



Land Bank of the Philippines

**ENVIRONMENTAL AND SOCIAL MANAGEMENT FRAMEWORK
(ESMF)**

**Harnessing Agribusiness Opportunities through Robust and Vibrant
Entrepreneurship Supportive of Peaceful Transformation (HARVEST)**

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Acronyms

BIR	Bureau of Internal Revenue
CA	Commonwealth Act
DAO	Department Administrative Order
DENR	Department of Environment and Natural Resources
DP	Displaced Person
ESA	Environmental and Social Assessment
ESMF	Environmental and Social Management Framework
ESMP	Environmental and Social Management Plan
ESSC	Environmental and Social Screening Checklist
EA	Environmental Assessment
EIS	Environmental Impact Statement
EO	Executive Order
EMA	External Monitoring Agency
ESIA	Environmental and Social Impact Assessment
FPIC	Free and Prior Informed Consent
GOP	Government of the Philippines
HARVEST	Harnessing Agribusiness Opportunities through Robust and Vibrant Entrepreneurship Supportive of Peaceful Transformation
IRR	Implementing Rules and Regulations
ICC	Indigenous Cultural Community
IP	Indigenous People
IPPF	Indigenous Peoples Policy Framework
IPP	Indigenous People's Plan
JICA	Japan International Cooperation Agency
LAAR	Land Acquisition and Access to Resources
LBP	Land Bank of the Philippines
LRIC	LGU Resettlement Implementation Committee
LCE	Local Chief Executive
LGU	Local Government Unit
M&E	Monitoring & Evaluation
NCIP	National Commission of Indigenous Peoples
NGO	Non-Government Organization
OP	Operational Policy
OPG	Operating Policy Guidelines
PO	People's Organization
PhP	Philippine Peso
PCUP	Presidential Commission for the Urban Poor
PD	Presidential Decree
PMO	Project Management Office
RA	Republic Act
RAP	Resettlement Action Plan
RPF	Resettlement Policy Framework
ROW	Right-of-Way
WB	World Bank

Chapter 1: Environmental and Social Management Framework

1. Introduction

1.1 Project Overview

The proposed Harnessing Agribusiness Opportunities through Robust and Vibrant Entrepreneurship Supportive of Peaceful Transformation (HARVEST) is envisaged to be a lending facility for agribusiness and agribusiness-related investors in the Muslim Mindanao particularly the Autonomous Region in Muslim Mindanao (ARMM), including areas outside the region following the value chain concept. It will provide a line of credit to Land Bank of the Philippines (LBP) at a concessional rate to on-lend to eligible LBP sub-borrowers directly or through accredited conduits. The proposed project loan is US\$265 million. The project period is expected to be five years, with project closing in June 2021. The Project Development Objective (PDO) is to generate investment in agriculture and agri-business related activities to create jobs in the areas of the current Autonomous Region in Muslim Mindanao (ARMM) along with areas outside the region following the value chain concept. It has two components: (i) Investment Development Fund with cost estimated at US\$250 million; and (ii) Capacity Building and Institutional Development, Monitoring and Evaluation (M&E), US\$ 7 million grant.

Under Component 1, Investment Development Fund, HARVEST will provide a line of credit at a concessional rate and terms to eligible LBP sub-borrowers. Sub-loans would be demand-driven and made to sub-borrowers meeting a set of eligibility criteria provided in the project's Operating Policy Guidelines (OPG). Three main potential categories of LBP sub-borrowers are: (i) large agri-business enterprises; (ii) cooperatives and farmer organizations; and (iii) micro, small, and medium enterprises (MSME).

Under Component 2, Capacity Building and Institutional Development, Monitoring and Evaluation, is technical assistance to LBP from Japan International Cooperation Agency (JICA). This component would be executed by JICA in close coordination with LBP and World Bank (WB). The component would finance the following groups of activities: (i) capacity building of cooperatives, farmer organizations, and MSMEs that would include training needs assessment, establishing mechanisms for collaboration on technical training and market linkage; (ii) deepening outreach and access to financial services through outreach, knowledge management, and enhancement of marketing instruments, and (iii) support to LBP for project management and supervision, including environmental and social safeguards management and compliance.

1.2 General Objectives

The Environmental and Social Management Framework (ESMF) establishes the objectives, procedures, the institutional and implementation arrangements for the identification, screening, management, and monitoring of potential environmental and social impacts associated with the HARVEST Project. This ESMF was developed to ensure compliance with government rules and regulations, including LBP's rules and regulations, and WB and JICA safeguards policies. The objective of the ESMF is to ensure that activities under the proposed projects will:

- Protect human health and well-being;

- Prevent or compensate any loss of assets or access to livelihood;
- Protect the rights and welfare of the rural poor and marginalized sectors such as the indigenous peoples (IP) especially on their access to natural resources including land, fisheries, and forests;
- Avoid and minimize environmental degradation as a result of either individual subprojects or their cumulative effects;
- Minimize impacts on cultural properties; and
- Enhance positive environmental and social outcomes.

The ESMF examines the potential environmental and social issues and impacts of subprojects or series of subprojects, when these impacts cannot be determined until the sub-project details have been identified. The ESMF serves as an instrument to guide sub-borrowers and other stakeholders in ensuring that environmental and social impacts are identified and assessed and that appropriate mitigation, management, follow-up, and monitoring measures are incorporated and applied in implementation of the proposed subprojects and their activities. It also addresses mechanisms for public consultation, participation, and disclosure of project documents as well as for redress of possible grievances and management of project-related issues that may arise during implementation.

1.3 General Principles

Each project to be funded by HARVEST shall go through an environmental and social screening process, consistent with the laws of Philippine Government, policies of LBP, and the WB and JICA environmental and social safeguards policies. To ensure effective application of safeguards policies, the ESMF provides the principles, guidance, rules, and procedures to be taken to screen, assess, manage, and monitor the mitigation measures during implementation of HARVEST. HARVEST will adhere to the following principles:

- Promote peace and inclusive development in the ARMM and neighboring areas by ensuring that land tenurial arrangements for the different types of agribusiness investments proposed under the Project promote and safeguard tenure rights, especially of the rural poor, small holders, and indigenous peoples. The Project should thus consider promoting a range of production and investment models that do not result in the large-scale transfer of tenure rights to investors, and should encourage partnerships with local tenure right holders.
- In the event that land acquisition of any mode gives rise to displacements of people or loss of tenurial rights, a Resettlement Action Plan (RAP) shall be prepared and implemented as sustainable development programs, providing sufficient investment resources to enable displaced persons to share in project benefits. Displaced persons should be meaningfully consulted and should be assisted in their efforts to improve their livelihoods and living standards living or at least to restore them, in real terms, to pre-displacement levels.
- Ensure that the environment is conserved and that the impacts of the subprojects are avoided, minimized, and mitigated following industry and global best practices.
- Provide the basis for training and capacity building initiatives, which will be assessed and undertaken to ensure that all involved in the HARVEST Project are aware and possess adequate knowledge on these ESMF requirements. Employment shall be based on the principle of equal opportunities, on the basis of professional competence, irrespective of gender, ethnicity or religious affiliation. In all projects, which require consultations with

local communities or beneficiaries, consultations will be conducted to elicit the views of the male and female populations.

1.4 Use of this Framework

The ESMF is designed to ensure that adequate due diligence of subprojects are undertaken to avoid causing harm or exacerbating social tensions, and to make consistent the treatment of social and environmental issues by LBP. It shall guide LBP, particularly the Environmental Program Management Department (EPMD) and the Project Management Office (PMO) in screening all subprojects for their likely social and environmental impacts, identifying documentation and preparation requirements, setting out concrete plans to manage, monitor, and evaluate the safeguards compliance, and prioritizing investments. This ESMF provides specific instructions, process guidance, and methodologies for use by the LBP and its sub-borrowers under HARVEST.

The provisions of this ESMF are consistent with LBP's Corporate Environmental Policy and the WB and JICA environmental and social safeguard policies to support environmental protection and promote sustainable development, while mitigating credit risks arising from adverse environmental and social impacts on projects. This ESMF is organized into two main sections: (i) main text, summarizing the overall environmental and social safeguards procedures and arrangements including the Resettlement Policy Framework and Indigenous Policy Framework; and (ii) annexes, containing sample documents and technical guidelines on the preparation of environmental and social safeguards reports.

This ESMF is guided by the following policies:

- WB environmental and social safeguards policies, in particular on Environmental Assessment (OP 4.01), Pest Management (OP 4.09), Involuntary Resettlement (OP 4.12), Indigenous Peoples (OP 4.10) and possibly on Forest (OP 4.36), Natural Habitats (OP 4.04), and Physical Cultural Resources (OP 4.11);
- JICA's Guidelines for Environmental and Social Considerations (2010);
- LBP's Environmental Policy Relative to Credit Delivery (CPI 2009-002); Presidential Decree (PD) No. 1586 (EIS System, 1978);
- Department of Environment and Natural Resources (DENR) Administrative Order No. 2003-30: Implementing Rules and Regulations (IRR) for the Philippines EIS System (2003), Procedural Manual for DAO 2003-30, and EMB MC 2014-005 (amending relevant portions of MC 2007-002);
- The Indigenous Peoples Rights Act of 1997;
- Presidential Proclamation No. 2146 (Critical Projects/Areas), National Integrated Protected Areas System of 1992 (Republic Act 7586);
- Presidential Decree 705, or the Revised Forestry Code of the Philippines, Executive Order 23 (logging moratorium); Republic Act 8550 of 1998 and its amendment, Republic Act 10654 of 2015 or the Fisheries Code of the Philippines.

The ESMF shall provide a robust framework for grievance and redress mechanism. Consultation and disclosure requirements will be tailored to meet the specific needs of these operations. This ESMF will be disclosed in the LBP library and in the WB Info Shop.

1.5 Institutional Arrangements

The LBP is a government financial institution with the mandate of promoting countryside development. LBP supports the priority sector development particularly the farmers and fisherfolk, MSMEs, and activities such as livelihood and agribusiness development, agricultural and rural infrastructure, and other agricultural- and environment-related projects. Currently, LBP is the largest formal credit institution in the rural areas with its credit delivery system able to penetrate a substantial percentage of the country's total number of municipalities.

LBP adheres and actively promotes environmental protection and sustainable development by incorporating effective environmental management practices in all its agrarian and banking operations, services, and decisions. LBP adopted its corporate Environmental Policy and was awarded the ISO 14001 certification for its Environmental Management System (EMS). The commitment of LBP to sustainable development and environmental protection is further articulated in its Mission Statement expressing the institution's intention to use the best technology solutions to deliver responsive financial support services while promoting sustainable development and environmental protection.

LBP implements an Environmental Due Diligence (EDD) process for all projects that it finances, including the collaterals offered as security, pursuant to CPI 2009-02 (Revised Environmental Policy on Credit Delivery) (Please refer to Annex 3). The EDD system of LBP is based heavily on the Philippine Environmental Impacts Statement System (PEISS) particularly on project classification, coverage, and compliance requirements. The Environmental Compliance Certificate (ECC) issued by the DENR based on the review of the submitted Environmental Impact Statement (this could be in the form of an Environmental Impacts Assessment or Initial Environmental Review) is a pre-release condition of the loans and non-compliance with identified applicable environmental laws and regulations is considered as a condition for default.

The LBP has been the designated financial intermediary of various projects by the World Bank and JICA and has a good level of understanding of the environmental and social safeguards requirements of the two institutions. For example, LBP's capacity in implementing social and environment safeguards was assessed to be satisfactory in the implementation of two WB-supported projects – the Water Districts Development Project (WDDP) and the Support for Strategic Local Development Investment Project (SSLDIP).

As the financial intermediary for HARVEST, LBP will implement the project in accordance with Loan Agreement and the Operating Policy Guidelines for the project. LBP shall ensure compliance with the environmental laws and regulations of the Philippine Government and the environmental and social safeguards policies of the WB and JICA using the guidelines of an Environmental and Social Management Framework (ESMF). As such, LBP takes the lead in designing, developing, and administering this ESMF and accompanying frameworks on resettlement and indigenous peoples, with the guidance from WB and JICA, including sub-project screening, protocols and provisions for M&E, audits, training and capacity building on safeguards targeting specific stakeholders, and general oversight.

As the loans for investment financing are channeled to the sub-borrowers through the LBP, LBP requires subprojects to comply with the prevailing environmental and social laws. The

sub-borrower will then have to carry out the necessary safeguards requirements under the ESMF to obtain the environmental and social clearances for each individual sub-project before commencing any activities. Sound environmental and social practices shall be incorporated into the sub-project design and implementation, and potential negative impacts will have to be mitigated to acceptable levels or standards. The sub-borrower is responsible for the quality and accuracy of the information in the environmental and social assessments, as well as the transmission of the safeguards documents and carrying out the process, i.e. inter-agency coordination, scoping, public hearings, document review, and general oversight.

The Environmental Program and Management Department (EPMD) of LBP carries out the environmental due diligence process. The EPMD undertakes environmental and social assessments, performance monitoring and audits as well as environmental compliance of projects based on identified and assessed environmental and social risks. Unlike its practice on environmental safeguards, LBP develops and establishes social safeguards policy and guidelines when required by partner donor agencies, such as WB and JICA. The task of managing social safeguards will be added to the functions of the EPMD when required.

A PMO shall be established within the LBP and will include the environmental and social expertise to guide and provide sub-borrowers with the necessary assistance in carrying out the environmental and social assessments and other safeguards instruments and attaining compliance to the environmental and social safeguards requirements of the ESMF, resettlement and indigenous peoples frameworks, and current national and local policy requirements. The PMO will be supported by technical experts financed through a portion of the JICA grant under Component 2 for the management and implementation of the project. A part of the JICA grant fund would strengthen the capacity of LBP PMO for the effective and efficient implementation of the project, and the remaining portion of the JICA grant will provide funding to support the capacity building and other activities under Component 2. The JICA grant-funded experts would work under the supervision of the LBP. The PMO shall be responsible for: (i) safeguards screening and categorization of proposed projects, (ii) building the capacity of the lending centers on safeguards, (iii) monitoring the progress of the project, (iv) identifying issues and engaging in problem-solving with necessary parties, (v) preparing financial reports, (vi) establishing a database or processes to capture the results and impacts of the subprojects assisted by the project, (vii) maintaining regular reports agreed with JICA and WB, and (viii) preparing progress and monitoring reports as required by the relevant national agencies or by Loan Agreements.

The LBP Lending Centers will undertake first level project screening and directly supervise and monitor disbursements of the subprojects.

Large agri-business enterprises, cooperatives, associations and anchor firms, and MSMEs, as the recipients of the sub-loans, shall be responsible for the implementation of their subprojects, including their compliance to the environmental and social safeguards requirements.

World Bank and JICA as part of project supervision will conduct implementation coordination meetings to review the status of implementation of the project, including safeguards on a semi-annual schedule during the 6-year implementation period of program. World Bank and

JICA shall advise and support the LBP and the PMO in carrying out their safeguard responsibilities. Within the WB and JICA, operations and safeguards specialists will provide information to the PMO and ascertain whether policy requirements have been met. World Bank and JICA will also conduct a review on a number of environmental and social safeguards documents.

Other agencies and organizations (relevant to environmental and social safeguards)

Department of Environment and Natural Resources: Administers the PEISS and issues ECC that are mandatory for most projects. The DENR is also the agency with primary mandate of developing and implementing policies on the protection, conservation and rehabilitation of natural resources and the enforcement of environmental quality regulations. Subprojects shall also be screened for their compliance to PEISS and other relevant environmental and natural resources policies.

Department of Agriculture (DA): Implements and develops national government's programs and policies on agriculture and fisheries. It provides technical training, service facilities, and other financial support. The DA also gives guidance and technical assistance on integrated pest management, soil and water conservation, climate smart agriculture, irrigation and other agricultural infrastructure.

Department of Agrarian Reform: Provides assistance in identifying potential Agrarian Reform Communities as potential contributors of land for the agri-business ventures, and developing into cooperatives and associations, including the extension of technical assistance to such communities through the DA.

National Commission for Indigenous Peoples (NCIP): Implements policies and programs on and for the indigenous peoples including issuances of legal recognition to ancestral domains.

Local government units (LGU): Provision and delivery of basic services, including devolved functions for environmental conservation and enhancements and agricultural productivity.

Further discussions on the roles and procedures in carrying out the ESMF will be discussed in the succeeding portions of this document.

2. Environmental and Social Safeguards Issues

The ESMF shall guide the sub-borrowers in ensuring that the subprojects are environmentally and socially sustainable and the anticipated adverse environmental and social impacts are avoided, minimized and mitigated. The ESMF shall also guide the sub-borrowers in demonstrating effective compliance with relevant government rules and regulations, including LBP's rules and regulations, as well as WB and JICA safeguards policies.

2.1 Prevailing Environmental and Social Conditions

Geography

The ARMM shares many similar physical and environmental characteristics as that in Mindanao and the country. The region is endowed with rich natural resources characterized by river basins, wetlands, and forestlands, production areas, settlements and coastal and

marine areas. Terrestrial and marine biodiversity in the region is still considered rich although there are habitats that are threatened by exploitation and degradation due to various activities including minerals extraction and timber harvesting. Within the region there are declared (local, national, and internationally-recognized) conservation and protected areas. The ARMM is located in the southwestern part of the Philippines and consists of five predominantly Muslim provinces.

River basins and wetlands

An important geographic feature of the ARMM is the river basins that encompass the area. The mainland provinces of the ARMM are located within the Mindanao River Basin and the Agus River Basin, two of the major rivers basins in the country that cover four (4) regions in Central and Southern Mindanao, including the ARMM area. The river basins are the catchment areas of several river systems in region. Another feature of the region and associated with the Mindanao River Basin is the expansive wetlands such as marshes, swamps, lakes, and riparian areas. A notable wetland in the region is the Ligawasan Marsh composed of three marshlands: Ligawasan, Libungan, and Ebpanan Marshes, which have a combined area of approximately 285,000 hectares. The marsh is rich in biodiversity and plays a central role in the livelihood of the communities around the area and serve as retarding basin during heavy rainfall. There are also other important aquatic ecosystems such as lakes located in the region including Lake Lanao and Lake Buluan, which are noted to be among the biggest lakes in the country).

Forestland and protected areas

Approximately half of the total land area of the ARMM is considered forestland. As an approximation of the region, the 2012 Forestry Statistics from the Forest Management Bureau (FMB) estimates that of the 1,293,552 hectares land area of the ARMM, 51% or 665,151 hectares are classified as forestland. The overall forest cover, as percentage of the forestland, has increased from 27% in 2003 to 48% in 2010, attributed to the expansion of closed forest, mangroves and plantations. Areas set-aside for conservation and protection such as protected areas and watershed reserves total 192,491 hectares. The aggregate area subjected to various management instruments is 257,406 hectares or approximately 39% of the total forestland. The remaining 61% of the forestland are “open access” that can be potentially exploited or misused. There are ten (10) protected areas in the region with specific legal declarations and totaling approximately 184,000 hectares.

Marine and coastal environment

The ARMM has approximately 3,232 km of coastline and around 18,420 hectares of ocean waters representing 8% of the country's territorial waters. The Sulu Sea is part of the Sulu-Sulawesi (Celebes) marine ecoregion and is the most prominent marine ecosystem in the region. This large marine ecosystem is one of the most diverse and productive in the world and was recently recognized as a marine biodiversity hotspot for the variety of habitats it supports, from reefs to the mangroves. The coral reefs found in the Sulu Sulawesi marine ecoregion are considered to be in better condition than the rest of the coral reefs in the country. Another important marine ecosystem in the region are those characterized by seagrasses, with the Philippines ranked as having second highest seagrass diversity in the world. The Turtle Islands in Tawi-Tawi is one of the first transboundary marine protected area covering Malaysia and the Philippines. The coastal and marine resources within the territorial waters of the region account for one of the highest fisheries production in the

country contributing 18% to the national fisheries production. Seaweeds are another important fishery product accounting for the majority of the region's total fisheries production with the provinces of Sulu and Tawi-Tawi contributing 72% of the country's total seaweed production. There are a number of marine protected areas in the region made up of locally declared protected areas and sanctuaries and those with national policy or legislation due to their national importance. One of the important marine protected area in the region is the Turtle Islands Heritage Protected Area (TIHPA), the first trans-boundary protected area in the world spanning the waters of Malaysia and the Philippines. The TIHPA is a major nesting ground of the green sea turtle (*Chelonia mydas*) with over 2,000 nester turtles laying hundreds of thousands of eggs in the TIHPA each year. The entire municipality of the Turtle Islands was declared as the Turtle Islands Wildlife Sanctuary (TIWS), managed by the DENR-PAMB.

Biodiversity

There is a growing body of knowledge on the biodiversity status of the ARMM comparable to other areas of the country. Ten of the total 128 identified biodiversity rich areas known as Key Biodiversity Areas (KBAs) are found in the region and mostly classified as protected areas or watershed reservations. In the region, forty-four (44) species are identified as threatened including the Philippine eagle, Sulu hornbill, and hawksbill turtle. Threats to these species include land cover change, exploitation, and habitat destruction.

Climate

The projected seasonal changes in the climate of the region by the Philippine Atmospheric, Geophysical and Astronomical Services Administration (PAGASA) for 2020 and 2050 under medium-range emission scenario indicate that the ARMM region will have an average increase of 1.1 °C in surface temperature in 2020 and further 2.1 °C by 2050. In terms of precipitation, the region will receive more rainfall in the months of December to February and relatively drier in most parts of the year. Compared to other eastern regions in Mindanao, the ARMM is expected to experience fewer extreme events particularly number of days with precipitation over 300 mm. Other extreme events such as number of dry days and temperature over 35 °C reflect the average changes in the Mindanao Island.

Demographic and 'tri-people' context

One distinguishing feature of the communities in the region is its demography and tri-people context – with the population consisting of Moros or Muslims, lumads or indigenous peoples, and Christian settlers from Luzon and Visayas and has influenced the social structure and aggregation of communities. The region has for many years undergone tumultuous conflicts that have sustained poverty and resulted to instability. In 2010, ARMM registered a total population of 3,248,787. Muslims comprise the overwhelming majority in the region. Based on the combined databases of the Office of Southern Cultural Communities (OSCC) in ARMM and the NCIP in Basilan, the total population of indigenous people in ARMM in 2010 was 606,452 or 18.6% of the total population in the same year.

Economic and poverty context

In 2012, the region posted the highest poverty incidence among families across all regions in the country. As of first semester of 2012, poverty incidence is at 46.9 and subsistence incidence is at 20.4, which means that about 46.9% of every 100 families are poor, with their income incapable of providing the basic food requirements. Among the five provinces, Lanao

del Sur had the highest poverty incidence of 68.9, followed by Maguindanao at 57.8. Three of the five provinces had the lowest Human Development Index (HDI) across provinces in the whole country in 2009. Economic performance has been consistently lower in ARMM compared to the rest of Mindanao and the Philippines over the past decade. In 2012, ARMM's Gross Regional Domestic Product (GRDP) grew by only 1.2% compared to 7.4% in the Mindanao "growth areas" of Regions 10 and 11. The ARMM economy is predominantly agricultural in nature, with Agriculture, Fishery and Forestry (AFF) sector comprising 63.5 percent of GRDP over the period 2009-2012. The service sector constitutes the second largest proportion of GRDP ahead of industry as the third main driver of GRDP.

Conflict context

The conflict in the Bangsamoro region can be categorized into vertical and horizontal conflicts. Vertical conflict (state versus rebel groups) is primarily between the government and groups challenging the authority of the State (such as the MILF, MNLF, BIFF, etc). Horizontal conflicts arise from political elites competing for key electoral positions in the government or control over scarce resource in the area, inter-ethnic competition (IPs versus Moros, Maranaos versus Maguindanaoans), or inter-communal conflict (Christians versus Moros, MILF versus MNLF). Causes of conflicts are varied including the most common of which would be clan feud, political, land conflict, and religious.

Complex land issues

Land has been one of the major sources of conflicts in Mindanao. Conflicts are complicated by the existing institutional limitations of land management and land dispute resolution mechanisms. There are five government line agencies involved in issuing and managing titles. Vested interests across these agencies have stalled previous reform efforts. At the same time, a lack of coordination has increased the prevalence of conflict through the issuance of multiple title instruments on individual plots of land, in the process reducing the legitimacy of existing titles. Apart from the complexity and inefficiency of the Philippine land administration system, contributing to the land conflicts in Mindanao is the contrast of this statutory system with the traditional or customary land ownership concepts and land use practices of the Moros and indigenous people in Mindanao.

2.2 Environmental and social risks and potential impacts

The Environmental and Social Assessment and the initial scoping undertaken for HARVEST identified potential environmental and social risks and impacts. The environmental risks and potential impacts of agribusinesses vary according to the types of subprojects, practices and the absorbing capacity of the environment. The identification and assessment of potential environmental impacts cover activities such as farming and production systems (preparation and management), post-production processing including extraction and purification, and agribusiness support facilities. On the other hand, social risks and potential impacts of especially large agribusinesses are caused by three main factors: (i) problematic land administration system resulting into insecure land tenure and many land conflicts; (ii) remote location of many poor people, especially the IPs; and (iii) lack or inadequate access to basic services, including education.

The environmental risks and potential impacts from farming and production systems, post-production processing, and agribusiness support facilities include:

- Forest/land conversion and loss of natural habitats and biodiversity;

- Overfishing and loss of marine resources;
- Soil degradation and erosion;
- Lower water availability due to irrigation needs;
- Degraded water quality from application of fertilizers, pesticides, and other agrochemicals and processing facilities;
- Liquid and solid waste, and
- Health impacts from exposure to agrochemicals and other pollutants.

Identified social risks and potential impacts are:

- Displacement of indigenous people,
- Infringement of tenure rights and involuntary resettlement given the need for land of large agribusiness,
- Increase in land conflicts relating to land tenure,
- Insignificant economic improvement due to low wage rate and land rent,
- Less participation and benefit of women and other vulnerable people, and
- Further disempowerment of the poor if without an effective system for receiving and redressing grievances from the communities.

Positive social impacts identified are:

- Generated jobs and increased economic opportunities in poor communities,
- Restored productivity of lands abandoned because of armed conflicts,
- Enhanced confidence in farming due to improved farming technology and sure market introduced by large agri-business companies, and
- Added social services provided to host communities.

Environmental risks and potential impacts

Forest/land conversion and loss of natural habitats and biodiversity

Agriculture plantations compete with natural habitats such as forests and other terrestrial ecosystems. The establishment of plantations drives the land use change from natural ecosystems to agricultural production. This land use change and the corresponding forest loss and fragmentation of natural habitats are identified as key environmental issues brought about by agricultural expansion and intensification. Establishment of downstream processing facilities such as palm oil mills in Malabang (Lanao del Sur) and in Carmen (North Cotabato) has spurred the development of palm oil plantations in these provinces. Some types of sourcing arrangements between palm oil companies and landowners can promote further conversion of forestlands, resulting in further loss of natural habitat and biodiversity. Several KBAs in the ARMM are currently already under stress (Ligawasan Marsh, Lake Lanao). Furthermore, many protected and endemic species are present in the region. Forest conversion may add further stress to the KBAs and protected species. Some of the critical habitats in the river basins are considered biodiversity rich and endemic to the area. The clearing of forests and replacing the natural vegetation with single plantation crop can have significant adverse impacts on the habitats of endemic species in the area. Within the region are identified critical habitats and conservation areas that include protected areas and KBAs with an aggregate area of over 600,000 hectares. In the case of protected areas, a multi-stakeholder PAMB sets the management plan of the protected area including the land use plans. For other forestlands, the DENR-ARMM collaborates with the LGUs in formulating the

Forest Land Use Plan (FLUP). These protected area management plans and FLUPs provide a land use framework which agribusiness firms can use to align their development plans.

Overfishing and loss of marine resources

Fisheries operations and habitat alteration have been identified as threats to the environment of the ARMM area. In addition, illegal fishing with explosives and toxic chemicals occurs in the region according to the focus group discussions (FGD) for the HARVEST project in Zamboanga (January 2015). Several important commercial fish populations in the world (such as Pacific bluefin tuna and other large pelagics) have declined to the point where their survival as a species is threatened as a result of pushing the fisheries beyond their biological limits. The fisheries situation in the Philippines is no exception. Coastal communities in the region depend on fisheries for their primary source of protein. Overfishing threatens their long-term food security. Contaminants and heavy metals also affect the safety and quality of the fish catch.

Soil degradation and erosion

Soil degradation and erosion is another major environmental issue that affects not only agricultural productivity but also marine productivity. The National Action Plan to combat desertification, land degradation, drought, and poverty for 2004-2010 indicates that about 5.2 million hectares of agricultural lands are seriously degraded resulting to 30 - 50% reduction in soil productivity and water retention capacity. Without measures to protect the topsoil, sediments are carried by water flow and deposited in receiving bodies of water such as the rivers, lakes, other wetlands, and the sea. Agricultural lands that have been used for intensive monocrop plantations also face potential issues related to depletion of nutrients due to removal of topsoil and introduction of persistent pollutants from pesticides and other agrochemicals. Land conversion and soil erosion may reduce the ability of the environment to cope with climate change. Non-governmental organizations present at the FGD in Davao last February 1, 2015 stated that any development should determine whether climate change may be affected by the project or vice versa and mitigation measures should be included in the project. In another FGD, residents of areas near the banana plantations in Maguindanao shared their observations on the siltation of the river and tributaries and identified the plantations to have aggravated the situation. There were also observations that downstream areas such as parts of the Ligawasan Marsh are already extensively silted. The Mindanao River Basin Masterplan indicated that the ability of the Ligawasan Marsh as a natural retention basin preventing occurrences of flash floods in low-lying areas has been reduced due to increased siltation. Environmental NGOs have claimed that the continuing forest denudation due to the establishment of industrial plantations and the siltation of the rivers and wetlands have exacerbated the flooding in Mindanao.

Lower water availability

Water is an important production factor in industrial plantations. While some of the plantations are rain-fed (palm oil and cassava), other crop production systems require irrigation. The sources of irrigation can be from groundwater abstraction or from surface water. The Mindanao River Basin Master Plan (2013) cited a study done by JICA in 1998 indicating that the projected water demand for 2025 is still far below the water resources potential of the Mindanao River Basin due to good rainfall within the region. However, the clearing of the upper catchments of the river basins, the conversion of forestlands, and the siltation of wetlands may have affected the recharge potential of the groundwater reservoirs

and watersheds affecting the water availability in the near-term. In addition, the establishment of agribusiness ventures in the region may increase the demand for water.

Water pollution (area sources from application of fertilizers and agrochemicals and point sources from processing facilities)

Excess fertilizers and other agrochemicals can become significant pollution risks particularly from an expansive monocrop plantation. The contaminants may infiltrate into groundwater aquifers. In addition, run-off from a plantation especially during extreme precipitation events may carry residues of agrochemicals including excess nutrients such as nitrogen and phosphorous into downstream water bodies as well as adjacent lands. The results of a water sampling test conducted for the Mindanao River Basin Master Plan in 2013 showed that the nutrients and heavy metals found in the water samples were within the DENR standards while pesticide residues were not detected. Survey of literature and results of interviews and focus group discussions also did not yield any reported notable incident of pollution events in bodies of water in the region – whether eutrophication or consequent fish kill events. However there are the risks of water quality degradation with the potential expansion and intensification of agricultural activities and other sources such as mining in nearby areas. Downstream, processing facilities generate emissions and waste effluents. Mills and processing facilities generate emissions from boilers, incinerators, and power generators. Wastewater and other effluents are also produced.

Waste management

Farming operations generate mostly biomass wastes in large quantities posing challenges in terms of where and how to dispose this waste stream. An added layer of complexity in the management and disposal of waste is the presence of toxic and hazardous materials that are often mixed with the waste stream, for example containers of pesticides and other agrochemicals and plant and product packaging materials infused with pesticides (polyethylene sheets used to wrap fruit bunch and root stock). The disposal of these kinds of waste streams may become a challenge particularly in rural areas with no dedicated facilities for disposal of toxic and hazardous materials. Where disposed with other waste streams, the unrestricted access nature of these facilities increases the chances of exposure of communities. Some good practices in waste management include use of waste biomass for mulching and retaining waste plant materials in the field as additional organic content of the soil during fallow period. Waste is also generated in the downstream processing such as washing, milling and extraction, and purification.

Health impacts from exposure to agrochemicals and other pollutants

One of the issues related to plantations (particularly of high value crops such as bananas) is the use of pesticides and the mode of application, such as aerial spraying. Aerial spraying as a particular mode of application of pesticides is considered to increase exposure to toxic substances and thus the adverse effects on the health of residents near plantations. Various interest groups including NGOs, the media, and communities have claimed the causal relationship between aerial spraying and cases of morbidity in the plantation areas. There were insinuations made during discussions with NGOs and communities in Maguindanao of skin diseases among the residents due to exposure to fungicides. There were landmark cases filed on the use of aerial spraying in other parts of Mindanao particularly in the Compostela Valley that has further heightened the tension between the industry and the environmental advocacy groups. The local governments of Bukidnon, North Cotabato, and

Davao City have passed ordinances banning aerial spraying and plantation companies operating in these areas have developed viable ways of controlling pest population without the use of aerial spraying. A notable case is the banana plantations in these areas where pesticides are applied (if necessary) through ground spraying – reducing the exposure of communities to the chemicals.

Potential negative social impacts

Displacement of indigenous people

The significant presence of indigenous people in all provinces of ARMM triggers World Bank OP/BP 4.10 Indigenous People Safeguard Policy and the government's RA 8371 or the Indigenous People's Rights Act (IPRA) of 1997 and Muslim Mindanao Autonomy Act (MMAA) 241 or Tribal People's Rights Act of 2008 of ARMM. These safeguard policies seek to ensure that development interventions fully respect the dignity, human rights, economies and cultures of indigenous people. Three situations of the IPs in ARMM put them at risk of being adversely affected especially by large agri-business investments, namely: (i) insecure land tenure due to the non-implementation of IPRA in ARMM – except for Sama Bangingi in Basilan, IPs in other areas of ARMM do not possess legal instrument of their land tenure rights – and conflicting ancestral domain claims between Moro and non-Moro IPs in Maguindanao; (ii) remote location from center of governance and market coupled with poor road infrastructures to/from their communities; and (iii) lack or inadequate access to basic services, including education, health, production development, market and legal assistance.

Involuntary resettlement given the need for land of large agribusiness

The increase in demand for land may lead to land grabbing, displacement and increase in land-based conflict. Large agribusiness may: seek for reconsolidation of lands distributed to small farmers under Comprehensive Agrarian Reform Program (CARP); enter lands claimed by indigenous peoples; pressure small landholders with the help of traditional leaders to lease their lands at low cost; or deceive small landholders into entering unfair contracts that may lead to land dispossession.

Increase in land conflicts

Entry of large agribusiness may exacerbate land conflicts; and intensified land conflict may bring losses to agribusiness companies. According to Department of Trade and Industry (DTI)-ARMM, one example is the banana plantation of Del Monte Fresh Produce, Inc. (through its subsidiary Delinanas Development Corp.) in the Municipality of Datu Abdullah Sangki in Maguindanao. The agribusiness, which was expected to develop 3,000 hectares of banana plantations and generate 4,500 jobs, was suspended due to land conflict.

Insignificant economic improvement due to low wage rate and land rent

Though large agribusiness has been cited for their contribution to job generation and peace and development in their host communities, this improvement is insufficient to uplift the poor from poverty. One possible reason, which needs to be verified, is the wage rate of workers. A worker of La Frutera banana plantation in Buluan, Maguindanao earns way below the daily minimum wage rate of PhP 250 in ARMM set by the Regional Tripartite Wages and Productivity Board effective February 1, 2014. In the assessment of NGOs, the conditions of many people in the host communities of La Frutera, though undeniably better with the entry of the company, are generally still poor. Former contract growers of Dole South Cotabato

stated that a worker in the company-managed asparagus farm earns a minimum wage of PhP 150 a day; while under contract growership, a worker, due to limited funds of the contract grower, earns only PhP 70 a day. Still, people accept the work due to lack of alternative jobs. Because of Dole's grading/classification system for harvested asparagus, contract growers end up earning less because most of their produce is given low grades and others rejected. The company in the end earns 90% of the whole income.

Less participation and benefit of women and other vulnerable people

Females comprised the majority of the total population and working age population in ARMM in 2010. In 2013, females continued to compose the majority of the working-age population. Yet, of those employed in ARMM in 2013, only 26.8% were females. Females also compose only 24.62% of the total agricultural workforce in 2012. Given these figures, gender-related development index in ARMM provinces expectedly show that the main area of gender disparity, using the framework of the Human Development Network as lens, in ARMM is in income generation.

Further disempowerment of the poor if without an effective system for receiving and redressing grievances from the communities.

When asked for empirical studies on the adverse effects of large agribusiness, representatives of NGOs said that there have been no such initiative and people are afraid to air their complaints because of the general fear of earning the ire of dominant or powerful individuals and groups supporting these companies.

Potential positive social impacts

Generated jobs and increased economic opportunities in poor communities

The stakeholders of La Frutera, Inc. in Buluan, Maguindanao were one in saying that the economic situation of the people in the area as well as the revenue of the LGUs improved with the banana plantation. The interviewed representatives of stakeholders agreed that the presence of the banana plantation diverted the attention of the people to productive economic activities. Thus, the case of La Frutera in Buluan, Maguindanao proves that the introduction of economic activities can help bring peace in conflict-affected communities. The agribusiness of Matling Corp in Malabang, Lanao del Sur provides sure income to three types of workers: (i) daily paid workers of Matling Corp; (ii) workers for land preparation and planting who can be anyone in the barangay and are paid by hectare of land planted; and (iii) contract growers. The contract growers, on top of their earnings from contract growership, can also choose to work for the company during land preparation and planting. Permex Producer and Exporter Corporation, a producer and exporter of canned sardines and tuna, in Zamboanga City is able to provide sure income not only to small fishers (sources of fish) but also jobs to 975 to 1,500 workers, 75% of whom are women.

Restored productivity of lands abandoned because of armed conflicts

According to the leaders of the Moro Returnees Farmers Multi-Purpose Cooperative, which is a partner contract grower of Agumil Philippines, Inc. in Buluan, Maguindanao, the 230 hectares of land that their 55 members have planted with palm oil were formerly abandoned due to armed conflict. The offer of Agumil to act as guarantor of the co-operative's agricultural loan from Land Bank as well as to provide production assistance and sure market under a Production Technical Marketing Agreement (PTMA) drove them back to their

lands in 2008. Today, the formerly abandoned area at Sitio Tukay Baluin of Barangay Lomoyon, Colombio, Sultan Kudarat has become a productive and peaceful community again.

Enhanced confidence in farming due to improved farming technology and sure market introduced by large agri-business companies

In the case of Matling Corp plantation where the major crop is cassava, most of the contract growers are members of their partner, Matling Multi-Purpose Co-operative (MPC). The contract growers are in-charge of plant maintenance, harvesting and transporting the produce to the processing plant of Matling Corp. The cassava plantation uses natural farming methods, such as, among others, resting the soil for a certain period of time and planting legumes as a means for improving the nitrogen content of the soil. Interviewed former and present contract growers of Agumil Philippines, Inc.; Matling Corp. in Malabang, Lanao del Sur; Stanfilco, General Santos City; DOLE South Cotabato; and Pioneer Hi-Bred Phils., Inc. all mentioned exposure to farming technology for high value crops and the presence of sure market of produce as among the advantages of contract growership with agribusiness companies. In addition, contract growers in Polomolok shared that if farming is self-financed and the farmer has no loans from the company or banks, then the earning from agribusiness can be huge. An interviewed farmer said that he bought a car out of his earnings from papaya contract growership with DOLE.

Added social services provided to host communities.

Some agribusiness companies, such as the La Frutera Inc. and Matling Corp., provide non-economic assistance to their host communities. For instance, community assistance of La Frutera includes, among others, the repair of school buildings, donation of water pumps and toilet bowls, and community health services. Matling Corporation runs feeding centers for children and community hospital, and supports public schools, among others. Matling Corp. also assists the barangay council of Matling to implement a barangay ordinance obliging young people 18 years of age and above to either study or work in the plantation. Thus, the barangay chair said that they have zero unemployment rate because those who cannot comply are asked to leave the barangay.

2.3 Safeguard Policies Triggered in the Project

The environmental and social safeguards policies that are applicable under HARVEST are described in the succeeding table. The third column provides general guidance on specific measures and actions required by each party to comply with the specific WB and JICA policies, and lists the range of safeguards instruments that may be adopted and the manner in which to integrate and verify environmental and social due diligence requirements.

Table 1. Detailed Description of Environmental and Social Safeguards Policies

Policy	Objectives	Approach and general guidance
Environmental Safeguards		
Environmental Assessment (OP 4.01) / JICA's Guidelines for Environmental and Social Considerations	To ensure that Bank-financed projects are environmentally sound and sustainable, and that decision-making is improved through	1. Project screening using the ineligible subproject and activities list (LBP will do the initial screening of proposed activities. Activities are initially screened through the OPG List of Eligible Projects (Annex 1) and List of ineligible subprojects and activities

Policy	Objectives	Approach and general guidance
	appropriate analysis of actions and of their likely environmental impacts (OP 4.01, para. 1).	<p>(Annex 2).</p> <p>2. Screening for safeguards category of projects. LBP will screen projects early in the identification stage, determine project boundaries, and classify projects into appropriate safeguards categories using the Environmental and Social Screening Checklist (ESSC). The ESSC is included as annex of this ESMF (Please refer to Annex 3).</p> <p>3. Determining the safeguards instruments to be used including the requirements under the Philippine environmental impacts statement system. The type and extent of environmental and social assessments and the safeguards instrument vary depending on the scale and nature of the project. The management and mitigation plans are included as part of sub-project execution documents and where applicable, these will be included as part of the obligations of the winning contractor that will carry out works of the subprojects or activities.</p>
Pest Management (OP 4.09)	To assist LBP and sub-borrowers minimize the environmental and health hazards related to pesticide usage and to ensure that pest management activities follow an Integrated Pest Management (IPM) approach (OP 4.09 and BP 4.01 Annex B).	<p>1. Pest and pesticide management issues relevant to the project will be initially addressed in the context of the Environmental Assessment (EA).</p> <p>2. A separate Pest Management Plan (PMP) will be developed when there are significant pest management issues as a result of project activities. PMP will be required when: specific environmental or health concerns are raised (i.e., proximity of protected areas or water supply sources; worker safety); new land-use development or changed cultivation practices in an area; diversification into new crops in agriculture or intensification of existing low-technology systems. A TOR for a PMP is attached as Annex 8 of this ESMF.</p>
Forest (OP 4.36)	To assist LBP and sub-borrowers to harness the potential of forests to reduce poverty in a sustainable manner, integrate forest effectively into sustainable economic development and protect	<p>1. The EA will assess the potential impact of the project on forest and on the rights and welfare of local communities (those living in or near a forest).</p> <p>2. Subprojects shall consider the potential for introducing invasive species as well as measures for minimizing adverse impacts of</p>

Policy	Objectives	Approach and general guidance
	the vital local and global environmental services and values of forests.	<p>palm oil plantation as outlined in the <i>WBG Framework and IFC Strategy for Engagement in the Palm Oil Sector</i>.</p> <p>3. Projects involving the management of forests must incorporate, as appropriate, measures to address the respective roles and legal rights of the government, the private sector, and the local people.</p>
Natural Habitats (OP 4.04)	To assist LBP and sub-borrowers to support the protection, maintenance, and rehabilitation of natural habitats.	<p>1. The policy shall apply to any project with the potential to cause significant conversion (loss) or degradation of natural habitats, whether directly (through construction) or indirectly (through human activities) induced by the project.</p> <p>2. This policy will have a precautionary approach in determining application. This will be applied when the project would harm natural habitat significantly, and mitigation measures will be needed or even the project might possibly harm natural habitats significantly and further information must be collected to ascertain the impact.</p>
Physical Cultural Resources (OP 4.11)	To assist LBP sub-borrowers consider physical cultural resources in their environmental and social context and to enhance positive effects of development activities through identification of cultural resources as economic and social assets.	The policy will apply to projects classified during screening as Category A or B. These may be projects involving significant excavations, demolition, movement of earth, flooding or other environmental changes; those located in, or in the vicinity of, physical cultural resources sites recognized by the borrow. A chance find procedure is attached as Annex 9 of this ESMF.
Social Safeguards		
Involuntary Resettlement (OP 4.12) / JICA's Guidelines for Environmental and Social Considerations	<ul style="list-style-type: none"> • Involuntary resettlement should be avoided where feasible, or minimized, exploring all viable alternative project designs. • Where it is not feasible to avoid resettlement, resettlement activities should be conceived and executed as sustainable development programs, providing sufficient investment resources to 	<p>1. Project Screening for Involuntary Resettlement. Screening of impacts on involuntary resettlement on the basis of the land required by the project and its architectural and engineering designs to be undertaken and reviewed by LBP with inputs from sub-borrowers</p> <p>2. Preparation of RAPs. RAPs will be prepared taking into consideration the magnitude of impacts of the subprojects and activities. Full RAPs will be prepared if 200 persons or more are expected to be displaced by a project, and abbreviated</p>

Policy	Objectives	Approach and general guidance
	<p>enable the persons displaced by the project to share in project benefits.</p> <ul style="list-style-type: none"> • Project Affected Persons should be meaningfully consulted and should have opportunities to participate in planning and implementing resettlement programs. • Project Affected Persons should be assisted in their efforts to improve their livelihoods and standards of living or at least to restore them, in real terms, to pre-displacement levels or to levels prevailing prior to the beginning of project implementation, whichever is higher. 	<p>RAPs will be carried out if less than 200 persons are expected to be displaced by a project or if impacts are “minor”, i.e., if the affected people are not physically displaced and less than 10 percent of their productive assets are lost. The screening checklist for the LAAR is found in the Annex 3. 11-21 and Table 2 and 3 in page 28 of the main text. This will be used to determine the magnitude of impact, types of affected land, and required safeguards instruments. Its formulation should be done in a participatory manner by the sub-borrower starting with meaningful consultations with communities who will help in seeking the participation of landowners.</p> <p>3. RAP Review. The WB and JICA will jointly undertake prior review coordinated by LBP with consideration on the timelines of subproject review and clear all full RAPs and the first three abbreviated RAPs submitted.</p> <p>4. RAP Implementation. The sub-borrower will carry out implementation ensuring that all RAP deliverables especially compensation are completed at least a month prior to the commencement of civil works in the particular project component that caused displacement, based on the RPF and the compensation schedule. Payments for uncollected compensation due to lack of clarity of an authorized representative of a landowner shall be put in trust by the LBP sub-borrower</p>
Indigenous Peoples (OP 4.10) / JICA's Guidelines for Environmental and Social Considerations	<p>This policy contributes to the Bank's mission of poverty reduction and sustainable development by ensuring that the development process fully respects the dignity, human rights, economies, and cultures of Indigenous Peoples.</p>	<p>1. Determine IP presence. Following this ESMF and the IP Framework, Subproject Proponents screen IP presence or any ancestral domain (title or claim) in project sites.</p> <p>2. Free and Prior Informed Consent (FPIC). Consensus of all IP members affected must be determined in accordance with their respective laws and practices, free from any external manipulation, interference and coercion, and obtained after fully disclosing the intent and scope of the project activity, in a language and process understandable to the community. The conduct of field-</p>

Policy	Objectives	Approach and general guidance
		<p>based investigation and the process of obtaining the Free and Prior Informed Consent (FPIC) shall take into consideration the primary and customary practices of consensus-building, and shall conform to Section 14 (Mandatory Activities for Free and Prior Informed Consent) of NCIP Administrative Order No.3, series of 2002, and A.O. #3 Series of 2012 (Revised Guidelines on FPIC and related processes).</p> <p>3. Development of IP Plan. Based on social assessment and the FPIC process, the LBP sub-borrower prepares the IPP to document measures to enhance positive effects by ensuring its cultural responsiveness and mitigate adverse effects.</p> <p>4. Implementation/ Monitoring. Monitoring and supervision of projects will be carried out in a culturally sensitive manner paying close attention to complaints and grievances being resolved. As part of the technical assistance to the project, the services of anthropologist may be needed. The assistance of the NCIP shall be mobilized.</p>

3. ESMF Procedures

3.1 Overview of subproject typology

Eligible LBP sub-borrowers under the HARVEST facility are composed of: (i) large agribusiness enterprises (LAEs) and private anchor firms, (ii) cooperatives (farmers/producers' organizations), and (iii) MSMEs. Sub-loans may be used for capital investments in productive assets, associated working capital needs, production, processing, manufacturing, distribution, and agribusiness related infrastructure, for types of subprojects and activities listed but not limited to the following:

- Agriculture/Aquaculture
- Crop Production
- Poultry and Livestock Production
- Fish Production and Fishery Development
- Development/Rehabilitation of Plantation Crops
- Food/Agro-Processing
- Farm Machinery and Equipment
- Agriculture-related services –service-oriented subprojects that support agriculture-related economic activity in the countryside such as warehousing, slaughterhouse, cold storage, agricultural machine shop, etc.

- Product Distribution/Packaging/Trading
- Rural and agriculture-related infrastructure such as power generation, irrigation facilities, etc.

3.2 Overall safeguard framework approach of HARVEST

The basic approach and elements in developing and implementing the safeguards framework for the HARVEST Project takes into consideration the perspectives of complete project and subproject cycles. Specifically, the preparation of an environmental and social assessment will need to be done simultaneously, closely coordinated, and integrated with the preparation of the subproject feasibility studies. All identified potential environmental and social aspects and impacts will have to be included in all the critical steps in the subproject cycle including subproject formulation and screening, appraisal and approval, implementation, and M&E.

Subproject formulation and screening

Potential environmental and social risks and impacts will need to be considered from the beginning to facilitate the proper selection of project alternatives that will bear the minimal amount of risks or negative impacts. Formulation involves identification of eligible subprojects, screening for potential environmental and social impacts, and determination of safeguards categories. Sub-project screening helps the sub-borrower identify potential environmental and social impacts so that adequate attention can be given to the development of mitigation measures. Sub-project screening also assigns subproject categories and helps identify appropriate safeguards instruments calibrated according to the identified risks and impacts.

Sub-project appraisal and approval

The screening process informs the decision on the appropriate level of environmental and social assessment based on assigned categories and guides the review and approval of subprojects.

Sub-project implementation

The results of the environmental and social assessment process including mitigation measures, management, supervision, and monitoring plans will be incorporated in the contracts and arrangements pertaining to the implementation, construction, and monitoring of the subprojects.

Sub-project monitoring and evaluation

The overall sub-project M&E will need to include determination of the effectiveness of the environmental and social impacts mitigation measures in the course of implementing the subprojects. For the purposes of the environmental and social safeguards policies, the M&E can assist the sub-borrowers, LBP, and all stakeholders to understand how the identified mitigation measures are implemented, how the environmental and social contractual measures are complied, and that no unforeseen negative environmental and social impacts occur during implementation.

3.3 Environmental and Social Safeguards Procedures

The selection, design, contracting, monitoring and evaluation of subprojects will be consistent with the following guidelines and requirements. The safeguard screening and mitigation process will include:

Initial Screening/Project Eligibility Screening

LBP-PMO conducts initial screening of subprojects using the OPG eligibility criteria (Annex 1) and the list of ineligible subprojects for support (Annex 2).

Environmental and Social Screening and Categorization

Subprojects that are not included in the list of ineligible subprojects are then screened using Annex 3 or the Environmental and Social Screening Checklist, as a first stage of screening to determine: (i) whether the sub-project is category A, B, or C; (ii) the national applicable requirements, LBP, WB, and JICA policies to be triggered; and (iii) the safeguard instruments.

The sub-project will also be screened by LBP and DENR for coverage under the Philippine EIS System, using the DENR threshold of subprojects to determine country requirements to be prepared by the sub-borrower to comply with the LBP Credit Policy Issuance 2009-02 (Environmental Policy Relative to Credit Delivery).

Cumulative Impact Assessment

In addition to assessing the impacts of each sub-project, the contribution of the subproject to overall cumulative impacts of other projects and activities within a given time and space must be determined. Cumulative impacts are defined as those impacts that result from the successive, incremental, and/or combined effects of an action, project, or activity when added to other existing, planned, and/or reasonably anticipated future ones (IFC, 2003). A Technical Guidance on preparation of a Rapid Cumulative Impact Assessment (RCIA) is provided in Annex 11. RCIA is useful for HARVEST due to the limitations in baseline data availability, the lack of information regarding other projects and activities and an overall planning process or context.

Pest management

The World Bank's Operational Policy on Pest Management (OP 4.09) and Bank Procedures on Environmental Assessment - Application of EA to Projects Involving Pest Management (BP 4.01 Annex B) were established to address concerns on the inappropriate or excessive use of pesticides that can result in the long term a reduction of agricultural production or its sustainability, pose adverse environmental and health effects and negative effects on other economic activities. The policy also guides borrowers to manage pests in an appropriate manner. A major provision of the policy is the preparation of a Pest Management Plan (PMP) that will outline the various elements and actions that needs to be taken to adequately address concerns during project implementation. Annex B of BP 4.01 describes a Pest Management Plan as a comprehensive plan, developed when there are significant pest management issues such as:

- a) New land-use development or changed cultivation practices in an area;
- b) Significant expansion into new areas;
- c) Diversification into new crops in agriculture;
- d) Intensification of existing low-technology systems;

- e) Proposed procurement of relatively hazardous pest control products or methods;
- f) Specific environmental or health concerns (e.g., proximity of protected areas or important aquatic resources; worker safety), and
- g) Proposed financing of pest control products represents a large component of the project.

A Pest Management Plan is developed in the context of Environmental Assessment and elaborated in the Environmental and Social Management Plans (ESMP) of subprojects of HARVEST. Requirements for PMP will follow the guidance of BP 4.01 Annex B on cases where there are anticipated significant pest issues. The environmental and social screening of the subprojects including the Environmental and Social Impacts Assessment (ESIA), where required, cover all potential issues including pest management and considers appropriate alternative designs or mitigation measures. Depending on the issues identified, the ESMP of the subprojects includes a pest management plan. Technical guidance on pest management based on the World Bank Group EHS Guidelines for Annual Crop Production, Perennial Crop Production, and the industry guide (Pesticide Manufacturing, Formulation, and Packaging) is provided in Annex 8 and the Terms of Reference for Pest Management Plan is included as Annex 10 of this document.

Climate smart agriculture and GHG emissions

The Government identified agriculture as one of its key sector contributing to its national strategic priority on food security under the National Climate Change Action Plan. The plan identifies the following outcomes on the food security priority as: (1) enhanced CC resilience of agriculture and fisheries production and distribution systems, and (2) enhanced resilience of agricultural and fishing communities in the midst of climate change. Among the activities identified to meet these outcomes include the institutionalization of climate smart agriculture practices, programs, and policies. HARVEST is seen to contribute to the climate smart agriculture through avoidance of further forest degradation and loss, promotion of the adoption of appropriate soil and water conservation measures, and limiting the use of fertilizers, pesticides, and other agro-chemicals in farm practices. The Department of Agriculture has developed an extension training module incorporating climate smart agriculture into farm practices that could be used by HARVEST as part of capacity development for sub-borrowers.

The Philippines' Intended Nationally Determined Contributions, identified as among its priority measures the enhancement of climate resilience of the agriculture sector. Supporting this, the Philippine EIS System (PEISS) requires projects undertaking EIA to include GHG inventory as part of the project baseline and reporting by proponents. Where required, HARVEST subprojects particularly those proposed by large agricultural enterprises, or those classified as Category A, are expected to comply with the reporting requirements under the PEISS.

The social screening will include whether the WB policy on Involuntary Resettlement and Indigenous Peoples Policy will apply. Review will commence with the enumeration by the Lending Centers, with assistance from the PMO, when necessary, of the extent of land acquisition, project-affected population and asset losses that may result from a project's implementation, using a checklist. To facilitate review, sub-borrowers may complete the

checklist. Reviewers will verify the information put in by sub-borrowers from the submitted subproject documents, and/or from subproject site visit. See Table 2 below.

Table 2: Checklist of Project-Affected Persons and Assets

Social Impact	Yes	No	Specify Details
a) Land acquisition necessary			Size and use of land; mode of acquisition
b) HHs / Persons will be displaced			Total number of HHs /persons
c) Presence of informal settlers			Total number of informal HHs / settlers
d) Legal structures acquired / damaged			Number, size, and built of structures
e) Informal structures being removed			Number, size, and built of structures
f) People losing means of livelihood			Total number of HHs /persons
g) Basic services will be inaccessible			Type/s of basic services
h) Crops / trees being damaged / lost			Number and type of crops / trees
i) Tenants / Lessees losing crops / trees			Number of tenant HHs losing how many, what type of crops / trees
j) Informal settlers losing crops / trees			Number of informal HHs losing how many, what type of crops / trees
k) Presence of indigenous peoples in project area			Total number of indigenous HHs /persons
l) Cultural property affected			Number, size, and type of cultural property

Social safeguards requirements will be triggered when any one of the above social impacts is positively identified/confirmed. Required social safeguards document may vary depending on the number of displaced persons. See Table 3 below.

For subprojects to be financed by JICA portion which will cause resettlement of more than 200 people, JICA will require the procedures and documents which are usually required for Category A such as disclosure at JICA's website 120 days before the concurrence, ESIA, and full resettlement plan. This principle will also be applied in case a sub-project is to be funded by both JICA and WB.

Table 3: Required Social Safeguards Document

No. of Displaced Persons	Required Document/s
> 200 persons displaced	Full Resettlement Plan (Annex 17)

Presence of IPs or ancestral domain	Indigenous People Development Plan (Annex 20)
1-200 persons or “minor impacts”, i.e. if the affected people are not physically displaced and less than 10 percent of their productive assets are lost.	Abbreviated Resettlement Plan (Annex 18)
0 person	None

The presence of IPs within the subproject's area of influence as residents or as food gatherers and/or places considered sacred makes a project socially critical, which is an important social consideration and requires a proper social safeguards document.

Preparation of Safeguards Documentation

Once the environmental and social screening is done, LBP PMO submits the results of the screening to World Bank and JICA for validation and confirmation.

All corresponding safeguards documents, based on the final categorization confirmed by LBP, WB, and JICA, will be prepared by the sub-borrowers. It is the responsibility of the sub-borrowers to carry out the necessary safeguards requirements outlined in this ESMF and to obtain the applicable environmental and social clearances for each individual subproject before commencing implementation. Sound environmental and social practices have to be incorporated into the subproject design and implementation, and potential negative impacts will need to be mitigated to acceptable levels or standards. Safeguard documents will be subject to consultation and disclosure to key stakeholders, prior to the finalization of the documents. The sub-borrowers are responsible for the quality and accuracy of the information in the EA and social documents, as well as the transmission of the environmental and social safeguards process i.e. interagency coordination, scoping, public hearings, document review at the local council (Sanggunian) level, and general oversight.

Review and Clearance of Safeguards Documents

The environmental and social safeguards documents prepared by the sub-borrower will be submitted to LBP and subjected for review.

DENR Review

The environmental safeguards of subprojects will undergo project level and agency review to ensure that the necessary environmental safeguards are considered. The level and process of review of the required EA documents of subprojects (whether full EIA or Initial Environmental Examination) will depend on the assigned category and may either be with a formal Review Committee at the EMB Central Office or at the regional EMB offices.

LBP Review

Environmental safeguards documents may undergo substantive review by the EPMD, particularly if pressing environmentally critical issues exist. As an ISO 14001 certified institution, the LBP specifically through the EPMD will exercise environmental due diligence by keeping records of project EA reports, feedbacks/technical information, and ECCs/CNCs. The conduct of review by EPMD is part of its oversight function and task enumerated in the LBP CPI 2009-002 to verify that subprojects are in compliance with environmental standards

and regulations. This type of review performed by either the EPMD or WB/JICA is entirely independent and does not conflict with the nature of evaluation the DENR performs.

World Bank Review

The World Bank will undertake review of safeguards documents prior to the issuance of a No-Objection Letter (NOL). Among the safeguards documents that WB will review are:

Environmental Safeguards

- All Category A subprojects
- Sample of ESMP for Category B subprojects

Category A sub-project that has undergone appraisal/review shall only be allowed to proceed with the construction phase after the release of the environmental clearances from the DENR-EMB and the NOL from the WB.

Social Safeguards

- All full RAPs
- All IPPs
- First three (3) abbreviated RAPs

Based on the information derived from the checklist (Table 2 for Checklist of Project Affected Persons and Assets), the following are validated: (See Table 4 for criteria for review of social aspects)

- Appropriateness of the prepared/submitted social safeguard document for the social category of the project; and
- Conformity of the prepared social safeguard documents to the provisions of the HARVEST Resettlement Policy Framework.

Table 4: Criteria for Review of Social Aspect

Criteria	Means of verification
Due diligence on land acquisition especially land lease and land donations	<ul style="list-style-type: none"> - Land acquisition documents including documentation of meetings/ consultations - For land donation/s – need to assess agreement to donate, i.e., was there informed consent and power of choice? Also, need to ensure that there is a legal transfer of the asset (signing, registration, taxes/fees paid, etc). Or, if land already donated, documentation of donation/s (note the total land area from which portion needed by project is taken) and assess whether donation is legally valid (e.g. identify right being transferred, no lien on asset, occupants in affected portion, wife consent to transfer, agreement to transfer, legal transfer of title and registration, costs of transfer). - Assessment report on the donor's economic viability and economic sustainability of transferred asset (resources to maintain and support asset) - For land lease, assess whether there was consent from the land owner or person/s with tenure right. Also assess if they were provided with full information about the terms of agreement and if they fully understood the terms.

Extent of consultation and participation of adversely affected persons in the project area	<ul style="list-style-type: none"> - Minutes of Public Consultations - Expression of Support of stakeholders, particularly those adversely affected - Survey Report on Acceptability / Willingness - Free & Prior Informed Consultation, for DPs that are IPs
Compensation & transition assistances & rehabilitation programs provided according to the provisions in HARVEST Resettlement Policy Framework	<ul style="list-style-type: none"> - RAP - Compensation Table - Rehabilitation Program/s - Resettlement Implementation Schedule, in relation to overall Project Implementation
Resettlement site of adversely affected persons with conditions equal to, or better than, that in existing sites	<ul style="list-style-type: none"> - RAP - Resettlement Site Development Plan & Vicinity Map - Description of available / accessible basic infrastructure and services in resettlement sites - Visit to resettlement site/s
IPDP and/or RAP Implementation in relation to overall Project Implementation Schedule	<ul style="list-style-type: none"> - RAP/IPDP - Project implementation schedule - RAP budget
Management of cultural properties within, or in close proximity to, the project area	<ul style="list-style-type: none"> - Report on presence/absence of a cultural property - Brief reconnaissance report of competent authority to determine what is known of the cultural property aspects of the project site.
Provision for M&E by an External (Independent) Monitoring Agency	<ul style="list-style-type: none"> - Resettlement Action Plan - Resettlement Plan Cost Estimates

JICA Review

JICA will conduct a review on the ESIA, RAP, and IPP for the Category A sub-project (including those considered as JICA Category A) that is to be prepared based on the ESMF. For Category B subprojects, JICA will check the monitoring reports accompanying the progress report submitted by the sub-borrower annually. LBP shall submit relevant documents such as result of categorization and environmental review, approved ESIA and its certification, RAP and IPP, if applicable, to JICA. JICA shall disclose the result of categorization on its website. JICA shall conduct its environmental review of the sub-project based on such documents, and seek advice from the Advisory Committee for Environmental and Social Considerations in accordance with the JICA Guidelines, prior to JICA's concurrence with approval of the subproject.

Implementation - Supervision, Monitoring and Evaluation

Monitoring of project compliance with safeguards requirements will be done by the EPMD in parallel with DENR monitoring. An LBP Environmental Compliance Report (ECR) shall be prepared by the EPMD to determine the project's compliance with the environmental and social requirements. The LBP ECR shall be submitted by EPMD to LBP's Program Management Department-I (PMD-I) and concerned Lending Center (LC) with recommendations to the LBP sub-borrower on noted deficiencies in the required environmental and social documents.

Monitoring and validation of the project shall be undertaken annually by the EPMD until project completion to document the environmental and social performance of the project and note irregularities/ inconsistencies/non-conformities, if there will be any. An Environmental and Social Performance Monitoring and Audit Report (EPMAR) to include recommendations to the LBP sub-borrower on noted observations/non compliances on their operations, shall be prepared annually by EPMD and submitted to PMD-I and concerned LC. Thereafter, EPMD will continue monitoring of environmental compliance of the project consistent with its environmental policy on credit delivery, until the loan is fully paid.

EPMD will submit a safeguards compliance report to the WB and JICA teams during the bi-annual supervision support missions. WB and JICA safeguards specialists will also conduct a review of selected projects to make sure the LBP is implementing the framework adequately. WB and JICA staff will advise and support the LBP in carrying out its responsibilities. Within the WB and JICA, operational staff will provide information to the LBP and ascertain whether policy requirements have been met.

Also, projects that are covered by the Philippine EIS System are required by DAO 2003-30 to conduct regular self-monitoring of parameters as indicated in the project's ESMP. The LBP sub-borrower must satisfy this requirement by submitting an Environmental and Social Monitoring Report (ESMR) on a semi-annual frequency, i.e., within January and July of each year, to the concerned DENR-EMB regional office. Copies of the submitted ESMR must be provided in three (3) sets to the PMO for reference and review purposes. The two (2) sets of the ESMR received by LBP will be transmitted to WB and JICA for record keeping.

The primary purpose of compliance monitoring is to ensure the implementation of sound and standard environmental and social procedures as defined during project preparation.

Specifically, it aims to:

- Monitor project compliance with the conditions set in the ECC;
- Monitor compliance with the ESMP and applicable laws, rules and regulations;
- Provide a basis for timely decision-making and effective planning and management of environmental measures through the monitoring of actual project impacts vis-a-vis the predicted impacts in the EIS/IEE checklist;
- Monitor compliance to RAP and/or IPP;
- Monitor changes of risks/conflict drivers and actions for mitigation; and
- Provide basis for timely decision making and effective planning for measures that will ensure attainment of the objectives of social safeguards as indicated in the RAP and/or IPP.

There are also instances (critical environmental aspects) that the ECC sets the conditions for the activities to be monitored and the monitoring schedule.

The submission of EA documents shall be monitored to keep track of the pace of processing the ECC/NOL so that project physical implementation is not prolonged. This activity shall serve as a barometer that will push the agency responsible to work on the needed deliverables.

Table 5: Checklist of Environmental Documents

LBP borrower	Environmental Document			Date Submitted	Remarks
	ESIA	PD	ESMP		
1					
2					
3					
4					

Table 6: Checklist of Social Safeguards Documents

LBP borrower	Type of RAP (abbreviated/full)	IPP	Date submitted	Remarks
1.				
2.				
3.				
4.				
5.				

There will be on the average two Implementation Support Mission (ISM) a year. Safeguards compliance reports are to be submitted to WB and JICA by LBP before such missions. Regular monitoring of safeguards compliance will be carried out by LBP and any deviation from the agreed safeguards arrangements or critical issues immediately communicated to WB and JICA. Pending issues should be followed up until a resolution is reached.

The description of the subproject preparation and implementation process and the institutional roles and responsibilities is presented in Table 7. Figure 1 of this document provides the process flowchart of the ESMF process.

Table 7: Subproject preparation and implementation process with Institutional roles and responsibilities

Project process	Subproject Proponent/Sub-borrower	LBP	WB/JICA
Initial Screening/ Project Eligibility Screening	Submits project proposal to LBP LCs for financial assistance	LCs (if needed, PMO assists) determines if project is eligible using HARVEST eligible project and negative list of projects.	
<i>Environmental and Social Screening and Categorization</i>	Conducts screening and scoping of sub-project in coordination with relevant agencies. Determines level of impact and mode of land acquisition; identifies key stakeholders; undertakes public consultations.	Determines category of projects as A, B or C. Validates and confirms results of environment and social screening/scoping, informs the WB & JICA.	JICA is informed of the result of categorization, and issues a NOL or inform LBP of JICA's judgement of JICA category.

Project process	Subproject Proponent/Sub-borrower	LBP	WB/JICA
Preparation of Safeguards Documentation	Hires Consultant for preparation of EA report. LBP borrower may opt to include in TOR of firm doing FS the needed EA report preparation. Or, LBP borrower hires an individual based on WB criteria on selection of individual consultants. Annex 6 & 7 Submits final evaluation & copy of notice of award of the contract to the selected individual / winning firm to PMO.	Provides technical & procedural advice during the process of hiring & review the results of LBP borrower's final evaluation for consistency with WB procurement guidelines. Transmits to WB (for issuance of NOL) the result of LGU evaluation together with a copy of the notice of award of the contract to the selected individual / winning firm.	WB reviews the transmitted documents, & within 7 days from receipt of the documentation, issues a comment or a NOL to PMO for the project.
	Hired EA consultant shall coordinate with the PMO for briefing on methodology of EA safeguards.	PMO provides technical & procedural advice to ensure that potential environmental impacts & procedures for environmental compliance are met.	
	Prepares and submits to LBP for review the following documents: Cat A: ESIA (Annex 5) that includes Contingency Plan and ESMP. Cat B: ESIA or IEE and ESMP Cat C: Project description and ESMP depending on size and nature of activities Due Diligence on Resettlement & Compensation and Indigenous People; Abbreviated RAP and or full RAP, and IP Plan, if applicable. Prepares / submits the ff to DENR-EMB & PMO: Scoping report * Draft EA report & if	PMO, or with assistance from LBP-EPMD, does substantive review on submitted safeguards documents to verify if necessary environmental and social safeguards are provided. Transmits safeguards document to WB for reference, or if applicable, comment (applies to selected Category A projects for NOL issuance).	

Project process	Subproject Proponent/Sub-borrower	LBP	WB/JICA
	applicable RAP &/or IPP (see Chapter 2. RPF and Chapter 3 IPPF) Final EA report Documents submitted to DENR-EMB are for the issuance of ECC / CNC.		
Review and Clearance of Safeguards Documents.	Transmits approved Environmental Clearance Certificates (ECCs) and other relevant government permits and clearances to the LBP. Submits social safeguard documents (RAP, Abbreviated RAP) to LBP.	Reviews documents for acceptability and submits to the WB & JICA, if required. Exercises environmental due diligence Reviews documents acceptability, submits to the WB & JICA.	Reviews & issues NOL on the final EA report (only applies to classified Category A projects). JICA's advisory committee will advise Draft EA report and RAP/IPP.
Implementation - Supervision, Monitoring and Evaluation	Implements/monitors project compliance as per ECC and EMP, RAP/ARAP and IP Plan, if applicable Prepares Semi-Annual Environmental and Social Performance Audit Report. Provides resources for all activities related to the resettlement planning and implementation / Ensures projects are in compliance with the ESMF / Provides periodic Progress reports, incorporating monitoring results, to LBP.	Monitors project implementation and submits SECR to the WB & JICA on a semi-annual basis Reviews Environment and Social Audit Report, Conducts regular monitoring of safeguards implementation for submission to the WB & JICA.	

* Technical requirements for EIS projects

Philippine Environmental Impacts Statement System

All subprojects shall also undergo environmental screening under PEISS as a compliance process to the Philippine laws and the LBP policy. Under the PEISS, certain project types that are considered environmentally critical and all projects that are located in environmentally critical areas (Table 8) are required to prepare an Environmental Impact

Statement. The DENR Admin Order (DAO) No 30 Series of 2003 has further defined four categories of projects, based on their type, scale and location. Category A projects are considered environmentally critical projects (ECPs). Category B projects are not considered environmentally critical but are located in environmentally critical areas (ECAs) and are above certain scale or size thresholds. Category C projects are environmental enhancements such as wastewater treatment and solid waste management. Lastly, Category D projects are neither environmentally critical types nor located in environmentally critical areas or those that are below not environmentally critical but located in environmentally critical areas and are below certain scale or size thresholds. Category D subprojects are not required to prepare environmental impact statements (EIS). The Procedural Manual for DENR DAO 2003-30 specifies the scale or size thresholds which a non ECP located in ECA would fall under Category D.

Table 8: Environmentally Critical Projects and Areas

Environmentally Critical Projects (ECP)	Environmentally Critical Areas (ECAs)
<ol style="list-style-type: none"> 1. Heavy Industries <ol style="list-style-type: none"> a. Non-ferrous metal industries b. Iron and steel mills c. Petroleum and petro-chemical industries including oil and gas d. Smelting plants 2. Resource Extractive Industries <ol style="list-style-type: none"> a. Major mining and quarrying projects b. Forestry projects <ul style="list-style-type: none"> - Logging - Major wood processing projects - Introduction of fauna (exotic-animals) in public/private - forests - Forest occupancy - Extraction of mangrove products - Grazing c. Fishery Projects <ul style="list-style-type: none"> - Dikes for fishpond development projects 3. Infrastructure Projects <ol style="list-style-type: none"> a. Major dams b. Major power plants (fossil-fueled, nuclear fueled, hydroelectric or geothermal) c. Major reclamation projects d. Major roads and bridges. 4. Golf Course Projects 	<ol style="list-style-type: none"> 1. All areas declared by law as national parks, watershed reserves, wildlife preserves and sanctuaries; 2. Areas classified as prime agricultural lands; 3. Areas frequently visited and/or hard-hit by natural calamities (geologic hazards, floods, typhoons, volcanic activity, etc.) 4. Areas of unique historic, archaeological, or scientific interests; 5. Areas set aside as aesthetic potential tourist spots; 6. Areas which are traditionally occupied by cultural communities or tribes; 7. Areas which constitute the habitat for any endangered or threatened species of indigenous Philippine Wildlife (flora and fauna); 8. Areas with critical slopes (slopes of 40% or greater); 9. Recharged areas of aquifers; 10. Water bodies characterized by one or any combination of the following conditions: <ol style="list-style-type: none"> a. tapped for domestic purposes; b. within the controlled and/or protected areas declared by appropriate authorities; c. which support wildlife and fishery activities. 11. Mangrove areas characterized by one or any combination or the following conditions: <ol style="list-style-type: none"> a. with primary pristine and dense young growth; b. adjoining mouth of major river systems; c. near or adjacent to traditional productive fry or fishing grounds; 12. Areas which act as natural buffers against natural erosion, strong winds and storm floods; 13. Coral reef characterized by one or any combination of the following conditions: <ol style="list-style-type: none"> a. With 50% and above coralline cover; b. Spawning and nursery grounds for fish; c. Which act as natural breakwater of coastlines.

It is expected that most of the subprojects will fall within Category B or D. For Category D subprojects, the sub-borrower should also obtain from DENR a certificate of non-coverage (CNC). Category B subprojects are required under PEISS to undergo Initial Environmental Examination (IEE). The IEE, which also contains the ESMP, will serve as the subproject's environmental impact statement (EIS) which will be subject to review by the DENR with the issuance of an ECC) as the desired outcome.

The actual screening of subprojects based on the criteria shall be done by the sub-borrower. In doing so and especially for subprojects that are not listed in the table above, the sub-borrower should consult the latest version of the DENR Procedural Manual. The latest guidelines prevail in cases of conflict with the above classification guidelines. In case there are subprojects falling under Category A and B, the sub-borrower shall submit the necessary documentary requirements to the concerned regional office of the EMB for evaluation. The World Bank will conduct prior review of subprojects falling under Category A when warranted.

Figure 1. HARVEST ESMF Process Flow

KEY STEPS	PROCESS	REFERENCE DOCUMENT	INSTITUTIONAL ARRANGEMENTS
INITIAL SCREENING	<pre> graph TD A{Is it part of the OPG list?} -- Y --> B{Is it part of the negative list?} A -- N --> C{Is the project Category A?} B -- Y --> C B -- N --> D{Is the project Category B?} B -- N --> E{Is the project Category C?} C -- Y --> F[ESIA/ESMP] C -- N --> D D -- Y --> G[IEE/ESMP] D -- N --> E E -- Y --> F E -- N --> H[] </pre>	Annex 1 OPG List	LBP Lending Centers (if needed, PMO assists) determines if project is eligible using HARVEST eligible project and negative list of projects.
		Annex 2 Negative List	
ENVIRONMENTAL SCREENING	<pre> graph TD A{Is the project Category A?} -- Y --> B[ESIA/ESMP] A -- N --> C{Is the project Category B?} C -- Y --> D[IEE/ESMP] C -- N --> E{Is the project Category C?} E -- Y --> B E -- N --> F[] </pre>	Annex 3 ESSC, Annex 5 Recommended Format for ESIA, Annex 6 Sample TOR for ESIA Preparer	Sub-Borrower conducts screening and scoping of sub-project in coordination with relevant agencies. LBP EPMD determines category of projects as A, B or C, validates and confirms results of environment and social screening/scoping, informs the WB & JICA and consults with IMSC. Sub Borrower Hires Consultant for preparation of corresponding EA report for the Category. Annex 6 & 7
SOCIAL SCREENING	<pre> graph TD A{Will there be Land Acquisition resulting in displacement?} -- Y --> B{>= 200 DPs?} A -- N --> C{Involves ancestral domain/practice of IPs?} B -- N --> D[ARAP] B -- Y --> E[RAP] C -- Y --> F[IPP] C -- N --> G[] </pre>	Resettlement Policy Framework	Sub Borrower conducts due diligence on Resettlement & Compensation and Indigenous People; Abbreviated RAP and or full RAP, and IP Plan, if applicable.
		Annex 14 Full RAP, Annex 15 Abbreviated RAP	
		Indigenous Peoples Plan Framework, Annex 17 Elements of an Indigenous Peoples Plan	
REVIEW AND CLEARANCE OF DOCUMENTS			WB and JICA reviews the environmental and social safeguards documents for clearance for issuance of NOL
IMPLEMENTATION-MONITORING AND SUPERVISION			Sub Borrower implements/monitors project compliance as per ECC and EMP, RAP/ARAP and IP Plan, if applicable LBP monitors project implementation and

3.4 Retroactive Financing

Retroactive financing, as defined in the Loan Agreement between the WB, JICA, and LBP is possible under the project. For a project to be considered for retroactive financing, the subproject financing criteria, including those related to environment and social safeguards have to be met. For sub-projects that are retroactively financed, a due diligence post-review will be carried out for both environmental and social impacts as follows:

- *Environmental impacts.*

LBP will review the LBP sub-borrower project implementation to ensure compliance with environmental management requirements under the ESMF. If there are any outstanding environmental issues, necessary mitigation measures will be agreed and implemented to address them.

- *Social impacts.*

In projects where land has already been acquired, LBP sub-borrower will review the project to determine compliance with applicable national laws and provisions of this ESMF (including the RPF and IPPF), including consultation and disclosure requirements. LBP, on its part, will carry out due diligence to determine how the land was acquired and whether or not there are any outstanding claims, issues or risks associated with land acquisition, compensation or ownership. If necessary, additional mitigation measures will be developed and implemented. For purposes of due diligence, LBP will consider two types of assessment:

- i. for land acquired two years prior to the first identification mission by the WB and JICA, LBP shall determine whether or not the acquisition of land and resettlement was carried out in accordance with the national laws and regulations and whether there are any pending claims and legal issues; and
- ii. for land acquisition from the date of the first identification mission by the WB and JICA or where land acquisition activities are currently undergoing or recently been completed, LBP shall assess the land acquisition's compliance to the provisions of the ESMF (including the RPF/IPPF) and the World Bank's OP 4.12.

The Social and Environmental Compliance Report (SECR) will be prepared by the LANDBANK Borrower to briefly describe the safeguards aspects of each retroactively financed sub-project. The post-review reports and necessary mitigation measures will be reviewed by the LBP, WB and JICA. Compliance with the ESMF requirements is a condition for retroactive financing under the project.

3.5 Public Disclosure

This ESMF will be disclosed locally through the public library of LBP. It will be disclosed in English and be made available at the WB InfoShop. WB also require all other safeguards documents including project specific documents/mitigation plans prepared subsequently to be disclosed at the LBP public library. The LBP sub-borrower prepares these as separate and freestanding documents. All Category A projects' safeguards documents will be disclosed in the WB Infoshop.

Japan International Cooperation Agency shall disclose the ESIA submitted to DENR for at least 120 days before JICA's concurrence with approval of the sub-project, the ESIA certification, RAP, and IPP before JICA's concurrence with approval of the sub-project.

Japan International Cooperation Agency shall also disclose the result of environmental review on its website after the concurrence with approval of the sub-project.

LBP will consult project-affected groups and local non-governmental organizations on the project's environmental and social aspects, and will take their views into account. LBP through the LBP borrower will initiate these consultations as early as possible, and for meaningful consultations, provide relevant material in a timely manner prior to consultation, in a form and language(s) understandable and accessible to the groups being consulted.

3.6 Grievance Redress Mechanism

A Grievance Redress Mechanism (GRM) for the project is necessary for addressing legitimate concerns of affected individuals and groups who raise issues of concern during project implementation. Effective management of grievances is especially important in the context of resettlement, where issues concerning entitlements may arise.

LBP will establish a grievance redress mechanism to address and resolve any project-related grievances from project-affected people or other members of the public. It will be managed by the Program Officer of HARVEST PMO. As a matter of policy, the project will not prevent any party from seeking legal remedies from any government judicial body or proper courts.

The GRM will be detailed out in the project operational manual with the following principles:

- Simplicity – procedures in filing complaints is understandable to users and easy to recall.
- Accessibility – filing complaints is easy through means that are commonly used by stakeholders, especially by the project-affected people.
- Transparency – information about the system is made widely available to all stakeholders and the general public.
- Timeliness – grievances are attended to and resolved in a timely manner.
- Fairness – feedback or complaints are validated thoroughly and subjects of complaints are given due process and opportunities for appeal.
- Confidentiality – identity of complainants remains confidential.

To achieve these principles, the GRM will be set up with the following features:

- *Multiple Uptake Points*: To build trust and confidence in the GRM, complainants will be provided with multiple channels to submit their complaints. These include, among others, postal mail, electronic messages, telephone, SMS, personal delivery/walk-in, or through the mainstream and social media. A project GRM hotline will be established to be managed by the PMO Program Officer.
- *Timely resolution at the lowest possible level*: The project will strive to attend to complaints in a timely manner. To do this, it will designate a GRM contact person at the project level. In addressing and resolving complaints, the project will build on existing mechanisms in the community (community leaders, barangay officials, barangay justice system, etc.). It is only when the complaint is not resolved at this level that the complaint goes to the next level of the GRM for resolution.
- *System for receiving, sorting, verifying, and tracking*. A simple system will be developed for more effective management of complaints to guide the PMO on the steps and arrangements from receiving, sorting, verifying, acting and tracking complaints. These will be detailed out in the operational manual. Complaints will be

categorized and actions on the complaints will depend on the complaint category. The project will maintain a database documenting the salient details of complaints, including the dates they were received and when and what actions were taken. These documents will be available to the external monitoring team, World Bank and JICA. The project will monitor complaints and coordinate with the concerned LGUs and relevant government agencies as needed to resolve them adequately and expeditiously. LBP will keep the World Bank and JICA informed about significant complaints and the steps taken to resolve them through routine supervision and provide details in progress reports.

- *Publicly disclosed and easily accessible.* The complaints / grievance redress arrangements will be publically disclosed so that people are aware of where and how complaints will be managed. The GRM contact person assigned to the project will further ensure that people in the project's area of influence are aware of grievance management arrangements. Ideally complaints should be written, but if received verbally, the project contact person will ensure written documentation is made and that the complaint is dated and recorded.

Land Bank of the Philippines will require sub-borrowers to set up a functional GRM in their respective organizations following the salient features of the LBP GRM.

Communities and individuals who believe that they are adversely affected by a WB-supported project may submit complaints to existing project-level grievance redress mechanisms or the WB's Grievance Redress Service (GRS). The GRS ensures that complaints received are promptly reviewed in order to address project-related concerns. Project affected communities and individuals may submit their complaint to the WB's independent Inspection Panel which determines whether harm occurred, or could occur, as a result of WB non-compliance with its policies and procedures. Complaints may be submitted at any time after concerns have been brought directly to WB's attention, and Bank Management has been given an opportunity to respond.

For information on how to submit complaints to the World Bank's corporate Grievance Redress Service (GRS), please visit www.worldbank.org/grs.

For information on how to submit complaints to the World Bank Inspection Panel, see www.inspectionpanel.org.

Japan International Cooperation Agency also has 'Objection Procedures based on the Guidelines for Environmental and Social Considerations'. Objectives of the Objection Procedures are (i) to investigate whether or not JICA has complied with the Guidelines based on an objection and report the results to the President in order to ensure JICA's compliance with the Guidelines; and (ii) to encourage dialogues between the parties concerned based on their consent in order to assist early resolution of disputes concerning specific environmental and/or social problems caused by the project on which JICA had not complied with the Guidelines.

When JICA's non-compliance with the Guidelines regarding the project for which JICA provides cooperation has caused actual damage or are likely to cause damage in the future, two or more residents of the country could submit an objection. Japan International

Cooperation Agency appoints Examiners for the Guidelines who are under the direct control of the President and independent of line departments in order to achieve the above-mentioned two objectives in response to the objection.

*For information on specific procedures, please visit JICA's website
www.jica.go.jp/english/our_work/social_environmental/objection*

The focal person shall be the Program Officer of HARVEST as designated by Lending Programs Management Group (LPMG) of LANDBANK whose address and contact numbers are as follows:

The Program Officer
HARVEST
Programs Management Department – I
27th floor, LANDBANK Plaza, 1598 M.H. del Pilar corner Dr. J. Quintos Sts.
Malate, Manila 1004
Tel Nos: 522-0000 local 7450
E-mail address: lbpprogramsmanagement1@yahoo.com

Documentation of complaints and its resolution shall be properly done and its summary shall be part of the regular monitoring of the project.

Chapter 2. Resettlement Policy Framework

1. Introduction

This Resettlement Policy Framework (RPF) shall provide mitigation measures to address adverse impacts on affected households. The RPF also specifies appropriate roles and responsibilities for managing and monitoring social concerns related to the projects. The objectives, principles and measures proposed to mitigate adverse social impacts are made consistent with the provisions of the GOP regulations, WB, and JICA policies. Furthermore, this shall serve as guidelines in the preparation of Resettlement Action Plans (RAPs) and other related documents to be required by LBP, WB, and JICA from subproject proponents.

2. Definition of Terms

Compensation means payment in cash or in kind for an asset to be acquired or affected by project at replacement cost (as defined below).

Cut-off Date is the date prior to which the occupation or use of the project area makes residents / users of the project area eligible to be categorized as affected persons. The cut-off date coincides with the commencement of the census of affected persons within the project area boundaries. Persons making claims based on subsequent occupation after the cut-off date are not eligible for claims for compensation and other entitlements.

Displaced Person (DP) includes any person or persons, household (sometimes referred to as project affected family), a firm, or a private or public institution who, on account of the acquisition of assets in a project, would have their right, title or interest in all or any part of a house, land (e.g., residential, agricultural, and industrial, including pasturelands, fishponds, communal forest, etc.), fish pens, communal fishing grounds, annual or perennial crops and trees, or any other fixed or moveable asset acquired or possessed, in full or in part, permanently or temporarily, and who might suffer income or business loss as a consequence thereof. Eligible DPs may fall under any of the following three groups:

- Those who have formal legal rights to land including customary and traditional rights;
- Those who do not have formal legal rights to land at the time of the cut-off date but have a claim to rights to such land or assets; and
- Informal settlers who satisfy the condition for eligibility to compensation as provided in the definition of 'cut-off-date' above.

Non-eligible DPs include those making claims based on subsequent occupation after the cut-off date.

External Monitoring Agency (EMA) is the entity designated by Subproject Proponent to monitor the implementation of its Resettlement Plan.

Financial Assistance is the cash amount given to tenants/settlers/occupants of severely affected land on top of cash payment/compensation of their crops and other fixed assets actually damaged by a project. It will also be given to owners of land acquired under Commonwealth Act 141 for the area of the affected portion subject to Section 112 thereof, which grants government easement right over a 60-meter wide corridor. Financial

assistance will be determined based on applicable laws, in consultation with stakeholders and relevant government agencies, and thus given to:

- *Marginally and severely affected structures used for business, with or without title to the land, to cover for income loss;*
- *Marginally and severely affected farmlands, fishponds and fish pens that are not covered by any acceptable proof of ownership, including portions of property acquired through CA 141, Section 112, to cover for improvements introduced to make the property productive;*
- *Severely affected farmlands, fishponds and fish pens that are covered by a title or other acceptable proof of ownership (e.g. ancestral claim, usufruct, ancestral land claim, etc.);*
- *A displaced person (DP) who holds full title, tax declaration or some proof of traditional ownership (such as usufruct when the DP belongs to an indigenous community), to the land where his/her severely affected dwelling stands and who has to shift elsewhere; and*
- *An informal settler who has to shift elsewhere for food subsidy.*

Independent Shops are commercial stalls, such as groceries, vulcanizing shops, tailoring shops, beauty parlors, market stalls, hotels, movie houses, and similar establishments that serve as the owner's principal source of income. *Sari-sari* stores, i.e., variety shops that are usually attached to a dwelling unit, may fall in the same category of independent shops.

Indigenous People or Indigenous Cultural Communities (ICC) refer to a group of people or homogenous societies identified by self-ascription and ascription by others, who continuously live as an organized community on communally bounded and defined territory, and who have, under claims of ownership since time immemorial, occupied, possessed customs, traditions and other distinctive cultural traits, or who have through resistance to political, social and cultural inroads of colonization, non-indigenous religions and culture, became historically differentiated from majority of Filipinos. Indigenous Cultural Communities or IPs shall likewise include people who are regarded as indigenous on account of their descent from the populations which inhabited the country, at the time of conquest or colonization, or at the time of inroads of non-indigenous religions and cultures or the establishment of the present state of boundaries, who retain some or all their own social, economic, and political institutions, but who may have been displaced from their traditional domains or who may have resettled outside their ancestral domains.

Informal Settlers (a.k.a. informal dwellers or squatters) are persons who have occupied lands where they have no legal title of, tax declaration that can be perfected into a title, or those who are not covered by customary law (e.g., possessory rights, usufruct) or other acceptable proof of ownership. Informal settlers who are not professional squatters are eligible for compensation for lost assets and incomes, including entitlements.

Land Acquisition in this program means the process of obtaining the right to use the land whereby an owner or would-be-owner/registered claimant alienates permanently or temporarily all or part of the land he/she owns, claims or possesses to ownership and possession of other parties including the Government for public purpose. The modes of acquiring private assets are enumerated in Section 6.0 of this RPF.

LBP Borrower refers to large agribusiness enterprise/corporation, small and medium enterprise, cooperatives, private financing institutions and conduits of micro enterprises. It is also termed as Sub-project Proponent in some portion of this document.

Marginally Affected land or structure means less than 20% of the land or structure is affected and where the remaining unaffected portion is still viable for continued use.

Program refers to credit facility funded by WB and JICA being tagged here as HARVEST Program.

Professional Squatters, the term applies to persons who have previously been awarded home lots or housing units by the Government but who sold, leased or transferred the same to settle illegally in the same place or in another urban area, and *non-bona fide* occupants and intruders or lands reserved for socialized housing. This definition excludes individuals or groups that simply rent land and housing from professional squatters or squatting syndicates.

Project refers to the activity financed by LBP under the World Bank and JICA-funded HARVEST Program.

Sub-project Proponent refers to the LBP borrower which could be a large agribusiness enterprise/corporation, small and medium enterprise, cooperatives, private financing institutions and conduits of micro enterprises

Rehabilitation Support means additional assistance given to DPs whose source of income is severely impacted by the loss of productive assets, incomes, employment or sources of living, thereby requiring them to engage in some other income-earning activities. Rehabilitation support is intended to supplement payment of compensation and financial assistance as provided in 2.b. and 2.e for acquired assets in order to achieve full restoration of living standards and quality of life. The specific rehabilitation support to be given may be in the form of special skills training, project-related employment micro-credit and other self-help socio-economic measures.

Relocation means the physical shifting of DPs from their pre-project place to a new place of residence.

Replacement Cost is the method of valuation of assets that helps determine the amount sufficient to replace lost assets and cover transaction costs. In applying this method of valuation, depreciation of structures and assets should not be taken into account. The computation of replacement cost is determined by an independent appraiser hired by the Subproject Proponent or by a court of law as compensation for:

- Agricultural lands, fishponds and fish pens based on productive value or residential land based on replacement value (for properties with similar location attributes plus transaction cost);
- Houses and other related structures based on current market prices of materials and labor without depreciation and deductions for salvaged building materials plus costs of getting permits and other transaction expenses;
- Crops based on current value;

- Trees and other perennials based on the estimates of the Department of Environment and Natural Resources or those of the independent appraiser's;
- Other fixed assets such as mosques, churches, burial grounds, community wells, barangay halls and health centers based on replacement cost or cost of mitigating measures; and
- Businesses based on opportunity loss in income due to disturbance and business replacement prices of materials and labor without depreciation and deductions of salvaged materials.

Resettlement Action Plan (RAP) refers to all measures to be taken by the Sub-project Proponent in consultation with the community or the DPs and approved by the Lender, to mitigate any adverse social and economic impacts that are direct consequences of the acquisition of assets; and the provision of other entitlements, income restoration assistance, and relocation, as needed.

Rental Allowance is cash assistance given to house tenants of affected structures who will have to find a new place on account of the project, for the period between project site clearing and transfer to their new home.

Severely Affected Land / Structure means 20% or more of the land or structure is affected or when less than 20% is affected, the remaining portion is no longer viable for use.

Squatting Syndicates as defined by RA 7279 refers to groups of persons who are engaged in the business of squatter housing for profit or gain.

3. Overriding Development Objective

In the design and implementation of the projects, efforts must be exerted to ensure that all adverse impacts of acquisition of assets and properties are avoided. In the event displacements cannot be avoided, impacts shall be fully mitigated and that displaced persons (DPs) are benefited and not worse off. Toward this end, the following fundamental measures will be ensured:

- Land acquisition that will result in displacement or infringement of tenure right will be avoided or minimized exploring all viable alternative project designs;
- No demolition of assets and/or entry to properties will be done until a DP is fully compensated, except when a court of law grants a Writ of Possession to the Subproject Proponent for the subject property in expropriation cases as explained in Section 5 of this Framework;
- DPs are provided with sufficient compensation and assistance for lost assets, income sources, and livelihood that will assist them to improve, or at least maintain, their pre-project standard of living;
- Special attention is paid to affected vulnerable groups, such as poverty groups, persons with disabilities, women-headed households, people with weak or absent tenure rights, etc.; and
- All project stakeholders, including DPs, are consulted and are encouraged to participate in varying practicable ways in the design, implementation and operation of the project.

4. Institutional and Legal Framework

4.1 Institutional Framework

The key players and their roles and responsibilities in resettlement planning, implementation and monitoring are presented below. Table RPF-2 in Section 8 breaks down the roles and responsibilities of other participants in the resettlement planning, implementation and monitoring process.

World Bank and JICA

The WB will review this HARVEST Resettlement Policy Framework (RPF) to ensure its compliance with OP 4.12. It will agree with LBP on the adoption of the RPF as the set of guidelines on social safeguards for the Project. The WB and JICA will review all full RAPs and first three (3) Abbreviated RAPs prepared under the Program.

Land Bank of the Philippines

Through its Lending Centers, assisted by the PMO, LBP will review all project RAPs, whether full or abbreviated, to check its compliance with the agreed RPF.

Sub-project Proponent

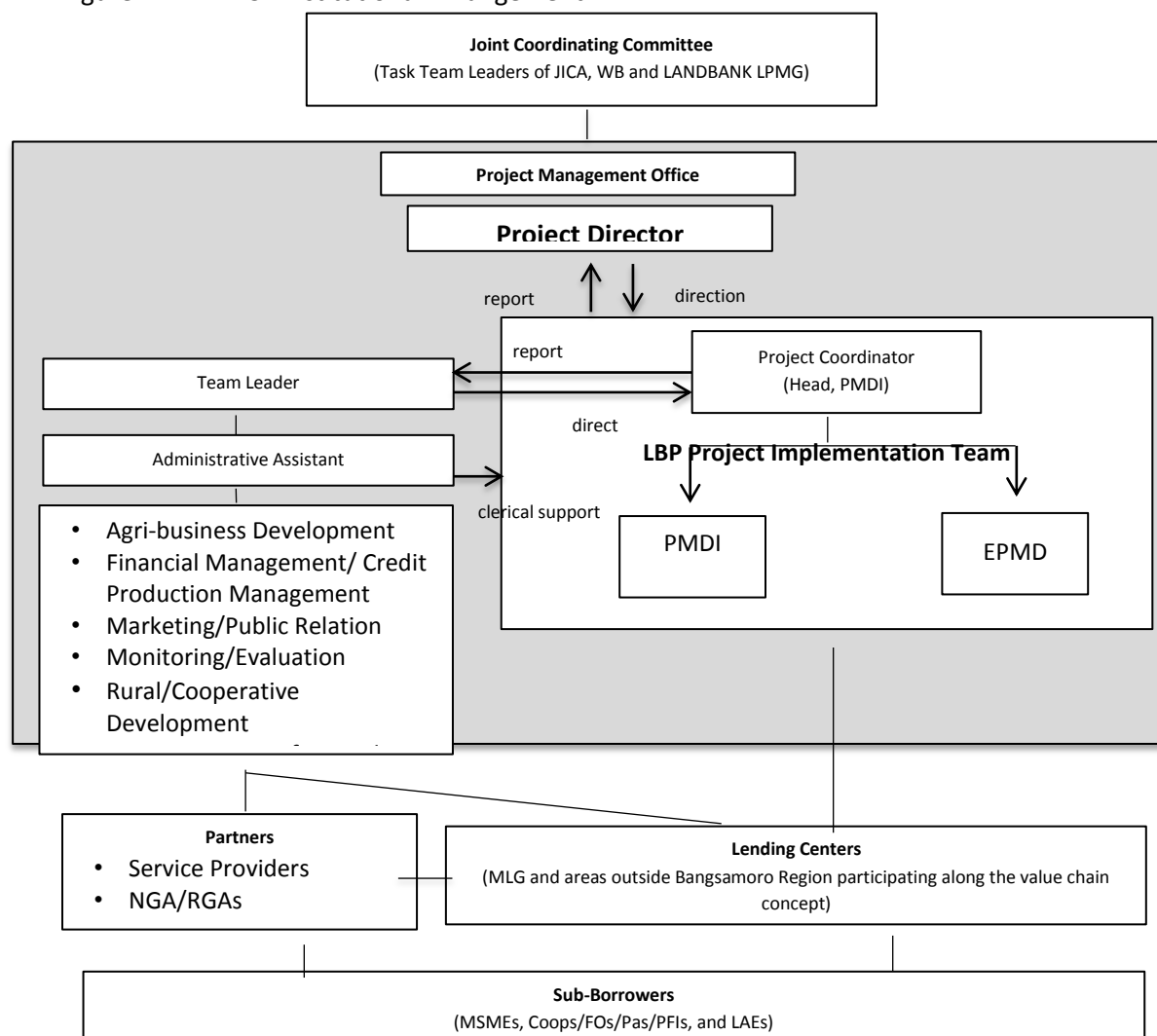
Through its PMO, the Sub-project Proponent will be responsible for the overall planning, implementation, coordination and monitoring and evaluation of land acquisition and resettlement activities under the project:

- It will ensure that RAPs are prepared, implemented and monitored and evaluated in accordance with the agreed RPF.
- The Subproject Proponent will set up a Resettlement Implementation Committee (RIC) for the implementation of the RAP. The specific responsibilities of the RIC include:
 - Assist the PMO in validating the list of DPs and inventory of affected assets and in finalizing the compensation and other entitlements due to the DPs;
 - Assist the PMO in the conduct of land research to determine the type of land affected and conflicts in law that should be resolved (e.g. water easement versus land titles, tenurial rights on CARP-covered properties, land titling and others);
 - Assist in the conduct of public information campaign and consultation and help ensure the participation of the public, especially the DPs;
 - Assist the PMO in the payment of compensation and other entitlement to DPs;
 - Receive complaints and grievances from DPs and other stakeholders and act on them accordingly;
 - Maintain a record of all public meetings, complaints, and actions taken to address complaints and grievances; and
 - In coordination with concerned government authorities, assist in the enforcement of laws / ordinances regarding encroachment into the project site or its ROW.
- The PMO Head will designate a staff to work closely with the RIC. The Subproject Proponent may engage the services of a Consultant, a Resettlement Specialist, to provide technical support to the PMO on resettlement planning.
- The Subproject Proponent will ensure that sufficient budget and resources are provided to the PMO for resettlement planning and implementation.
- The Subproject Proponent will be responsible for encouraging the active participation of stakeholders, particularly the displaced and host communities, in resettlement planning, implementation and M&E.

Affected Communities

It is also the responsibility of affected communities, particularly the DPs and host community/ies, to participate in consultations and in resettlement planning, implementation and M&E.

Figure 2. HARVEST Institutional Arrangement



4.2 Legal Framework

Government of the Philippines (GOP) Regulations

This RPF is anchored on the principle derived from the Bill of Rights of the Constitution of the Republic of the Philippines, which states:

- In Article II, Section 9, *“Private property shall not be taken for public use without just compensation.”*
- In Article III, Section I, *“No person shall be deprived of life, liberty, or property without due process of law, nor shall any person be denied the equal protection of the laws.”*

This RPF shares the same concern for due process and the right to just compensation for everybody. Adverse impacts by a project must be avoided or minimized, with the

appropriate resettlement measures, and that DPs are given the opportunity to share project benefits with the rest of the population, are the guiding principles of this Framework.

Other relevant GOP laws and orders pertaining to land acquisition and compensation shall be adopted and observed by the Subproject Proponent. See Table 1 below.

World Bank Policy

OP/BP 4.12 on Involuntary Resettlement provides the guidelines for the resettlement of project-affected population with the primary objective of assisting DPs in their efforts to improve their incomes and living standards, or at least restore them to pre-displacement levels. This policy is triggered when there is involuntary taking of land and other assets, or when involuntary restriction of access to legally designated and protected areas results in adverse impact on the livelihoods of the displaced persons. Only direct economic and social impacts resulting from “taking of land” are covered.

GOP and WB/JICA Policy, and RPF for HARVEST

Where there is a discrepancy in the resettlement and compensation standards of the existing laws in the Philippines and of the standards of the WB and JICA, the Subproject Proponent will comply with whichever is the higher standard.

Table 1: GOP Laws and Orders on Land Acquisition

Law / Order	Provisions
Executive Order 1035 (1985)	<p>Requires the conduct of:</p> <ul style="list-style-type: none"> • Feasibility study • Public Information Campaign • Parcellary survey • Assets inventory <p>Other features include</p> <ul style="list-style-type: none"> • Land acquisition, based on fair market value to be negotiated between owner & appraiser • Resettlement / relocation of tenants, farmers & other occupants • Financial Assistance to displaced tenants, cultural minorities & settlers equivalent to the average annual gross harvest for the last 3 years & not less than P15,000 per ha. • Disturbance compensation to agricultural lessees equivalent to 5 times the average gross harvest during the last 5 years • Compensation for improvements on land acquired under CA 141. <p>Government has power to expropriate in case agreement is not reached.</p>
Supreme Court Ruling (1987)	<ul style="list-style-type: none"> • Defines just compensation as fair & full equivalent for the loss sustained, taking into account improvements, location, capabilities, etc. • The value given by the appraiser can only serve as a guide for negotiation. The objective is to enable the DP to replace affected assets at current market price.
DPWH DO 142 (1995)	<ul style="list-style-type: none"> • Aims to avoid unnecessary delays in civil works. • Inclusion of parcellary plans & cost estimates for ROW acquisition in detailed engineering stage. • EO 1035 & MO 65 will still be followed in matters relating to the acquisition and compensation of private properties
RA 6389	<ul style="list-style-type: none"> • Provides for disturbance compensation to agricultural leases equivalent to 5 times the average gross harvest in the last 5 years.
RA 7279, Urban Development and Housing Act of 1992	<ul style="list-style-type: none"> • Provides guidelines for resettlement of persons living in danger areas, e.g., riverbanks, shorelines, & waterways or areas where government infrastructure projects are about to be implemented. Guidelines cover the provision of basic services & facilities in resettlement sites, livelihood support, meaningful participation & adequate social preparation for the affected households, close coordination between sending & host LGUs, grievance redress and related aspects. • Danger areas as enumerated in Article VII, Section 28 of RA 7279 includes Waterways but not specifically water/pipeline Right-of-Ways (ROW). The 2002 Bignay Incident of Manila Water showed that waterlines are potential danger areas. • Relocation involving court eviction cases shall be undertaken by the local government, agencies involved (in this case the MWSS) within forty-five (45) days from service of notice of final judgement by the court. • Informal settlers who built their house on or before the affectivity date (March 28, 1992) are entitled to all benefits and considerations prescribed in the said act. All those exempted or not covered by the said act will be dealt with accordingly (see Section 5.a).

RA 8368 (1997)	<ul style="list-style-type: none"> • Repealed PD 772 of 1975, which penalized squatting and similar acts. • All pending cases under the provisions of PD 772 are consequently dismissed.
RA 8371 (1997)	<ul style="list-style-type: none"> • Protects & recognizes rights of indigenous cultural communities on their ancestral lands.
RA 8974 (2000)	<ul style="list-style-type: none"> • Aims at ensuring that owners of real property acquired for NG infrastructure projects are promptly paid just compensation. It also provides for the compensation of affected improvements & structures at replacement cost (without depreciation & inclusive of labor costs for reconstruction) & the arrangement of independent appraisers for a more accurate determination of the market values of lands and improvements. Section 5 provides for standards in the determination of the fair market value of land:
	<ul style="list-style-type: none"> • SECTION 5. Standards for the Assessment of the Value of the Land Subject of Expropriation Proceedings or Negotiated Sale — In order to facilitate the determination of just compensation, the court may consider, among other well-established factors, the following relevant standards: <ul style="list-style-type: none"> i. The classification and use for which the property is suited; ii. The developmental costs for improving the land; iii. The value declared by the owners; iv. The current selling price of similar lands in the vicinity; v. The reasonable disturbance compensation for the removal &/or demolition of certain improvements on the land & for the value of improvements thereon; vi. The size, shape or location, tax declaration & zonal valuation of the land; vii. The price of the land as manifested in the ocular findings, oral as well as documentary evidence presented; and • Such facts & events as to enable the affected property owners to have sufficient funds to acquire similarly-situated lands of approximate areas as those required from them by the government, & thereby rehabilitate themselves as early as possible.
Commonwealth Act 141 (CA 141), Public Lands Act (1936)	<ul style="list-style-type: none"> • Institutes classification & means of administration, expropriation and disposition of alienable lands of the public domain. • Under Section 112, lands awarded for Free Patent are “subject to a right of right-of-way not exceeding sixty (60) meters in width for public highways, railroads, irrigation ditches, aqueducts, telegraph and telephone lines and similar works as the Government or any public or quasi-public service or enterprise, including mining or forest concessionaires, may reasonably require for carrying on their business, with damages for the improvements only.”
NCIP Administrative Order No. 3, Series of 2002	<ul style="list-style-type: none"> • Stipulates the processes necessary for securing FPIC from IP communities and EO 132 designating PCUP as clearing house for the conduct of demolition and eviction since both have bearing on actions related to IPs and RP
DAR Administrative Order No. 9, Series of 2006	<ul style="list-style-type: none"> • Stipulates rules and regulations governing agribusiness venture arrangements (AVA) in agrarian reform areas.

5. Compensation and Other Entitlements

The following guidelines will be applied to mitigate the effects of involuntary resettlement:

- Only those DPs found to be residing in, doing business in, or cultivating land, or having rights over resources within, the project area as of the cut-off date (e.g., date of start of census surveys) are eligible for compensation at full replacement cost for lost assets (i.e., land, structures and other fixed assets) and for other assistance. DPs will be compensated for affected land, based on their tenure status, e.g., legitimate owner, lessee, etc. Proof of ownership shall include full title, tax declaration of settlers in public land, possessory rights or usufruct, ancestral land claims, among others. However, in cases where a tax declaration over assets that are inalienable or those that cannot be titled as prescribed by law (e.g., river easement, forest reserve) is the only proof of ownership, only structures and other improvements found therein should be compensated.
- The Subproject Proponent shall compensate the DPs for land, structures and other fixed assets at “replacement cost” as defined in Section 2.
- DPs losing all of their lands and structures (e.g., farmland, house), or incurring partial loss but where the remaining assets and properties are determined by competent authorities as not viable anymore for continued use will be paid full compensation for the entire asset at replacement cost. The compensation for the entire asset at replacement cost may be given in cash or in kind. The Subproject Proponent will assume ownership of the said asset upon payment of full compensation thereof.
- In the case of DPs whose assets are “marginally affected” as defined in Section 2, compensation for the affected assets will be paid in cash.
- Informal settlers who are affected by the project and who are not “professional squatters”, as defined Section 2, are entitled to compensation at replacement cost for affected structures and other losses but not for land.
- Swap for “severely affected land” as defined in Section 2 will be in the form of land of equivalent productive value and/or characteristics at a location acceptable to the DPs, or if replacement land is not available, cash representing the current replacement value of the land. Replacement of residential and agricultural lands will be as close as possible to the land that was lost. All replacement lands for residence, commerce and agriculture will be provided with secured tenure status.
- In addition to compensation for crops or property acquired or damaged by the project, the Subproject Proponent will provide the following resettlement assistance to eligible DPs:
 - “Financial assistance” to tenants/settlers/occupants as provided in Section 2;
 - Rental allowance for house tenants of affected main structures who will have to find a new place on account of the project, equivalent to the period between project site clearing and transfer to their new home but not to exceed a period of three (3) months; and
 - Transportation assistance (in cash or in kind, depending on the mutual agreement of the DP and the Subproject Proponent) to DPs who are relocating, including displaced shanty dwellers in urban areas who opt to go back to their places of origin (e.g., province) or to shift to government relocation sites.
- Granting of rehabilitation support in the form of special skills training, project-related employment, micro-credit or other self-help socio-economic support to DPs who are severely affected due to the loss of productive assets and/or their primary source of income and which will require them to engage in some other income-earning activities. If needed, the Subproject Proponent will coordinate closely with concerned government

agencies that have the mandate and the expertise to undertake the needed rehabilitation assistance.

- Rehabilitation support will also be granted to severely affected vulnerable groups such as indigenous groups, single parent households, the handicapped, the elderly, etc., who have the least capacity to cope with the adverse social and economic impacts of development projects.
- For married couples, payment of compensation and other entitlements (i.e., financial assistance and rehabilitation support) will be given in the names of both husband and wife.
- Where relocation is considered necessary, the lot owner of the proposed relocation site will also be entitled to compensation for his/her land, and depending on his/her choice, the compensation may be in cash or in the form of replacement land, of the same value, within or outside the relocation site.
- The Subproject Proponent shall provide the relocation site for residential or commercial purposes with such basic services as electricity, water, drainage, sewer system, road system, etc.
- Plans for the acquisition of land and other assets will be carried out in consultation with the DPs who will receive prior information of the compensation, relocation and other assistance available to them.
- Any acquisition of, or restriction on access to resources owned or managed by DPs as a common property, e.g., communal forest, communal farm, or communal fishing ground, will be mitigated to ensure access of those DPs to equivalent resources on a continuing basis, where feasible, or other alternative measures to be determined in consultation with the DPs.
- Farmers/landowners in the interior area of a land acquired by the Subproject Proponent who would want to continue production on their own should be provided with land of the same productive capacity in a land swapping arrangement on the border of the acquisition area.
- Resettlement programs will include adequate institutional arrangements to ensure effective and timely design, planning, consultation and implementation of compensation and resettlement. The Subproject Proponent will ensure effective coordination with relevant agencies for the RAP preparation and implementation.
- The resettlement transition period will be minimized and the acquisition of assets, compensation, resettlement and rehabilitation for a segment/section or phase (except where long-term rehabilitation measures, such as vocational training recommended) will be completed at least one (1) month prior to the initiation of preparation for construction work under the respective segment/section or phase thereof.

Entitlements and compensation for the types of loss shall be guided by the Compensation Table in this Framework (Annex 15).

Technically, all informal settlers found to be at the project site at the time of the census, will be entitled to a specific compensation depending on the laws and standards being enforced at the beginning of the project. All possible means to alleviate the DPs will be exhausted to restore or even improve their level of living to the pre-resettlement level.

HARVEST shall, through a third party, provide legal assistance to farmers, small holders or IP groups in land use negotiation with agribusiness companies to protect their tenure rights.

6. Modes of Acquiring Private Assets

Private assets, e.g., land, structures and other improvements, may be acquired for the project through:

- Donation and/or grant of ROW,
- Negotiated purchase,
- Usufruct, and
- Lease agreement.

In the case of donation, meetings held regarding land donation/s will be documented. For donated land/s, documentation of donation must be signed by all legal owners, must note the total land area from which portion needed by project is taken, and must state the legal tenability of the donation (e.g. no lien, occupants in affected portion). An assessment report on the donor's economic viability will also be needed.

In the case of negotiated purchase, the Subproject Proponent will offer as the purchase price an amount equal to the replacement cost of the assets, as determined by an independent appraiser using internationally accepted procedures (See Annex 16).

The Sub-project Proponent will make the offer in writing and give the property owner 15 days within which to accept the amount offered as payment for his/her property. If the property owner agrees, he or she will issue to the Subproject Proponent a written permit to enter the property. A contract of sale will be subsequently executed between the property owner and the Subproject Proponent.

The Sub-project Proponent may also acquire a property through Usufruct. The property owner retains the naked ownership of the land, while the Subproject Proponent enjoys the benefit of the use of land. The Sub-project Proponent and the property owner will execute a usufruct agreement. The agreement will cover the rights and responsibilities of the two parties, including the duration of the usufruct.

The Sub-project Proponent may also acquire lands through lease agreements with the rightful property owner. The Subproject Proponent and the property owner will execute a Lease Contract. The contract will cover the rights and responsibilities of the two parties, including the duration of the lease.

The Subproject Proponent may resort to the imposition of an Easement of Right-of-Way provided for under the Philippine Civil Code. In such cases, a ROW easement agreement will be executed by the property owner and the Subproject Proponent, whereby the former will grant the latter the right to use the affected portion of the lot as ROW, but the owner retains ownership of the said portion of the lot. In these cases, the Subproject Proponent will pay the owner the value of the affected portion of the lot based on an independent appraiser carried out according to internationally accepted norms. In addition, the Subproject

Proponent shall compensate the property owner at replacement cost for any improvements and/or structures on the land affected by the ROW. The Sub-project Proponent will enter the easement area after the provision of the full payment for the easement to the property owner. The ROW easement agreement will be immediately registered with the Registry of Deeds. All land transaction should be registered with the Registry of Deeds for annotation in the title of subject property.

If the property owner contests the compensation payment, the Court will determine the just compensation to be paid to the owner within sixty (60) days from the date of the filing of the expropriation case. When the decision of the Court becomes final, the Subproject Proponent will pay the owner the difference between the amount already paid and the just compensation determined by the Court (see Implementing Rules and Regulations, RA 8974, Section 14). The DP will receive the additional payment within one (1) month following the decision of the court.

7. Application of the Participatory Process

The participatory process shall commence as early as during the project preparation stage and shall continue through to post-implementation evaluation. Key stakeholders will have valuable roles to play in each of the activities in the process.

7.1 Setting up of Resettlement Implementation Committee (RIC)

The RIC will be established to assist in RAP implementation, to be composed of:

- Head of the Subproject Proponent, or his designated representative, to serve as chair;
- If applicable, a representative of the NCIP or OSCC;
- Representative of the Barangay of affected communities (DP and host);
- Representative of the DPs in each affected barangay (to be elected by simple majority by DPs present in a meeting to be held for the purpose);
- If applicable, leader/s or elder/s of each affected IP group;
- Representative of a non-government organization (NGO) or people's organization (PO) actively operating in the project area (to be elected by simple majority by DPs present in a meeting to be held for the purpose)

The RIC will meet regularly to record milestones and update the members on the progress of the RAP. The following items may also be included in the agenda:

- Designation of specific assignments,
- RAP timetable,
- Reports to concerned agencies, and
- Other matters.

The RIC will have to work closely with the LGU, as the government's clearinghouse of resettlement to ensure that the RAP is properly implemented. They can also assist the PMO in accomplishing the requirements for the Certificate of Compliance to be issued by the LGU before any clearing operation takes place.

7.2 Project Preparation Stage

Pre-feasibility

The Subproject Proponent will conduct a stakeholder consultation about the project and its components:

- Explain the project,

- Discuss and explain the requirements of the project and its perceived impacts,
- Present tentative schedule of activities,
- Create awareness and appreciation about the project,
- Identify various project stakeholders,
- Present the HARVEST RPF, and
- Discuss the composition of the Resettlement Implementation Committee.

Other target participants to this meeting are heads of LGU departments relevant to the project and chair/s of the affected barangay/s.

General Orientation of the Community

Before undertaking any survey activity in the community, the Sub-project Proponent will conduct a thorough barangay meeting to orient and ensure that the community understands the nature and extent of the proposed project, as well as the rights and entitlements of those who may be affected or displaced as a result of the project. Awareness of the project will hasten the data-gathering process and ensure quality of data.

The RPF will also be discussed with the communities to have an appreciation of the processes and procedures. The RPF will be publicly posted / disclosed and will be available to the community if they want to discuss it further with the community members.

Community orientation will be facilitated by barangay officials and assisted by the PMO to ensure correctness of information to be relayed to each member of the community. The agenda for this community orientation could be:

- Project overview including overall objectives and merits,
- Identification and discussion of the likely impacts of the project,
- Activities to be undertaken, including the project schedule,
- Roles of the community with regards to the long-term sustainability,
- Resettlement Policy Framework, and
- Other matters.

Social Assessment

The Sub-project Proponent will conduct an assessment of the positive and negative impacts of the project especially to the affected community, identifying all types of possible risks involved. This will be most critical in deciding whether to push through the project or not. Often, projects though initially conceived as beneficial, may in turn have to adverse socio-economic, environmental and cultural impacts, which are easily overlooked. The assessment will be carried out with the participation of various stakeholders (through consultations, focused group discussions and key informant interviews) especially those that will be adversely affected from the project and the concerned barangay. Where IP settlements / communities are affected, assessment activities should be coordinated with the NCIP or the Office of Southern Cultural Communities (OSCC) in the ARMM, prior to the field investigation. Results of such investigation will form part of the assessment. The Social Assessment will be incorporated in the ESIA.

Feasibility

Draft RAP Preparation

Based on the results of the Social Assessment, a full-blown socio-economic survey of the DPs, including an inventory and valuation of affected assets, will be conducted to arrive at an appropriate Resettlement Plan (RAP). The RAP should include the amounts and the process to be used in the payment of compensation to the DPs.

A separate survey should be conducted for IPs or cultural minorities especially when they are not closely attached to the mainstream society. In such cases, a separate RAP should be prepared for the group. (Refer to Section 9 of this Framework.)

The RPF applies to all resettlement impacts, regardless of the number of people involved or the level of severity experienced. However, the level of details contained in the RAP will vary according to the target group, complexity, scale, and severity of resettlement. A full RAP will be required where 200 or more persons are affected. If less than 200 persons are affected or impacts are “minor” (i.e., people are not physically displaced and less than 10 percent of their productive assets are lost), an abbreviated RAP may be prepared. Annexes 14 and 15

Presentation of the Draft RAP

Upon completion of the draft RAP, the Subproject Proponent will present it to the Resettlement Implementation Committee (RIC) with a view that a consensus will be achieved on the following:

- Resettlement program,
- Relocation sites,
- Roles and responsibilities in the RAP implementation, and
- Identified members of RIC.

Community Consultation

Community consultation should be conducted continuously throughout the RAP preparation and implementation cycle. Specifically during preparation stage, consultation should continue until a RAP acceptable to the DPs is arrived at. All aspects of the project should be known to the affected community and if necessary, leaflets and brochures be distributed for greater information coverage.

Affected communities will also be informed on the mechanics and procedures for consultations, grievance redress mechanism, and the overall resettlement program.

For indigenous groups, the NCIP/OSCC will be tapped to lead the consultations and to have a more in depth analysis of the socio-cultural implications of the project. All proceedings and consultations will be recorded and form part of the RAP.

Finalization of the RAP and the Technical Design

All suggestions and relevant information introduced by the DPs should be included in the RAP. The PMO will again meet the RIC and selected members of the community, particularly the People's Organization (PO) leaders, Purok leaders or other recognized leaders representing the DPs to orient them with the results of all studies and assessments made to ensure that the project will proceed as agreed upon.

A copy of the final RAP and the technical design will be given to each affected barangay for reference purposes to ensure all procedures and agreements are included and met.

7.3 Project Implementation Stage

Participation in the Implementation

Whenever possible, DPs will be contracted in the implementation of various activities in the project.

Monitoring of the RAP

The PMO, assisted by the RIC will enlist the participation of the DPs in the internal monitoring of the RAP. Representation of the DPs in the monitoring of the implementation will provide a more accurate reading of the community's feelings and reactions. The internal monitoring will focus specifically on the following:

- Seeing to it that the RAP is implemented as designed and approved; and
- Verifying if funds for implementation are provided by the Subproject Proponent in a timely manner and in amounts sufficient for their purposes and that the funds are used in accordance with the provisions in the RAP.

LBP PMO will commission an External Monitoring Agent (EMA) to conduct twice a year 3rd Party spot check.

7.4 Post Project Implementation Stage

Evaluation of the RAP Implementation

Upon completion of the RAP implementation, RIC will evaluate the different stages of the RAP preparation and implementation, and the various processes and methodologies used. Areas for improvement and best practices will be identified for future use.

The EMA will give its independent evaluation of the RAP and its implementation, and document this as a Resettlement Completion Report. All recommendations and comments will be documented and archived for future reference.

8. Costs and Budgets

The Sub-project Proponent will be responsible for providing needed resources for all activities related to the RAP planning and implementation, including the operation of the RIC.

Each RAP will include detailed cost estimates for compensation and relocation of DPs, if that be the case, with a breakdown by category of DPs, agricultural, residential and business lands; houses, structures and other fixed assets affected; transport assistance when shifting DPs; etc. Cost estimates will make adequate provisions for contingencies.

Table 2: Roles and Responsibilities

Project Stage	Participatory Activities	Participants	Responsible Office/ Institution
Project Preparation Pre-Feasibility Study	Preliminary meeting within the Subproject Proponent for the overview of the proposed project	Subproject Proponent management committee,	Subproject Proponent &/or its Consultant, a Resettlement Specialist (RS)
	General orientation-meeting, barangay level, preparatory to conduct of technical, social & environmental studies	Subproject Proponent, concerned barangay officials, DPs, affected communities	Subproject Proponent &/or its RS
	Conduct of Social Impact Assessment	Subproject Proponent, DPs, affected communities	Subproject Proponent &/or its RS
Feasibility Study	RAP preparation, census & socio-economic survey	Community heads, concerned barangay officials, DPs	Subproject Proponent &/or its RS, Community heads
	Project draft RAP orientation	Subproject Proponent- attached units, affected barangay captain/s	Subproject Proponent &/or its RS
	Community consultation on draft RAP	Community heads, DPs, affected communities	Affected barangay officials, Subproject Proponent &/or its RS
Finalization of RAP and Technical Design	RAP finalization	Community heads	Subproject Proponent &/or its RS
	Final RAP orientation for LGUs, DPs & affected communities	Subproject Proponent- attached units, affected barangay officials, community heads, DPs, affected communities	Subproject Proponent &/or its RS
Implementation			

	Implementation of RAP	Affected barangay officials, community heads, DPs, Subproject Proponent, RIC	Subproject Proponent &/or its RS & RIC
	Internal monitoring of RAP implementation	RIC, Subproject Proponent, community heads, DPs	LBP-PMO, Subproject Proponent &/or its RS, LGUs and Community Heads
	External Monitoring	EMA	EMA
Post-Implementation	Evaluation of RAP, processes and methodologies	RIC, DP reps, EMA, Subproject Proponent, reps of relevant NGO & PO	LBP-PMO, Subproject Proponent &/or its RS & EMA

9. Grievance Redress Mechanism

A Grievance Redress Mechanism (GRM) for the project is necessary for addressing legitimate concerns of affected individuals and groups who raise issues of concern during project implementation. Effective management of grievances is especially important in the context of resettlement, where issues concerning entitlements may arise.

Landbank of the Philippines will establish a grievance redress mechanism to address and resolve any project-related grievances from project-affected people or other members of the public. It will be managed by the Program Officer of HARVEST PMO. As a matter of policy, the project will not prevent any party from seeking legal remedies from any government judicial body or proper courts.

The GRM will be detailed out in the project operational manual with the following principles:

- **Simplicity** – procedures in filing complaints is understandable to users and easy to recall.
- **Accessibility** – filing complaints is easy through means that are commonly used by stakeholders, especially by the project-affected people.
- **Transparency** – information about the system is made widely available to all stakeholders and the general public.
- **Timeliness** – grievances are attended to and resolved in a timely manner.
- **Fairness** – feedback or complaints are validated thoroughly and subjects of complaints are given due process and opportunities for appeal.
- **Confidentiality** – identity of complainants remains confidential.

To achieve these principles, the GRM will be set up with the following features:

- **Multiple Uptake Points:** To build trust and confidence in the GRM, complainants will be provided with multiple channels to submit their complaints. These include, among others, postal mail, electronic messages, telephone, SMS, personal delivery/walk-in, or

through the mainstream and social media. A project GRM hotline will be established to be managed by the PMO Program Officer.

- *Timely resolution at the lowest possible level:* The project will strive to attend to complaints in a timely manner. To do this, it will designate a GRM contact person at the project level. In addressing and resolving complaints, the project will build on existing mechanisms in the community (community leaders, barangay officials, barangay justice system, etc.). It is only when the complaint is not resolved at this level that the complaint goes to the next level of the GRM for resolution.
- *System for receiving, sorting, verifying, and tracking.* A simple system will be developed for more effective management of complaints to guide the PMO on the steps and arrangements from receiving, sorting, verifying, acting and tracking complaints. These will be detailed out in the operational manual. Complaints will be categorized and actions on the complaints will depend on the complaint category. The project will maintain a database documenting the salient details of complaints, including the dates they were received and when and what actions were taken. These documents will be available to the external monitoring team, WB and JICA. The project will monitor complaints and coordinate with the concerned LGUs and relevant government agencies as needed to resolve them adequately and expeditiously. Landbank of the Philippines will keep WB and JICA informed about significant complaints and the steps taken to resolve them through routine supervision and provide details in progress reports.
- *Publicly disclosed and easily accessible.* The complaints / grievance redress arrangements will be publically disclosed so that people are aware of where and how complaints will be managed. The GRM contact person assigned to the project will further ensure that people in the project's area of influence are aware of grievance management arrangements. Ideally complaints should be written, but if received verbally, the project contact person will ensure written documentation is made and that the complaint is dated and recorded.

LBP will require sub-borrowers to set up a functional GRM in their respective organizations following the salient features of the LBP GRM.

Communities and individuals who believe that they are adversely affected by a World Bank (WB) supported project may submit complaints to existing project-level grievance redress mechanisms or the WB's Grievance Redress Service (GRS). The GRS ensures that complaints received are promptly reviewed in order to address project-related concerns.

Communities and individuals who believe that they are adversely affected by a WB-supported project may submit complaints to existing project-level grievance redress mechanisms or the WB's GRS. The GRS ensures that complaints received are promptly reviewed in order to address project-related concerns. Project affected communities and individuals may submit their complaint to the WB's independent Inspection Panel which determines whether harm occurred, or could occur, as a result of WB non-compliance with its policies and procedures. Complaints may be submitted at any time after concerns have been brought directly to the WB's attention, and Bank Management has been given an opportunity to respond.

For information on how to submit complaints to the World Bank's corporate Grievance Redress Service (GRS), please visit www.worldbank.org/grs.

For information on how to submit complaints to the World Bank Inspection Panel, see www.inspectionpanel.org.

Japan International Cooperation Agency also has 'Objection Procedures based on the Guidelines for Environmental and Social Considerations'. Objectives of the Objection Procedures are (1) to investigate whether or not JICA has complied with the Guidelines based on an objection and report the results to the President in order to ensure JICA's compliance with the Guidelines; and (2) to encourage dialogues between the parties concerned based on their consent in order to assist early resolution of disputes concerning specific environmental and/or social problems caused by the project on which JICA had not complied with the Guidelines.

When JICA's non-compliance with the Guidelines regarding the project for which JICA provides cooperation has caused actual damage or are likely to cause damage in the future, two or more residents of the country could submit an objection. JICA appoints Examiners for the Guidelines who are under the direct control of the President and independent of line departments in order to achieve the above-mentioned two objectives in response to the objection.

For information on specific procedures, please visit JICA's website www.jica.go.jp/english/our_work/social_environmental/objection

The focal person shall be the Program Officer of HARVEST as designated by Lending Programs Management Group (LPMG) of LANDBANK whose address and contact numbers are as follows:

The Program Officer
HARVEST
Programs Management Department – I
27th floor, LANDBANK Plaza, 1598 M.H. del Pilar corner Dr. J. Quintos Sts.
Malate, Manila 1004
Tel Nos: 522-0000 local 7450
E-mail address: lbpprogramsmanagement1@yahoo.com

Documentation of complaints and its resolution shall be properly done and its summary shall be part of the regular monitoring of the project.

Chapter 3. Indigenous Peoples Policy Framework

1. Background

HARVEST is a demand-driven project and in cases where IPs are affected during project implementation, there is a need to protect their rights. To ensure that indigenous peoples communities are present, the Project should deliberately seek their genuine involvement in project decision-making. These Procedural Guidelines seek to ensure that affected Indigenous Peoples communities are informed, meaningfully consulted and mobilized to participate in the planning, implementation and monitoring of projects to be supported by HARVEST. The Guidelines support the priority given to Indigenous Peoples by the Government of the Philippines (Republic Act 8371-Indigenous Peoples Rights Acts Law), UN Declaration on Rights of Indigenous Peoples, the United Nations Concept of Native Title, and the World Bank's Operational Directive 4.10 (Indigenous Peoples)

2. Objectives

The Indigenous Peoples Policy Framework (IPPF) seeks to ensure that where indigenous peoples are found as a community within the areas affected by program intervention, they are informed, meaningfully consulted and mobilized to participate in the project decision-making. By doing so, the following specific objectives are expected to be met:

- a) Positive effects to their cultural communities shall be enhanced;
- b) Potentially adverse effects on their communities shall be avoided whenever feasible;
- c) Unavoidable adverse effects shall be minimized, mitigated or compensated, and
- d) Benefits for IPs are received with more certainty and that project design is culturally appropriate and gender and inter generationally inclusive.

3. Identifying Indigenous Peoples

“Indigenous Peoples” will be used to refer to cultural communities, tribal groups that can be identified in particular geographical areas by their presence in varying degrees of the following characteristics:

- Self-identification as member of a distinct indigenous cultural group and recognition of this identity by others;
- Collective attachment to geographically distinct habitats or ancestral territories in the project area;
- Customary cultural, economic, social or political institutions that are separate from those of the dominant society; and
- An indigenous language, often different from the official language of the country or region.
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4. Social Assessment and Need for IP Plans.

A Social Impact Assessment (SIA) will be conducted once the project is enrolled under HARVEST to determine if there are project-affected population, land acquisition and asset

losses that may result from the project's implementation. The results from the assessment will form part of the ESIA.

Since there could be a possibility of IP communities that can get positively or negatively affected during project implementation, this Framework is provided to ensure that potential impacts on the cultural way of life among IP communities are avoided or mitigated if effects are negative, and that positive impacts are maximized by ensuring that they are culturally appropriate.

Indigenous People Plans shall be formulated and guided by this Framework to help ensure the meaningful participation of the affected IP community. It shall also document the incorporation of social assessment to help ensure cultural appropriateness of project benefits and how these may be better accessed by IPs. Also, it will incorporate measures to avoid, mitigate and/or compensate for adverse impacts.

5. Legal and Institutional Guidelines

The Philippines is recognized for its progressive policy and legal support for IP rights. It has supported various international agreements and conventions to protect the rights and culture of IPs, among them: Declaration on the Rights of Persons Belonging to National or Ethnic, Religious and Linguistic Minorities; United Nations Draft Universal Declaration on the Rights of Indigenous Peoples.

The 1987 Constitution, laid the foundation for the recognition of the rights of the IPs to their ancestral domains and their power of dominion over their lands and resources. Among its pertinent provisions are:

- a) Section 17, Art. XIV: *"customary laws governing property rights or relations shall be applied in determining the ownership and extent of ancestral domains; and*
- b) Section 22, Art. II, Section 5, Art. XII: *"...the rights of indigenous peoples to natural resources pertaining to their lands shall be specially safeguarded..."* These rights include the right of the IPs to participate in the use, management and conservation of natural resources.
- c) The right to stay in their territory and not be removed from there except when relocation is necessary as an exceptional measure, as in the case of an ecological disaster or armed conflict. IPs have a right to return to their territories once the ground for relocation ceases.

Congress passed Republic Act No. 8371, the Indigenous Peoples Rights Act of 1997. The law states certain requirements in activities and programs affecting Indigenous Peoples. Some relevant provisions include:

- a) Chapter III, Section 7b: *"...IPs have the right to an informed and intelligent participation in the formation and implementation of any project, government or private that will impact on their ancestral domain..."*
- b) Chapter IV, Section 16: *"...IPs have the right to participate in decision-making, in all matters which may affect their rights, lives and destinies, through procedures determined by them as well as to maintain and develop their own indigenous political structures..."*

Under this law, IPs are vested with the right to self-governance and empowerment. This is operationalized through the mechanism of Free and Prior Informed Consent (FPIC). The NCIP is mandated to ensure that IP rights and concerns are protected and advanced in projects proposed that affect their ancestral domains.

Pursuant to Section 80 of the IPRA law, some relevant implementing rules and regulations are used for guidance:

- a. Right to Stay in Territories and Not to be Displaced Therefrom (Rule 3, Part II Sec.4 (a,b, c) . The rights of ICCs/IPs to stay in their territories shall remain inviolate. No ICCs/IPs shall be relocated without their free and prior informed consent or through any means other than eminent domain.
- b. All persons or entities allowed under the Act to participate in land development, utilization, exploitation, and extraction of natural resources, and government offices or agencies allowed to undertake or implement infrastructure projects within ancestral lands/domains, shall submit to the NCIP, through the concerned Regional Office, a culture-sensitive Environmental Conservation and Protection Program (ECPP) stating in detail the environmental impact of such activities or projects proposed, control and rehabilitation measures and financial resource allocations therefore, implementation schedules, compliance guarantees and evaluation and monitoring schemes (Rule 3, Part II Sec 6 (b).
- c. Rule 4, Part 3, Sec 7 (a, b, c), Development and Cultural Activities Subject to Free and Prior Informed Consent (FPIC). Policies, programs, projects, plans and activities in ancestral domains subject to free and prior informed consent shall include but not be limited to the following
 - Exploration, development, exploitation and utilization of natural resources within ancestral domains/lands;
 - Research in indigenous knowledge, systems and practices related to agriculture, forestry, watershed and resource management systems;
 - Displacement and Relocation
- d. NCIP AO #3 Series of 2012 Revised Guidelines on Free and Prior Informed Consent and Related Processes. Of particular interest in this issuance are 1) recognition of the possibility of and the need to guarantee protection of displaced and relocated IPs (Section 2, Objective g); 2) a more liberal procedure for getting FPIC for non-extractive projects (Section 24); and 3) requiring validation procedure instead of FPIC requirements for foreign funded projects undertaken in cooperation with NCIP (section 41), and 4) dispensing with FPIC requirements for emergency projects.
- e. WB OP/BP 4.10 (Indigenous Peoples). This policy contributes to the Bank's mission of poverty reduction and sustainable development by ensuring that the development process fully respects the dignity, human rights, economies, and cultures of Indigenous Peoples. For all projects that are proposed for Bank financing and affect Indigenous Peoples, the Bank requires the borrower to engage in a process of free, prior, and informed consultation. The Bank provides project financing only where free, prior, and informed consultation results in broad community support to the project by the affected Indigenous Peoples. Such Bank-financed projects include measures to (a) avoid potentially adverse effects on the Indigenous Peoples'

communities; or (b) when avoidance is not feasible, minimize, mitigate, or compensate for such effects. Bank-financed projects are also designed to ensure that the Indigenous Peoples receive social and economic benefits that are culturally appropriate and gender and inter-generationally inclusive.

f. JICA's Guidelines for Environmental and Social Considerations.

6. Guiding Principles

- a) HARVEST shall ensure that poor communities of Indigenous Peoples are given dedicated consultation and decision-making processes, especially when projects pose potential adverse impacts to them as a community. The Project must assure that IPs do not suffer adverse effects during and after project implementation as well as receive culturally compatible social and economic benefits.
- b) Subproject Proponent must ensure at all times that development processes implemented by the Project foster full respect for the Indigenous Peoples' dignity, human rights and cultural uniqueness.
- c) Consensus of all IP members affected must be determined in accordance with their respective laws and practices, free from any external manipulation, interference and coercion, and obtained after fully disclosing the intent and scope of the project activity, in a language and process understandable to the community. The conduct of field-based investigation and the process of obtaining the Free and Prior Informed Consent (FPIC) shall take into consideration the primary and customary practices of consensus-building, and shall conform to Section 14 (Mandatory Activities for Free and Prior Informed Consent) of NCIP Administrative Order No.3, series of 2002, and A.O. #3 Series of 2012 (Revised Guidelines on FPIC and related processes).
- d) HARVEST must ensure that none of its financed infrastructure or related projects will damage non-replicable cultural property. In cases where infrastructure projects (i.e. roads, irrigation, etc.) will pass through sites considered as cultural properties of the IPs, HARVEST must exert its best effort to relocate or redesign the projects, so that these sites can be preserved and remain intact in situ.
- e) The Indigenous Peoples should be consulted to ensure that their rights are not violated and that they be compensated for the use of any part of their domain in a manner that is acceptable to the tribe. *The compensation for affected land and assets will follow the Resettlement Policy Framework prepared by the Project*
- f) In the event that a project involves land acquisition or use of other resources which may adversely affect Indigenous Peoples, HARVEST shall:
 - Require that the agreed upon policy framework for compensation for land and other asset acquisition be followed;
 - Not to allow work to start on the project unless the documentation of the consultations and the corresponding agreements are submitted; and
 - Not to allow work to start on the project until compensation and/or other required rituals have been completed to the satisfaction of the indigenous tribes affected (and the same should likewise be documented).

7. Partnership-Building between Subproject Proponent and IP Institutions

HARVEST will facilitate the productive partnerships between Sub-project Proponent, IP communities (as represented by their tribal councils), and NCIP or OSCC whether these are found at the community, barangay, municipal or ancestral domain levels.

8. Use of Appropriate Communication Media, Strategies and Tactics for IP Mobilization

- a) Presentation meetings must be conducted in the local or native language. In addition, facilitators must use simple and uncomplicated process flows during these interactions with IPs. Local patterns of social organization, religious beliefs and resource use must be reckoned with in the process of preparing any development response affecting the IPs.
- b) Adherence by Project Implementers and Subproject Proponents to Documentation of Interactions with IP Communities and Compliance to Agreements Made. Project implementers must adhere to the requirements for documentation of meetings conducted with IP communities, especially those which pertain to acquisition by Subproject Proponents of the Free and Prior Informed Consent of IPs. The Executing Agencies, together with the provincial, municipal and barangay LGUs shall not proceed with project implementation unless the corresponding documentation of meetings with the IP communities are submitted to HARVEST-PMO and have been reviewed and evaluated.

9. Participation in Development, Monitoring and Evaluation of Mitigation Measures

- a) Where projects pose potential adverse impacts on the environment and the socio-economic-cultural-political lives of these IP communities, IPs must be informed of such impacts and their rights to compensation. Compensation for land and other assets to be acquired will follow the Project's Resettlement and Compensation Framework.
- b) Should IPs grant their approval for such projects with potential adverse impacts, Executing Agencies must ensure that affected IP communities must be part of the development of action plans to ensure their involvement in the implementation, monitoring and evaluation of mitigation measures agreed upon.
- c) Should potential effects be positive or beneficial to the IPs, specific plans shall be made to ensure that benefits are enhanced by ensuring its cultural responsiveness.
- d) Project implementers must adhere to the requirements for documentation of meetings conducted with IP communities, especially those which pertain to acquisition by Subproject Proponents of the Free and Prior Informed Consent of IPs. The Subproject Proponent shall not proceed with project implementation, unless the corresponding documentation of meetings with the IP communities are submitted to and approved by LBP-PMO.

10. Coordination, Supervision and Monitoring:

- a) The barangay or municipal tribal council, as applicable, will be the liaison with the Subproject Proponent in all activities relating to the HARVEST
- b) Supervision meetings/visits of project or project activities will be done periodically (frequency to be established during project implementation) by the Executing Agencies through their representatives, who will involve the local IP representatives in these

meetings/visits. Documentation of such visits/meetings must be furnished to the nearest service center of the NCIP or OSCC, or its Provincial or Regional Office. The respective Focal Persons will monitor or help facilitate required follow-up actions to ensure that projects benefit the IPs according to the agreements made, and that compensation or mitigation measures as documented are completed on time.

- c) Supportive Monitoring will be done regularly, involving affected IP communities and NCIP representatives, with emphasis on the following concerns: benefits received by IPs and resolution of issues lodged by them.

11. Grievance and Redress Mechanism

A GRM for the project is necessary for addressing legitimate concerns of affected individuals and groups who raise issues of concern during project implementation. Effective management of grievances is especially important in the context of resettlement, where issues concerning entitlements may arise.

LBP will establish a grievance redress mechanism to address and resolve any project-related grievances from project-affected people or other members of the public. It will be managed by the Program Officer of HARVEST PMO. As a matter of policy, the project will not prevent any party from seeking legal remedies from any government judicial body or proper courts.

The GRM will be detailed out in the project operational manual with the following principles:

- Simplicity – procedures in filing complaints is understandable to users and easy to recall.
- Accessibility – filing complaints is easy through means that are commonly used by stakeholders, especially by the project-affected people.
- Transparency – information about the system is made widely available to all stakeholders and the general public.
- Timeliness – grievances are attended to and resolved in a timely manner.
- Fairness – feedback or complaints are validated thoroughly and subjects of complaints are given due process and opportunities for appeal.
- Confidentiality – identity of complainants remains confidential.

To achieve these principles, the GRM will be set up with the following features:

- Multiple Uptake Points: To build trust and confidence in the GRM, complainants will be provided with multiple channels to submit their complaints. These include, among others, postal mail, electronic messages, telephone, SMS, personal delivery/walk-in, or through the mainstream and social media. A project GRM hotline will be established to be managed by the PMO Program Officer.
- Timely resolution at the lowest possible level: The project will strive to attend to complaints in a timely manner. To do this, each sub-project will designate a GRM contact person who is expected to conduct constant consultation with project stakeholders. In addressing and resolving complaints, the project will build on existing mechanisms within the company and in the community (IP leaders, community leaders, barangay officials, barangay justice system, etc.). It is only when the complaint is not resolved at this level that the complaint goes to the Project-level GRM for resolution.

Specifically for issues involving IPs, there are three levels of issue resolution and these are:

- a) Barangay Level: All complaints shall be discussed and negotiations must be carried out in the specific communities where affected indigenous peoples live. The barangay and the tribal council concerned should facilitate this process and the PMO must ensure that affected IPs are properly represented. Resolution of conflicts should be encouraged at the lowest possible level, thru the facilitation of Municipal and Community Tribal Councils. Such meetings and interactions with affected IP households/communities must be documented and distributed to relevant stakeholders
 - b) Regional Level: if not resolved, this will be elevated to the Regional NCIP for resolution
 - c) Central NCIP- Should the IP community still finds the decisions rendered at the regional level unacceptable, they can elevate the issue to the central level office of the National Commission on Indigenous Peoples. The NCIP shall be tasked to coordinate with the project's PMO to ensure that the issue is resolved to the best interest of the affected IP community.
- System for receiving, sorting, verifying, and tracking. A simple system will be developed for more effective management of complaints to guide the PMO on the steps and arrangements from receiving, sorting, verifying, acting and tracking complaints. These will be detailed out in the operational manual. Complaints will be categorized and actions on the complaints will depend on the complaint category. The project will maintain a database documenting the salient details of complaints, including the dates they were received and when and what actions were taken. These documents will be available to the external monitoring team, World Bank and JICA. The project will monitor complaints and coordinate with the concerned LGUs and relevant government agencies as needed to resolve them adequately and expeditiously. LBP will keep the World Bank and JICA informed about significant complaints and the steps taken to resolve them through routine supervision and provide details in progress reports.
 - Publicly disclosed and easily accessible. The complaints / grievance redress arrangements will be publically disclosed so that people are aware of where and how complaints will be managed. The GRM contact person assigned to the project will further ensure that people in the project's area of influence are aware of grievance management arrangements. Ideally complaints should be written, but if received verbally, the project contact person will ensure written documentation is made and that the complaint is dated and recorded.

Communities and individuals who believe that they are adversely affected by a World Bank (WB) supported project may submit complaints to existing project-level grievance redress mechanisms or the WB's Grievance Redress Service (GRS). The GRS ensures that complaints received are promptly reviewed in order to address project-related concerns.

Project affected communities and individuals may submit their complaint to the WB's independent Inspection Panel which determines whether harm occurred, or could occur, as a result of WB non-compliance with its policies and procedures. Complaints may be submitted at any time after concerns have been brought directly to the World Bank's attention, and Bank Management has been given an opportunity to respond.

For information on how to submit complaints to the World Bank's corporate Grievance Redress Service (GRS), please visit www.worldbank.org/grs.
For information on how to submit complaints to the World Bank Inspection Panel, please visit www.inspectionpanel.org.

JICA also has 'Objection Procedures based on the Guidelines for Environmental and Social Considerations'. Objectives of the Objection Procedures are (1) to investigate whether or not JICA has complied with the Guidelines based on an objection and report the results to the President in order to ensure JICA's compliance with the Guidelines; and (2) to encourage dialogues between the parties concerned based on their consent in order to assist early resolution of disputes concerning specific environmental and/or social problems caused by the project on which JICA had not complied with the Guidelines.

When JICA's non-compliance with the Guidelines regarding the project for which JICA provides cooperation has caused actual damage or are likely to cause damage in the future, two or more residents of the country could submit an objection. JICA appoints Examiners for the Guidelines who are under the direct control of the President and independent of line departments in order to achieve the above-mentioned two objectives in response to the objection.

For information on specific procedures, please visit JICA's website.

www.jica.go.jp/english/our_work/social_environmental/objection

The focal person shall be the Program Officer of HARVEST as designated by Lending Programs Management Group (LPMG) of LANDBANK whose address and contact numbers are as follows:

The Program Officer
HARVEST
Programs Management Department – I
27th floor, LANDBANK Plaza, 1598 M.H. del Pilar corner Dr. J. Quintos Sts.
Malate, Manila 1004
Tel Nos: 522-0000 local 7450
E-mail address: lbpprogramsmanagement1@yahoo.com

Documentation of complaints and its resolution shall be properly done and its summary shall be part of the regular monitoring of the project.

Annex 1 OPG Eligible Projects List

- 1) Large agribusiness enterprises (LAEs) and private anchor firms
- 2) Cooperatives (farmers/producers' organizations) and
- 3) Micro, small and medium enterprises (MSMEs).

Sub-loans may be used for capital investments in productive assets, associated working capital needs, production, processing, manufacturing, distribution, and agribusiness related infrastructure, for types of subprojects and activities listed but not limited to the following:

- Agriculture/Aquaculture
- Crop Production
- Poultry and Livestock Production
- Fish Production and Fishery Development
- Development/Rehabilitation of Plantation Crops
- Food/Agro-Processing
- Farm Machinery and Equipment
- Agriculture-related services –service-oriented subprojects that support agriculture-related economic activity in the countryside such as warehousing, slaughterhouse, cold storage, agricultural machine shop, etc.
- Product Distribution/Packaging/Trading
- Rural and agriculture-related infrastructure such as power generation, irrigation facilities, etc.

Annex 2 List of Activities that are Ineligible for HARVEST Funding (Negative List)

This negative list has been compiled to exclude certain activities that fulfill one or more of the following criteria: (i) environmentally risky; (ii) have technical complexities and requirements that would go beyond the capacity normally available in-country; (iii) socially undesirable activities, and (iv) are not aligned with public interests or do not benefit common goods or public services.

Applying the above criteria to the proposed projects under the HARVEST, the following list of activities has been compiled:

- Land acquisition
- Road construction into declared national protected areas;
- Dams higher than 5 meters;
- Purchase or use of environmentally hazardous materials such as chainsaws, explosives, asbestos and other potentially dangerous materials.
- Production of, trade in, or use of unbounded asbestos fibers;
- Salaried activities that employ children below the age of 16, and production or activities involving harmful or exploitative forms of forced labor or child labor;
- Production of or trade in any product or activity deemed illegal under the Philippines laws or regulations or international conventions and agreements or subject of international phase outs or bans, such as (a) pharmaceuticals,; (b) ozone-depleting substances, (c) polychlorinated biphenyls and other hazardous chemicals, (d) wildlife or wildlife products regulated under the Convention on International Trade in Endangered Species of Wild Fauna and Flora and (e) trans-boundary trade in waste or waste products;
- Production of or trade in weapons and munitions, including paramilitary materials;
- Production of or trade in alcoholic beverages, excluding beer and wine;
- Production of or trade in tobacco;
- Gambling, casinos and equivalent enterprises;
- Production of or trade in radioactive materials, including nuclear reactors and components thereof;
- Commercial logging operations or the purchase of logging equipment for use in primary tropical moist forests or old-growth forests; and
- Marine and coastal fishing practices, such as large-scale pelagic drift net fishing, harmful to vulnerable and protected species in large numbers and damaging to marine biodiversity and habitats.
- Sourcing materials for construction such as gravel and sand, from illegal quarries and sites which do not comply with the guidelines of the Government of the Philippines;
- Activities involving the use of fuel wood, including trees and bush;
- Activities involving the use of hazardous substances compounds which are toxic, explosive, flammable etc.);
- Repair of facilities storing hazardous substances (e.g. fuel depots), except simple clearing of debris or landslide materials on access roads and perimeters;

- Any “salvage logging” operations (which might be undertaken as a result of storm damage to forests);
- Any activity in a sensitive or protected natural habitat as defined by OP 4.04, except the removal of debris and the repair of pre-existing infrastructure, e.g. access roads or park ranger buildings;
- In compliance with the NCIP AO 3, series of 2012 - Part III, Section 25 on “Excluded Areas”, the following areas are likewise excluded from any activity except for the exclusive purposes for which they are identified.
 - Sacred grounds and burial sites of indigenous communities;
 - Identified international and local cultural and heritage sites;
 - Critical areas identified or reserved by the ICCs/IPs for special purposes, and;
 - Other areas specifically identified by ICCs/IPs in their Ancestral Domain Sustainable Development Protection Plan, or ADSDPP.

Annex 3 Environmental and Social Screening Checklist (ESSC)

This Form is to be used by the Project Management Office (PMO) of LBP in screening proposed projects.

Note: One copy of this form and accompanying documentation is to be kept in the PMO and one each to be sent to WB and JICA.

Name of Project:

Location:

Project Screening:

Has the project been screened against the list of ineligible activities (negative list)? If yes and proposed activity is eligible, proceed. If no screening has been done, contact LBP-PMO to conduct screening.

Site Assessment:

When considering the location of a project, rate the sensitivity of the proposed site in the following table according to the given criteria. Higher ratings do not necessarily mean that a site is unsuitable. They do indicate a real risk of causing undesirable adverse environmental and social effects, and that more substantial environmental and/or social planning may be required to adequately avoid, mitigate or manage potential effects.

Issues	Site Sensitivity			Rating
	Low	Medium	High	
Natural Habitats	No natural habitats present of any kind (terrestrial or aquatic). Site is sparsely vegetated and existing vegetation is commonly found throughout the area.	No critical natural habitats or other natural habitats occur.	Critical natural habitats present. Within declared protected areas or known to have high conservation value because of the presence of highly endangered species.	
Water quality and water resource availability and use	Available water is sufficient for existing demand; low intensity of water use; potential water use conflicts expected to be low; no potential water quality issues.	Medium intensity of water use; multiple water users; water quality issues are important.	Intensive water use; multiple water users; potential for conflicts is high; water quality issues are important.	
Natural hazards vulnerability, floods, soil stability/erosion	Flat terrain; no potential stability/erosion problems; no known volcanic/seismic/	Medium slopes; some erosion potential; medium risks from volcanic/seismic flood/typhoons.	Mountainous terrain; steep slopes; unstable soils; high erosion potential; volcanic seismic or flood	

	flood risks.		risks.	
Physical Cultural Property (churches, archaeological sites, historical structures, sacred grounds)	No known or suspected physical cultural heritage sites	Suspected cultural heritage sites; known heritage sites in broader area of influence	Known heritage sites in project area.	
Involuntary Resettlement	Low population density; dispersed population; legal tenure is well defined.	Medium population density; mixed ownership and land tenure.	High population density; major towns and villages; presence of vulnerable sectors and low income families; untitled lands; overlapping or competing land claims; CARP implemented area; communal properties; occurrences of land-related conflict	
Indigenous Peoples	No indigenous population.	Dispersed and mixed indigenous populations; highly acculturated indigenous populations.	Indigenous territories (CADT), reserves and /or lands; vulnerable indigenous populations.	

Areas for Potential Environmental and Social Impact:

		Yes	No
Environment - Will the project:			
1	Risk the contamination of drinking water?		
2	Cause poor water drainage and increase the risk of water related diseases such as malaria or dengue		
3	Harvest or exploit a significant amount of natural resources such as trees, gravel, sand, wood for fuel or water? (e.g. use of illegal quarries)		
4	Be located within or nearby environmentally sensitive areas, protected areas (e.g. intact natural forests, mangroves, wetlands or threatened species?) or key biodiversity areas?		
5	Create a risk of increased soil degradation or erosion?		
6	Create a risk of increasing soil salinity?		
7	Produce, or increase the production of solid wastes (e.g. water, medical/healthcare, domestic, or construction wastes)?		
8	Affect the quantity or quality of surface waters (e.g. rivers, streams, wetlands), groundwater (e.g. wells), or community pools?		
9	Result in the production of solid or liquid waste, or result in an increase in waste production, during construction or operation?		

10	Will the project result to use of pesticides due to intensification of existing systems, new land-use development, changes in cultivation practices, or procurement and financing of pest control products? Will there be any specific health concerns on the use of pesticides?		
If the answer to any question from 1-9 is "Yes", please include an Environmental and Social Management Plan (ESMP) with the project application; For question 10, if Yes, PMP may be required.			
Land Acquisition and Access to Resources - Will the project:			
11	Require that land (public or private) be acquired (temporarily or permanently) for its development?		
12	Currently occupied or regularly used for productive purposes (e.g. gardening, farming, pasture, fishing, forests)		
13	Displace individuals, families, or businesses? Have any individuals, families, businesses been displaced up to 2 years prior to project enrolment?		
14	Result in the temporary or permanent loss of crops, fruit trees or household infrastructure such as crop storage facilities, outside toilets and kitchens		
15	Result in the involuntary restriction of access by people to legally designated parks and protected areas?		
16	Have adverse effects on the people with untitled lands?		
17	Have negative effects on the people with overlapping titles?		
18	Has potential adverse effects on the existing land problems under CARP?		
19	Have adverse effects on the IDPs who are originally from the area, but have not yet repatriated?		
20	Can create a risk of increasing or aggregating land disputes or land related rido?		
21	Can create a risk of increasing illegal land transactions or grabbing?		
If the answer to any of the questions 11 -15 is "Yes", please prepare appropriate documents required under the Resettlement and Compensation Framework. If the answer to any of the questions 16-21 is "yes", please include what has been done to mitigate or reduce the risks or negative impact in the social safeguards document.			
Indigenous Peoples - Will the project:			
22	Require land used by IPs for productive (food gathering, gardening, farming, pasture, fishing, forests) and/or cultural purposes (sacred ground, place of rites, etc.)?		
23	Cover areas covered by a Certificate of Ancestral Domain Title or existing claim to one?		
24	Affect IPs in the project area (positive or negative)?		
25	Have a significant area that overlaps with the boundaries where IPs have a collective attachment to?		
26	Have IPs as among the potential beneficiaries of the project?		
If the answer to any of the questions 22-26 is "Yes", please prepare IP Plan required under the Indigenous Peoples Framework.			

Categorization of Project:

In general these are the criteria for categorization of the project activities:

Category A The activity is likely to have significant adverse environmental and social impacts that are sensitive, diverse, or unprecedented.

- Site sensitivity rating above are mostly high, e.g. 4 out of 6;
- Potential social and environmental impacts are mostly positive, e.g. 16 out of 19;
- Scope of impacts is large in terms of area; and
- Impacts are difficult to mitigate.

Category B The activity has potential adverse environmental impacts on human populations or environmentally important areas – including wetlands, forests, grasslands, and other natural habitats, which are less adverse than those of Category A projects. These impacts are site-specific. Few if any of them are irreversible and in most cases, mitigation measures can be designed more readily than for Category A projects.

- One or two site sensitivity ratings are medium or high;
- Three to four potential social and environmental impacts are identified in Section III of this annex; and
- Impacts are manageable to mitigate.

Category C The activity is likely to have minimal or no adverse environmental impacts. Beyond screening, no further EA action is required for a Category C project.

For subprojects to be financed by JICA portion which will cause resettlement of more than 200 people, only JICA will need the procedures and documents which is usually required under “Category A”; disclosure at JICA’s website 120 days before the concurrence, ESIA, full resettlement plan even though World Bank and LBP regard it as “Category B”. This principle will also be applied in case a sub-project is to be funded by both JICA and WB.

The proper categorization is left to the judgment of the PMO considering the guidelines above. The final objective of the categorization is to ensure that all social and environmental impacts are avoided, minimized or properly mitigated.

CERTIFICATION

We certify that we have thoroughly examined all the potential adverse effects of this project. To the best of our knowledge, the project plan as described in the application and associated planning reports (e.g. ESMP, RAP), if any, will be adequate to avoid or minimize all adverse environmental and social impacts.

Person who conducted the screening:

Signature: _____

Date: _____

PMO team representative:

Signature: _____

Date: _____

Annex 4 Credit Policy Issuance (CPI)

CPI No.	:	2009-002
Subject	:	REVISED ENVIRONMENTAL POLICY RELATIVE TO CREDIT DELIVERY
Remarks	:	Amendment of CPI No. 2004-002 entitled "Environmental Policy Relative to Credit Delivery"

A. RATIONALE

Credit Policy Issuance (CPI) No. 2004-002 entitled "Environmental Policy Relative to Credit Delivery" is hereby revised to enhance its effectiveness and ensure the achievement of the Bank's corporate environmental policy. Hence, identification, monitoring and mitigation of credit risks arising from the adverse impact on the environment of projects financed by the Bank as well as the identification of the environmental benefits of said projects shall be conducted.

B. SCOPE AND COVERAGE

All projects financed by the Bank and the collaterals being offered as security shall be covered by this issuance. However, only projects covered by the Philippine Environmental Impact Statement (EIS) System and only collaterals which are part of the project or used as project site shall require an environmental assessment.

C. DEFINITION OF TERMS (See Annex A)

D. ACRONYMS (See Annex B)

E. STATEMENT OF POLICY

1. The Lending Units (LUs) shall ensure that all projects of loan clients or borrowers shall conform to environmental protection regulations and requirements. Non-compliance with applicable environmental laws and regulations shall be considered a condition of default. (See Annex C)
2. To determine the accounts/projects needing environmental assessment, these shall be classified per the Revised DENR Administrative Order No. 2003-30 as updated by DENR Memo Circular 2007-002, as follows:
 - a) GROUP I – Environmentally Critical Projects (ECPs) with significant potential to cause negative environment impacts;
 - b) GROUP II – Projects that are not environmentally critical in nature, but which may cause negative environmental impacts because they are located in Environmentally Critical Areas (ECAs);
 - c) GROUP III – non-environmentally critical project in non-environmentally critical area;
 - d) Group IV – Co-located project under one or more proponents/locators which are located in a contiguous area. The co-located project may be an economic zone or

industrial park, or mix of projects within a catchment, or any geographical, political or economic unit of area; and

- e) Group V – Unclassified projects or projects not listed in any of the groups. This is an interim category wherein the projects under it will eventually be classified into their appropriate groups after DENR evaluation.

Per DAO 2003-30, projects that were operational or implemented prior to 1982 are not covered by the Philippine EIS System unless it is modified or expanded after 1982 and met the threshold of Group I or II.

Annex D provides the matrix of projects with the corresponding group based on the Philippine EIS System.

3. For new account/project, an initial environmental assessment (IEA) to identify its potential aspects/impacts to the environment as well as its benefits shall be conducted. The environmental assessment shall not be limited to the object of financing but shall include the entire facility or business operation within the same or contiguous area. This shall be conducted as follows:
 - a) For Field Unit / Lending Center (LC) Accounts/Projects, the LC shall designate an Environmental Assessor from the Loan Administration Unit (LAU). The Environmental Assessor shall prepare and submit a copy of the IEA Checklist/Report to the Environmental Program & Management Department (EPMD) for further review/validation/reference. The IEA Checklist may also serve as reference of the AO in preparing the Credit Facilities Proposal (CFP). (See Annex E)
 - b) For Head Office Accounts, an IEA Checklist and/or Environmental Compliance Report (ECR) shall be prepared by the EPMD in accordance with the schedule stipulated in item E.6.
4. The AO shall indicate in the Environmental Impact Section of the CFP the following:
 - a) Project Group/Category based on the Philippine EIS System;
 - b) The Environmental Due Diligence conducted by the Project, which shall emphasize the proponent's effort to mitigate potential and significant environmental impacts of the project; and
 - c) The Environmental Benefits resulting from the project and its environmental initiatives. (See Annex F)
5. The Environmental Compliance Certificate (ECC) shall be a pre-release requirement for all covered projects. In lieu of the ECC, a proof of filing of application with the DENR and other authorized agencies of the government may be allowed, subject to the approval of next higher loan approving group, with the Investment and Loan Executive Committee (ILEC) as the highest approving authority. Provided further that: the project is not under Group I (ECP), it is not within a protected / contested area, and the proponent commits to provide resources through a Deed of Undertaking should the approved ECC require additional mitigating measures as part of its conditionalities.

For projects classified as Group III, a Certificate of Non-Coverage (CNC) from the DENR-EMB and an ECR from the EPMD shall not be required for the approval of the loan.

6. For new accounts, the EPMD shall conduct an environmental assessment and shall prepare/issue an Environmental Compliance Report (ECR) based on the following conditions/schedule:
 - a) For projects under Group I, ECR shall be a pre-release requirement;
 - b) For new projects under Groups II & IV, ECR shall be required one (1) year after the initial release of loan;
 - c) For existing projects under Groups II & IV, ECR shall be required within six (6) months from the date of initial loan release;
 - d) For projects operational prior to 1982 which have significant impact to the environment and / or have had expansion / modification after 1982, ECR shall be required within six (6) months from the date of initial loan release.

To facilitate the issuance of the ECR, the concerned LU will request EPMD for the conduct of environmental assessment at least 2 months before the due date. Timeframe for ECR preparation shall be as follows: maximum of five (5) working days for desk assessment, and ten (10) working days for site assessment. (See Annexes G & H)

7. Compliance with the submission of the pre-release documentary requirements specified in Items E.5 & E.6 as well as with the applicable environmental laws & regulations required during the operation of the project shall be incorporated in the Loan or Credit Line Agreement.
8. To determine the degree of assessment and prioritize monitoring of accounts/projects, the EPMD shall devise an environmental risk rating tool to classify accounts/projects according to their significance and potential to adversely affect the environment. (See Annexes I & J)
9. The AO shall monitor compliance of the account/project with applicable environmental laws and regulations until such time that it is fully paid. To guide the AO and facilitate monitoring of compliance, the EPMD shall conduct annual Environmental Performance Monitoring & Audit for projects/accounts earlier issued with ECR. EPMD shall also issue reminder/list of projects with pending environmental requirements to concerned LU. (See Annexes K & L).
10. For foreclosed properties that are covered by the Philippine EIS System, the designated Pollution Control Officer (PCO) of the Bank shall be held responsible for conducting Environmental Due Diligence for the said properties that includes reporting and compliance to permit requirements.
11. The EPMD shall conduct roadshows/trainings for LU personnel to effectively implement this environmental policy, in coordination with the Credit Policy and Risk Management Department and Organizational Development Department.

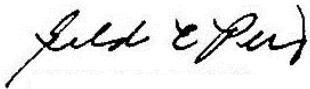
F. LIST OF ANNEXES

- A - Definition of Terms
- B - Acronyms
- C - Environmental Permitting Requirements
- D - Project Groups and Required Environmental Documents Based on the Philippine EIS System
- E - IEA Checklist / Report
- F - Matrix of Environmental Impact, Mitigating Measures and Benefits per

- Activity/Type Industry
- G - G.a Flowchart on Environmental Assessment of New LBP Field Unit Accounts
G.b Flowchart on Environmental Assessment of New LBP Head Office Accounts
 - H - ECR template
 - I - I.a Initial Environmental Risk Rating Score Sheet
I.b Latest Environmental Risk Rating Score Sheet
 - J - Environmental Due Diligence System (Summary of Procedure based on Risk Rating)
 - K - Flowchart on Environmental Performance Monitoring & Audit of Existing Term Loans
 - L - EPMAR template

G. EFFECTIVITY

All issuances/orders that are inconsistent herewith are deemed superseded or amended accordingly. These guidelines shall take effect immediately.



GILDA E. PICO
President and CEO

Annex 5 Recommended Format for an ESIA

- I. Table of Contents
- II. Executive Summary
- III. Introduction
 - A. Project Background
 - B. ESIA Approach and Methodology
 - C. ESIA Process Documentation
 - D. ESIA Team
 - E. ESIA Study Schedule
- IV. Project Description
 - A. Project Rationale
 - B. Project Alternatives
 - C. Project Location
 - D. Project Information
 - E. Description of Project Phases
 - 1. Pre-Construction / Operational Phase
 - 2. Construction Phase
 - 3. Operational Phase
 - 4. Abandonment Phase
- V. Baseline Environmental Conditions
 - A. Physical Environment
 - 1. Geology and Geomorphology
 - 2. Hydrology and Hydrogeology
 - 3. Pedology and Land Use
 - 4. Water Quality and Limnology
 - 5. Meteorology
 - 6. Air Quality Climate and Noise
 - 7. Oceanography
 - B. Biological Environment
 - 1. Terrestrial Flora and Fauna
 - 2. Marine Biology
 - C. Socio-Cultural, Economic and Political Environment
- VI. Future Environmental Conditions without the Project
- VII. Impact Assessment and Mitigation
 - A. Physical / Chemical Effects
 - 1. Land
 - 2. Water
 - 3. Air
 - B. Biological/Ecological Effects
 - 1. Terrestrial Flora and Fauna
 - 2. Aquatic Flora and Fauna
 - C. Aesthetic and Visual Effects
 - D. Socio-Cultural and Economic Effects
 - 1. Population composition
 - 2. Land tenure/use pattern
 - 3. Labor and Employment
 - 4. Housing and Social Services
 - 5. Infrastructure and Public Utilities
 - 6. Health and Education
 - 7. Culture and Lifestyle
 - 8. Livelihood and Income
 - 9. Archeological / Anthropological / Historical Sites

- 10. Land ownership
- 11. IP ancestral domain land
- 12. Implementation of CARP
- 13. Occurrences of rido, especially land-related rido
- 14. Clan (dominant clan, inter-clan relationship)
- 15. Displaced IDPs from the area, but not yet repatriated
- 16. Existing land conflict resolution mechanisms
- E. Mitigation and Enhancement Measures
- F. Residual and Unavoidable Impacts
- VIII. Environmental and Social Risk Assessment (when applicable)
- IX. Environmental and Social Management Plan
 - A. Construction / Contractor's Environmental Management Program
 - B. Social Development Program
 - C. Contingency / Emergency Response Plan
 - D. Risk Management Program
 - E. Abandonment Plan (when applicable)
 - F. Monitoring Plan
- X. RAP (stand-alone)
- XI. Commitments and Agreements
- XII. Bibliography / References

All projects or undertakings covered by the EIS System and classified by the Department of Health (DOH) as Health Sensitive Projects or located in Health Sensitive Areas shall include a chapter on Environmental Health Impact Assessment (EHIA). The EHIA Chapter shall contain, among others, the following information:

- Health and Sanitation Information of the Affected Community
- Environmental Health Impact Analysis/Assessment
- Proposed Control and Mitigating Measures for the Environmental Health Impacts Identified

Annex 6 Sample Terms of Reference for ESIA Preparer

1. INTRODUCTION / BACKGROUND INFORMATION

A brief introduction about the proposed project is given below:

2. OBJECTIVES

This Terms of Reference outlines the requirements for consultancy service for the preparation of an Environmental and Social Impact Assessment Report (ESIAR), which will address the environmental and social impacts of the proposed project for the Name of the LBP borrower.

In general terms, the ESIAR provides a linkage between the proposed project's overall social and environmental impacts and its physical development. The ESIAR identifies spatial areas of a community where physical development is planned with its corresponding environmental impacts.

In more specific terms, the ESIAR preparer / consultants should come up with an Environmental and Social Assessment report and perform consultancy tasks by means of:

- (a) Proper identification, quantification, and qualification of the environmental and social impacts of the proposed project within the Name of the LBP borrower;
- (b) Formulation of an Environmental and Social Management Plan (ESMP) that will explain the cost-effective measures for the abatement of negative environmental impacts of the proposed development;
- (c) Formulation of a Resettlement Action Plan (RAP) for displaced persons in the event the need arises; and IP Plan (in case needed) to ensure that project design is culturally sensitive and that benefits are enhanced for the IPs.
- (d) Preparation of the ESIAR for submission to LBP- PMO;
- (e) Representation in behalf of the Name of the LBP borrower during the technical review of the ESIAR by the Department of Environment & Natural Resources-Environmental Management Bureau (DENR-EMB) regional office for the issuance of an Environmental Compliance Certificate (ECC); and
- (f) Collaboration with the consulting firm making the Feasibility Studies (FS) by providing sound advice during the selection of project alternatives.

3. ENVIRONMENTAL AND SOCIAL ASSESSMENT REQUIREMENTS

- (a) All environmental and social assessments shall conform to the HARVEST ESMF furnished to the consultant and the guidelines of the Procedural Manual of DENR Administrative Order 2003-30 and NCIP Administrative Order No. 3 Series of 2012.
- (b) Other national laws and/or regulations on environmental and social reviews and impact assessments; regional, provincial, or city environmental assessment regulations.

(c) The Consultants shall apply his own professional stamp or seal and signature to each pertinent document to identify his professional responsibility.

4. STUDY AREA

A brief description of the study area is provided below:

5. SCOPE OF WORK

The preparation of the IEE report requires close coordination with the proponent (PMO), FS consultancy firm, and LBP-PMO, and a consultation process with the stakeholders. The tasks in carrying out the IEE shall include the following:

Task 1 Description of the Proposed Project. Provide a brief description of the relevant parts of the project, using maps (at appropriate scale/readable) where necessary, and including the following information: location; general layout; size, capacity, implementation activities, schedule; staffing and support; facilities and services; operation and maintenance activities.

Task 2 Description of the Environment and Social Condition. Assemble, evaluate and present baseline data on the relevant environmental and social characteristics of the study area. Include information on any changes anticipated before the project commences.

Physical environment: geology (secondary data); soils; climate and meteorology; ambient air quality; surface and ground water hydrology; existing water pollution discharges; receiving water quality.

Biological environment: flora (secondary data); fauna (secondary data); rare or endangered species; sensitive habitats, including parks or preserves, species with potential to become nuisances, vectors or dangerous (secondary data).

Socio-cultural environment (include both present and projected where appropriate): population; land use; planned development activities; community structure; employment; distribution of income, goods and services; public health; cultural properties (if there applicable). If IPs are present, include their leadership system, mechanisms for consultation and decision making and land ownership status.

Task 3 Legislative and Regulatory Considerations Relative to the Project. Describe the pertinent regulations and standards governing environmental quality, health and safety, protection of sensitive areas, protection of endangered species, silting, land use control, etc., at national, regional and local levels

Task 4 Determination of the Potential, Cumulative and Induced Impacts of the Proposed Project. In this analysis, distinguish between significant positive and negative impacts, direct and indirect impacts, and immediate and long-term impacts. Identify impacts, which are unavoidable or irreversible. Wherever possible, describe impacts quantitatively, in terms of environmental costs and benefits.

Assign economic values when feasible. Characterize the extent and quality of available data, explaining significant information deficiencies and any uncertainties associated with predictions of impact.

Project Location: resettlement of people; presence of IPs and or ancestral domains; and impact on flora and fauna.

Project Design: (To be supplied depending on the type of project).

Project Construction/Establishment: soil erosion; construction spoils (disposal of); sanitary conditions and health risks associated with construction camp and workers coming into area; social and cultural conflicts between imported workers and local people.

Project Operation: (To be supplied depending on the type of project).

Task 5 Development of Management Plan to Mitigate Negative Impacts. Recommend feasible and cost-effective measures to prevent or reduce significant negative impacts to acceptable levels. Estimate the impacts and costs of those measures, and of the institutional and trainings requirements to implement them. Consider compensation to affected parties for impacts, which cannot be mitigated. Consider the need to engage in free, prior and informed consultation with the indigenous peoples if present in project site. Prepare a management plan including proposed work programs, budget estimates, schedules, staffing and training requirements, and other necessary support services to implement the mitigating measures.

Task 6 Identification of Institutional Needs to Implement Environmental and Social Assessment Recommendations. Review the authority and capability of institutions at local, provincial/regional, and national levels and recommend steps to strengthen or expand them so that the management and monitoring plans in the environmental assessment can be implemented. The recommendations may extend to new laws and regulations, new agencies or agency functions, inter-sectoral arrangements, management procedures and training, staffing, operation and maintenance training, budgeting, and financial support.

Task 7 Development of a Monitoring Plan. Prepare a detailed plan to monitor the implementation of mitigating measures and the impacts of the proposed project during construction and operation. Include in the plan an estimate of capital and operating costs and a description of other inputs (such as training and institutional strengthening) needed to carry it out.

Task 8 Assist in Inter-Agency Coordination, Public Participation and stakeholder consultation in the target municipality. Scoping report and process documentation summarizing the presentation of participants; issues, concerns, and interest addressed; process by which agreements or resolutions were arrived, stakeholders who most actively participated; those who were present but were quiet, those who were not represented; and the outcome of the consultation activity.

Represent the LBP borrower in the technical and environmental and social review of the proposed development by the DENR-EMB and NCIP for the issuance of an Environmental Compliance Certificate (ECC) and Certificate of Precondition or Certificate on Non-Overlap respectively. Where required, additional data shall be analyzed and incorporated in the IEE / EA report. Prepare all additional information that may be requested by the environmental impact assessment review team for the expeditious release of the ECC.

Task 9 Development of a Resettlement Action Plan (RAP). When necessary, in the case of displaced communities a resettlement action plan should be incorporated in the IEE / EA report.

Task 10 Development of the Indigenous Peoples Plan. When necessary, should also be part of the EA Report.

6. REPORT SUBMISSIONS

The EA report should be concise and limited to significant environmental and social issues. The main text should focus on findings, conclusions and recommended actions, supported by summaries of the data collected and citations for any references used in interpreting those data.

The Consultant shall be responsible in maintaining overall consistency between the Rapid Assessment design outputs of the FS consulting firm. The Consultant and the FS Consulting Firm are expected to work closely together as a team, under the overall coordination of the PMO and guided by LBP-PMO.

The following services and facilities will be provided by the LBP borrower (through its PMO) without any costs to the Consultant.

Data The LBP borrower will provide the Environmental and Social Consultants with access to all available data, information, maps, drawings and internal documents relevant to the consulting services. All reference material will be lent to the Consultants and shall be returned at the completion of the assignment or earlier as may be requested.

Access The LBP borrower shall arrange the accessibility for the EA and Social Consultant to the project area's socio-economic profile, and other considerations that the Consultant deems necessary to visit concerning the function of their duties. The LBP borrower shall likewise arrange meetings with key officials in the City/Municipality/Province, public utilities and private sector group and relevant offices concerned with the implementation of the proposed project.

Services The LBP borrower will provide the Consultant during his/her stay in the City with unlimited telecommunication facilities (telephone and fax service) within the City/Municipality/Province, project area and the Philippines and Internet and E-mail service as required for the services.

Annex 7 Sample Terms of Reference for Preparation of Feasibility Study (By Firm, EA/SA included in the TOR)

I. BACKGROUND

This Consultancy is for the preparation of the Feasibility Study of the agribusiness project in Name of LBP borrower. The HARVEST project implementation is a joint effort of the Land Bank of the Philippines (LBP) and its borrower. The LBP is the executing agency responsible for the overall implementation of the Project. The LBP borrower will be responsible for the preparation and implementation of the project.

II. OBJECTIVES OF THE STUDY

The objectives of the Consultancy Services will include:

Determine the feasibility of the agribusiness project proposal of Name of the LBP borrower in conformity with LBP borrower priorities and budgetary constraints;

Evaluate land acquisition needs and applicable legal requirements for the project, perform environmental impact assessment to determine project alternatives, and collect socio-economic data on persons likely to be displaced by the proposed project; and

Act on the recommendations in the feasibility study, to complete preliminary design of the proposed project as well as necessary surveys and investigations.

III. SCOPE OF WORK

Feasibility Study which shall contain:

(a) Rapid Assessment, of long-term development prospects of the agribusiness project; identification of first phase, implementation schedule and base cost estimates for major cost components with respective contingencies; assessment of proposed project feasibility; and recommendation concerning schedule and implementation methods.

(b) Environmental and Social Impact Assessment, including Environmental Management Plan, of the planned or proposed project activities to facilitate the best selection of alternatives that will bear the minimum environmental impact. The ESIA shall follow the minimum format recommended by the DENR and shall cover the requirements outlined in the HARVEST Environmental and Social Management Framework. If the project exhibits potential health impact, supplemental and a separate Environmental Health Impact Assessment report shall be prepared.

(c) Institutional Examinations, including review of existing agencies involved in agribusiness project; organization of key agencies, manpower strength, flow of management information, accounting and budget procedures; and audit procedures; legislation concerning agribusiness project; identification of bottlenecks, including proposals for improvement, streamlining and strengthening of agencies, their management information systems, sustainability of operations, O&M guidelines, budgets, affordability assessment, training programs, legislation and enforcement; projected income statements, source and application of funds and balance sheets.

(d) Finance / Economic Examinations, including assessments of project viability, justification and rates of return based on with and without project analysis; identification of least cost alternatives; assessment of direct and indirect project benefits including (a) health improvements; (b) environmental improvements; (c) agricultural productivity and (d) enhanced quality of life.

(e) Resettlement Examinations, including Resettlement Action Plan (RAP) identifying land to be acquired and affected persons, their economic status and impact of loss of land; compensation and assistance policies; institutional arrangements for processing resettlement, compensation and settling grievances; costs, budgets and implementation schedule of resettlement; monitoring and evaluation of resettlement process. RAP shall comply with the Government of the Philippines (GOP), WB and JICA requirements specified in the HARVEST Resettlement and Compensation Framework.

(f) Implementation Action Plan (IAP), describing the project with costs, schedule and financing plan; implementation arrangements with responsible agency and administrative arrangements for implementation; time-bound implementation plan, procurement schedule, financial and economic analysis with assessment of risks; monitoring and evaluation indicators to supervise physical progress and financial status. IAP shall comply with the WB requirements specified in separate guidelines.

Preliminary Designs, which shall contain:

(a) Institutional Report, designing in detail the recommended institutional improvements, management procedures, including budgeting, and typical agribusiness model; key job descriptions, training system and procedures outline training curricular and other strengthening measures;

(b) Resettlement Action Plan (as applicable), with updated costs, budgets and implementation schedule for implementing resettlement; responsibility; monitoring and evaluation of resettlement process;

(c) Indigenous Peoples Plan (as applicable) - it documents the measures through which the Subproject Proponent will ensure that IPs affected by the project receive culturally appropriate social and economic benefits and incorporation in the project design of efforts to avoid, mitigate and compensate adverse effects of the project to way of life.

(d) Environmental Management Plan, in tabular form showing the set of mitigation, monitoring, and institutional measures/responsibilities to be taken during the implementation and operation phase of project development for the predicted environmental impacts.

(e) Implementation Action Plan, with updated schedule, costs, proposed financing and arrangements for implementation with dates for key actions and responsibility.

V. METHODOLOGY

The methodology to be employed in this consultancy will consist of visits to the project, discussions with Subproject Proponent, LGU officials, situational reviews to confirm the efficacy of technical proposals, and desk reviews of the existing relevant feasibility and first stage priority reports.

The Consultant shall perform the Environmental Impact Assessment (ESIA) and Environmental and Social Management Plan (ESMP). The FS Consultant will be responsible for maintaining overall consistency between the FS and the ESIA as well between the Project Design and the ESMP. The Consultant shall field an Environmental

Specialist as part of the team to work together with the rest of the specialist in the team, under the overall coordination of the PMO.

The Consultant shall also be responsible for the preparation of bid documents and assistance in the bidding process.

Annex 8 Sample Terms of Reference for Pest Management Plan

1. Background

The World Bank's Operational Policy on *Pest Management* (OP 4.09) and Bank Procedures on *Environmental Assessment - Application of EA to Projects Involving Pest Management* (BP 4.01 Annex B) were established to address concerns on the use of pesticides and to assist borrowers to manage pests in an appropriate manner. A major provision of the Policies is the preparation of a Pest Management Plan (PMP) that will outline the various elements and actions that needs to be taken to adequately address concerns during project implementation.

2. Objectives of the Pest Management Plan

Annex B of BP 4.01, a Pest Management Plan is a "comprehensive plan, developed when there are significant pest management issues such as:

- (a) New land-use development or changed cultivation practices in an area;
- (b) Significant expansion into new areas;
- (c) Diversification into new crops in agriculture;
- (d) Intensification of existing low-technology systems;
- (e) Proposed procurement of relatively hazardous pest control products or methods;
- (f) Specific environmental or health concerns (e.g., proximity of protected areas or important aquatic resources; worker safety), and
- (g) Proposed financing of pest control products represents a large component of the project."

A pest management plan reflects the policies set out in *OP 4.09, Pest Management*. The plan is designed to minimize potential adverse impacts on human health and the environment and to advance ecologically based Integrated Pest Management (IPM). The plan is based on on-site evaluations of local conditions conducted by appropriate technical specialists with experience in participatory IPM.

3. Profile of the Consultant

The consultant will be specialized in one or more of the following fields:

- (a) Agricultural pest management in the tropics with particular experience in (participatory) integrated pest management (IPM);
- (b) Pesticide management in developing countries, with particular experience in pesticide legislation and regulation, pesticide risk assessment and registration, and the enforcement/implementation of pesticide regulations;
- (c) Pest management extension methods and/or participatory integrated crop production, pest or vector management, and
- (d) Agricultural policy development in developing countries, with particular experience in integrated pest management policies and the economic, trade and fiscal aspects of agricultural input use (particularly pesticides).

The consultant will have experience in the identification and the analysis of technical and policy constraints with respect to agricultural projects/programs in developing countries. She/he should be capable of working, using a strongly participatory approach, with the (potential) sub-borrower's technical and policy staff.

4. Procedure

A Pest Management Plan is developed as part of the Environmental Assessments that will be elaborated for specific subprojects of HARVEST. Requirements for PMP fill follow the guidance of BP 4.01 Annex B on cases where there are anticipated significant pest issues.

5. Contents of the Pest Management Plan

Following sub-project screening where it is determined that the subproject will require PMP as guided by BP 4.01 Annex B, the sub-borrower, in consultation with the Land Bank of the Philippines (LBP) will prepare the subproject's PMP, addressing the following major issues identified below.

5.1 Pest management approaches

- (a) Current and anticipated pest problems, relevant to the subproject including key pest and diseases problems experienced by smallholder farmers
- (b) Current and proposed pest management practices including non-chemical pest control methods and IPM program under the Department of Agriculture's KASALIKASAN Program
- (c) Relevant IPM experience within the subproject area, region, and country

5.2 Pesticide use and management

- (a) Review of current, proposed and/or envisaged pesticide use
- (b) Indication of type and quantity of pesticides envisaged to be financed by the subproject and/or assessment of increase in pesticide use resulting from the subproject
- (c) Circumstances of pesticide use and the capability and competence of end-users to handle products within acceptable risk margins
- (d) Assessment of potential environmental, occupational and public health risks including reputational risks associated with the use of pesticides
- (e) Pre-requisites and measures required to reduce specific risks associated with envisaged pesticide use taking into consideration the technical guidance outlined in the technical references that include the World Bank EHS Guidelines for Annual Crop Production, Perennial Crop Production, and Plantation Crop Production
- (f) Selection of pesticides authorized for procurement under the subprojects

5.3 Policy, regulatory framework and institutional capacity

- (a) Policies on plant protection
- (b) Assessment of the country's regulatory framework for control of the distribution and use of pesticides
- (c) Assessment of the institutional capacity for effective control of the distribution and use of pesticides
- (d) Strengthening of national capacities

5.4 Monitoring and evaluation

- (a) Description of activities that require local monitoring during implementation
- (b) Monitoring and supervision plan, implementation responsibilities, required expertise and cost coverage

6. Process

The PMP shall be developed within the context of the subproject's Environmental Assessment. Like the EA process, the development of the PMP should be a fully participatory and ensuring buy-in from the communities and stakeholders. The process for PMP formulation is outlined below.

- (a) Desk review of the available information by the consultant.
- (b) Informative meetings/scoping with key actors and stakeholders in the country
- (c) In-depth interactions with all the relevant national actors in the field of pest management. Such meetings should include, but are not limited to:
 - (ii) Government institutions directly or indirectly involved in pest management such as DA, DENR, DOH, and DOF
 - (iii) Farmers' and producers' organizations
 - (iv) Non-governmental organizations including consumer groups
 - (v) Agrochemicals industry, private crop protection advisory firms, food and agricultural products export industry, producers of biological control agents
 - (vi) Development Partners
- (d) Elaboration of the PMP
- (e) Stakeholders consultation
- (f) The PMP shall be discussed during the stakeholder consultation generally organized for the EA. The analysis of the sub-borrower and the Consultant is presented and modified where needed. If required, the stakeholders are invited to submit proposals for strengthening of national capacities.
- (g) Finalization of the PMP

7. Reporting

The Consultant will submit the following reports:

- (a) The first phase draft PMP discussed during the stakeholders consultation
- (b) The second phase draft PMP
- (c) The recommendations made in the stakeholders' consultation
- (d) The final PMP
- (e) Paragraphs containing the key elements of the PMP that need to be included in the subproject's Environmental and Social Management Plan (ESMP)

8. Reference materials:

World Bank Operational Manual: Operational Policies OP 4.09 - Pest Management (December 1998)
World Bank Operational Manual: Bank Procedures BP 4.01-Annex B - Application of EA to Projects Involving Pest Management
World Bank Group EHS Guidelines for Annual Crop Production
World Bank Group EHS Guidelines for Perennial Crop Production
World Bank Group EHS Guidelines for Plantation Crop Production
World Bank Group EHS Guidelines Pesticide Manufacturing, Formulation, and Packaging)

Annex 9 Chance Find Procedure

1. Introduction and Coverage

This chance find procedures are HARVEST Project-specific procedures that outline the actions to be taken by the sub-borrowers and their contractors, the local government units, and the Land Bank of the Philippines, if previously unknown cultural heritage is encountered.

These procedures were developed in accordance with Philippine regulations, and the World Bank's OP 4.11 on Physical Cultural Resources of July 2006. These procedures will be included as standard provisions in the contracts as well as ESMPs to ensure the protection of cultural heritage. These chance find procedures identify the necessary measures in the event that physical cultural resources are encountered. It will be diligently supervised by the PMO through its Environmental and Social Safeguard Specialists. These procedures are for strict implementation of the sub-borrowers and their contractors, and apply to all types of physical cultural resources defined as "movable or immovable objects, sites, structures or groups of structures having archaeological, paleontological, historical, architectural, religious, aesthetic, or other cultural significance".

2. Ownership

All findings belong to the Government of the Philippines (GOP). The National Commission of Culture and Arts (NCCA) is the agency tasked in the preservation and protection of cultural properties, by virtue of the implementation of R.A. 4846 (or the Cultural Properties Protection and Preservation Act, 1966), P.D. 374 (An Act Amending Some Sections of RA 4846, 1974); R.A. 8492 (the National Museum Act of 1998) and Republic Act No. 10066 - An Act Providing for the Protection and Conservation of the National Cultural Heritage, Strengthening the National Commission for Culture and the Arts (NCCA) and its Affiliated Cultural Agencies and for Other Purposes. With RA 10066, the NCAA will determine the final destination of any artifact that is salvaged during the construction process.

3. Recognition

The sub-borrowers and their contractors will train all workers, especially those working on earth movements and excavations, on recognition of artifacts most likely to be found in the area. The NCAA or any other recognized historical or archaeological institutions can be requested to provide this training. If the sub-borrowers and their contractors discover archeological sites, historical sites, remains and objects, including graveyards and/or individual graves during excavation or construction, they shall:

- Stop the construction activities in the area of the chance find;
- Delineate the discovered site or area;
- Secure the site to prevent any damage or loss of removable objects. In cases of removable antiquities or sensitive remains, a night guard shall be arranged until the responsible local authorities or the National Commission of Culture and Arts (NCCA) takes over; and,
- After stopping work, the sub-borrowers and their contractors must immediately report the discovery to the concerned government authorities.

4. Suspension of work

The contractors are not entitled to claim compensation for work suspension during this period. LBP and the sub-borrower is entitled to suspend work, and to request from their contractor some excavations at their contractor's expense if LBP and sub-borrower think that a discovery was made and not reported.

With the approval of LBP and the sub-borrower, the contractor is then required to temporarily demarcate and limit access to the site.

5. Non-Suspension of Work

The sub-borrower with the concurrence of recognized historical and archaeological institutions can decide whether the Physical Cultural Resources (PCR) can be removed, and for the work to continue (e.g. in cases where the find is a small object).

6. Chance Find Report

The contractor should then, at the request of the sub-borrower and LBP, and within a period of two working days, make a Chance Find Report (CFR), recording:

- Date and time of discovery;
- Location of the discovery;
- Description of the PCR;
- Estimated weight and dimensions of the PCR; and
- Temporary protection implemented.

The CFR should be submitted to the sub-borrower copying LBP, who will then notify the National Commission of Culture and Arts (NCCA) of the finding.

7. Arrival and Actions of the National Commission of Culture and Arts (NCCA)

Prior arrangements with the NCCA will be conducted, in order to send a representative who will arrive at the discovery site within 24 to 48 hours, the representative will determine the course of action. This would require a preliminary evaluation of the findings to be performed by the archeologists of the NM. The significance and importance of the findings should be assessed according to the various criteria relevant to cultural heritage; those include the aesthetic, historic, scientific/research, social, and economic values. Subsequent actions may include, but not limited to:

- Removal of PCR deemed to be of significance;
- Execution of further excavation within a specified distance of the discovery point; and,
- Extension or reduction of the area demarcated by the contractor.

These actions should be taken within 7 days. The contractor will not be entitled to claim compensation for work suspension during this period. If the NCCA's representatives fail to arrive within the stipulated period, the sub-borrower will have to extend the period by two days. If the NCCA's representatives fail to arrive after the extension period, the sub-borrower will have the authority to instruct the contractor to remove the PCR, or undertake other mitigating measures and resume work.

8. Further Suspension of Work

During this 7-day period, the NCCA will be entitled to request the temporary suspension of the work at the vicinity of the discovery site for an additional period (i.e. 30 days). The contractor will be entitled to establish an agreement with the NCCA for additional services or resources during this further period under a separate contract with the NCCA.

9. Restart of Works

Construction works would resume only after permission is granted the NCAA concerning the safeguard of the heritage.

Annex 10 Technical Guidance for Pest Management

TECHNICAL GUIDANCE FOR PEST MANAGEMENT

Harnessing Agribusiness Opportunities through Robust and Vibrant Entrepreneurship Supportive of Peaceful Transformation (HARVEST) Environmental and Social Management Framework

This Technical Guidance for Pest Management is a compilation of the technical references contained in the various industry-specific Environmental, Health, and Safety (EHS) Guidelines of the World Bank Group particularly the **EHS Guidelines for Annual Crop Production, Perennial Crop Production, and Pesticide Manufacturing, Formulation, and Packaging**. This document serves as a reference supplementing the guidance provided in the Environmental and Social Management Framework (ESMF) and fulfilling the requirements of the World Bank's Policy on Pest Management (OP 4.09).

Pesticide use

The primary aim of pest management should be not to eradicate all organisms, but to manage pests and diseases that may negatively affect production of crops so that they remain at a level that is under an economically and environmentally damaging threshold. Pests are managed through a process of integrated pest management (IPM) that combines chemical and non-chemical measures to minimize impacts on the environment and the people. Under IPM, the use of pesticides are considered only after other alternative pest management measures are proven to be not effective. Pesticides should be managed to avoid their migration into off-site land or water environments by establishing their use as part of an Integrated Pest Management (IPM) strategy and as documented in a Pesticide Management Plan (PMP). The following stages should be considered when designing and implementing an IPM strategy, giving preference to alternative pest management strategies, with the use of synthetic chemical pesticides as a last option.

Alternatives to pesticide application

Where feasible, the following alternatives to pesticides should be considered:

- Identify the main pests affecting crops in the locality, assess the risks to the operation, and determine whether a strategy and capacity are in place;
- Provide those responsible for deciding on pesticides application with training in pest identification, weed identification, and field scouting;
- Employ pest and disease forecasting system (early warning mechanisms)
- Rotate crops to reduce the presence of pests and weeds in the soil ecosystem;
- Use pest-resistant crop varieties;
- Use mechanical weed control and / or thermal weeding;
- Employ biological control through the use of beneficial organisms, such as insects, birds, mites, and microbial agents, to perform biological control of pests;
- Protect natural enemies of pests by providing a favorable habitat, such as bushes for nesting sites and other original vegetation that can house pest predators;
- Use animals to graze areas and manage plant coverage;
- Use mechanical controls such as traps, barriers, light, and sound to kill, relocate, or repel pests;
- Prior to procuring any pesticide, assess the nature and degree of associated risks and effectiveness, taking into account the proposed use and intended users, and
- Use pesticides to complement the above approaches, not replace them.

Pesticide application

If pesticide application is warranted, users should take the following precautions:

- Select the application method with the lowest environmental, health, and safety risks.

- Select application technologies and practices designed to reduce unintentional drift or runoff only as indicated in an IPM program, and under controlled conditions.
- Establish buffer zones around sensitive receptors such as water bodies, residential areas and built-up areas, natural open spaces, grazing lands, and other populated facilities.
- Aerial application of pesticides should be avoided as much as possible in cases where other alternative application options are available. Where aerial application is deemed the only available option, this mode of application should conform to national policies and local ordinances including provisions of the PMP. For aerial application, the boundaries of target areas should be clearly demarcated and all sensitive receptors, communities, livestock, water bodies, and protected and conservation sites should be identified in the flight plan. Aerial application of pesticides should not be carried out where there is potential to contaminate organic or certifiable production.
- Train personnel to apply pesticides and ensure that personnel have received applicable certifications or equivalent training where such certifications are not required.
- Review the manufacturer's directions on maximum recommended dosage or treatment as well as published reports on using the reduced rate of pesticide application without loss of effect, and apply the minimum effective dose.
- Apply pesticides based on criteria such as field observations, weather data, time of treatment, and dosage, and maintain a pesticide logbook to record such information. Application should occur under suitable weather conditions and avoiding wet weather and windy conditions.
- Maintain and calibrate pesticide application equipment in accordance with manufacturer's recommendations. Use application equipment that is registered in the country of use, and

Avoid the use of pesticides that fall under the following classifications:

- Pesticides that have been linked to localized environmental problems and threats;
- World Health Organization Recommended Classification of Pesticides by Hazard Classes 1a (extremely hazardous) and 1b (highly hazardous);
- World Health Organization Recommended Classification of Pesticides by Hazard Class II if the project host country lacks restrictions on distribution and use of these chemicals, or if they are likely to be accessible to personnel without proper training, equipment, and facilities to handle, store, apply, and dispose of these products properly;
- Avoid the use of pesticides listed in Annexes A and B of the Stockholm Convention, except under the conditions noted in the convention and those subject to international bans or phase outs;
- Avoid pesticides manufactured without license, registration, and approval by the appropriate authority and in accordance with the Food and Agriculture Organization's (FAO's) International Code of Conduct on the Distribution and Use of Pesticides;
- Prefer selective pesticides, where appropriate, rather than broad-spectrum products to minimize impacts on non-target species, and
- Avoid pesticides that are not labeled in accordance with international standards and norms, such as the FAO's Revised Guidelines for Good Labeling Practice for Pesticides.

Pesticide handling, storage, and disposal

Contamination of soils, groundwater, or surface water resources, due to accidental spills during transfer, mixing, and storage of pesticides should be prevented by following the hazardous materials storage and handling recommendations presented in the General EHS Guidelines. Additional recommendations include the following:

- Store pesticides in their original packaging, in a dedicated, dry, cool, and well ventilated location that can be locked and properly identified with signs, with access limited to authorized people. No human or animal food may be stored in this location. The store room should also be designed with spill kits and containment measures and sited in consideration of potential for contamination of soil and water resources.
- Mixing and transfer of pesticides should be undertaken by trained personnel in ventilated and well lit areas, using containers designed and dedicated for this purpose.
- Containers should not be used for any other purpose (e.g. drinking water). Contaminated containers should be handled as hazardous waste, and should be treated accordingly. Disposal of containers contaminated

with pesticides should be done in a manner consistent with FAO guidelines and with manufacturer's directions.

- Purchase and store no more pesticide than needed and rotate stock using a “first-in, first-out” principle so that pesticides do not become obsolete. Additionally, the use of obsolete pesticides should be avoided under all circumstances. A management plan that includes measures for the containment, storage and ultimate destruction of all obsolete stocks should be prepared in accordance to guidelines by FAO and consistent with country commitments under the Stockholm, Rotterdam and Basel Conventions.
- Ensure that appropriate PPE are worn at all times when handling, storing, and applying pesticides.
- Ensure that protective clothing worn during pesticide application is either cleaned or disposed of in an environmentally responsible manner.
- Implement groundwater supply wellhead setbacks for pesticide application and storage.
- Keep copies of updated Materials Safety Data Sheets (MSDS) in appropriate locations especially in storage facilities.
- Maintain records of pesticide use and effectiveness.
- Collect rinse water from equipment cleaning for reuse (such as for the dilution of identical pesticides to concentrations used for application).
- Any unused dilute pesticides that cannot be applied to the crop, along with rinse water, and out-of-date or no-longer approved for use pesticides should be disposed of as hazardous waste.
- Empty pesticide containers, foil seals, and lids should be triple rinsed, and washings used in the pesticide tank should be sprayed back to the field or disposed of as hazardous waste following national policies and international guidelines and according to manufacturer's directions. Containers should be stored safely and securely prior to their disposal and should not be used for any other purposes.

Occupational health and safety

Occupational health and safety impacts associated with pesticides are similar to those for other hazardous substances, and their prevention and control are discussed in the World Bank Group General EHS Guidelines. Potential exposures to pesticides include dermal contact, inhalation, and ingestion during their preparation, storage, and application. The effect of such impacts may be amplified by climatic conditions, such as wind, which may increase the chance of unintended drift, or high temperatures, which may be a deterrent to the use of personal protective equipment (PPE) by the operator. Recommendations include the following below.

- Use alternative pesticides and methods with lower risk profile.
- Train personnel to apply pesticides and ensure that personnel have received the necessary certifications, or equivalent training where such certifications are not required.
- Monitor and proactively manage all stages of pesticide use – from procurement to disposal and maintain records for any undue exposure or misuse.
- Respect post-treatment intervals to avoid operator exposure during reentry to crops with residues of pesticides.
- Respect pre-harvest intervals to avoid operator exposure to pesticide residues on products during harvesting.
- Ensure hygiene practices are followed to avoid exposure of family members to pesticides residues.

Community health and safety

The community can be potentially exposed to pesticides caused by spray drift, improper disposal and use of packaging and containers, and the presence of pesticides in potentially harmful concentrations in postharvest products. Pesticides may affect community health in the same ways that they affect individual operators, through dermal contact or through inhalation of such chemicals as a result of application as well as through potential contamination of potable water sources. The potential for community exposure to pesticides in the environment may be considerably influenced by climatic conditions, such as wind velocity, while the potential for exposure to residual levels in post-harvest products may depend on adherence to pesticide use instructions. There may also be a risk to the community caused by dermal contact with residues in containers, packaging, etc. Specific recommendations are listed below.

- Avoid the aerial application of pesticides whenever feasible
- Use biological or safe products, whenever feasible

- Respect pre-harvest intervals for pesticides to avoid unacceptable levels of pesticide residues in products, further complying with any applicable pesticide tolerance requirements
- Do not store or transport pesticides and fertilizers with food or beverages (including drinking water).
- Do not apply pesticides if weather conditions are likely to result in adverse impacts in surrounding communities.
- Ensure that animals and unauthorized people are not present in the areas where pesticides are handled or applied.
- Clean (e.g., a triple rinse or pressure technique) and dispose of (e.g., through crushing, shredding, or return to suppliers) pesticide packaging and containers to ensure that they are not subsequently used as containers for food or drinking water.

Monitoring

Monitoring of subproject performance may include determining significant impacts on the environment, during normal operations and upset conditions as well as on the people through published and accepted exposure guidelines. Specific for environmental performance monitoring, pesticide residues are measured in irrigation water, domestic water, soil media, and produce based on WHO Drinking Water Guidelines and Water Guidelines, tolerance level and residue limits for food, and applicable national requirements. Exposure levels are measured and compared against published and applicable Threshold Limit Value for occupational exposure guidelines and Permissible Exposure Limits (PELs).

Annex 11 Technical Guidance for Rapid Cumulative Impact Assessment

TECHNICAL GUIDANCE FOR RAPID CUMULATIVE IMPACT ASSESSMENT **Harnessing Agribusiness Opportunities through Robust and Vibrant Entrepreneurship Supportive of Peaceful Transformation (HARVEST)** Environmental and Social Management Framework

This document provides a general overview and reference for the conduct of a cumulative impacts assessment supplementing the guidance provided in the Environmental and Social Management Framework (ESMF).

A Rapid Cumulative Impact Assessment (RCIA) will be completed for each HARVEST subproject to assess the contribution of the subproject to cumulative impacts on selected valued components, in combination with other projects and activities. The analysis relies on assessing existing information sources, selection of key valued components, or issues of concern, and an assessment of key risks of cumulative impacts and the relative contribution of the HARVEST subproject to cumulative impacts on each valued component. Based on this analysis, recommendations are made to minimize cumulative impacts and identify areas for further analysis and/or management.

What is a Cumulative Impact?

Our natural world is shrinking while our human footprint and population numbers continue to grow in both extent and numbers. While environmental impact assessment is one tool to assess the effects of individual project developments, the use of this tool to assess impacts beyond the project level is limited. Best impact assessment practices now require that proponents not only have to assess the environmental and social impact of their own project, they also have to assess the cumulative impacts of other projects in the vicinity and determine the contribution of their project to the overall cumulative impact within a defined temporal and spatial framework. Cumulative impacts are defined as those impacts that result from the successive, incremental, and/or combined effects of an action, project, or activity (collectively referred to in this document as “developments”) when added to other existing, planned, and/or reasonably anticipated future ones (IFC 2013).

What is Rapid Cumulative Impact Assessment (RCIA)?

A Rapid Cumulative Impact Assessment (RCIA) is a tool to quickly assessment cumulative impacts of an individual project under consideration, in conjunction with other projects and activities. This tool is recommended as a rapid assessment method in many emerging economies and developing nations for the following reasons: 1) there is a pressing need to improve projects 2) there is great unfamiliarity about cumulative impact assessment, yet alone project level environmental assessment 3) there is often very limited and accurate baseline data available 4) there is little information available about other anticipated projects, 5) there is weak government capacity and 6) there is an overall lack of a planning process or context (modified from IFC 2013). These conditions apply to HARVEST.

The Rapid Cumulative Impact Assessment process is based on the IFC Good Practice Handbook on Cumulative Impact Assessment and Management,¹ and provides a rapid scoping of cumulative impacts and their importance. The RCIA process involves a six step process as shown below in Figure 1.

The six steps in the RCIA involve the following three processes:

Scoping – focuses on the selection of important valued components and other projects under consideration and determines a specific geographical and temporal scope. It involves the following:

Selection of valued components.

Identification of geographical and temporal boundaries.

Identification of other projects and activities.

¹[http://www.ifc.org/wps/wcm/connect/3aebf50041c11f8383ba8700caa2aa08/IFC_GoodPracticeHandbook_CumulativeImpactAssessment.p](http://www.ifc.org/wps/wcm/connect/3aebf50041c11f8383ba8700caa2aa08/IFC_GoodPracticeHandbook_CumulativeImpactAssessment.pdf?MOD=AJPERES)
df?MOD=AJPERES

Change in the condition of the VC is measurable and concise in that pathways or relationships are clearly understood and attributable. It is recommended that broad consultation be undertaken with project stakeholders, local communities, other agricultural interests, governments and other local organizations, scientific authorities and non-government organizations.

Spatial and Temporal Boundaries

It is important to set boundaries for the geographical and temporal scope of the RCIA. This will determine how far to assess cumulative impacts relative to each HARVEST sub-project but also how the time frame that will be used. The determination of geographical boundaries for the RCIA should consider the following:

The area that will be affected by the particular HARVEST subproject that is the affected area as defined by the project environmental and social impact assessment (ESIA).

The area of importance to each valued component – this should also consider if this area extends beyond the affected area of the subproject.

Are there other effects or impacts on the VC?

The determination of temporal boundaries should consider the following:

The timeframe, or life cycle, of each HARVEST subproject.

Whether the impacts of the subproject extend beyond the timeframe of the subproject.

Be realistic considering knowledge of future projects – in the case of HARVEST subprojects two boundaries are recommended – within the next 5 years and within the next 10 years. It is very unlikely that there is detailed information on pending developments and activities beyond ten years.

Step 2: Identification of Past, Present and Probable Future Projects

Past, present and probable future projects are to identified within the RCIA geographical boundary that could contribute to cumulative impacts on selected VCs. Selection of these projects should consider the following:

Include those projects of known footprint that can be assessed.

Consider a time frame that considers two scenarios: the next five years and the next ten years.

Include projects and activities within the affected area of each HARVEST subproject.

Include projects that are approved, awaiting approval, announced or under design.

Include all project components, such as camps, access roads, borrow pits and quarries and project related developments.

That the project affects a valued component (VC).

Include those projects whose environmental and social impacts and contribution to cumulative effects can be reasonably predicted, particularly projects with direct impacts on water resources, land and biodiversity.

Step 3: Determination of Status of Valued Components

Not only should the Valued Component (VC) be selected, information should also be collected on its status and past and future trends of each BC. This should be done by reviewing existing documentation pertinent to each VC and if possible collating that information into a geographical information system (GIS).

Step 4: Assessment of Impacts of the HARVEST Subproject and Other Projects

Impact Determination

The assessment of cumulative impacts on each VC by the HARVEST Subproject uses the same assessment methodology as employed by conventional impact assessment, except that the focus of the assessment is on each valued component not the activities and impacts of the project.

A conventional matrix approach is suggested to assess the impacts of the HARVEST Subproject and other Project on each VC. Impact classes are then averaged across the matrix and an overall cumulative impact is determined to assess the relative contribution of each Subproject.

Additional methods to assess cumulative impacts are presented in IFC (2013). Impacts on each VC can be assessed in terms of 3 times frames:

Present.

Within 5 years to 2020.

Within 10 years to 2025.

The reliability of future project beyond 10 years is not considered to be accurate.

Assignment of Mitigation Measures

The assessment of cumulative impacts should consider the implementation of mitigation measures both at the specific subproject level and at the level of other projects and activities.

Step 5: Assessment of the Significance of Predicted Cumulative Impacts

This step involves determining the significance of predicted residual impacts in the context of past, present and future actions. This involves an assessment of whether mitigation measures, both at the HARVEST subproject level, and mitigation of other projects is adequate. The significance of a cumulative impact on a specific VC is evaluated not in terms of the amount to a change in condition of the VC but rather considers whether the residual impact affects the vulnerability and/or risk to the sustainability of that particular VC (IFC 2013).

This may involve an assessment of cumulative impacts in the context of ecological or social thresholds that is the impact produces a change which is irreversible. Thresholds are limits beyond which changes resulting from cumulative impacts become a concern; they are typically expressed in terms of carrying capacity, goals, targets, and/or limits of acceptable change. These thresholds reflect and integrate scientific data, societal values, and concerns from affected communities. A threshold can be the maximum concentration of a certain nutrient in a body of water beyond which an algal bloom will occur, the concentration of pollutant in an air shed beyond which health of nearby communities could be adversely affected, or a maximum amount of linear infrastructure in a landscape before visual impacts become unacceptable (IFC 2013).

In practice, the determination of thresholds is very difficult and even more challenged when there is an overall lack of data or understanding of ecological and other systems.

The best practice is to invoke the precautionary principle and rather focus efforts on those VCs that area most susceptible to cumulative impacts and a change in their condition. This should be done in consultation with stakeholders, governments and subject matter experts.

Step 6: Management of Cumulative Impacts

The last step in the cumulative impact assessment process is the most difficult as it involves participation and collaboration of multiple parties as to how these impacts can be effectively mitigated and managed. The use of adaptive management is critical in this process whereby responses depend upon ongoing monitoring data to assess the effectiveness of mitigation.

Management of cumulative impacts is typically done at three levels:

Specific subproject level – This involves either modifying subproject design (location, timing, technology) or invoking additional mitigation measures specifically designed to minimize cumulative impacts on specific VCs

Cooperative projects – this involves cooperation among multiple proponents which could be support for monitoring programs, cooperative mitigation measures or collaborative measures to offset or compensate cumulative impacts\

Government management actions – these may involve both private sector proponents and governments working together in a range of regional management programs and impact management strategies or joint participation in regional monitoring initiatives.

The key to effective management of cumulative impacts is to develop a cooperative framework and to identify a champion – either a private sector proponent or government agency that is responsible for the coordination of cumulative impact management efforts.

Annex 12 Technical Guidance for Soil and Water Conservation and Management

TECHNICAL GUIDANCE FOR SOIL AND WATER CONSERVATION AND MANAGEMENT IN PLANTATIONS

Harnessing Agribusiness Opportunities through Robust and Vibrant Entrepreneurship Supportive of Peaceful Transformation (HARVEST) Environmental and Social Management Framework

This Technical Guidance for Soil and Water Conservation and Management is a compilation of the technical references contained in the various industry-specific Environmental, Health, and Safety (EHS) Guidelines of the World Bank Group particularly the **EHS Guidelines for Annual Crop Production and Perennial Crop Production**. This document serves as a reference supplementing the guidance provided in the Environmental and Social Management Framework (ESMF).

Water conservation and management

Water management for plantation crop production should aim to conserve the quantity and quality of water resources while optimizing crop yield. Surface or groundwater resources used for irrigation should be managed in accordance with the principles of Integrated Water Management consistent with the following recommendations below.

- Determine the quantity and quality of water needed for crop production based on internationally recognized guidelines, while recognizing seasonal variations and regional norms
- When irrigation is practiced, develop appropriate irrigation plan and schedule, and monitor consumption and compare regularly with these targets
- Evaluate the capacity of groundwater or surface water resources and collaborate with the Department of Agriculture's Bureau of Soil and Water Management (BSWM) as well as the National Water Resources Board (NWRB) to ensure that the project considers existing or emerging plans for water management and monitoring
- Select crops compatible with water availability
- Maintain soil structure and soil organic matter. Use of crop residues and mulches will assist in maintaining soil organic matter levels, retaining soil humidity, and reducing surface evaporation
- Maximize the use of available precipitation ("rain harvesting"), where feasible, by:
 - ✓ Reducing runoff by methods such as conservation tillage, terraces, and raised ridges that follow the land contour
 - ✓ Diverting water within the catchment area toward the crops themselves by directing runoff and diverting flow toward crops from roads and paths to store water in the soil and reduce the effect of short dry spells
 - ✓ Storing runoff from rainy periods for use during dry spells by using tanks, ponds, cisterns, and earth dams
- Implementing irrigation water conservation measures including:
 - ✓ Ensure regular maintenance of the irrigation system, as well as that of its associated channels and infrastructure
 - ✓ Reduce seepage losses in supply channels by lining them or using closed pipes
 - ✓ Reduce evaporation by avoiding midday irrigation and using trickle or drip irrigation techniques (if practical), using 'under canopy' rather than overhead sprinkling, and using windbreaks
 - ✓ Reduce seepage losses in channels by lining them or using closed conduits
 - ✓ Employ a cutback furrow irrigation technique, slowing or stopping irrigation water well before the water reaches the end of the furrow and discharges to the environment
 - ✓ Control weeds on inter-row strips and keep them dry through the use of cover crops or mulching to encourage beneficial but low-water-use soil cover plants
 - ✓ Avoid over and under-irrigation to decrease potential for soil salinization

- ✓ Maintain border vegetation in canals and drainage systems to reduce canal bank scouring and slow runoff
- ✓ Maintain a water management logbook that records precipitation, rainfall, and evaporation, as well as time and amounts of water applied, in order to develop an understanding of long-term trends in water use
- Sediments may become a significant pollutant due to their physical and chemical properties. Suspended sediments in surface water carry pollutants such as pesticides, nutrients, and trace metals, affecting water quality. Sediment loading reduces storage and flow capacities of streams, lakes, and reservoirs; may adversely affect water supplies; and increases the risk of flooding. The following measures are recommended to prevent and control the contamination of water sources:
 - ✓ Avoid over-irrigation, which may result in the leaching of nutrients and contaminants
 - ✓ Ensure appropriate soil moisture by active monitoring of soil humidity
 - ✓ Use harvesting methods or other appropriate measures to minimize the amount of debris deposited in streams.
 - ✓ Establish and respect setbacks and buffer zones in riparian areas; Buffer widths should be based on the specific risk, land management regime, and slope of the area
 - ✓ Remove harvest debris from streams and consider the use of debris traps, such as trash lines, where possible

Soil Conservation and Management

Physical and chemical degradation of soils may result from over-intensive farming practices and unsuitable management techniques, such as use of inappropriate machinery or earthworks associated with plantation preparation and infrastructure development. Chemical degradation of soil may result from insufficient or inappropriate use of mineral fertilizers, failure to recycle nutrients contained in crop residues, and failure to correct changes in soil pH that result from long-term use of nitrogen fertilizers and excessive use of poor-quality water, resulting in salinization. Soil erosion may be enhanced by heavy rainfalls, storms, and steep or long slopes, and may contribute to subsequent sedimentation of surface water bodies.

Soils should be managed so as to prevent or minimize loss of productive capacity and sedimentation of surface waters. Soil loss prevention practices include:

- Practice Integrated Nutrient Management (INM) to avoid nutrient depletion or accumulation;
- Practice reduced and zero tillage (often known as “low till” or “no till”), as well as direct seeding and planting, to minimize damage to soil structure, conserve soil organic matter, and reduce soil erosion.
- Use crops suited or adapted to the local climate and soil conditions;
- In areas with steep slopes, carefully consider planting zones and the direction of planting in relation to land contours to avoid erosion caused by precipitation or irrigation;
- Use stone barriers, vegetative cross-slope barriers, terraces, or drainage and diversion canals to prevent wind and water erosion however implement earthworks when weather conditions pose the lowest risk of causing environmental damage
- Use appropriate machinery to avoid soil compaction caused by excessively heavy equipment;
- Restrict the width of roads to the minimum that will provide the means for efficient and safe transport.
- Avoid the use of overly saline water for irrigation to prevent salinization;
- Use cover crops, intercropping along contours with legumes to create multi-species shelterbelts, and/or windbreaks to reduce evapotranspiration and soil loss through wind and water erosion;



Use of cover crops in banana plantations

- Increase the organic matter content in the soil by applying organic matter such as crop residues, compost, and manure to protect the soil physically from sun, rain, and wind and to feed soil biota. The potential for spreading of pests should be considered before implementing this practice;
- Consider adding lime to soil to compensate for acidification, caused by acid deposition and fertilizers, and to maintain stable pH levels;
- Assess potential impacts of waste materials such as manure and sludge to soils and water resources due to the presence of contaminants (e.g. heavy metals, nitrogen, phosphorus, and diseases-causing agents) prior to use for soil enhancement.
- The following approaches are recommended to maintain soil productivity over the long term:



Maintenance of vegetation strips and buffer for erosion control

- ✓ Collect meteorological data on precipitation, evapotranspiration, temperature, sunlight, and use information to inform and guide agronomic management techniques
- ✓ Use soil maps and soil survey results to determine crop suitability and appropriate soil management practices
- ✓ Develop and implement a soil monitoring and management plan that includes soil and terrain mapping and erosion risk identification
- ✓ Conduct regular surveys to monitor soil structure and chemistry in order to identify areas where remedial action is required
- ✓ Recycle and/or incorporate organic materials (e.g., crop residues, compost, and manures) to replenish soil organic matter and improve soil water-holding capacity
- ✓ Minimize the use of pesticides following the integrated pest management approach

Nutrient Management

Nutrient management strategies should aim to maintain and/or improve soil fertility and optimize crop yield while minimizing off-site environmental impact (e.g., contamination of groundwater resources and eutrophication of surface water resources from surface runoff and leaching of nutrients). Consider the following practices:

- Use green manures, cover crops, or mulching techniques to maintain soil cover, reduce the loss of nutrients, replenish soil organic matter, and capture and/or conserve moisture
- Incorporate nitrogen-fixing legume crop plants and cover crops in the cropping cycle
- Draw up balanced fertilizer programs for each soil management unit based on fertility results, soil and leaf analysis, and crop assessment
- Assess EHS risks associated with the nutrient management plan and mitigating strategies to minimize potential adverse EHS impacts
- Time the application of crop nutrients to maximize uptake and minimize nutrient runoff
- Assess soil pH periodically and apply soil amendments (e.g., agricultural lime) to correct changes in soil pH as required to ensure that nutrients are available for plant uptake
- Conduct periodic soil analysis to detect changes in soil fertility, inform decisions on fertilizer application rates, and avoid unsustainable nutrient depletion and over-fertilization
- Establish and respect setbacks from watercourses—including appropriate buffer zones, strips, or other “no-treatment” areas along water sources, rivers, streams, ponds, lakes, and ditches—to act as a filter for potential nutrient runoff from the land
- Select and maintain fertilizer application equipment to ensure desired application rates are used and over broadcasting of solid fertilizers as well as over spraying of liquid fertilizers are minimized
- Implement nutrient planning and documentation, which includes the use of a fertilizer logbook to record the following information:
 - ✓ Dates of purchase, dates of use, amount of fertilizer and nutrient used (kg/ha), purpose of use, and crop growth stage

- ✓ Weather conditions before, during, and after application
- ✓ Methods used to minimize nutrient loss (e.g., incorporation into the soil, split applications, irrigation after application)
- Provide farm operators with training in nutrient management following published principles and agricultural practice manuals
- Ensure that all personnel are trained in and use appropriate management procedures for the storage, handling, and application of all types of fertilizers, including organic wastes
- Personal Protective Equipment (PPE) should be used according to the Material Safety Data Sheets (MSDS) of the product or to a risk assessment of the fertilizer product; MSDS should be available at each management unit

Community Health and Safety

Community health and safety issues during the production of plantation crops may arise due to land use changes that may result in increased vulnerability and community safety-related risks and impacts. The diminution or degradation of natural resources may result in health-related risks and impacts. Risks also arise from: potential exposure to pathogens and noxious odors associated with the use of manure, and accidental drowning in water impoundment, earth dams, canals and other irrigation infrastructure

- While odors from manure—especially during application—are not generally hazardous, they can be a serious source of discomfort to the community; Avoid burning of residual crop and other wastes, which create harmful air emissions that may adversely impact surrounding communities
- Monitor and record all potentially harmful products and activities and manage them to minimize the risk to communities. Regularly audit and update operating procedures and ensure that personnel are suitably trained
- Store manure and fertilizers as far away from dwellings as possible, and use measures, such as covering the manure, to reduce odors and atmospheric emissions
- Where feasible, restrict access to water impounding infrastructure such as pools, dams, canals, retaining basins, etc. and discourage swimming in these areas through notifications, display boards, and information and awareness campaign directed to nearby communities

Annex 13 Technical Guidance for Waste Management

TECHNICAL GUIDANCE FOR WASTE MANAGEMENT

Harnessing Agribusiness Opportunities through Robust and Vibrant Entrepreneurship Supportive of Peaceful Transformation (HARVEST) Environmental and Social Management Framework

This Technical Guidance for Waste Management in Plantations is a compilation of the technical references contained in the various industry-specific Environmental, Health, and Safety (EHS) Guidelines of the World Bank Group particularly the **General EHS Guidelines** and the **EHS Guidelines for Annual Crop Production and Perennial Crop Production**. This document serves as a reference supplementing the guidance provided in the Environmental and Social Management Framework (ESMF).

Solid Waste and Crop Residues Management

Solid waste generation is one of the key environmental aspects of plantations, post-harvest, and processing systems. Waste streams include crop residues from plantations, municipal/domestic waste, other organic waste, and hazardous waste. The **EHS General Guidance** summarizes the key considerations and recommendations for managing solid waste. The **EHS Guidance for Perennial Crop Production** and **EHS Guidance for Annual Crop Production** provide recommendations for the management of crop residues.

Crop residues

Crop residues can be recycled beneficially to improve soil organic matter and soil structure, as well as to reduce soil loss. In addition to annual or intermittent residues, many plantation crops also result in major residues at the end of their commercial life. These residues are valuable sources of organic matter and carbon and can lead to the extended release of nutrients during the development (growth) phase of the next crop cycle. Prevention and control strategies for potential risks and impacts include the following:

- Where feasible, develop and implement a residue management plan in combination with results from nutrient management research and planning
- Recycle residues and other organic materials by leaving the materials on site or through composting (and spreading)
- Disperse (or mulch) large vegetative structures (e.g., trunks, branches), unless there are compelling habitat and biodiversity benefits identified in the Biodiversity Management Plan
- Consider the potential for harboring and spreading pests and diseases before implementing this practice
- When leaving residues in the field is neither practical nor inappropriate, consider using crop residues for other beneficial purposes—such as animal feed, bedding, or thatching
- In cases where crop residues are in excess of those needed for nutrient management, consider using as a thermal energy source for agriculture processing or for the generation of heat and/or power. Relatively high atmospheric emissions (such as of particulate matter and carbon monoxide (CO)) are possible when using crop residues for thermal combustion; their handling, storage, and processing may present risks of fire, such as from spontaneous combustion of improperly stored damp residues or explosion of combustible dust. Strategies to prevent and control risks and impacts include:
 - In the planning phase, obtain physical and chemical data on the fuel and implement advice from a qualified specialist
 - Undertake tests with the “new” residual biomass fuel prior to introducing it, and demonstrate that expert advice and feedback have been followed
 - Adopt management practices in line with **General EHS Guidelines** in managing risks for fire and explosion
- Avoid using harmful residual chemicals at end of crop life when preparing for removal.

Non-crop residues

Non-crop wastes from the production systems (e.g., pesticide containers, waste pesticides, and packaging) often have the potential to contribute to adverse health, safety, or environmental impacts. Considerations for the prevention and control of potential impacts from these wastes include:

- Ensure all packaging for pesticides and herbicides is returned to the farm or forest after use and properly stored until final disposal.
- Do not burn packaging, plastics, or other solid waste. Dispose of this waste in designated waste disposal facilities or by recycling. Manage solid waste in accordance with the **General EHS Guidelines**.
- Consider large container and/or bulk systems for fuels, oils, fertilizers, and chemicals to reduce the volume of waste containers.
- Examine alternative product formulations and packaging (e.g., biodegradable material).
- Manage expired and unwanted pesticides as hazardous wastes in accordance with the **General EHS Guidelines** and Food and Agriculture Organization (FAO) Guidelines for the Management of Small Quantities of Unwanted and Obsolete Pesticides.

Key considerations in waste management of facilities

Waste Management Planning

Facilities that generate waste should characterize their waste according to composition, source, types of wastes produced, generation rates, or according to local regulatory requirements. Effective planning and implementation of waste management strategies should include:

- Review of waste sources during planning, siting, and design activities, including during equipment modifications and process alterations, to identify expected waste generation, pollution prevention opportunities, and necessary treatment, storage, and disposal infrastructure. In reviewing the waste sources, the opportunities for source reduction, reuse and recycling will be defined
- Monitoring of the process and waste streams in existing facilities, including characterization of waste streams by type, quantities, and potential use/disposition
- Establishment of priorities based on a risk analysis that takes into account the potential EHS risks during the waste cycle and the availability of infrastructure to manage the waste in an environmentally sound manner
- Definition of procedures and operational controls for onsite storage, treatment and final disposal

Waste Prevention

Processes should be designed and operated to prevent, or minimize, the quantities of wastes generated and hazards associated with the wastes generated in accordance with the following strategy:

- Substituting raw materials or inputs with less hazardous or toxic materials, or with those where processing generates lower waste volumes
- Applying manufacturing process that convert materials efficiently, providing higher product output yields, including modification of design of the production process, operating conditions, and process controls
- Instituting good housekeeping and operating practices, including inventory control to reduce the amount of waste resulting from materials that are out-of-date, off-specification, contaminated, damaged, or excess to plant needs
- Instituting procurement measures that recognize opportunities to return usable materials such as containers and which prevents the over ordering of materials
- Minimizing hazardous waste generation by implementing stringent waste segregation to prevent the commingling of non-hazardous and hazardous waste to be managed

Recycling and Reuse

In addition to the implementation of waste prevention strategies, the total amount of waste may be significantly reduced through the implementation of recycling plans, which should consider the following elements:

- Evaluation of waste production processes and identification of potentially recyclable materials
- Identification and recycling of products that can be reintroduced into the manufacturing process or industry activity at the site
- Investigation of external markets for recycling by other industrial processing operations located in the neighborhood or region of the facility (e.g., waste exchange)
- Establishing recycling objectives and formal tracking of waste generation and recycling rates
- Providing training and incentives to employees in order to meet objectives

Treatment and Disposal

If waste materials are still generated after the implementation of feasible waste prevention, reduction, reuse, recovery and recycling measures, waste materials should be treated and disposed of and all measures should be taken to avoid potential impacts to human health and the environment. Selected management approaches should be consistent with the characteristics of the waste and local regulations, and may include one or more of the following:

- On-site or off-site biological, chemical, or physical treatment of the waste material to render it nonhazardous prior to final disposal
- Treatment or disposal at permitted facilities specially designed to receive the waste.

Hazardous Waste Management

Hazardous wastes should always be segregated from nonhazardous wastes. If generation of hazardous waste cannot be prevented through the implementation of the above general waste management practices, its management should focus on the prevention of harm to health, safety, and the environment, according to the following additional principles:

- Understanding potential impacts and risks associated with the management of any generated hazardous waste during its complete life cycle
- Ensuring that contractors handling, treating, and disposing of hazardous waste are reputable and legitimate enterprises, licensed by the relevant regulatory agencies and following good international industry practice for the waste being handled
- Ensuring compliance with applicable local and international regulations

Hazardous Waste Storage

Hazardous waste should be stored so as to prevent or control accidental releases to air, soil, and water resources in area location where:

- Waste is stored in a manner that prevents the commingling or contact between incompatible wastes, and allows for inspection between containers to monitor leaks or spills. Examples include sufficient space between incompatibles or physical separation such as walls or containment curbs
- Store in closed containers away from direct sunlight, wind and rain
- Secondary containment systems should be constructed with materials appropriate for the wastes being contained and adequate to prevent loss to the environment
- Secondary containment is included wherever liquid wastes are stored in volumes greater than 220 liters. The available volume of secondary containment should be at least 110 percent of the largest storage container, or 25 percent of the total storage capacity (whichever is greater), in that specific location
- Provide adequate ventilation where volatile wastes are stored.

Hazardous waste storage activities should also be subject to special management actions, conducted by employees who have received specific training in handling and storage of hazardous wastes:

- Provision of readily available information on chemical compatibility to employees, including labeling each container to identify its contents
- Limiting access to hazardous waste storage areas to employees who have received proper training
- Clearly identifying (label) and demarcating the area, including documentation of its location on a facility map or site plan
- Conducting periodic inspections of waste storage areas and documenting the findings
- Preparing and implementing spill response and emergency plans to address their accidental release
- Avoiding underground storage tanks and underground piping of hazardous waste

Hazardous Waste Transportation, Treatment and Disposal

On-site and off-site transportation of waste should be conducted so as to prevent or minimize spills, releases, and exposures to employees and the public. All waste containers designated for off-site shipment should be secured and labeled with the contents and associated hazards, be properly loaded on the transport vehicles before leaving the site, and be accompanied by a shipping paper or chain-of-custody documentation (i.e., manifest) that describes the load and its associated hazards, consistent with the guidance provided in **General**

EHS Guidance. In addition to the recommendations for treatment and disposal applicable to general wastes, the following issues specific to hazardous wastes treatment and disposal should be considered:

- Accredited waste treatment and disposal facilities have the technical capability to manage the waste in a manner that reduces immediate and future impact to the environment and have all required permits, certifications, and approvals, of applicable government authorities.
- In the absence of qualified commercial or government-owned waste disposal operators (taking into consideration proximity and transportation requirements), project sponsors should consider using:
 - Installing on-site waste treatment or recycling processes
 - As a final option, constructing facilities that will provide for the environmental sound long-term storage of wastes on-site (as described elsewhere in the General EHS Guidelines) or at an alternative appropriate location up until external commercial options become available

Small Quantities of Hazardous Waste

Hazardous waste materials are frequently generated in small quantities by many projects through a variety of activities such as equipment and building maintenance activities. Examples of these types of wastes include: spent solvents and oily rags, empty paint cans, chemical containers; used lubricating oil; used batteries (such as nickel-cadmium or lead acid); and lighting equipment, such as lamps or lamp ballasts. These wastes should be managed following the guidance provided in the above sections.

Monitoring

Monitoring activities associated with the management of hazardous and non-hazardous waste should include:

- Regular visual inspection of all waste storage collection and storage areas for evidence of accidental releases and to verify that wastes are properly labeled and stored. When significant quantities of hazardous wastes are generated and stored on site, monitoring activities should include:
- Regular audits of waste segregation and collection practices
- Tracking of waste generation trends by type and amount of waste generated, preferably by facility departments
- Characterizing waste at the beginning of generation of a new waste stream, and periodically documenting the characteristics and proper management of the waste, especially hazardous wastes
- Keeping manifests or other records that document the amount of waste generated and its destination
- Periodic auditing of third party treatment, and disposal services including re-use and recycling facilities when significant quantities of hazardous wastes are managed by third parties. Whenever possible, audits should include site visits to the treatment storage and disposal location
- Regular monitoring of groundwater quality in cases of Hazardous Waste on site storage and/or pretreatment and disposal

Annex 14 Technical Guidance for Palm Oil Plantation

TECHNICAL GUIDANCE FOR PALM OIL PLANTATION, PRODUCTION, AND PROCESSING

Harnessing Agribusiness Opportunities through Robust and Vibrant Entrepreneurship Supportive of Peaceful Transformation (HARVEST)

Environmental and Social Management Framework

This Technical Guidance for Palm Oil Plantations presents the key considerations in applying the World Bank Safeguards Policies to projects that support the establishment, production, maintenance, and processing of palm oil. The contents of this Technical Guidance are taken from the **World Bank Group Framework and IFC Strategy for Engagement in the Palm Oil Sector**. Additional references were collated from the **World Bank Group EHS Guidelines for Vegetable Oil Production and Processing**. This document supplements the guidance provided in the Environmental and Social Management Framework (ESMF) of HARVEST.

Palm oil is a major global agricultural commodity that is used in many food and non-food products. It is cultivated entirely in developing countries and in the humid tropics, where it often forms an important basis for local economies, as an export, as a raw material for local industry, and as a locally consumed food. This has made palm oil as one of the most important tropical vegetable oil in terms of production value and trade and the industry has played a significant role in generating employment and export earnings in key producing countries.

While the palm oil impact on employment, income generation and the poor is considerable, oil palm has long been criticized for being a major contributor to deforestation and emissions of greenhouse gases in some countries. It has also been criticized for inequitable benefit sharing with local communities and adverse impacts on indigenous peoples. This seems to suggest inherent trade-offs from oil palm expansion, but most often the net environmental and social impacts of oil palm depend on where and how it is developed. Problems arise when strong economic incentives for expansion are superimposed on a governance framework that has weak capacity for guiding the development of new oil palm plantations onto areas where the environmental and social impacts are minimized. Recognizing the importance of the industry's contributions to development benefits, the potential to mitigate environmental and social risks, and the continued growth in demand, the World Bank Group has outlined its overall framework and strategy for engaging in this industry. The **World Bank Group's Framework and IFC Strategy for Engagement in the Palm Oil Sector** identifies the key environmental and social risks associated with palm oil production and outlines the application of the World Bank Safeguard Policies and IFC's Performance Standards to improve the mitigation of negative consequences and build sustainability in the sector. The **World Bank Group EHS Guidelines** and the industry-specific **EHS Guidelines for Vegetable Oil Production and Processing** and **EHS Guidelines for Perennial Crop Production** further provide guidance on environmental, health and safety risks management. This document summarizes the guidance in applying the social and environmental safeguards (and performance standards) to the activities in the palm oil sector. Recommendations are also provided to managing key environmental, health, and safety risks associated with the production and processing of vegetable oil (palm oil). The intention is to facilitate decision making and encourage good practice.

Application of World Bank Safeguards Policies

A variety of World Bank environmental, social and legal safeguard policies apply to oil palm. The objective of these policies is to prevent or mitigate undue harm to people and their environment in the development process through improved decision-making, ensuring that project options under consideration are sound and sustainable, that potentially affected people have been properly consulted, and that safeguard documents are disclosed. Safeguard policies provide a platform for the participation of stakeholders in project design and have been an important instrument for building ownership among local populations. Projects will be subject to early assessment to identify opportunities and challenges in the sector, identification of opportunities for joint WB-IFC engagement and for IFC projects, application of the Risk Screening and Assessment Tool.

Applicable policies: As in all World Bank operations, the Bank's environment, social and legal safeguard policies and consultation processes apply. The following criteria are intended to assist borrowers in the application of existing policies to palm oil projects.

All projects will be consistent with appropriate national policy, legal and regulatory mechanisms. And as appropriate, capacity building to strengthen accountability mechanisms will be a priority.

Criterion 1. There are demonstrated economic benefits for poor rural populations: the WB will give priority to projects that benefit smallholders and to rehabilitation of existing degraded plantations (and degraded plantations of other tree crops which are being converted to oil palm) that benefit smallholders and new smallholder groves; IFC will support plantations and companies in the supply chain that benefit rural communities while giving priority to projects that also benefit smallholders and that use degraded lands.

Criterion 2. Smallholders and palm oil companies have recognized land use rights for oil palm and WB supports documentation and arbitration processes where appropriate.

Criterion 3. Direct impacts of oil palm development on natural and/or critical habitats are limited.

When possible alternative scenarios have been explored and impacts are unavoidable, mitigation measures are put in place. Priority will be given to rehabilitating existing plantations to enhance their productivity. In the event that projects support the establishment of new plantations, priority would be given to plantations that are developed on degraded lands. Palm oil plantations that result in significant conversion or degradation of high carbon stock or high conservation value habitats will be avoided.

Criterion 4. In addition, where significant quantities of palm oil are exported, systems of traceability and certification are in place; where they are not, support is provided for the development of appropriate accountability systems, and for the WB, investment is limited to smallholder programs.

Environmental Assessment. Projects involving oil palm should anticipate being subject to the application of the World Bank's policy on environmental assessment. All proposed subprojects are screened to determine their potential environmental impacts and risks, based on the process outlined in the ESMF. Depending on the type, location, sensitivity, and scale of the project and the degree of its potential environmental impacts, oil palm-related projects are likely to have —significant adverse environmental impacts that are sensitive, diverse, or unprecedented and —may affect an area broader than the sites or facilities subject to physical work; their effects transcend the scope in time or space of the project itself. Environmental assessments are undertaken to compare alternatives, including the —without project scenario to determine whether the proposed project is likely to do more harm than good. Alternative —with project scenarios, involving opportunities to prevent, minimize, mitigate, or compensate for adverse impacts, are also weighed. Opportunities to improve the environmental performance of the assets and resources connected with the project will need to be carefully examined as well.

Forests. The operational policy on forests applies to projects that (a) have or may have impacts on the health and quality of forests, (b) affect the rights and welfare of people and their level of dependence on or interaction with forests, or (c) aim to bring about changes in the management, protection, or utilization of natural forests or plantations, whether publicly, privately, or communally owned. The management, conservation, and sustainable development of forest ecosystems and their associated resources are essential to lasting poverty reduction and sustainable development. The World Bank has a clear interest in directing the expansion of oil palm plantations away from standing forests to degraded grasslands. A number of economically viable options and incentives for using these areas are available, the most important of which is the use of payments for environmental services and reducing emissions from deforestation and forest degradation in developing countries. Applying these mechanisms successfully requires that the rights of occupants of degraded lands be identified and compensated.



Natural Habitats. The Bank promotes and supports natural habitat conservation and improved land use by financing projects designed to integrate with national and regional development, the conservation of natural habitats, and the maintenance of ecological functions. Furthermore, the Bank promotes the rehabilitation of degraded natural habitats. ***The Bank does not support projects that, in its view, entail significant conversion or degradation of critical natural habitats. Wherever feasible, Bank-financed projects are sited on lands already converted (excluding any lands that the Bank concludes were converted in anticipation of the project).***



The Bank does not support projects involving the significant conversion of natural habitats unless there are no feasible alternatives for the project and its siting, and comprehensive analysis demonstrates that overall benefits from the project substantially outweigh the environmental costs. If the environmental assessment indicates that a project would significantly convert or degrade natural habitats, the project must adopt mitigation measures acceptable to the Bank. Such mitigation measures include strategic habitat retention and post-development restoration. They may also include establishing and maintaining an ecologically similar protected area. The Bank accepts other forms of mitigation measures only when they are technically justified.

Indigenous Peoples. In areas where local indigenous peoples are likely to be affected, the World Bank (together with the borrower) undertakes a screening process. If, based on the screening, it is determined that indigenous peoples are present in the project area or share a collective attachment to that area, the borrower must undertake a social assessment to evaluate the potential positive and adverse effects on the groups concerned. Where adverse impacts may be significant, alternatives to the project or within the project will be investigated. The borrower contracts social scientists that are endorsed by the World Bank to conduct the social assessment. The borrower then engages in 'free, prior, and informed consultation' with the indigenous peoples and activities as may be required by the Philippine laws and policies at every stage of project preparation and implementation. For a project to proceed, it must be determined that there is broad community support among the indigenous peoples. Special consideration is made to accommodate the concerns of indigenous women, youth, and children and to ensure their access to the development opportunities and benefits that accrue from the project. All relevant information about potentially adverse impacts is shared with the affected community.

Physical Cultural Resources. The operational Bank policy applies when there are potential impacts of palm oil plantation preparation and establishment of associated plants and other infrastructure to physical cultural resources (PCRs) of the area. Physical cultural resources are defined as movable or immovable objects, sites, structures, groups of structures, and natural features and landscapes that have archaeological, paleontological, historical, architectural, religious, aesthetic, or other cultural significance. They may be located in urban or rural settings, and may be above- or below ground or underwater. Their cultural interest may lie at the local, provincial, or national level or within the international community. The impacts on PCRs are assessed in the course of the project's environmental assessment. Guidance on the management of the impacts on PCR is outlined in the ESMF of HARVEST.

Involuntary Resettlement. The Bank's operational policy on involuntary resettlement is triggered in situations involving involuntary taking of land and involuntary restrictions of access to legally designated parks or protected areas. The HARVEST ESMF identifies measures to minimize involuntary resettlement to the extent feasible, or to minimize and mitigate its adverse social and economic impacts. It promotes the participation of displaced people in resettlement planning and implementation, and its key economic objective is to assist displaced persons in their efforts to improve or restore their incomes and standards of living after displacement. Taking off from the policy, the ***Resettlement Policy Framework*** of the ESMF prescribes compensation and other resettlement measures and requires that borrower prepare adequate resettlement planning instruments.

Pest Management. The Bank promotes the use of biological or environmental control methods and reduced reliance on synthetic chemical pesticides. In Bank-financed projects, the borrower addresses pest management

issues in the context of the project's environmental assessment. The Bank assesses the capacity of the country's regulatory framework and institutions to promote and support safe, effective, and environmentally sound pest management. As necessary, the Bank and the borrower incorporate into the project components to strengthen such capacity. Further guidance on pest management is provided by the ESMF of HARVEST.

Vegetable Oil Production and Processing

There are several environmental, health, and safety (EHS) issues associated with palm oil production and processing including the construction and decommissioning of plants. The ***EHS Guidelines for Vegetable Oil Production and Processing*** summarizes the key EHS issues of vegetable oil production and processing including recommendations for their management. The recommendations apply to production and processing of variety of vegetable oils, many of which are applicable to palm oil. The ***General EHS Guidelines*** provides recommendations on common EHS issues related to plant construction and decommissioning. Environmental issues associated with the vegetable oil production and processing primarily include the following:

Solid Waste and By-Products

Vegetable oil processing activities generate significant quantities of organic solid waste, residues and by-products, such as empty fruit bunches (EFBs) and waste palm kernels from palm oil processing or olive oil cake and pulp from olive processing. The amount of waste generated depends on the quality of the raw materials and on process efficiency. Wastes, residues, and by-products may be used for producing commercially viable by-products or for energy generation. Other solid wastes from the vegetable oil manufacturing process include soap stock and spent acids from chemical refining of crude oil; spent bleaching earth containing gums, metals, and pigments; deodorizer distillate from the steam distillation of refined edible oils; mucilage from degumming; and spent catalysts and filtering aid from the hardening process. Recommended techniques for minimizing the volume of solid waste and by-products for disposal include the following:



- Reduce product losses through better production/storage control (e.g., monitor and adjust air humidity to prevent product losses caused by the formation of molds on edible materials).
- Collect residues from the raw material preparation phase for conditioning (drying) and reprocessing (grinding) to yield by-products (e.g., animal feed).
- Return waste and residues to fields to assist in soil nutrient management; for example, EFBs from oil palm plantations with tree trimmings are a valuable soil amendment and/or can be composted with vegetable oil wastewater effluent.
- Use waste and residues for energy generation in the project plant's boiler(s). Note, however, that relatively high atmospheric emissions (such as particulate emissions (PM)) are possible when burning crop residues, and potential fire risks (e.g., from combustible dust) may arise from handling, storing, and processing crop residues; as such, expert advice on fuel characteristics and boiler design should be solicited when planning to use biofuels in this manner.
- Investigate the following options for the responsible disposal of spent bleaching earth:
 - Use as fertilizer, if not contaminated with heavy metals such as nickel, pesticide residues, or other contaminants.
 - Recover non-food-grade oils from spent bleaching earth that could be used in other applications (feedstock for conversion to biodiesel or in bio-lubricants).
 - Avoid direct recycling on agricultural land. Add spent earth to other organic waste and compost to avoid contact with air and risk of spontaneous combustion of spent bleaching earth.
 - If contaminated, manage according to the waste management guidance presented in the General EHS Guidelines.
 - Consider use as a feedstock for brick, block, and cement manufacturing.
- Investigate the following options for the use of distillates (e.g., free fatty acids and volatile organic compounds (VOCs)), depending on the level of contaminants (pesticides and/or residues):

- Use free fatty acid as animal feed if uncontaminated.
- Apply as a feedstock for chemical industry processes (e.g., antioxidants).
- Use as fuel for energy production.
- The nickel catalyst from hydrogenation should be either: recycled and recovered for reuse as a nickel catalyst or as nickel metal, salt, or other application, or stored and disposed of according to the hazardous waste management guidance presented in the General EHS Guidelines.
- Manage filtering aid mixed with nickel in accordance with the recommendations for nickel catalyst.
- Use uncontaminated sludge and effluent from on-site wastewater treatment as fertilizer in agricultural applications or as a supplemental boiler fuel. Recommendations for the management of EHS issues common to sludge and effluent are provided in the General EHS Guidelines and in the Water and Sanitation EHS Guidelines. Dispose of contaminated sludge from wastewater treatment at a sanitary landfill or by incineration. Incineration should only be conducted in permitted facilities operating under internationally recognized standards for pollution prevention and control.

Water Consumption and Management

Vegetable oil facilities require significant amounts of water for crude oil production (cooling water), chemical neutralization processes, and subsequent washing and deodorization. General recommendations to reduce water consumption, especially where it may be a limited natural resource, are provided in the General EHS Guidelines. Sector-specific recommendations to reduce water consumption, optimize water use efficiency, and reduce subsequent wastewater volumes include the following:

- When economically viable, consider the use of physical refining instead of chemical refining to reduce water consumption.
- Replace water-based conveyor systems by mechanical systems (augers or conveyors).
- Apply Cleaning-in-Place (CIP) procedures to help reduce chemical, water, and energy consumption in cleaning operations.
- Recover and reuse condensate from heating processes.
- Upgrade equipment water sprays (e.g., to include jets or nozzles).
- Use dry cleanup techniques before rinsing floors.
- Manually clean vessels before rinsing to remove solids for recovery or disposal.
- Use high-pressure, low-volume washing systems, and auto shut-off valves.
- Vegetable oil processing wastewater generated during oil washing and neutralization may have a high content of organic material and, subsequently, a high biochemical oxygen demand (BOD) and chemical oxygen demand (COD). Wastewater may also have a high content of suspended solids, organic nitrogen, and oil and fat, and may contain pesticide residues from the treatment of the raw materials. Recommended measures to reduce contaminant loading include the following: install spill collection trays to collect solids at appropriate places in the production line; use emulsion breaking techniques, (e.g., dissolved air flotation (DAF)), to segregate high BOD and COD oils from wastewater.
- Use grids to cover drains in the production area to prevent solid wastes and concentrated liquids from entering the wastewater stream.
- Select disinfection chemicals to match the cleaning operation being applied on the process equipment to the type of problem. Caustics (e.g., lye) are typically used for polymerized fat, and acids are used for lime deposit acids.
- Apply cleaning chemicals using the correct dose and application method.
- Properly treat and discharge cleaning solutions (e.g., through a soap-splitting process) to separate oil and fatty acids from the water phase and then pass through a fat trap.
- When appropriate and feasible, reduce phosphoric acid in degumming operations through the use of improved neutralization processes or alternative methods, such as enzymatic degumming (this reduces the phosphorus load in the wastewater and also brings about a slight reduction in sludge quantities).

Process Wastewater Treatment

Techniques for treating industrial process wastewater in this sector include: grease traps, skimmers, or oil water separators for the removal of floatable solids; flow and load equalization; sedimentation for suspended solids reduction using clarifiers; biological treatment—typically anaerobic, followed by aerobic treatment—for the reduction of soluble organic matter (BOD); biological nutrient removal for reduction in nitrogen and phosphorus; chlorination of effluent when disinfection is required; and dewatering and disposal of residuals. In some

instances, composting or land application of wastewater treatment residuals of acceptable quality may be possible. Additional engineering controls may be required to contain and neutralize nuisance odors. The management of industrial wastewater and examples of treatment approaches are discussed in the General EHS Guidelines. By employing these technologies and good practice techniques for wastewater management, including a regular program of maintenance, facilities should meet the Philippine guideline values for wastewater effluents.

Other Wastewater Streams

Guidance on the management of non-contaminated wastewater from utility operations, non-contaminated storm water, and sanitary sewage is provided in the General EHS Guidelines. Contaminated streams should be routed to the treatment system for industrial process wastewater.

Energy Consumption and Management

Vegetable oil processing facilities use energy to heat water and produce steam both for process applications (especially for soap splitting and deodorization) and cleaning processes. Other common energy consumption systems include refrigeration and compressed air. In addition to the energy conservation recommendations provided in the General EHS Guidelines, sector-specific recommendations include the following:

- Improve uniformity of feed to stabilize and reduce energy requirements.
- Increase efficiency of air removal in sterilization vessels to improve heat transfer.
- Identify and implement opportunities for process heat exchange; e.g., optimized oil-oil heat exchangers in continuous deodorization.
- Reduce stripping steam consumption by improving process efficiency; e.g., improve stripping tray design. Where possible, consider technologies such as dry ice condensing systems that may lower energy consumption.
- Consider co-generation (combined heat and power (CHP)) to improve energy efficiency.
- Consider more advanced approaches—such as the use of enzymes—for processes such as degumming and oil recovery.
- Where feasible, use anaerobic digestion for wastewater treatment and capture methane for heat and / or power production.

Atmospheric Emissions

Process Emissions

Particulate matter (dust) and VOCs are the principal emissions from vegetable oil production and processing. Dust results from the processing, including cleaning, screening, and crushing, of raw materials, whereas VOC emissions are caused by the use of oil-extraction solvents, normally hexane. Several sources within vegetable oil processing plants generate solvent emissions, including the solvent-recovery unit, the meal dryer and cooler, leaks in piping and vents, and product storage. Additional emissions will result from the refining process if a fractionation method is used. Small quantities of solvent may be present in the crude vegetable oil if the oil has been extracted by a solvent and will volatilize during the oil refining process, particularly during deodorization. Odor emissions are produced by multiple sources (e.g., cookers, soap splitting, and vacuum generation).

Recommended management techniques to prevent and control VOCs include the following:

- Process improvements, for example:
 - Optimize recovery of solvents by distilling the oil from the extractor.
 - Back-vent to the solvent delivery tanks during bulk storage tank filling.
 - Improve exhaust air collection systems.
 - Implement leak prevention systems.
- Adoption of abatement technologies:
 - Recover solvent vapors where feasible, primarily through the use of countercurrent flow desolventizer-toaster in vegetable oil extraction.
 - Use a condenser, a reboiler, and a gravity separator to treat condensates with high solvent content, to reduce both solvent emissions and the risk of explosions in the sewer.
 - Treat hexane-laden air from the condenser/reboiler process with a mineral oil scrubber.
 - Consider cryogenic condensation in the solvent fractionation process. Best practice approaches use a closed loop process in which 99.9 percent of the solvent input is reused.

- Additional recommendations for the prevention and control of VOC emissions are presented in the General EHS Guidelines.

The recommended management techniques to prevent and control dust and odors include the following:

- Ensure proper maintenance of cleaning, screening, and crushing equipment—including in any ventilation and air handling systems—to reduce emissions of fugitive dust, and avoid the use of compressed air or steam for cleaning.
- Install cyclones and/or fabric filters or electrostatic precipitators on selected vents—including meal dryers, coolers, and grinders—to remove odor emissions.
- Reduce odor emissions (e.g., from soap splitting, cookers in the extraction process, vacuum systems, and pressurized systems) with a caustic, alkaline, or ozone scrubber system, or incinerate the gas in a boiler plant or in separate incinerator systems.

Combustion Products

Vegetable oil processing plants are large energy consumers, making use of auxiliary boilers for the generation of steam energy. Emissions related to the operation of these steam energy sources typically consist of combustion by-products, such as NO_x, SO_x, PM, VOCs, and greenhouse gases (CO₂). Recommended management strategies include adoption of a combined strategy, which involves a reduction in energy demand, use of cleaner fuels, and the application of emissions controls, where required. Recommendations on energy efficiency are addressed in the General EHS Guidelines. Guidance for the management of small combustion source emissions with a capacity of up to 50 megawatt thermal (MWth), including exhaust emission guidelines, is provided in the General EHS Guidelines. Guidance applicable to combustion sources with a capacity greater than 50 MWth is presented in the EHS Guidelines for Thermal Power.

Greenhouse Gas Emissions (GHG)

Vegetable oil processing produces GHG emissions through the use of fossil energy. Projects should manage energy use in accordance with the General EHS Guidelines. The high nutrient loading of wastewater can be a source of methane (CH₄) when treated or disposed of anaerobically. It can also be a source of nitrous oxide (N₂O) emissions associated with the degradation of nitrogen components in the wastewater (e.g., urea, nitrate, and protein). Recommended measures to prevent and control non-fossil-fuel-related GHG emissions include:

- Avoid open anaerobic conditions for wastewater treatment by ensuring a regular program of operational maintenance in the wastewater treatment system.
- Consider biological methods of wastewater treatment, such as anaerobic digestion and methane capture; use of waste effluent for irrigation; co-composting of by-products, where appropriate (e.g., oil palm empty fruit bunches with palm oil mill effluent nutrient waste or olive mill waste residue with wastewater); and detoxification by nitrogen fixation.

Hazardous Materials

Vegetable oil processing involves the transport, storage, and use of bulk quantities of acids, alkalis, solvents, and hydrogen during extraction and refining. Their transport, storage, and handling provide opportunities for spills or other types of releases with potentially negative impacts on soil and water resources. Their flammability and other potentially hazardous characteristics also present a risk of fire and explosions. Hazardous materials should be managed according to the guidance presented in the General EHS Guidelines.

Occupational Health and Safety

Occupational health and safety impacts during the construction and decommissioning of vegetable oil processing plants are common to those of most large industrial facilities and their prevention and control are discussed in the General EHS Guidelines.

Chemical Hazards

Operators in vegetable oil facilities may be exposed to hazardous substances via, inhalation of solvents used for extraction; inhalation of toxic chemicals; eye or skin exposure to acids or bases; inhalation of dust from the transportation of raw materials (e.g., seeds and beans to the crushing plant); inhalation of dust from meal treatment and shipment; inhalation of dust from bleaching earth, filter aid, and nickel catalyst; and inhalation of

aflatoxins present in raw materials. The General EHS Guidelines provide guidance on the management of chemical hazards in the workplace. Additional industry-related recommendations include the following:

- In oil extraction areas, ensure that there is adequate air circulation to reduce the concentration of solvents.
- Provide ventilation, especially at workstations devoted to raw-material handling, milling, handling of bleaching earth, and use of solvents.
- Maintain air concentrations of VOCs below 10 percent of lower explosive limits.
- Ensure proper distillation of oil after extraction for effective solvent removal.
- Prevent leaks and spills of oils in the extraction plant.
- Control the flash-point temperature of the incoming extracted oils and use temperature control for all facilities receiving solvent-extracted oils.
- When feasible, use hot water, rather than solvents, to facilitate cleaning.

Physical Hazards

Physical hazards in vegetable oil production and processing facilities are similar to those present in other industry sectors and include the potential for falls caused by slippery floors and stairs; injuries caused by unprotected machinery or moving parts; hazards associated with potential collisions with internal transport, such as trucks; and accidental contact with conveyor systems, such as those used in crushing plants and in the removal of spent earth. The General EHS Guidelines provide guidance on the prevention and control of physical hazards.

Confined Space Entry

Grain silos present a significant risk of death from asphyxia. Extremely toxic nitrogen oxides and CO₂ begin to accumulate in the head space of the silo within hours of its filling. Tank cars may also represent asphyxia risks if, for example, a tanker is flushed with nitrogen prior to loading. Recommendations for the management of occupational health and safety (OHS) risks associated with confined spaces are provided in the General EHS Guidelines.

Electrical Hazards

Electrical systems are a source of danger for workers that can lead to injuries or fatalities. The General EHS Guidelines provide guidance on hazard prevention and control of electrical systems. Sector-specific recommendations applicable to silo safety are identified below.

Risk of Fire and Explosion

Risks of fire and explosion occur at different stages of vegetable oil production and processing and can lead to loss of property, as well as possible injury or fatalities among project workers. General fire safety management should be handled according to the General EHS Guidelines. Sector-specific risks are related to the combustibility of vegetable oil and the high volumes of combustible dust present both in grain and oil-seeds handling and in storage facilities. The control and removal of this dust and the control or removal of potential ignition sources are key to eliminating the explosion hazard. The storage of grains and seeds represents a combustion risk, owing to the potential for self-heating and ignition. Silo safety for these products, as well as for oil storage, is critical. Vegetable oil facilities also present the risk of explosions resulting from the volatilization of solvent dissolved in the oil, along with the risk of fire from spent bleaching earth with a high iodine-value oil, high ambient temperature, and high circulation-draft of air.

Fire Safety and Combustible Dust and Silo Safety

Fire safety guidance and compliance to fire safety code should be followed for all facilities.

Noise

Operators in vegetable oil plants are also exposed to noise from internal transport, conveyors, boilers, pumps, fans, and various steam and air leaks. The General EHS Guidelines provide guidance on the prevention and control of exposure to noise.

Community Health and Safety

Community health and safety impacts during the operation phase of vegetable oil processing are common to most industry sectors—including those related to traffic safety during transport of raw materials and finished

products—and are discussed in the General EHS Guidelines. Industry-specific issues that could affect the community or the public at large may include the potential presence of pathogens and contaminants in processed oil (e.g., pesticide residues).

Food Safety Impacts and Management

Food safety is an industry-specific risk relevant to vegetable oil processing. For example, a product recall caused by contaminated or adulterated products found in commerce that is attributable to a specific company can damage a viable business. If a company can trace its products back to specific lot numbers, then a recall is a matter of removing all non-conforming products associated with the specific lot numbers. With a food safety management system in place, the company can protect itself against product adulteration, contamination, and the impacts of product recalls. Vegetable oil processing should therefore be performed according to internationally recognized food safety standards consistent with the principles of Hazard Analysis Critical Control Points (HACCP), Food and Agriculture Organization (FAO)/World Health Organization (WHO) Codex Alimentarius, and ISO 22000.

Annex 15 Compensation Table

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Type of Loss	Application	Entitled Person	Compensation / Entitlement
Arable Land	Actual area needed by the project and the remaining land is still economically viable	<i>Category A</i> - Owners with full title, tax declaration or who are covered by customary law (e.g. Possessor's rights, usufruct) or other acceptable proof of ownership	For the portion of land needed: Cash compensation at replacement cost for the land as determined by a licensed independent appraiser using internationally recognized valuation standards Subject to the provisions set forth in Section 5 of RA 8974. Cash compensation for perennials of commercial value as determined by the DENR or concerned appraisal committee. DP will be given sufficient time to harvest crops on the subject land.
		<i>Category B</i> - DPs without title, tax declaration, or are not covered by customary law or other acceptable proofs of ownership	For the portion of the land needed: DP will be given time to harvest crops. Cash compensation for perennials of commercial values as determined by DENR or the concerned appraisal committee. Financial assistance to make up for land preparation, PhP 150/m ² .
	Remaining land becomes economically not viable (i.e. DP losing >20% of land holding or even when losing <20% but the remaining land is not economically viable anymore)	<i>Category A</i>	Cash compensation at replacement cost for the land as determined by a licensed independent appraiser using internationally recognized valuation standards, or, if feasible, 'land for land' will be provided (a new parcel of land with an equivalent productivity, located at an area acceptable to the DP & with long-term security of tenure. Subsistence allowance, PhP 15,000/ha. DP will be given time to harvest crops. Cash compensation for perennial of commercial value as determined by the DENR or concerned appraisal committee If relocating, DP to be provided free transportation Rehabilitation assistance (skills training and other development activities), PhP 15,000, will be provided in coordination with other government

Type of Loss	Application	Entitled Person	Compensation / Entitlement
			agencies if the present means of livelihood is no longer viable & DP will have to engage in a new income activity.
		<i>Category B</i>	Financial assistance equivalent to the average annual gross harvest for the past 3 years but not less than PhP 15,000. DP will be given sufficient time to harvest crops.
			Cash compensation for perennials of commercial value as determined by DENR or concerned appraisal committee Financial assistance to make up for land preparation, PhP 150/m ² . If relocating, DP to be provided free transportation. Rehabilitation assistance, PhP 15,000, will be provided in coordination with other government agencies if present means of livelihood is no longer viable & DP will have to engage in a new income activity.
		<i>Category C - Agricultural lessees</i>	As per RA 6389 and EO 1035 Disturbance compensation equivalent to 5 times the average gross harvest on land holding during the 5 preceding years but not less than PhP 15,000. Rehabilitation assistance, PhP 15,000.
	Temporary use of land	All DPs	Compensation to be provided for loss of income during the period, standing crops, cost of soil restoration & damaged structures.
Residential land &/or Commercial land	Actual area needed by the project and the remaining land is still viable for continued use	<i>Category A</i>	For the portion of the land needed: Cash compensation at replacement cost for land as determined by a licensed independent appraiser using internationally recognized valuation standards. Subject to the provisions set forth in Section 5 of RA 8974. Cash compensation for perennials of commercial value as determined by the DENR of the concerned appraisal committee.

	Remaining residential or commercial land becomes not viable for continued use	<i>Category A</i>	<p>Cash compensation at replacement cost for and as determined by a licensed independent appraiser using internationally recognized valuation standards.</p> <p>Subject to the provisions set forth in Section 5 of RA 8974, or if feasible, 'land for land' will be provided in terms of a new parcel of land of equivalent productivity, at a location acceptable to DP, & with long-term security of tenure. The replacement land should be of acceptable size under zoning laws or a plot of equivalent value, whichever is larger, in a nearby resettlement with adequate physical, social infrastructure. When the affected holding is larger in value than the relocation plot, cash compensation will cover the difference in value.</p> <p>Cash compensation for perennials of commercial value as determined by the DENR of concerned appraisal committee.</p> <p>If relocating, DP to be provided free transportation</p>
	Temporary use of land	All DPs	Compensation to be provided for loss of income during the period, standing crops, cost of soil restoration and damaged structures.
Main structures (e.g. house, shops etc)	Structure with or without a building permit, partially affected and the remaining structure is still viable for continued use.	Owners of structure with full title or tax declaration to the land or those who are covered by customary law	<p>Compensation in cash for affected portion of the structure including the cost of restoring the remaining structure as determined by the concerned appraisal committee with no deduction for salvaged building materials.</p> <p>DPs that have business affected due to partial impact on the structure are entitled to a subsistence allowance for the loss of income during the reconstruction period (to be computed by RIC).</p>

		<p>Owners of structures, including shanty dwellers in urban areas, have no title or tax declaration to the land or other acceptable proof of ownership.</p>	<p>Compensation in cash for affected portion of the structure including the cost of restoring the remaining structure as determined by the concerned appraisal committee with no deduction for salvaged building materials.</p> <p>Shanty dwellers in urban areas opting to go back to their place of origin or to be shifted to government relocation sites will be provided free transportation.</p> <p>DPs that have business affected due to partial impact on the structure are entitled to a subsistence allowance for the loss of income during the reconstruction period (to be computed by the RIC).</p> <p>Professional squatters will not receive compensation but they can collect their salvaged materials.</p>
		<p>Renters of structures including renters of shanty dwellings in urban areas</p>	<p>Given 1 month notice on the schedule of demolition.</p> <p>If shifting is required, DP is given transitional allowance equivalent to 3 months rent of a similar structure within the area.</p> <p>For house tenants renting outside of, or within the ROW, and who have to transfer elsewhere, free transportation will be provided.</p> <p>Renting shanty dwellers in urban areas who opt to go back to their place of origin in the province or be shifted to government relocation sites will also be provided free transportation.</p>
	<p>Entire structure affected or when remaining structure becomes not viable for continued use with or without a building permit</p>	<p>Owners of structures with full title or tax declaration to the land or those who are covered by customary law.</p>	<p>Compensation in cash for the entire structure at replacement cost as determined by the concerned appraisal committee without deduction for salvaged building materials.</p> <p>Inconvenience allowance of PhP 10,000 per DP.</p>

			<p>DPs that have business affected due to the severe impact on the structure are entitled to a subsistence allowance for the loss of income during the reconstruction period. To be verified and computed by the RIC.</p> <p>Free transportation if relocation is necessary.</p> <p>Rehabilitation assistance in the form of skills training and other development activities and equivalent to PhP 15,000 will be provided in coordination with other government agencies if the present means of livelihood is no longer viable and the DP will have to engage in a new income activity.</p> <p>Professional squatter will not receive compensation but they can collect their salvageable materials.</p>
		Renters of structures including renters of shanty dwellings in urban areas	<p>Given 1 month notice on the schedule of demolition.</p> <p>If shifting is required, DP is given transitional allowance equivalent to 3 months rent of a similar structure within the area.</p> <p>For house tenants renting outside of, or within the ROW, and who have to transfer elsewhere, free transportation will be provided.</p> <p>Renting shanty dwellers in urban areas who opt to go back to their place of origin in the province or be shifted to government relocation sites will also be provided free transportation.</p> <p>Rehabilitation assistance in the form of skills training & other development activities & equivalent to PhP 15,000 will be provided in coordination with other government agencies if the present means of livelihood is no longer viable and DP will have to engage in a new income activity.</p>
Independent shops	Shops with or without building permit, partially affected and the remaining structures are still viable for continued	Owners of structure with or without full title of tax declaration to the land or those who are covered by customary law.	<p>Compensation is cash for affected portion of the structure, including the cost of restoring the remaining structure as determined by the concerned appraisal committee with no deduction to salvaged building materials.</p> <p>As determined by the RIC, DPs will be entitled to transitional allowance to cover for their computed income loss during the demolition and reconstruction of their shops, but not to exceed a month period.</p>

	use.	Renters (tenants) of affected shops	As determined by the RIC, shop renters will be entitled to a transitional allowance to cover for their computed income loss during the period that their business is interrupted.
	Entire shop affected or when the remaining structure becomes not viable for continued use with or without building permit	Owners of structure with or without full title of tax declaration to the land or those who are covered by customary law.	Compensation in cash for the entire structure at replacement cost as determined by the concerned appraisal committee without deduction for salvaged building materials. Subsistence allowance of PhP 15,000 to each DP. Free transportation if relocating Rehabilitation assistance in the form of skills training and other development activities and equivalent to PhP 15,000 will be provided in coordination with other government agencies if the present means of livelihood is no longer viable and DP will have to engage in a new income activity. Professional squatter will not receive any compensation but they can collect their salvageable materials.
		Renters (tenants) of affected shops	Given 3 months' notice on the schedule of demolition As determined by the RIC, shop renters will be entitled to a transitional allowance to cover for their computed income loss during the period that their business is interrupted, but not to exceed a 3-month period.
Other fixed assets or structures	Loss of, or damage to, affected assets, partially or entirely	DPs	Cash compensation for affected portion of structure including cost of restoring remaining structure, as determined by the concerned appraisal committee, with no depreciation or deduction for salvaged building materials.
Electric and/or water connection	Loss of, or damage to, affected assets, partially or entirely ,	DPs	Compensation to cover cost of restoring the facilities
Public facilities	Loss of, or damage to, public infrastructure	Concerned agencies	Compensation in cash at replacement cost to respective agencies

Annex 16 Sample Terms of Reference for an Independent Appraiser

The Independent Appraiser will play a key role during the Land Acquisition Assessment process. It will be hired by the Subproject Proponent. Criteria for selecting the appropriate agency shall be based on competence, experience and general advocacy of the group. The selection process will undergo the usual procurement procedures.

The licensed independent appraiser should use internationally recognized valuation standards to assess replacement cost and cash compensation for affected lands. More specifically, the Independent Appraiser may be tasked to perform any of the following:

1. Inspection and identification of the property:
 - Conduct title plotting to determine the configuration of the property and if there are any discrepancies from the technical description of the title
 - Survey of immediate neighborhood for present conditions and improvements
 - Title Verification
 - Owner Verification
 - Background information
2. Right-of-Way verification
3. Zonal classification of land
4. Zonal valuation for the area
5. Preparation of appraisal report to include the following:
 - Summary of property valuation
 - Complete description and details of the property
 - Photographs of subject property
 - Location and vicinity plan

Annex 17 Elements of a Full Resettlement Action Plan¹

The scope and level of detail of a Resettlement Action Plan (RAP) vary with the magnitude and complexity of resettlement. The RAP is based on up-to-date and reliable information about the:

- Proposed resettlement and its impacts on the displaced persons and other adversely affected groups; and
- Legal issues involved in resettlement.

A full RAP covers the elements below, as relevant. When any element is not relevant to project circumstances, it should be noted in the RAP.

Elements of a Full Resettlement Action Plan

- | |
|--|
| <p>A. Project Description
General description of project & identification of project area</p> <p>B. Potential Impacts</p> <ul style="list-style-type: none">▪ Project component or activities that give rise to resettlement▪ Zone of impact of such component or activities▪ Alternatives considered to avoid or minimize resettlement▪ Mechanisms established to minimize resettlement, to the extent possible, during project implementation <p>C. Objectives
Main objectives of the resettlement program</p> <p>D. Socio-Economic Studies
Findings of socio-economic studies to be conducted in the early stages of project preparation & with the involvement of potentially displaced people, including the following:</p> <ul style="list-style-type: none">□ Results of a census survey covering:<ul style="list-style-type: none">- current occupants (with gender and age disaggregation) of affected area to establish basis for design of resettlement program & to exclude subsequent inflows of people from eligibility for compensation & resettlement assistance- standard characteristics of displaced HHs, including description of production systems, labor, HH organization; & baseline information on livelihoods (including, as relevant, production levels & income derived from both formal & informal economic activities) & standards of living (including health status) of the displaced population- magnitude of expected loss, total or partial, of assets, & extent of displacement, physical or economic;- information on vulnerable groups or persons (para. 8, OP 4.12), for whom special provisions may have to be made- provisions to update information on DP's livelihoods & standards of living at regular intervals so that the latest information is available at the time of their displacement□ Other studies describing the following:<ul style="list-style-type: none">- land tenure & transfer systems, including an inventory of common property natural resources from which people derive their livelihoods and sustenance, non-title-based usufruct systems (including fishing, grazing, or use of forest areas) governed by local recognized land allocation mechanisms, & any issues raised by different tenure |
|--|

systems in project area

- patterns of social interaction in affected communities, including social networks & social support systems, & how they will be affected by the project
- public infrastructure & social services that will be affected
- social & cultural characteristics of displaced communities, including description of formal & informal institutions, e.g., community organizations, ritual groups, NGOs that may be relevant to the consultation strategy & to designing & implementing the resettlement activities

Findings of socio-economic studies to be conducted in the early stages of project preparation & with the involvement of potentially displaced people, including the following:

- Results of a census survey covering:
 - current occupants (with gender and age disaggregation) of affected area to establish basis for design of resettlement program & to exclude subsequent inflows of people from eligibility for compensation & resettlement assistance
 - standard characteristics of displaced HHs, including description of production systems, labor, HH organization; & baseline information on livelihoods (including, as relevant, production levels & income derived from both formal & informal economic activities) & standards of living (including health status) of the displaced population
 - magnitude of expected loss, total or partial, of assets, & extent of displacement, physical or economic;
 - information on vulnerable groups or persons (para. 8, OP 4.12), for whom special provisions may have to be made
 - provisions to update information on DP's livelihoods & standards of living at regular intervals so that the latest information is available at the time of their displacement
- Other studies describing the following:
 - land tenure & transfer systems, including an inventory of common property natural resources from which people derive their livelihoods and sustenance, non-title-based usufruct systems (including fishing, grazing, or use of forest areas) governed by local recognized land allocation mechanisms, & any issues raised by different tenure systems in project area
 - patterns of social interaction in affected communities, including social networks & social support systems, & how they will be affected by the project
 - public infrastructure & social services that will be affected
 - social & cultural characteristics of displaced communities, including description of formal & informal institutions, e.g., community organizations, ritual groups, NGOs that may be relevant to the consultation strategy & to designing & implementing the resettlement activities

E. Legal Framework

Findings of an analysis of the legal framework, covering:

- Scope of the power of eminent domain & nature of compensation associated with it, in terms of both valuation methodology & timing of payment
- Applicable legal & administrative procedures, including a description of remedies available to DPs in the judicial process & the normal timeframe for such procedures, & any available alternative dispute resolution mechanisms that may be relevant to resettlement under the project
- Relevant law, including customary & traditional law, governing land tenure, valuation of assets & losses, compensation, & natural resource usage rights; customary personal law related to displacement; & environmental laws & social welfare legislation
- Laws & regulations relating to the agencies responsible for implementing resettlement activities
- Gaps, if any, between local laws covering eminent domain & resettlement & WBs resettlement policy, & the mechanisms to bridge such gaps
- Any legal steps necessary to ensure the effective implementation of resettlement activities under the project, including, as appropriate, a process for recognizing claims to legal rights to land—including claims that derive from customary law & traditional usage (WB OP 4.12, para.15 b)

F. Institutional Framework

Findings of an analysis of the institutional framework covering the following:

- Identification of agencies responsible for resettlement activities & NGOs that may have a role in project implementation
- Assessment of the institutional capacity of such agencies & NGOs
- Any steps that are proposed to enhance the institutional capacity of agencies & NGOs responsible for resettlement implementation.

G Eligibility

Definition of DPs & criteria for determining their eligibility for compensation & other resettlement assistance, including relevant cut-off dates

H. Valuation of, and Compensation for, Losses

The methodology to be used in valuing losses to determine their replacement cost; and a description of the proposed types and levels of compensation under local law and such supplementary measures as are necessary to achieve replacement cost for lost assets.

I. Resettlement Measures

Description of packages of compensation & other resettlement measures that will assist each category of eligible DPs to achieve the objectives of the policy (WB OP 4.12, para. 6). In addition to being technically & economically feasible, resettlement packages should be compatible with the cultural preferences of the DPs, & prepared in consultation with them.

J. Site Selection, Site Preparation, and Relocation

Alternative relocation sites considered and explanation of those selected, covering:

- Institutional & technical arrangements for identifying & preparing relocation sites, whether rural or urban, for which a combination of productive potential, locational advantages, & other factors is at least comparable to the advantages of the old sites, with an estimate of the time needed to acquire & transfer land & ancillary resources
- Any measures necessary to prevent land speculation or influx of ineligible persons at selected sites
- Procedures for physical relocation, including timetables for site preparation & transfer
- Legal arrangements for regularizing tenure & transferring titles to resettlers

K. Housing, Infrastructure, and Social Services

Plans to provide (or finance resettlers' provision of) housing, infrastructure (e.g., water supply, feeder roads), & social services (e.g., schools, health services); plans to ensure comparable services to host populations; any needed site development, engineering & architectural designs for these facilities

L. Environmental Protection and Management

Description of boundaries of relocation area; & assessment of environmental impacts of the proposed resettlement & measures to mitigate & manage these impacts (coordinated as appropriate with the environmental assessment of the main investment requiring the resettlement)

M. Community Participation

Involvement of resettlers & host communities, including:

- Description of strategy for consultation with & participation of resettlers & hosts in design & implementation of resettlement activities
- Summary of views expressed & how these were taken into account in preparing the RAP
- Review of resettlement alternatives presented & choices made by DPs regarding options available to them, including choices related to forms of compensation & resettlement assistance, to relocating as individuals, families or as parts of pre-existing communities or kinship groups, to sustaining existing patterns of group organization, & to retaining access to cultural property (e.g. places of worship, pilgrimage centers, cemeteries)
- Institutionalized arrangements by which DP can communicate their concerns to project authorities throughout planning & implementation, & measures to ensure that such vulnerable groups as indigenous people, ethnic minorities, the landless, & women are adequately represented

N. Integration With Host Populations

Measures to mitigate the impact of resettlement on any host communities, including:

- Consultations with host communities & local governments;
- Arrangements for prompt tendering of payment due the hosts for land or other assets provided to resettlers
- Arrangements for addressing any conflict that may arise between resettlers & host communities
- Any measures necessary to augment services (e.g., education, water, health, & production services) in host communities to make them at least comparable to services available to resettlers

O. Grievance Procedures

Affordable & accessible procedures for third-party settlement of disputes arising from resettlement; such grievance mechanisms should take into account availability of judicial recourse & community & traditional dispute settlement mechanisms

P. Organizational Responsibilities

Organizational framework for implementing resettlement, including identification of agencies responsible for delivery of resettlement measures & provision of services; arrangements to ensure appropriate coordination between agencies & jurisdictions involved in implementation; & any measures (including technical assistance) needed to strengthen implementing agencies' capacity to design & carry out resettlement activities; provisions for the transfer, to local authorities or resettlers, of responsibility for managing facilities & services provided under the project & for transferring other such responsibilities from the resettlement implementing agencies, when appropriate.

Q. Implementation Schedule

Implementation schedule of all resettlement activities from preparation through implementation, including target dates for the achievement of expected benefits to resettlers & hosts & terminating the various forms of assistance. Schedule should indicate how resettlement activities are linked to the overall implementation of the project.

R. Costs and Budget

Tables showing itemized cost estimates for all resettlement activities, including allowances for inflation, population growth, & other contingencies; timetables for expenditures; sources of funds; & arrangements for timely flow of funds, & funding for resettlement, if any, in areas outside the jurisdiction of LGUs.

S. Monitoring and Evaluation

Arrangements for monitoring of resettlement activities by the implementing agency, supplemented by independent monitors as considered appropriate, to ensure complete & objective information; performance monitoring indicators to measure inputs, outputs, & outcomes for resettlement activities; involvement of DPs in the monitoring process; evaluation of the impact of resettlement for a reasonable period after all resettlement & related development activities have been completed; using the results of resettlement monitoring to guide subsequent implementation.

¹Para. 2-21, Annex A of OP 4.12

Annex 18 Elements of an Abbreviated Resettlement Plan

An abbreviated plan covers the following minimum elements:

- A. Census survey of displaced persons and valuation of assets
- B. Description of compensation and assistance
- C. Consultations with displaced people about acceptable alternatives
- D. Institutional responsibility for implementation and procedures for grievance redress
- E. Arrangements for monitoring and implementation
- F. Timetable and budget

² Para. 22, Annex A of OP 4.12

Annex 19 Sample Terms of Reference for an External Monitoring Agency

A. Introduction

Monitoring and evaluation of resettlement is an integral part of the project cycle. One of the requirements of the RAP is that the implementing agency and Subproject Proponent will appoint an independent, qualified, and unbiased entity that could be a social science institute, an NGO, a specialist consulting firm or combination of these to conduct the external monitoring and evaluation. The external monitoring agency must ensure that the provisions of the RAP are adhered to, examine available data and information systems, and obtain complete and objective information. More specifically, the tasks of external monitors are:

1. Review and verify all existing data, data bases and information systems including census of families to be relocated; the data files for each relocated family and their entitlements, the census of families completed post relocation, and the Project Management Office data base on affected families.
2. Verify the results of internal monitoring being carried out and any other agencies involved in implementing the RAP and providing entitlements to DPs, and suggest improvement to those systems.
3. Assess whether the resettlement objectives, as set out in the RAP, have been met, with respect to living conditions and livelihood.
4. Ascertain whether the resettlement entitlements were appropriate to meeting the objectives of the RAP, and whether the objectives were suited to affected families' conditions.
5. Obtain data and assess the social impacts of resettlement (before and after conditions) and the effectiveness, impact and sustainability of the resettlement process in social terms.
6. Review the viability of housing schemes for DP's affordability to meet costs. Obtain data and assess the economic impacts of resettlement, including environmental cost/benefit analysis, and the effectiveness, impact and sustainability of the resettlement process in economic terms.
7. Review systems for management and financial monitoring of the RAP, audit internal management data relating to the RAP and recommended improvements.
8. Make recommendations regarding the implementation of the RAP and draw lessons as a guide to future resettlement policy making and planning.
9. Prepare and agree with PMO on a detailed work program that includes meetings, reports and schedules.
10. Confirms if DPs maintained their standard of living.
11. Review the absorptive capacity of relocation sites.

12. Identify total number of households that are entitled to benefits and determine if they are receiving entitlements.

13. Disaggregate data by gender and age to determine gender intergenerational impacts.

B. Methodology

Data Base Establishment

The implementing agency is developing a system for recording information about settler families and their entitlements. This database will be used to record basic information, determine whether affected persons are relocated to secure and affordable socialized formal housing sector; the receipt of entitlements under the RAP; whether livelihood and living standards have been restored or enhanced or not; and that an orderly and peaceful relocation of informal households has taken place. The data will include benefit monitoring and evaluation indicators.

Quantitative data from the annual survey will be analyzed and interpreted in conjunction with data obtained during quarterly monitoring including qualitative data.

C. Ex-post Survey and Evaluation

The EMA will conduct one ex-post evaluation survey, at least one year after relocation. This evaluation will assess the achievement of the resettlement objective, the change in living standards and livelihood and progress in the restoration of the economic and social base of relocated families.

D. Sampling Size

The EMA shall develop a methodology approved by the Subproject Proponent and Implementing Agency to determine appropriate sample size to ensure coverage of all relocation / resettlement sites. Data will be disaggregated by gender.

E. Expertise Required

Expertise required will include:

- A sociologist / resettlement specialist with expertise in all areas of social research methodology, including consultation techniques and large-scale survey design and implementation, and a thorough understanding of issues of urban poverty. This person will be likely to act as team leader.
- An economist
- A financial monitoring specialist
- A database specialist
- A community development specialist

The team should be able to conduct the monitoring and evaluation in an objective manner, incorporating a wide range of viewpoints, to work closely with their counterparts and undertake training and capacity building in monitoring and evaluation. The team will also include necessary technical and administrative support staff such as statistical experts, field community / survey staff and office support staff.

F. Reporting

The EMA will provide copies of comprehensive monitoring reports together with recommendations to improve implementation of the RAP to the Subproject Proponent and Implementing Agency one week after the above stated reports are due.

The EMA will set up a gender-disaggregated database for monitoring and evaluation building upon the pre- and post-relocation census data and the project's internal record-keeping system. This will be done as early as possible.

The database will be used to measure the impact of relocation, and change at the resettlement sites post relocation as the intended social and economic development takes place including appropriate benefit indicators. The database will also be used to monitor the receipt of entitlements by affected families and verify that the application of entitlements is appropriate and conforms to the RAP.

G. Quarterly Monitoring

The EMA will conduct quarterly monitoring for as long as relocation activities are in progress. This is to ensure that conditions for resettlement as contained in the RAP are being followed and to verify the results of internal monitoring and the receipt of the entitlements. Specifically, quarterly monitoring will examine the resettlement budget and time frame, the entitlements provided, consultation with affected people and stakeholders and the application of grievance redress mechanisms. This ongoing monitoring will also assess broader social and economic impacts and benefits. It will specifically address issues and needs of both relocated families and families yet to relocate, including a commentary on the rate of relocation and implementation of the RAP.

Information required will be obtained from the internal monitoring database, including information from entitlement files of families receiving assistance, reports from the site management offices, and participatory rapid appraisal to allow wide public participation including focus group discussions and key informant interviews. In addition to DPs, respondents should include POs, NGOs, PMO, concerned LGUs (host and affected) and staff of the other implementing agencies.

H. Annual Survey

The EMA is required to undertake an annual, sample survey of the relocated families, which will be undertaken in conjunction with every fourth quarter monitoring. This survey will be independent from the census to be undertaken by the Subproject Proponent and Implementing agency. The EMA's survey will compare "before and after" social and economic conditions and reassess the needs of resettled families.

Annex 20 Elements of an Indigenous Peoples Plan

The Indigenous Peoples Plan (IPP) is prepared in a flexible and pragmatic manner, and its level of detail varies depending on the specific project and the nature of effects to be addressed. The Subproject Proponent should ensure the integration of the IPP into the project design.

The IPP includes the following elements, as needed:

1. A summary of the information referred to in Annex A, paragraph 2, (a) and (b) of WB Policy:
 - a. A review, on a scale appropriate to the project, of the legal and institutional framework applicable to Indigenous Peoples; and
 - b. Gathering of baseline information on the demographic, social, cultural, and political characteristics of the affected Indigenous Peoples' communities, the land and territories that they have traditionally owned or customarily used or occupied, and the natural resources on which they depend.
2. A summary of the social assessment.
3. A summary of results of the free, prior, and informed consultation with the affected IPs' communities that was carried out during project preparation and that led to broad community support for the project.
4. A framework for ensuring free, prior, and informed consultation with the affected IPs' communities during project implementation (Section 9 of this Framework).
5. An action plan of measures to ensure that the IPs receive social and economic benefits that are culturally appropriate, including, if necessary, measures to enhance the capacity of the LGU.
6. When potential adverse effects on Indigenous Peoples are identified, an appropriate action plan of measures to avoid, minimize, mitigate, or compensate for these adverse effects.
7. The cost estimates and financing plan for the IPP.
8. Accessible and culturally appropriate procedures tailored to the project to address grievances by the affected Indigenous Peoples' communities arising from project implementation. When designing the grievance procedures, the LBP borrower takes into account the availability of judicial recourse and customary dispute settlement mechanisms among the Indigenous Peoples.

Mechanisms and benchmarks appropriate to the project for monitoring, evaluating, and reporting on the implementation of the IPP. The monitoring and evaluation mechanisms should include arrangements for the free, prior, and informed consultation with the affected Indigenous Peoples' communities.