs. This will have impact on their sources of food and livelihood. An RF to guide the preparation of resettlement plans for project affected people has been prepared for review and approval by ADB, consistent relevant laws and legal procedures and the new ADB SPS.		<input type="checkbox"/> Full plan <input type="checkbox"/> Short plan <input checked="" type="checkbox"/> Resettlement framework <input type="checkbox"/> No action
<b>Indigenous peoples</b>	75% of the potential beneficiaries in the four URBs are IPs and ethnic minorities (EM) hence safeguarding their rights and interests is a basic principle of the Project consistent with local laws and legal procedures, e.g. the Indigenous Peoples Rights Act (IPRA) and the NCIP guidelines on Free and Prior Informed Consent or (FPIC) and ADB's SPS. For this purpose, an IPDF, which will guide the preparation of IPDP, as warranted, has been prepared for review and approval by ADB and IFAD.		<input type="checkbox"/> Plan <input type="checkbox"/> Other action <input checked="" type="checkbox"/> Indigenous peoples framework <input type="checkbox"/> No action
<b>Labor</b> <input checked="" type="checkbox"/> Employment opportunities <input type="checkbox"/> Labor retrenchment <input type="checkbox"/> Core labor standards)	Employment opportunities generated by the Project will benefit IPs and other vulnerable households within URBs, to be monitored accordingly.	Strategies concerning labor are incorporated in RF, IPDF and GAP.	<input type="checkbox"/> Plan <input checked="" type="checkbox"/> Other action <input type="checkbox"/> No action
<b>Affordability</b>	Selection of subprojects ensures that these are all within the investment plans and priorities of the participating unit.		<input type="checkbox"/> Action <input checked="" type="checkbox"/> No action
<b>Other risks and/or vulnerabilities</b> HiV/Aids, Human trafficking, Others (conflict, political instability, etc.)	Not applicable		<input type="checkbox"/> Plan <input type="checkbox"/> Other action <input checked="" type="checkbox"/> No action

### IV. MONITORING AND EVALUATION

Are social indicators included in the design and monitoring framework to facilitate monitoring of social development activities and/or social impacts during project implementation? ☒ Yes ☐ No

## Annex 11: Summary Resettlement Framework<sup>61</sup>

### A. Background

1. Based on the assessment of sample subprojects, involuntary resettlement will occur with the zoning and the subsequent restriction to hitherto accessible privately held, or ancestral, and/or communal properties of the local people, particularly IPs. This will have impact on their sources of food and livelihood.

### B. Resettlement Policy Principles and Safeguard Procedures

2. **Objectives of Resettlement Framework.** A Resettlement Framework (RF) is intended to guide the preparation of resettlement plans for project affected people, consistent with relevant laws and legal procedures and ADB's Resettlement Policy (see Operational Manual Section F2, 25 September 2006). The RF is anchored on the following objectives (i) to avoid involuntary resettlement wherever possible, (ii) to minimize involuntary resettlement by exploring project and design alternatives, (iii) to improve, or at least restore, the livelihoods of all affected people to pre-project levels, (iv) to improve the standards of living of poor and vulnerable affected people, (v) existing social and cultural institutions of APs should be supported and used to the greatest extent possible; (vi) lack of legal rights to assets lost or adversely affected will not prevent APs from entitlement to compensation and rehabilitation measures; (vii) particular attention must be paid to the needs of the poorest APs and other vulnerable groups; (viii) gender concerns should be incorporated in all stages; and (ix) involuntary resettlement should be conceived and executed as part of the Project.

3. **Entitlement Principles.** The Project will avoid subprojects that may result to involuntary resettlement. Individuals or households deemed to be adversely affected as a result of Subproject implementation shall be entitled to full compensation or rehabilitation for losses. Accordingly a RP will be prepared and shall take into account the following considerations for eligibility for compensation; (i) recognize landowners considered legal or with proof of acceptable ownership, and those without proof such as users of arable land, and lessees; (ii) consider APs with structures; whether owned or rented; (iii) determine indicators of severity of impact using ADB Guidelines as reference; and (iv) develop compensation per category of affected asset per claimant. An Entitlement Matrix developed and detailed in the RP will also be used as guide.

4. **Indigenous Peoples affected by the Project.** IPs who will be affected by the Project will be extended special attention. This section of the RF is closely linked with the IP Development Framework. The Project encourages IPs to voluntarily solicit and initiate a subproject. All transactions will be through the National Commission on Indigenous People using the *Free and Prior Informed Consent (FPIC) Guidelines of 2006*. All actions and decisions pertaining to land acquisition will refer to results of the FPIC and the Memorandum of Agreement.

### C. Implementation Arrangements

5. Since any adverse impacts related to resettlement are community-driven, RP validation and implementation will be lodged at the Municipal and Provincial local government units (LGUs). The National Project Coordination Office, in collaboration with the Regional level Project Coordination Group will act as oversight of involuntary resettlement-related activities. All documents prepared under the RF will be submitted to ADB through the National Project Coordination Office for review and final approval prior to any detailed appraisal and approval of the subprojects.

### D. Development of a Resettlement Plan

6. **RP Scope and Formulation.** A RP is imperative for subprojects where involuntary resettlement impacts are identified. It shall cover (i) identification of potentially affected persons; (ii) identification of kinds and extent of impacts on land and other physical assets, non-land assets, livelihoods, and community assets, including infrastructure, common property, and resources; (iii) mechanisms for deciding on compensation based on the principles of replacement cost of land and non-land assets, relocation and transition assistance, compensation for lost business and livelihoods, reestablishment of business and livelihoods, assistance for starting new livelihoods, and assistance to rebuild social capital, social services, common property resources, and infrastructure; (iv) processes for communication; (v) procedures for valuation of land and other assets; (vi) negotiation processes for sale and compensation; (vii) documentation of processes; (viii) monitoring of the process through the Municipal LGU implementing team and the Project social development specialist; (ix) generation

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<sup>61</sup> See WP 15 for details.

and implementation of a communication plan to inform, both initially and on a continuous basis, potential affected persons of the possible project impacts and their rights and responsibilities in relation to compensation; and (x) grievance redress mechanisms made available to the community to convey to the Municipal LGU related complaints and concerns, addressing each in a manner that is transparent and equitable, recording in detail all complaints and the actions taken.

7. The RP identifies and addresses any adverse social and economic impacts of subprojects.

8. **RP Entitlements.** The settlement of claims for compensation of AP lost assets will be provided. Determination of compensation and entitlements will be based on the legal framework and principles of the RP. An Entitlement Matrix is prepared to consider asset (land, residential/commercial, crops/trees, structures, utilities, and employment) and impact types on a range of APs with corresponding allowable entitlements.

9. **Grievance Redress Procedures.** Grievances related to any aspect of the project or subproject will be handled through negotiations aimed at achieving consensus following procedures. Complaints received in writing (or written when received verbally) from the APs will be documented and shall be acted upon immediately according to procedures (See Supplementary Annex for details).

10. **Grievance Procedures for IPs.** For IPs, a grievance redress mechanism shall be formulated acceptable to them, rooted on their customary laws and indigenous knowledge systems and practices. Conflicts within the affected IP community within their AD will be addressed within the community itself in the context of its customary law and customary dispute resolution process and mechanisms, in the presence of the relevant staff of the National Commission on Indigenous People office with jurisdiction over the area. *At their choosing, IPs may avail of the grievance procedure and mechanisms spelled out in Section 47 of The Free and Prior Informed Consent (FPIC) Guidelines of 2006 for complaints regarding the Memorandum of Agreement.*

#### **E. Communications and Submission Processes**

11. As per ADB *Public Communications Policy* (2005), all documents pertaining to the Resettlement Policy and the RF for all subprojects will be for public disclosure. A communications plan for the RF and individual subproject-related documents will be developed with preference for local and popularized media.

## ANNEX 12: SUMMARY IP DEVELOPMENT FRAMEWORK<sup>62</sup>

### A. Introduction

1. The total indigenous peoples (IPs) population in the Philippines is about 12 million. The Project will target a total population estimated at 1.62 million, of which 75% are IPs<sup>63</sup>. The Indigenous Peoples Rights Act of 1997 (IPRA) maintain that IPs have the right to develop lands and natural resources within ancestral domains (AD) and the right to manage and develop ADs.

2. The Project will benefit participating IP households through the development of rural infrastructure that provides equitable access to markets, support services, and investment sources. It will facilitate linkages with private investment, enabling creation of jobs through reforestation, rehabilitation, sustainable livelihood and payment for environmental services (PES). IPs will further benefit through the formulation/enhancement of their ADSDPPs, aimed at rationalized and harmonized landuse planning for investments. The Project will likewise ensure IP mandatory representation to various planning bodies, and uphold their indigenous knowledge systems and practices and customary laws in the management of natural resources.

3. This IP Development Framework (IPDF) was prepared in a fully participatory manner with IPs, and in close coordination and consultation with the National Commission on Indigenous People (NCIP), the national agency tasked to protect and promote the interest and wellbeing of Indigenous Cultural Communities (ICCs)/IPs, balanced with precepts from the Asian Development Bank (ADB) Policy and Operations Manual on Indigenous Peoples (2006) and IPRA. Social assessment was conducted in accordance with the ADB Handbook on Social Analysis: A Working Document (2007)

### B. Rationale for an Indigenous Peoples Development Framework (IPDF)

4. The main objective of the IPDF is to ensure social inclusion for IPs located within Project areas. This IPDF safeguards the rights of IPs to receive culturally appropriate benefits from the Project. It will safeguard the following: (i) ensure respect for IP dignity, human rights, and cultural uniqueness; and (ii) operate in line with an IPDF and initial social assessment for the Project through appropriate consultation processes and procedures embodied in IPRA as stipulated in the NCIP Free and Prior Informed Consent (FPIC) Guidelines of 2006. Project initiatives should be compatible in substance and structure with affected peoples' culture and social and economic institutions, and commensurate with needs, aspirations, and legitimate demands of affected people. INREMP initiatives are designed, planned, and implemented with informed consent of affected communities through the involvement of and proper coordination with the NCIP and IP Provincial Consultative Bodies (PCB).

### C. Indigenous Peoples Development Framework

5. **Principles.** It is essential that the Project provides due consideration to social, cultural, and environmental contexts prevailing in INREMP areas with respect to traditional, legal, and evolving concerns among IPs within various Project sites. It must operate within a framework that provides for maximum participation to ensure success and sustainability: (i) Recognition of IP rights to their ADs by creating enabling mechanisms that will allow them to enjoy and enforce these rights; (ii) Creation of possible opportunities for IPs to participate in decision-making processes that affect their lives, specifically territorial management of resources within ADs; (iii) Formulation/enhancement and promotion of culturally appropriate and environmentally sound investments as expressed by ICCs in ADSDPPs and integrated into the Indigenous Peoples Development Plan (IPDP); and (iv) Formation and institutionalization of productive partnerships between private sector, LGUs and other appropriate entities.

6. **Salient Features of the IPDP.** Table 1 provides the summary Components of the Project's IPDP that will be developed for all project areas with indigenous peoples upon commencement of INREMP.

7. **INREMP IP Arrangements.** Project management arrangements are safeguarded (i) through NCIP and IP community representation at appropriate levels of implementation; (ii) ensure culturally appropriate development of criteria for subproject selection and appraisal and the Project Performance-Based Grant System (PBGS), if applicable; (iii) provide guidance in the application and

<sup>62</sup> See WP 16 for details.

<sup>63</sup> Major IP groups are, from CAR - Kanakan-ey, Applai, Bontok, Kalinga, Ifugao, Isneg, and Tingguian; Bohol – Eskaya; Muleta-Manupali – Higaonon and Talaandig; Lake Lanao – Higaonon, Kolibugan, and Iranon.

processing of community-initiated FPIC requirements and ADS DPP formulation/enhancement; ensure IP inclusion to Project capacity building activities, as appropriate, and proactively participate in conflict management/resolution activities with regard to IP issues and concerns.

**Table 1: Components of the INREMP IPDP**

Activity <sup>64</sup>	Participating Entity					Schedule
	National	Regional	Provincial	Municipal	Barangay	
1. Consultations	NPCO & multi-agency	DENR & NCIP-ROs,	PPSO, NCIP-PSO, PCB, &	NCIP Service Centers,	Bgy. Tribal leaders/	Across stages of project cycle Project onset
2. Securing Certificates of Precondition	TWG (includes for NCIP-CO)	LGUs & other NGAs	LGU-province	Mun/Bgy Tribal leaders/ IPOs & LGU	Council of Elders, LGU-barangay	
3. Conduct of Social Assessment in Identified Project Sites						
4. Capacity building & IEC: IP rights, Indigenous Knowledge Systems and Practices (IKSP), policy formulation, Reforestation, ANR, Agroforestry, protection, conservation farming						
5. Preparation of Site-Specific and Detailed IPDPs with respect to ADS DPPs/IKSPs						
6. Formulation/enhancement of ADS DPPs: Harmonization/ complementation of ADS DPPs with other plans; and Marketing investment plans & SP Feasibility preparation						Bridge with assessment
7. Grievance Mechanism and Conflict Management						Across stages of project cycle
8. Public Disclosure						
9. Monitoring and Evaluation						

8. Budgetary allocations in support of specific activities promoting IP participation to INREMP are presented in Table 2.

**Table 2: Budget for activities in support of Indigenous Peoples**

Budget Item <sup>65</sup>	Amount (\$) <sup>66</sup>
National Consultant for Social Development at National Project Coordination Office (24 person-months)	96,000.00
Five <sup>67</sup> IP Specialists at River Basin Level (120 person-months)	375,000.00
Five <sup>c</sup> Participation/Gender Specialists/Facilitators at River Basin (96 person-months)	300,000.00
Social Assessment, FPIC, & IPDP	265,957.00
Internal & external Monitoring	Built-in Project M&E
Capacity Building:	160,510.00
1. DENR, LGU, NGA & Private Sector on Sensitivity to Indigenous Peoples Culture	
2. NCIP and Indigenous Peoples on IP Enabling mechanisms: IPRA, ADS DPP, & FPIC	
3. IP/ICC on Rehabilitation, Reforestation, ANR, & Agroforestry/conservation farming	
4. Institutional support to NCIP (Equipment for GIS and IT interconnectivity)	
5. Capacitating IP Organizations	
Support to ADS DPP Formulation/Enhancement	1,755,150.00
<b>TOTAL</b>	<b>2,952,617.00</b>

<sup>64</sup> Details are provided in the IP Development Framework.

<sup>65</sup> Indicative figures. Detailed budget to be prepared during INREMP development planning stage.

<sup>66</sup> Conversion: \$1 = PhP 47

<sup>67</sup> 2 for Chico: 1 for Mt. Province and Ifugao and 1 for Kalinga, Apayao, and Cagayan

## Annex 13: Conceptual Framework of Performance Based Grant System

### I. Rationale

1. Management of the river basin, which is the natural geographic boundary for surface water resources, requires the cooperation, participation and collaborative management by all entities with jurisdiction over the area. It requires the participation in the preparation of and adherence to the management plan for that river basin by all the local government units (LGUs) and agencies in it. While a river basin or watershed can fall within a single province, it almost always covers more than two (2) municipalities. It is therefore important for the successful management of the river basin or watershed to get the commitment and actions of all concerned LGUs in line with a unified river basin management plan.

2. The Performance-Based Incentive Policy (PBIP) is an incentive framework to rationalize National Government (NG) intergovernmental fiscal transfers to LGUs towards improving overall LGU performance in governance. The mechanism on how to implement the policy is the Performance-Based Grant System (PBGS). PBGS provides capacity building or capital grants for improved performance of an LGU in certain key areas of over-all governance. Performance is measured based on a predetermined and agreed indicator(s).

3. Under the PBIP, participating LGUs would be encouraged to undertake reforms in key governance areas of *planning, budgeting, revenue mobilization, financial management and budget execution, procurement, and resource mobilization* to enhance their institutional capacity and strengthen local governance and service delivery.

4. Current indicators include: planning; budgeting-own source revenues - actual vs. target; fiscal capacity and revenue mobilization - % increase in own source revenues; financial management and budget execution - Personnel Services/total expenditures; development expenditures/total expenditures or IRA; clean audit report or progress in addressing audit findings; procurement - compliance with E-Procurement Law, BAC composition and use of website; transparency and accountability - use of the LGPMS, submission of SIE to BLGF.

5. INREM can use the PBIP as the vehicle to encourage the concerned LGUs in the watersheds within the river basins to improve the management of their land and water resources. Incentive grants may be given to LGUs to enable them to properly plan for the management of their water resources; improve their natural resources management practices; and, sustain the conservation of the watersheds from revenues generated by the LGUs for the proper and legal use of natural resources.

6. The INREM-PBGS will be designed to encourage the LGUs within the INREM Project area to:

- (i) Join and collaborate with adjacent LGUs within the watershed to prepare a management plan following the INREM process (scientifically-based/supported and widely participatory);
- (ii) Take appropriate legislative and executive actions to implement the watershed management plan and continually improve it (CLUP, CDP-ELA, AIP, Zoning and/or business enterprise);
- (iii) Adopt measures to generate revenues for the conservation of the watershed from legal and proper use of natural resources within the watershed, such as payment for environmental services (PES), etc.

7. The Project Area comprises four river basins that are widely dispersed and have an aggregate area of over one million ha. These are: a) Chico River Basin in the Cordillera Administrative Region (CAR) with an area of about 450,000 ha (43%); b) Wahig-Inabanga in Bohol, 63,000 ha (6%); c) Upper Bukidnon River Basin in Bukidnon and including some portion in Misamis Oriental and Lanao del Norte, 396,000 ha (38%); and d) Lake Lanao River Basin in Lanao del Sur and in some parts of Lanao del Norte, 141,000 ha. The four river basins cover territories of 81 cities and municipalities in 9 provinces. Of the 6 cities, 3 are classified as 1<sup>st</sup> class, others are 3<sup>rd</sup>, 4<sup>th</sup> and 5<sup>th</sup>. The 75 municipalities are classified as follows: 4 – 1<sup>st</sup>; 4 – 2<sup>nd</sup>; 14 – 3<sup>rd</sup>; 29 – 4<sup>th</sup>; 18 – 5<sup>th</sup>; 6 – 6<sup>th</sup> class. Those classified as 4<sup>th</sup> to 6<sup>th</sup> compose 67.9% of municipalities/cities covering the 4 river basins. In terms of barangays in the river basin, 922 or 64.52% belong to the 4<sup>th</sup> to 6<sup>th</sup> class municipalities

## **II. Proposed INREM Performance-Based Grant**

8. Initially, the following performance areas are proposed:

- (i) Multi-LGU Watershed Management Planning. All LGUs in the watershed participating in the INREM assessment and planning activity can avail of this capacity building grant. They may be granted only if all the concerned LGUs within the specific watershed are participating at the level that may be prescribed to ensure completion of the INREM process for watershed management plan preparation. However, the LGU will have to apply for the grant to be entitled.
- (ii) Watershed Management Plan Implementation. Upon completion of the watershed land use and management plans, participating LGUs must adopt and implement them. Implementation of the watershed land use/management plan will involve modifying existing CLUP and CDP to be consistent with the INREM watershed land use plan or using the INREM watershed land use plan as the starting point of the preparation of the CLUP and CDP. The LGUs will have to show that they are ready to implement the plan by integrating the INREM watershed management plan in their CLUP, zoning, CDP-AIP and next year's budget. This grant may be a capacity building grant that can be used to fund activities in the management plan. An LGU may apply for this grant separately and independently, depending on how fast it is able to implement the watershed management plan. LGUs which did not avail of the grant for the Management Planning may avail of this grant as long as their watershed management plan is compliant with the INREM standards. The standards will be formulated during project implementation.
- (iii) Revenue Generation for Watershed Conservation. Participating LGUs may avail of this grant when they have legislated measures that will raise revenues from use of services or resources in watershed for its conservation. Such measures may include imposition of fees and charges for proper and legal use of natural resources and environmental services in the watershed (PES). Capital grant may be given for this performance area. An LGU which did not avail of the other grants may avail of this grant as long as it is compliant with the requirements that will be prescribed by the Project during implementation.
- (iv) Increased Revenues for Watershed Conservation. A capital or capacity building grant will be given to LGUs that actually increased or generated revenues from the ordinance on Revenue Generation for Watershed Conservation (in c.). The grant can be use to undertake activities in the approved watershed management plan. This grant will provide incentive to the lower class LGUs to generate from and for watershed conservation.

## **III. Steps to Implement INREM PBGS**

9. Implementation of the INREM PBGS. PBGS Implementation must be approved by the PBGS Technical Committee and Steering Committee (expanded MDFO-PBG) which is composed of different National Government and sectoral agencies.

10. The development of the mechanics or guidelines for implementation must include the following:

- (i) The designation of officers/technical staff from DENR and oversight agencies to develop and implement the INREM PBGS, with clearly defined responsibilities.
- (ii) Determination of the amounts of grants that will be allocated for each grant.
- (iii) Setting-up of parameters/indicators to measure performance.
- (iv) Determination of qualified LGUs;
- (v) Identification of target beneficiary LGUs.
- (vi) Development of procedures for evaluating status or gathering baseline data of the participating LGUs.
- (vii) Development of procedures for registering and availing of the grants.
- (viii) Formulation of criteria or guidelines for the verification and evaluation of claimed performance.
- (ix) Determination of the method of release and accounting/reporting on the utilization of the grant.
- (x) Development of procedures for the monitoring and evaluation of the implementation of the INREM PBG.



**POSSIBLE INDICATORS FOR THE PROPOSED INREM PERFORMANCE BASED GRANTS AND PROPOSED AMOUNT  
OF GRANTS**

No.	Incentive Grants	Indicator	Basis of Evaluation/verification
1.	Multi-LGU Watershed (WS) Management Planning; Amount of grant - P500,000 per city or Municipality; P1,000,000 for the lead province	Cluster of LGUs in the particular watershed entered into a MOA to undertake WS Management Planning	1. MOA - all LGUs in watershed. 2. Designation of officers/personnel authorized and responsible to participate in the WS planning. 3. Detailed plan or schedule of activities for undertaking the management planning. 4. Completed WS Management Plan
2.	Watershed Management Plan Implementation: Amount of grant - P 700,000 per Watershed Management plan implemented - per Municipality/City	WS Management Plan integrated/incorporated in the CLUP, CDP-AIP and zoning ordinances, if necessary for implementation.	1. Updated CLUP, CDP-AIP incorporating WS management plan 2. Approved watershed zoning ordinance 3. Activities in the WS management plan reflected in the approved LGU Budget 4. Activities accomplished within schedule as indicated in the management plan.
3.	Revenue Generation for Watershed Conservation: Amount of grant – P800,000 per Municipality/City	Ordinance adopting measure(s) to generate revenues for watershed conservation from watershed's environmental services (PES) or other sources.	1. Ordinance authorizing the collection of such revenues for watershed conservation. 2. Administrative issuance assigning personnel and specifying plan of activities to assess, collect and manage such revenues. 3. Setting up of local trust account and procedures for collection, management and utilization of the revenues generated.
4	Increased Revenues for Watershed Conservation: For municipalities/ cities; Amount of Grant will not be less than P500,000 or more than P1,500,000. Grant amount shall be equivalent to the increase in annual revenues from own sources due to the implementation of revenue generating measure which must be at least 10% of total own source revenues for the year.	Increase in total revenues attributable to adopted revenue generating measure(s) for watershed conservation as reflected the audited financial statements.	1. Audited financial statements reflecting such increase in own source revenues attributable to the revenue generating measure(s) adopted. 2. Appropriation ordinance appropriating the revenues for watershed conservation; or proof of compliance with the procedures prescribed for the use of such fund/revenue. 3. Program of activities that will be funded.