Food and Agriculture Organization of the United Nations

Environmental and Social Management Framework

for GCF project "Adapting Philippine Agriculture to Climate Change" (APA)

Food and Agriculture Organization of the United Nations

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PREFACE

This Environmental and Social Management Framework (ESMF) for the Government of the Philippines will be applied to all activities financed by the Green Climate Fund (GCF) for technical and/or financial support for the project, “Adapting Philippine Agriculture to Climate Change”.

The implementation of the environmental and social safeguards is based on the overall project implementation arrangements. FAO will serve as the Accredited Entity (AE) for this project. As such, FAO will be responsible for the overall management of the project, including: (i) all aspects of project appraisal; (ii) administrative, financial and technical oversight and supervision throughout project implementation; (iii) ensuring funds are effectively managed to deliver results and achieve objectives; (iv) ensuring the quality of project monitoring, as well as the timeliness and quality of reporting to the GCF; and (v) project closure and evaluation. FAO will assume these responsibilities in accordance with the detailed provisions outlined in the Accreditation Master Agreement (AMA) between FAO and GCF.

The Project Management Office (PMO) of the project, hosted within the Department of Agriculture (DA), is responsible for overall coordination of the project activities, with safeguards led by the National Safeguards Specialist and the National Gender and Social Inclusion Specialist. The respective Department of Agriculture Regional Project Offices (RPOs) are responsible for day-to-day monitoring of specific subcomponents and for ensuring compliance with the ESMF, Gender Action Plan, and related safeguard documents, including keeping proper documentation in the project file for possible review by the GCF.

Abbreviations

ACPC	Agirculture Credit Policy Council
ADSDPPs	Ancestral Domain Sustainable Development and Protection Plans
AP	Affected people
CCRF	FAO Code of Conduct for Responsible Fisheries
CEDAW	United Nations Convention on the Elimination of all Forms of Discrimination Against Women
CIS	Climate information service
CRA	Climate resilient agriculture
DA	Department Agriculture
DENR	Department of Environment and Natural Resources
DSWP	Department of Social Welfare and Development
E&S	Environmental and Social
EIA	Environmental Impact Assessment
ESF	Environmental and Social Framework
ESIA	Environmental and Social Impact Assessment
ESMF	Environmental and Social Management Framework
ESMG	Environmental and Social Management Guidelines
ESMP	Environmental and Social Management Plan
ESS	Environmental and Social Safeguards
FAO	Food and Agriculture Organization
FPIC	Free Prior Informed Consent
GAP	Gender Action Plan
GBV	Gender Based Violence
GCF	Green Climate Fund
GDP	Gross Domestic Product
GFDRR	Global Facility for Disaster Risk Reduction
GNI	Gross National Income
GRM	Grievance and Redress Mechanism
HDI	Human Development Index
HHP	Highly Hazardous Pesticides
IBA	Important Bird and biodiversity Area
IFAD	International Fund for Agriculture Development
IKSP	Indigenous Knowledge System and Practices
ILO	International Labour Organization
IPM	Integrated Pest Management
IPMRs	Indigenous Peoples' Mandatory Representatives
IPO	Indigenous People Organization
IPPF	Indigenous People Planning Framework
IUCN	International Union for Conservation of Nature
LGU	Local Government Unit

NAMA	Nationally Appropriate Mitigation Actions
NAP	National Action Plan to Combat Desertification
NAPC	National Anti-Poverty Commission
NCIP	National Commission on Indigenous Peoples
NDC	Nationally Determined Contribution
NGO	Non-Governmental Organization
NPK	Nitrogen phosphate and potash
OIG	Office of the Inspector General
OP-CEDAW	Optional Protocol to the Convention on the Elimination of All Forms of Discrimination against Women
PA	Protected area
PAGASA	Philippine Atmospheric, Geophysical, and Astronomical Services Administration
PMP	Pest Management Plan
PSC	Project steering committee
PSEA	Prevention of Sexual Exploitation and Abuse
SECAP	Social Environmental Climate Assessment Procedure
SEP	Stakeholder Engagement Plan
SMART	Specific, Measurable, Achievable, Relevant, Timely
ToR	Terms of References
UN	United Nations
UNDP	United Nations Development Programme
UNEP	United Nations Environmental Programme
UNFCBD	United Nations Convention on Biological Diversity
UNFCCC	United Nations Framework Convention on Climate Change
UNFCCD	United Nations Convention to Combat Desertification
UNFPA	United Nations Population Fund
UNICEF	United Nations Convention on the Rights of the Child

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EXECUTIVE SUMMARY

1. The Philippines is ranked 4th on the Long-term Climate Risk Index (2000-2019), with 33% percent more climate-related disasters than the average of other, mostly smaller, countries in the top ten of the index. Most areas of the country, including over 70% of the population, are at risk to climate disasters (GFDRR, 2012). On average, the agriculture and fisheries sector absorbs 22% of the economic impacts caused by natural hazards and disasters (FAO, 2015). Smallholder farming systems in the Philippines are particularly vulnerable to multiple weather-related hazards. The country is highly exposed to climate risks and variability in the form of floods, droughts (including those induced by El Niño) and severe tropical cyclones that damage crops, farms and related infrastructure. These extreme weather events in turn trigger secondary impacts in the form of landslides, forest-fires and crop, aquaculture and livestock disease outbreaks. Predicted climate change risks are expected to intensify in areas that are already exposed.

2. In response to these challenges, this Green Climate Fund (GCF) project has the objective of ensuring rural men and women in areas vulnerable to climate change are successfully using newly-available climate information services, and climate resilient and low emission knowledge and practices to adapt to climate change in agriculture. This project is designed to increase the resilience to climate change of rural men and women in areas most vulnerable to climate change. The project will achieve this by providing these most-vulnerable communities with newly-available climate information services, knowledge, and practices to adapt to climate change in agriculture while strengthening capacities of the government and the private sectors to effectively develop and provide climate information (CIS) and climate resilient agriculture (CRA) services.

Environmental and Social Safeguards Management Framework (ESMF) approach:

3. The project has been developed in line with the FAO Environmental and Social Standards (2015), and GCF policies including the revised GCF Environmental and Social Policy (2021), GCF Indigenous Peoples Policy (IPP) and the GCF Information Disclosure Policy (2016), among others. A consultant was hired to develop the ESMF, in close coordination with FAO and the project development team. The ESMF has been elaborated through a combination of literature review, expert interviews and intensive stakeholder consultations from sample communities in the 5 project regions conducted in November 2018.Additional stakeholder consultations are planned at the community level in the project area in June and July 2022, considering GCF (2022) guidance on designing and ensuring meaningful stakeholder engagement. Findings and feedback from these consultations will be integrated into this document and other project-related documents as it becomes available.

4. As the finer details of proposed activities (e.g. specific location and selection of CRA technologies, etc.) under the project have not yet been determined, a framework approach has been adopted. Under this approach, the present Environmental and Social Management Framework (ESMF) has been prepared by FAO to (i) identify all the potential but generic negative environmental and social impacts; (ii) propose mitigation measures; (iii) provide basic screening

criteria for selecting sub-project activities;[1] (iv) list the type of instruments to be developed for individual sub-project activities during implementation; and (v) provide institutional arrangements, grievance redress mechanisms (GRM) and monitoring, reporting and documentation measures for environmental and social safeguards compliance. The ESMF covers all activities within the project.

5. **Risk categorization**: The project is expected to predominantly generate substantial positive environmental and social benefits, including, but not limited to strengthening the climate resilience of agro-ecosystems and local livelihoods, and reducing greenhouse emissions. Nonetheless, the project has the potential to generate adverse social and environmental impacts that need to be carefully managed and monitored.

6. The FAO Project Environmental and Social Screening Checklist was prepared, and the project was categorized as a Category B (moderate risk) project[2], where:

- There are identified potential adverse environmental and social impacts requiring the need for environmental and social management plans, including: instances of poverty in the project areas and attention to issues related to social inclusion and preventing elite capture, potential use of water harvesting facilities, proximity to protected areas, and the involvement of IP communities. It is expected that the project activities, as described in Chapter 2, will trigger the following Environmental and Social Safeguard Policies: ESS2, ESS3, ESS5, ESS7, ESS8 and ESS9 (see Table below).
- Potential impacts are not unprecedented in the project area
- Potential impacts are limited to the project´s footprint
- Potential impacts are neither irreversible nor cumulative

7. Potential adverse impacts can be addressed by the use of recognized good management or pollution abatement practices, and there is a demonstrated record of their successful use in the project area (upstream and downstream).

FAO Environmental and Social Standards (ESS) triggered, and the corresponding safeguard instruments and mitigation measures

Safeguard Policies	Triggered	Safeguard Instruments & Mitigation Measures
ESS 1 – Natural Resources Management	YES	▪ Non-Eligible activities (Appendix 1) ▪ ESMF/ ESMP with risk mitigation measures.

[1] Note: In terms of environmental and social safeguards, the term sub-project activity refers to conveniently grouping existing project financing commitments where it is believed that this set of activities have a distinct and important risk profile that warrants being the subject of a safeguards screening and possible additional/ specific risk mitigation actions. Since the exact locations of activities have not yet been defined within the project, such an approach is needed (outlined in detail under Chapter 9.1-9.3). At project start up an assessment will be undertaken which will result in a decision as to whether additional safeguards risk screening is required for any of the types of project activities and/or a particular geography of the project. If so then an Environmental and Social Management Plan will be elaborated (example ESMP template provided in Appendix 11).

[2] FAO, Food and Agriculture Organization of the United Nations. 2015. Environmental and Social Management Guidelines. Rome, Italy.

Safeguard Policies	Triggered	Safeguard Instruments & Mitigation Measures
ESS2 – Biodiversity, Ecosystems, and Natural Habitats	YES	▪ ESMF/ESMP ▪ Biodiversity Management Planning Framework/ Biodiversity Management Plan ▪ List of non-eligible activities (Appendix 1) ▪ Elaboration of a biodiversity management planning framework
ESS3 – Plant Genetic Resources for Food and Agriculture	YES	▪ ESMF/ESMP, ensuring that seeds used are registered.
ESS4 – Animal – Livestock and Aquatic Genetic Resources for Food and Agriculture	NO	▪ Non-Eligible activities (Appendix 1)
ESS5 – Pest and Pesticide Management	YES	▪ ESMF/ESMP with Integrated Pest Management (IPM) used in activities, training on the safe handling and use of pesticides in instances where avoidance is not possible, and a negative list (exclusion of all highly hazardous pesticides (HHPs)). ▪ A Pest Management Plan (PMP) is provided in Appendix 3. ▪ Non-eligible activities (Appendix 1)
ESS6 – Involuntary Resettlement and Displacement	NO	▪ Non-Eligible activities (Appendix 1)
ESS7 – Decent Work	YES	▪ ESMF/ESMP; Training for farmers and sensitization sessions for government will be held on SEAH, gender equality and social inclusion, decent rural employment, age-appropriate works, and Occupational Health and Safety, and the project will utilize the Voluntary Guidelines on the Responsible Governance of Tenure of Land, Fisheries, and Forests ▪ Zero tolerance of SEAH.
ESS8 – Gender Equality	Yes	▪ The project has been designed to integrate gender as a cross-cutting element and aims to be gender-responsive and transformative. Nonetheless, a gender assessment and action plan have been developed (FP Annex 8) with specific gender-targeted activities built into the project design and monitoring framework, including activities to contribute to the elimination of SEAH. ▪ The project will have zero tolerance for all forms of SEAH. The project's GRM will be accessible for all project-related complaints, including SEAH-specific complaints. The GRM will be survivor-centered and gender responsive, and will have specific procedures for SEAH, including confidential reporting and safe and ethical documenting (see Chapter 5.6). In addition, the project will develop a code of conduct along with the ESMP to guide project implementation and safeguard against SEAH risk, and trainings will be conducted on gender equality and social inclusion, as well as SEAH for project staff. ▪ ESMF/ ESMP also includes measures to facilitate social inclusion and enhance gender equality, and safeguard against SEAH.

Safeguard Policies	Triggered	Safeguard Instruments & Mitigation Measures
ESS9 – Indigenous Peoples and Cultural Heritage	YES	▪ ESMF and Indigenous Peoples Planning Framework (see ESMF Chapter 6), and subsequent ESMP and IPP. ▪ FPIC in accordance with FAO's "Manual for Project practitioners on Free Prior and Informed Consent: an indigenous peoples' right and a good practice for local communities', GCF's "Indigenous Peoples Policy" and "Operational Guidelines: Indigenous Peoples Policy", and the legal framework of the Philippines (Indigenous People's Rights Act of 1997, and Executive Order No. 79 from 2012) where FPIC is mandatory. ▪ Project Chance-finds procedure (Appendix 4)

8. **Positive Impacts:** The project will support the agriculture sector in its transition to a climate-resilient development pathway. Investments under Component 1 in climate and agrometeorological technology, alongside institutionalized feedback loops to improve climate information advisories and climate resilient agriculture services, will enable farmers to proactively manage their farms in the face of climate risks based on localized information. The project will focus on building institutional capacities to improve coordination and collaboration between the Department of Agriculture (DA) and the Philippine Atmospheric, Geophysical, and Astronomical Services Administration (PAGASA). It is expected that this work, combined with work under Component 3, will positively impact government ministries and departments, local government units (LGUs), facilitating improved coordination and planning of natural resources and agricultural extension services with a climate focus. Under Component 1, local CRA strategic plans will be developed, using improved climate information and CRA advisories. It is expected that this will help target farmer groups learn and develop enterprises for adoption of economically profitable and financially viable CRA measures under Component 2. Based on the localized information and institutionalized support, the development and implementation of CRA enterprise investment plans under Component 2 is expected to improve the natural resources and agricultural land upon which farmers work based on improved, CRA practices and natural resources management (including water management). Environmentally, improved farming practices will support better functioning ecosystems which, in turn, can positively affect human health and well-being in the long run. Investments in machinery and equipment, as well as high quality agricultural inputs used on-farm and off-farm, are expected to reduce impacts of climate change on agricultural productivity and production. Special Farmer Field School (FFS) sessions and activities as part of CRA enterprise development learning will ensure that farmers are able to proactively "do better" than they would under the without-project scenario. For example, Integrated Pest Management (IPM) will be used under the project in order to promote sustainable pest management that reduces reliance on (and overall use of) pesticides.

9. Socially speaking, livelihoods are expected to improve based on increased adaptive capacities within the target communities. This is also expected in the instances of IP groups, with expected impacts of increased resiliency and adaptive capacities which are sensitive to the traditional and cultural preferences of those communities (as defined earlier in the IP Plan and

in specific FPIC agreements). The project also engages women through a Gender Action Plan (GAP) that ensures proactive mainstreaming of women into all activities, empowering women with agricultural skills and knowledge – and, where necessary, ensures that men also receive training and adequate services in instances where prior efforts have supported only the women (e.g. training on specific adaptation practices). CRA awareness raising and mainstreaming activities under Component 3 will facilitate the adoption of these climate resilient, low emission and environmentally sustainable practices at scale, beyond the project target areas while institutionalizing them in DA and other government programmes and services and in the private sectors' businesses and financial mechanisms.

10. **Negative Impacts:** Potential negative impacts are minor, mitigatable, and forecast only for the implementation/operation stages. From the social perspective, youth often assist with the farming work of their respective families, and there is always a risk that those youth may work beyond what is age-appropriate, unless closely monitored. From the environmental perspective, increased agricultural production may trigger increased pesticide use, even if the pesticide use is indirect and not promoted under the project. Provision of seed and planting materials for the FFS and CRA enterprise investment plan implementation and introduction of climate-resilient crop varieties also increases the project to medium risk, even though the inputs used and varieties recommended would be registered/certified and already in use within the country (albeit on a smaller scale). In terms of natural resources management, some of the project areas may be located near to protected areas. Based on Appendix 1 (non-eligibility) of this ESMF, it is expected that the project will work outside of the protected areas and their buffer zones, not within them. Last of all, while the project is not focused on construction activities, minor construction activities may be pursued for the sake of establishing the new agro-met systems and/or water harvesting and disaster (flood and drought) risk reduction units. Due to the small size of such infrastructures, potential negative impacts are expected to be minor and mitigatable, for example: noise pollution during installation, air pollution due to dust, and health/safety risks during installation of the agro-met stations. All of these negative impacts – most of which are linked to Component 1 and Component 2 – are envisaged to be low-to-moderate, localized, temporary, and mitigatable.

11. **Environment and Social Risk Mitigation Measures:** The local Climate Risk and Vulnerability Assessment (CRVA) that will be the basis for CRA strategic planning and the selection of municipality/villages and project target beneficiary farming households will include environmental and social risks. In order to avoid impacts on PA, the project will maintain a minimum buffer of 50m to protected areas and their buffer zones.[3] The project identified CRA options and practices, which will be further adapted based on local CRVA, include environmental risk mitigation measures, such as integrated farming systems to reduce pressure on water, IPM, seeds quality assurance and soil fertility conservation, etc. to limit biodiversity degradation and pollution.

12. The FAO Philippines office is experienced with the implementation of ESMF tools and ESMP monitoring, and will apply best practices for risk avoidance, mitigation and management.

[3] This will be ensured by georeferencing the coordinates using a GPS in Barangays where protected areas are present. This will help ensure no farmers no CRA enterprises are located within nor source from areas within or directly adjacent to (i.e. <50 m from their buffer zone).

13. The GAP includes: training of project related personnel on SEAH and GBV; strengthening the FAO GRM to handle such incidents; and establishing and operationalizing GBV referral pathways in collaboration with UNFPA. These measures will be inclusive, survivor-centred and gender responsive and bolstered by gender empowerment activities and sensitization and mobilization of community gatekeepers. Worker safety are included in the design of the agro-met stations and disaster risk reduction infrastructure all through new technologies limiting pollution and impacts on health.

14. **Institutional arrangements:** Overall compliance with the project's ESMF will be assured by the project's National Safeguards Specialist, hired within the Project Management Office (PMO), who will work closely together with a National Gender, Indigenous Peoples and Social Inclusion Specialist (who will oversee the GAP and Indigenous Peoples Planning Framework) and two international safeguard specialists (one for ESS and the other for gender, indigenous peoples and social inclusion). These specialists will closely collaborate with the DA and PAGASA, and the Regional Project Coordinators/ Offices.

15. **Sexual exploitation, abuse and harassment (SEAH):** There will be zero tolerance of SEAH, and the project's ESMF and ESMP will mainstream SEAH risk mitigation, in accordance with the revised GCF Environmental and Social Policy (2021) and the FAO Framework for Environmental and Social Management (FESM).[4] The project will support gender sensitization and trainings for project staff and beneficiaries on gender equality and social inclusion and SEAH, and will elaborate a code of conduct for the implementation of the project. Specific procedures for SEAH will be developed for the project GRM, together with the elaboration of the ESMP, to ensure the mechanism is survivor-centered and gender-responsive (including confidential reporting), and to facilitate linkages to related services and redress to anyone affected by SEAH.

16. **Grievance and Redress Mechanism (GRM).** The PMU and Regional Project Offices will be responsible in managing the grievance and redress mechanism. The GRM has a strong link with the FAO Philippine competent officers to ensure the right application of GRM principles. Project related SEAH and GBV grievances will be managed through the existing FAO GRM system, which will also be strengthened to include a procedure for SEAH so that it is inclusive, survivor centred and gender-responsive, complemented by GBV referral pathways. The pathways will be established and operationalized under the project in collaboration with UNFPA, which include medical care, psychosocial support, legal and social/reintegration support.

17. **Stakeholder engagement.** A wide range of stakeholders has been engaged in the project formulation, including at the national level as well as consultations with diverse men and women in the regions and communities most hard-hit by climate change (see Funding Proposal Annex 7, and ESMF Chapter 5). Aside from more general consultations about project design and farmer interest, safeguards-specific consultations were held in November 2018 and January/February 2019 to assess possible environmental and social safeguard issues related to proposed project

[4] FESM has explicit reference to SEAH and will be accompanied by relevant operational guidance (currently under development, and expected in October 2022). In the meantime, FAO confirms that sufficient technical resources and capacities to ensure compliance with GCF requirements regarding SEAH are available (see also FAO's Annual Report on Corporate Policy, Processes, and Measures on the Prevention of Harassment, Sexual Harassment and Sexual Exploitation and Abuse, CL 168/INF/6). It is also our understanding from GCF's SEAH Action Plan is that GCF will develop a SEAH risk screening tool in October that would be taken into account when developing SEAH operational guidance.

activities. The consultations were focused on meetings with local communities, especially the potential project affected peoples, minorities (including both IP communities and Muslim communities), and other relevant stakeholders. The consultations were conducted to provide information on the: a) purpose of the project; b) overview of potential impacts; and c) project implementation plan. The local-level consultations were also used as forums to determine (i) stakeholder preferences on how a project-level grievance redress mechanism could be established, and (ii) broad scale community support for the project. Care was given to ensure that vulnerable communities, specifically women, youth, IP groups, and Muslim minorities, were met with in each region (where applicable) to determine their unique needs, sensitivities, and potential risks. Key results of the consultations are listed under section 5.4 of this ESMF. Both this ESMF and the related Gender Action Plan are outcomes of the November 2018 and January/February 2019 fieldwork, and the consultations were used to inform both the safeguards documents as well as overall project design. In general, stakeholders expressed interest in the project.

18. Stakeholder engagement will remain a key cross-cutting element of the project throughout project implementation. Project outputs and activities include regular stakeholder engagement events. This approach will ensure transparency, inclusiveness and free speech of all stakeholders in diverse context of the project regions and provinces. The voice of farmers, agriculture cooperatives, Local Government Units (LGUs) will be particularly important in the selection of the target municipalities, villages and beneficiary farming households as well as the choice of CRA practices and priorities for investments and implementation by CRA enterprises. Stakeholder engagement in the project M&E and the implementation of the ESMF and GAP will also be ensured (see FP Annex 11).

19. **Human resources.** A dedicated National ESS Specialist and a National Gender and Social Inclusion/Indigenous Peoples' Specialist within the Project Management Office (PMO), each will work full time for the length of the project to ensure the ESMF and GAP implementation. In addition, 30 working days in years 1, 4, and 7 each for an International ESS Specialist and International Gender and Social Inclusion/IP Specialist have been included to enable those specialists to provide support and undertake at least three missions to the country as required.

20. **Budget**. The overall ESMF budget (Appendix 7) is USD 465,000 for a blend of human resources (USD 325,200) and a lump-sum to ensure flexibility and availability of funds to respond to ad-hoc requirements for safeguards activities (USD 140,000). Gender activities in the Gender Action Plan are included in the project activities budget. ESS compliance and GAP monitoring are also included in the baseline, mid and end-line surveys, project Monitoring and Evaluation and Management Information System (MIS) for which separate budget are included.

1. INTRODUCTION

1. The Philippines is one of the world's most vulnerable countries to the impacts of climate change. Ranked 4th on the Long-Term Climate Risk Index (2000 – 2019), the country is continuously exposed to often catastrophic extreme weather events, such as devastating tropical cyclones. Compared with the other, mostly smaller countries in the top ten index, the Philippines is, on average, exposed to 33 percent more climate-related disasters due to its geographical location. Most areas of the country and over 70 percent of the population are at risk and vulnerable to climate disasters (GFDRR, 2012). High levels of disaster risk are associated with more intense tropical storms, including heavy rainfall and floods, as well as El Niño-related droughts which have a negative impact on the country's complex agroecological zones. Consequently, rural and agricultural systems are becoming increasingly exposed to climate risks as well as ensuing losses and damages associated with extreme weather events.

2. An analysis of future climate impacts on agriculture and farming communities indicates that large parts of the country will face further exposure to increased temperatures. The northern and central regions of the country are expected to experience drier dry seasons and wetter rainy seasons, whereas drought prone areas in the south will be further impacted by decreased precipitation. Climate change (CC) predictions for cyclones are less certain, but suggest an increase in intensity, rather than frequency.

3. Through the baseline study and intensive stakeholder consultation, a range of climate-resilient agriculture (CRA) options were examined for the most exposed agricultural systems in the regions most vulnerable to the impacts of climate change. The crop- and system-specific CRA options identified draw on a number of examples and models that have shown emerging success and viability. They also point to investments in more integrated farm systems as well as the need for farmers to adopt climate-resilient agricultural practices that are relevant to the local context.

4. Agricultural production must shift from its baseline state of extreme vulnerability in terms of damages and losses from extreme events and low adaptive capacity of highly exposed farmers, to an alternative paradigm in which stakeholders (government, private sector and farming communities) are able to understand and monitor short-term and longer-term climate change risks, and engage in a continuous process of adapting to these evolving risks.

5. The objective of this project, "Adapting Philippine Agriculture to Climate Change", is to increase the resilience of rural men and women in areas vulnerable to climate change, whose livelihoods depend on agriculture while transforming the country agriculture towards climate resilience. This will be achieved through improved capacity of farmers to develop CRA enterprises and adopt financially and economically viable CRA practices, and of the government and the private sectors to build supporting systems for scaling up. The project will support the national agriculture and fisheries modernization and industrialization plan (NAFMIP), while providing a systemic approach to climate change adaptation (CCA) in agriculture for the entire country.

6. In terms of direct actions in support of farmers, project activities will be delivered in at least nine provinces that have been identified as the most vulnerable climate change hot spots, based on climate change projections. The project's components will help create and support systemic adaptation mechanisms for the agriculture sector through the following:

(i) Building institutional capacities to provide timely and localized climate information for agriculture and CRA services. This includes, among others, the modernization of agrometeorological stations and systems, development of CIS platform at national, regional and provincial levels for improving farmers' access to climate information and CRA advisories and for the private sectors to develop appropriate financial products and the preparation of local CRA strategic plans based on Climate Vulnerability and Risk Assessment (CVRA) to guide investments and adaptation actions;
(ii) Strengthening vulnerable farmers' capacity to use climate information and CRA services, develop enterprises, prepare CRA enterprise investment plans and access finance for their implementation, enabling the adoption of climate resilient and low emission practices; and
(iii) Raising CRA awareness, mainstreaming CRA into national and local plans, programmes and budget and building capacity of the private sectors to develop CRA value chains and financial products to sustain and expand practices.

7. More than half of the rural population most likely to be affected by the impacts of climate change reside within the project areas: project regions cover about 60 percent of the rural population (20 million out of 31.3 million rural people). At least 1.25 million mainly poor farming household members (half of whom are women) in nine provinces are expected to directly benefit from the project, as households incorporate climate-resilient technologies into agricultural and natural resources management practices and adapt to expected climate change impacts.

8. Over 5 million people living in the area with highly sensitive to climate risk in nine provinces will also benefit indirectly from enhanced climate and CRA information systems and strengthened institutional capacity that will develop and deliver these services and create an enabling, more climate-informed environment to promote the widespread adoption of CRA.

9. In addition, this project will help vulnerable farmers, including women and marginalized indigenous communities to access technical and financial services, and to overcome possible input and market barriers to adoption. This will be achieved through the complementary bundling of agriculture practices with value chain linkages, appropriate finance and risk transfer, and where possible, the use of innovative emerging mobile technologies.

10. With a USD 26.73 million GCF grant and USD 23.11 million in co-financing, this 7-year project has great potential to sustainably increase the adaptive capacity of smallholders to the impacts of climate change and reduce GHG emissions over its 20-year life span, while driving transformation of the agriculture sector in the Philippines towards climate-resilient and low emission development pathways.

11. See detailed project activities in the Funding Proposal document approved by the Green Climate Fund board, which available on the GCF webpage.

12. **The Project has been classified as a moderate risk (Category B) by the Food and Agriculture Organization of the United Nations (FAO) based on the FAO's safeguards policy.** The project's risk assessment was conducted using FAO's Environmental and Social Screening Form, which identifies areas of risk and, based on the risk screening responses, resulted in the moderate-risk categorization. Due diligence for addressing identified risks is carried out through

the Environmental and Social Management Framework (ESMF, this document) which guides project implementing agencies and stakeholders on environmental and social assessment, mitigation of impacts, and monitoring and reporting procedures during project implementation. The ESMF will be adopted by NDA, Executing Entities (EE), and any sub-contractors (e.g. those working through Letters of Agreement (LOA). LOAs with any subcontractors will include reference to this ESMF and the need to abide by the protocols and actions listed herein. Partners involved under LOAs will be provided with required Environmental and Social Safeguards (ESS) training prior to undertaking project-related activities.

13. **The overall objective of the ESMF is to ensure compliance to environmental and social safeguards.** It will guide the Executing Entities including FAO and any subcontracted entities to adequately screen and address environmental and social impacts of activities[5], thereby determining the appropriate environmental and social risk category. The ESMF sets out the obligations of the Executing Entity and host country in identifying and addressing environmental and social risks and impacts that may require particular attention. The Environmental and Social Safeguard (ESS) standards establish objectives and requirements to avoid, minimize and mitigate risks and impacts. Specifically, the objectives of this ESMF are to:

- Assess the potential environmental and social impacts of the proposed project, whether positive or negative, and propose mitigation measures which will effectively address these impacts;
- Establish clear procedures for the environmental and social planning, review, approval, and implementation of sub-project activities (i.e. activities grouped together based on similarity and/or geographical proximity) to be financed under the project;
- Specify appropriate roles and responsibilities, and outline the necessary reporting procedures, for managing and monitoring environmental and social concerns related to sub-project activities;
- Consider different alternatives, options, and relevant mitigation measures during project preparation and implementation;
- Determine the training, capacity building and technical assistance needed to successfully implement the provisions of the ESMF;
- Address mechanisms for public consultation and disclosure of project documents as well as redress of possible grievances; and
- Establish the project funding required to implement the ESMF requirements and to provide practical resources for implementing the ESMF.

[5] ,Note: In terms of environmental and social safeguards, the term sub-project activity refers to conveniently grouping existing project financing commitments where it is believed that this set of activities have a distinct and important risk profile that warrants being the subject of a safeguards screening and possible additional/ specific risk mitigation actions. Since the exact locations of activities have not yet been defined within the project, such an approach is needed (outlined in detail under Chapter 9.1-9.3). At project start up an assessment will be undertaken which will result in a decision as to whether additional safeguards risk screening is required for any of the types of project activities and/or a particular geography of the project. If so then an Environmental and Social Management Plan will be elaborated (example ESMP template provided in Appendix 11).

2. PROJECT OVERVIEW

14. The proposed "Adapting Philippine Agriculture to Climate Change" project consists of 3 components to achieve its three Outcomes (see Funding Proposal and Annex 2.11 for further details):

Component 1: Increased institutional capacities for development and provision of CRA services	
Output 1.1 Strengthened coordination and capacity for CIS	1.1.1 Strengthen coordination and information sharing mechanisms 1.1.2 Strengthen capacity for CIS production
Output 1.2 Developed capacity for localized CRA services	1.2.1 Prepare CRA Strategic Plans 1.2.2 Develop CRA training and service delivery capacity
Component 2: Farmers (female/male) enhance resilience and reduce agriculture emissions by adopting CRA	
Output 2.1 CRA enterprise investment plans prepared and implemented	2.1.1 Deliver CRA enterprise development training 2.1.2 Support preparation of CRA enterprise investment plans 2.1.3 Invest and implement CRA enterprise investment plans
Component 3: Enabling Environment to mainstream and scale up CRA	
Output 3.1 CRA mainstreamed into national & LGU programmes	3.1.1 Heighten farmers CRA awareness 3.1.2 Mainstream CRA into national and LGU programmes 3.1.3 Develop a national CRA implementation monitoring system
Output 3.2 Enabling financial mechanisms and value chains for sustainable CRA adoption	3.2.1: Develop private sector capacity in supporting CRA 3.2.2: Improve credit and insurance products

3. ENVIRONMENTAL AND SOCIAL BASELINE

15. Information from this baseline draws heavily from background papers commissioned by FAO and developed by CIAT from 2017-2018 for the purposes of project design. Additional information has been taken from the latest available sources, complemented by in-person interviews and focus groups, to ascertain the latest environmental and social baseline within the country and across the tentative project areas.

16. For the purposes of the environmental and social baseline as it pertains to safeguards, only safeguard-relevant information has been included. Moreover, additional information is provided (when necessary) to cover aspects not already addressed within the funding proposal, feasibility study, and/or other appendices (e.g. natural habitats and protected areas, biodiversity). Nationally applicable information is provided at the beginning, after which the environmental and social baseline is discussed as it pertains to the project's target regions. For each region, baseline profiles are provided for the provinces tentatively scheduled for inclusion in the project. Provincial baselines provide an overview of the following environmental aspects: (i) climate; (ii) soil quality; (iii) land use; (iv) water resources and irrigation; (v) biodiversity; (vi) natural habitats/protected areas. Baselines also cover the following social aspects: (i) demographics; (ii) education; (iii) health; (iv) socio-economic situation; (v) labour; (vi) land tenancy; (vii) social protection programmes; (viii) languages; and (ix) religion.

3.1 Geographical Location and Topography

National level

17. The Philippines is an archipelago comprised of approximately 7 641 islands[6], of which 1000 are populated. Overall, the country spans 1 850 km between latitudes 5-20°N. It is situated about 800 km from mainland Asia (central coordinates: 13°00'N, 122°00'E)[7], and has a total land area of 300 000km^2. 95% of this land area is contained by the Philippines' eleven largest islands, the top two of which are Luzon (105 000 km^2) and Mindanao (95 000 km^2) – less than half of the Philippines' islands are larger than 2.5km^2. The archipelago is split into three main island groups: (i) Luzon to the north, which includes Batanes, Catanduanes, Luzon, Marindique, Masbate, Mindoro, Palawan, Polilio, and Romblon; (ii) Visayas in the central Philippines, which includes numerous islands – the largest of which are Biliran, Bohol, Cebu, Guimaras, Leyte, Negros, Panay, Samar, and Siquijor; and (iii) Mindanao to the south, which includes Camiguin, Dinagat, Mindanao, Samal, Siargao, and the Sulu Archipelago (including Basilan, Sulu, Tawi-Tawi, and others). The country boasts the fifth longest coastline in the world, at 36 289km.

18. Topographically speaking, the country is diverse. As part of the "Pacific ring of fire" characterized by active volcanoes, the cores for most of the country's larger islands are formed by volcanic masses and mountainous areas. The range extends from Mt. Pulog (2 928 masl) in Northern Luzon to Mt. Apo (2 954 masl) in Mindanao (also the highest point in the country). In addition to its many active volcanoes, all of the Philippines' islands are subject to earthquakes. Geologically, the Philippines archipelago is part of the Philippine Mobile Belt located between

[6] *Philippine National Mapping and Resource Information Authority (NAMRIA), 2017.*

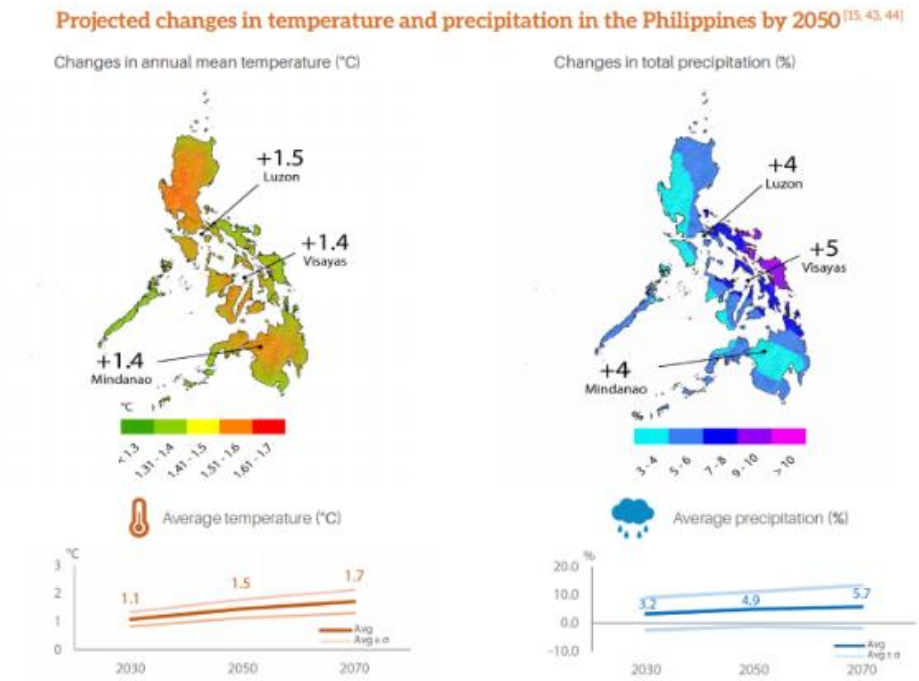
[7] Subsequent to the publication of the ESMF on January 12, 2023, the following update has been made: The ESMF has been updated in accordance with the UN Terminology Database.

the Philippine Sea Plate, the South China Sea Basin of the Eurasian Plate, and the Sunda Plate. The submarine Philippine Trench descends to a depth of 10 430m just off the east coast of Mindanao, and runs 1 320km long. Overall, the Philippine Fault System consists of a series of seismic faults which result in several earthquakes per year, though most of them are not felt by inhabitants.

19. Most lowland areas are narrow coastal strips, with the exception of larger plains in Luzon (Cagayan Valley and Central Plans), Mindanao (Cotabato and Davao-Agusan), and others in Negros and Panay. Rivers tend to be short and seasonal in flow, with key rivers of Abra, Agno, Bicol, Cagayan, and Pampanga located in Luzon, and the Cotabato and Agusan rivers located in Mindanao. Flooding is often a hazard. In terms of inland water bodies, the only two sizeable bodies are Laguna de Bay in Luzon and Lake Sultan Alonto in Mindanao.

20. The Philippines, by the nature of its geographical location and archipelagic formation of over 7000 islands, is highly vulnerable to the impacts of climate change. This vulnerability is the result of its high exposure to multiple hazards, the human and economic sensitivity to these hazards and its adaptive capacity (Yusuf & Francisco, 2009). Globally, The Philippines is ranked 4th in terms of long term climate related losses for the period of 2000-2019, with 317 events killing 859 people and costing 0.54% of GDP (Eckstein, D, 2021). The impacts of climate change in the Philippines are felt most acutely by farmers and those living in rural areas, with typhoons, flooding and droughts causing increasing damage to crops and property. From 2000 to 2010, the total economic damage of typhoons, floods, and droughts is estimated to be USD 2.2 billion with associated crop losses for rice (USD 1.2 billion), maize (USD 461.5 million), and high value crops (HVC) (USD 244.8 million) (Israel and Briones, 2013). By 2050, this figure is projected to rise to USD 2.7 billion a year (Rosegrant, M.W et al. 2016).

Figure 1 Projected changes in temperature and precipitation



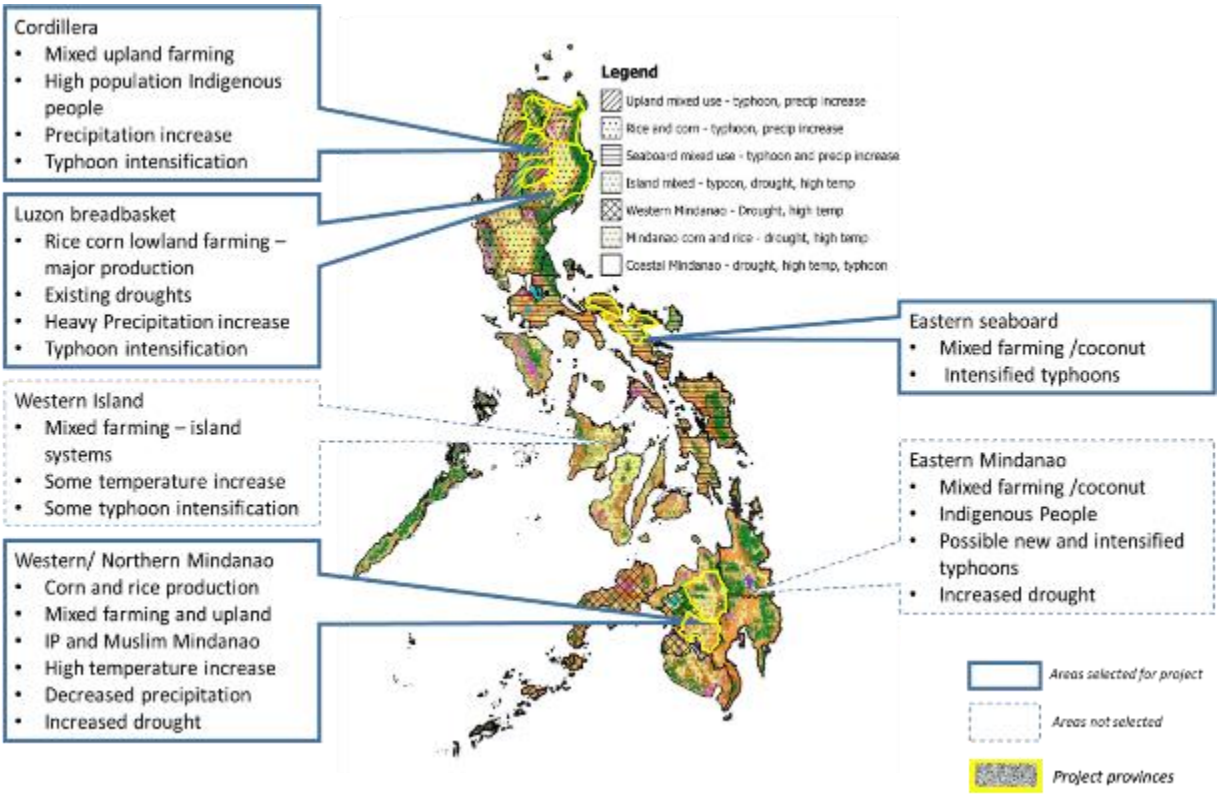
3.2 Project area

21. A layered multi-criteria analysis in addition to consultations with project partners and key stakeholders at the national and regional level was conducted to inform the selection of the project area. The analysis was conducted in a cascading manner, to first identify the agroecological areas that will experience the most severe impacts due to climate change, followed by the selection of priority administrative regions within the most vulnerable agroecological areas (focusing again on climate risk and vulnerability), and eventually the most vulnerable provinces within the most vulnerable administrative regions and agroecological areas (the detailed project area selection methodology and criteria for selecting target municipalities is explained in detail within Annex 2.9 to the Funding Proposal). As a result of this analysis, 9 provinces located in four agro-ecological zones, corresponding to 4 administrative regions and 1 autonomous region were selected for inclusion within the project (see Table below).

Agroecological Zones	Administrative regions/No of provinces	Project selected Administrative Regions	Project Provinces	Number of target municipalities
North East Luzon (CC increasing precipitation, intensifying cyclones	Region I (Ilocos region) Region II (Cagayan Valley) Region III (Central Luzon) *Number of provinces: 16*	Region II – Cagayan Valley	1. Cagayan 2. Isabela	100
Cordillera (high CC combined effects)	Cordillera *Number of provinces: 6*	Cordillera Autonomous Region (CAR)	3. Apayao 4. Ifugao 5. Kalinga	
Eastern Seaboard (CC intensifying cyclones, increasing precipitation)	Region IV-A (Calabarzon) Region V (Bicol region) Region VI (Western Visayas) Region VIII (Eastern Visayas) *Number of provinces: 23*	Region V – Bicol	6. Camarines Norte; 7. Camarines Sur	
Western and Central Mindanao (CC decreasing precipitation, increasing temperatures)	Region X (Northern Mindanao) Region XII (Soccksargen) Region XIII (Caraga) *Number of provinces: 14*	Region X – Northern Mindanao	8. Bukidnon	
		Region XII – Soccsksargen	9. North Cotabato	

22. The project map can be seen in Figure 2. As the project will focus on agricultural production, the following environmental and social baseline has been organized around the agro-ecological zones, where possible zoning in on specific considerations and implications for the project's target administrative regions and provinces.

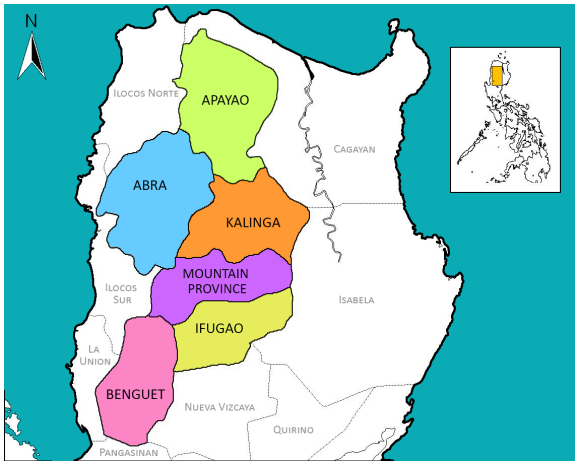
Figure 2. Map of Project Areas (Based on Vulnerability Scoring)



Source: *Government of the Philippines, n.d.*[8]

3.2.1 Cordillera Administrative Region (CAR)

23. The Figure to the right shows the Cordillera Administrative Region (CAR) in the North of the Philippines. Within CAR, three provinces were selected as project provinces: Apayao, Ifugao and Kalinga.



Map of CAR

Source: Government of the Philippines, n.d[7].

Apayao – Provincial Baseline

24. The province of Apayao is located at the northernmost tip of the Luzon mainland. It is bounded on the east by the province of Cagayan on the west by Ilocos Norte and Abra and on the south by Kalinga. The province's total area is 392 790 hectares which is about 21 percent of the total land area of the Cordillera Administrative Region CAR. The

[8] The boundaries and names shown and the designations used on this map do not imply the expression of any opinion whatsoever on the part of FAO concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers and boundaries

province is composed of 7 municipalities and 134 barangays with 3 administrative barangays and geographically subdivided into two separate regions the Upper and Lower Apayao. Upper Apayao is composed of the upland municipalities of Calanasan, Conner and Kabugao. Lower Apayao is composed of the lowland municipalities of Luna, Pudtol, Flora and Sta. Marcela. With an approximate land area of 5,113 square kilometer, Apayao has the largest land area in the entire Region sharing almost 26 percent of the Region's total land area of 19,748.85 square kilometers.

ENVIRONMENTAL DETAILS

25. **Topography**: Upper Apayao is mountainous and characterized by towering peaks, plateaus and intermittent patches of valleys, while lower Apayao is generally flat with rolling hills and plateaus.

26. **Climate/meteorology:** The climate in Apayao is classified as Type III: not very pronounced dry and wet season, relatively dry from November to April and wet during the rest of the year. Torrential rains are most likely to occur between July and October. December – February is the coldest period and May is the warmest month.[9]

27. **Soil quality:** The pH value for about 20 percent of the land (5 488 ha) is strongly acidic (moderately high) and 80 percent (21 815 ha) is moderately acidic to slightly acidic (high).[10]

28. **Land use:** Over half of Apayao's land area is covered in forest (321 953 ha) and about a quarter is grassland, shrubland and bushland. Agriculture comprises about 6 percent of land use and built up areas about 1.5 percent.[11] Seventy three percent of the total arable land is for agricultural production. Apayao has been a stable and regular producer of rice and industrial commodities pineapple, banana, coffee and cassava. Palay, which is the predominant crop, is grown in 24 300 ha producing an average yield of 4.5 M.T per ha. Banana and coffee remain the dominant industrial crops in the province and production has increased over the years. It is one of the main rice and corn producing areas in the Philippines. It is also a steady supplier of banana and coffee in Region I, II, III and NCR. Cropping intensity for irrigated and rainfed rice is twice a year.

29. **Water resources & Irrigation:** Apayao is rich in water resources. About 75 percent of the land area is irrigated by the 180 kilometer long Apayao river, the largest and most important water body in the province. Other rivers of significant importance to the province are the Matalag (Conner), the Maton and Nagan (Pudto) and the Zumigue-Ziwanan (Calanasan) as primary sources of irrigation water, particularly for the lowland areas of Lower Apayao and parts of Cagayan province, which lies adjacent. There are currently two irrigation dams across the Apayao River that are the primary sources for irrigation for Lower Apayao and Cayan: the Dacao dam, which supplies the East Apayao-Abulug Irrigation System (EAAIS) and is managed by the National Irrigation Authority (NIA) Region II, and the Swan dam, which supplies the West Apayao-Abulug Irrigation System (WAAIS) and is managed by NIA-CAR. Due to the absence of a reliable road network, the Apayao river is also extensively used as an alternative transport

[9] *Provincial Profile- Apayao and https://dbmp.philrice.gov.ph/soils/province/Apayao*
[10] *http://bswm.da.gov.ph/getmap/0011/apayao-soil%20ph%20map*
[11] http://rbco.denr.gov.ph/wp-content/uploads/2017/10/apayaoabulogexecutivesummary.pdf

system in most areas through utilizing manual or mechanized boats. The river belongs to the Apayao-Abulug Watershed Area, which has 18 tributaries which eventually drain into the Babuyan Channel. These water bodies are also important to the province, some providing irrigation and others functioning as fish habitats or both. The average water discharge of the Apayao River is estimated to be 2 709 m3, based on the 18-year observatory period by the National Irrigation Administration (NIA). The waterbody is currently being used for irrigation, power generation and as a communal fishing ground and a reliable transport system. The river potential for hydropower generation has been estimated by the National Power Corporation to be at least 700 megawatts.[12]

30. **Biodiversity (flora/fauna):** The Department of Environment and Natural Resources has recognized areas of Apayao as the new habitat of the endangered Philippine Eagle.[13] Three species of rats are found in the Apayao Lowland Forest (ALF) Key Biodiversity Area (KBA). Two out of the three species are endemic, whilst the other was introduced and considered to be the most destructive species in the country. The most common rat species in the area are the Philippine Forest Rat. There are 13 species of bats in the ALF-KBA which belong to four families: Fruit Bats, False Vampire Bats, Horseshoe and Leaf-nosed Bat and Evening Bats. Five of the species are endemic to the area, whilst eight are considered widely distributed in different parts of Asia. The Large Rufous Horseshoe Bat is considered to be under the Near Threatened category of the IUCN. The most abundant bats on the area are the Fruit Bats. A total of 22 species of herps (11 amphibians and 11 reptiles) are present in the ALF KBA. There are five families and 11 species of amphibians. Five out of the 11 species are endemic to the area. Three are considered native and only two are introduced species. The endemic species of Luzon Fanged Frog and Diminutive Forest Frog are already near Threatened while Pygmy Forest Frog is vulnerable. The reptiles are composed of three families with 11 species of which were observed in agricultural lands, forest, grass and scrublands. Eight out of the 11 species are endemic to the area while the rest are commonly found in the countries within Southeast Asia.

31. The forest types found within the ALF KBA are identified as Tropical Evergreen Lowland Rainforest; Tropical Lower Montane Rainforest; and Forest Over Limestone. There are 71 families with 206 species of trees within the area. It is worth noting that six species (Panau, White Lauan, Red Lauan, Mayapis, Bunga, and Guijo – of which most are endemic and indigenous), are already under the critically endangered category and eight species are vulnerable.

32. **Natural habitats/protected areas:** Within the province, the ALF-KBA covers an area of 156,732.6 ha. For management, the Lapat system is an indigenous natural resources management system practiced by the Isnags, and it is assisted and recognized by some LGUs in Apayao as a way of conserving natural resources. As a result, Apayao remains as the province with the largest forested areas in the region.[14]

33. Natural resources present in the area include copper, manganese, gold, phosphate, agricultural and pasture lands, and forests. The KBA has mineral reserves of gold, copper,

[12] https://drive.google.com/file/d/0BwTbmqNzpqJdZHljTjRBMm1LOVk/view
[13] http://rbco.denr.gov.ph/wp-content/uploads/2017/10/apayaoabulogexecutivesummary.pdf
[14] Ibid.

manganese, nickel, and non-metallic minerals of soft clay, limestone, sulphur, and shale. The interest for copper, gold, and silver in the Apayao is dominated by Cordillera Exploration Company, Inc. (CEXCI), which has an exploration permit for over 4 996 ha in Conner, Apayao.

SOCIAL DETAILS

34. **Demographics**: Apayao consists of seven municipalities and 133 barangays, most of which have incomes which place them in the third class (i.e. earning an average annual income ranging from PHP 5-10 million). Apayao has the smallest population amongst provinces in CAR, with a total population of 119 184 people as of 2015.[15] With a population density of 26 persons per km^2, it is significantly lower than the regional average of 87 persons per km^2 in 2015 and the national average 337 persons per km^2.

35. There are two indigenous groups situated in the area: the Isnag and Kalinga, and more than half of the population of Apayao is made up of cultural monitories. Of the 10 cultural ethnic tribes, 70 percent (about 41 439 people) belong to the Isnag group (more details can be found in Chapter 6 of this ESMF). Among the municipalities, Conner has the highest number of ethnic groups on record.[16]

36. **Education:** Functional literacy rate increased significantly from 70.35 percent in 2000 to 86.6 percent in 2003. Females registered in higher functional literacy rate than males.

37. **Health:** The province's health resources include seven hospitals spread in each of the seven municipalities providing secondary and tertiary level health services to the public with a total bed capacity of 215 or 1 hospital bed per 482 populations. This is slightly higher than the standard of 1 bed per 500 populations. Six of these hospitals are devolved to the provincial government while two hospitals are under the national government. Existing health manpower in the province includes: 22 doctors, 37 nurses, 6 medical technologists, 6 dentists, 7 pharmacists, 22 nursing attendants and 7 midwives. The province has 29 government physicians, giving a ratio of 1 physician for every 3,574 population. This is significantly higher than the national standard of 1 physician for every 20,000 population. Pneumonia remains to be the leading cause of mortality with an average of 54 annual deaths in a span of 4 years. One alarming indicator is infant mortality rate which registered an average of 11.88 per 1000 infant 0-1 year old. The 2.04 percent maternal mortality rate of 2006 in the province is also relatively high compared to the rest of the region but it has been reduce to .70 in 2010.[17]

38. **Poverty:** Poverty remains as the major development concern in the Province of Apayao, families continue to plunge below the poverty threshold level. Poverty incidence is highest among families whose heads are engaged in traditional farming. The proportion of poor families increases overtime as a result of low agricultural productivity. Lack of alternative livelihood employment opportunities to most family heads has been pointed out as the primary causes of poverty in Apayao. Based on Republic Act 8425, otherwise known as the Social Reform and Poverty Alleviation Act of 1997, the poor refers to individuals and families whose income fall below the poverty threshold as defined by the government and/or those that cannot afford in a

[15] https://psa.gov.ph/statistics/quickstat PSA Quickstat for Apayao – 2018.
[16] http://rbco.denr.gov.ph/wp-content/uploads/2017/10/apayaoabulogexecutivesummary.pdf
[17] https://drive.google.com/file/d/0BwTbmqNzpqJdZHljTjRBMm1LOVk/view

sustained manner to provide their basic needs of food, health education, housing and other amenities of life. The province of Apayao as the third poorest province in the Philippines with 54.70 percent poverty incidence among families. Official data reflects that poverty incidence among population in Apayao for 2012 was 61.40 percent. This made a phenomenal increase from the 43.200 percent poor population recorded in 2006. Latest statistics released indicates that approximately 6 out of 10 Iyapayaos families did not earn enough in 2009 to satisfy their basic food and non-food requirements.

39. The poverty threshold in Apayao was 18,623 pesos in 2012, an increase of 1,700 from the 16,923 poverty threshold in 2009 or an increase of 10.05 percent. It is the 4th highest among the six provinces of CAR. Apayao has the highest poverty incidence with 54.7 percent among families living in Apayao poverty incidence is the proportion of families/individuals with per capita income/expenditure less than the per capita poverty threshold to the total number of families/individuals. This means that more than one-half (54.7 percent) of the families live below the poverty threshold in 2012, higher than in 2009 which was 39.9 percent.[18]

40. **Labour and land tenancy:** In Apayao, almost 76% of the total household were engaged in agricultural production or any other agriculture related industry. This data shows that source of income of the majority of households is dominantly coming from the agriculture sector. Other source of income comes mainly from industry and service related sector. Based on the Community Based Monitoring System (CBMS) survey conducted by the Province of Apayao on January 2015, the total labor force of the province is peg at 44,488 populations aging 15 – 64 years old. This shares almost 39 percent of the total population of the province. Apayao has an estimated unemployment rate of 6.4 percent placing Apayao as the 3rd highest unemployment rate next to Mt. Province (7.3%) and Abra (6.5%). Contributory to the unemployment of the province is the unstable employment in the agriculture sector and the absence of security of tenure to industry sector which are mostly seasonal in nature. Of the total 44,488 labor force of the province with age ranging from 15 - 64, almost 73 percent or 32,477 populations were involved in agricultural productivity. Average prevailing rate for one day labor in the farm ranges from Php 250.00 – Php 300.00 per man/day.

41. **Additional Information:** As of November 2013, there are about 55,000 Isnags living in Apayao Province. The Isnag (also known as the Isneg and Apayao) are the earliest residents of Apayao Province (Cordillera Administrative Region) and one of the remaining tribes in Luzon, the Isnag are a small ethno-liguistic group inhabiting the wide mountains of the area. Isnag refers to the people and the Tribe. Isneg refers to the dialect of the Isnag.

Ifugao – Provincial Baseline

ENVIRONMENTAL DETAILS

42. **Geographical location/topography**: Ifugao is one of six provinces that comprise the Cordillera Administrative Region (CAR), situated in the northern island of Luzon. The province is located at the base of the Cordillera Mountain Ranges (DILG-CAR, 2015). It has 11 municipalities, 175 barangays and 10 Special Economic Zones. Most of Ifugao is characterized by high relief and

[18] http://rbco.denr.gov.ph/wp-content/uploads/2017/10/apayaoabulogexecutivesummary.pdf

rugged terrain with numerous mountain peaks and ranges. Only two municipalities, Lamat and Alfonso Lista are characterized with low relief and rolling hills. Ifugao's altitude ranges from 200 meters up to 1200 meters above sea level.

43. **Climate/Meteorology:** Ifugao generally experiences lower temperatures in relation to the rest of the Philippines due to its high elevation. Average temperatures range from 15C to 24C. Its moderate temperature during the summer results from its geographical location and forested landscape. Average annual precipitation is between 2 000 and 3 000 mm, thus making Ifugao a wet region with bountiful water resources (Soriano et al, 2017). It has a short dry season, beginning in January until the end of April and a wet season that begins in May and ends in December. March and April are the hottest months with the coldest period being from November to February**.**

Source: Many Faces of Poverty Vol 9, 2015 (see footnote 7 for disclaimer)

44. **Soil Type:** clay loam, silt loam, and sandy loam of different varieties.

45. **Land use:** Ifugao has a total land area of 2 618 km2 (about 14 percent of the total land area of CAR) with 1 022 km2 of forest area. The remainder fall into the following land use categories: (i) grasslands shrubs unmanaged – 691 km2; (ii) grasslands with livestock – 442 km2; (iii) coconut systems – 2 km2; (iv) rice irrigated – 7 km2; (v) rice and corn rain fed – 502 km2; and (vi) urban land – 17 km2 (PSA, 2015 and FAO/BSWM, 2010). Nine of the province's municipalities are home to the infamous rice terraces of Ifugao, occupying 79 percent of the total land area. The remaining 21 percent is attributed to the two lowland municipalities: Lamat and Alfonso Lista, located in the south and southeast of the province (FAO, 2008 and Provincial Government of Ifugao, 2016).

46. Production area is estimated to be 35 785 ha or almost 14 percent of the total land area (PCIP, 2015). The total land area planted with permanent and seasonal crops was estimated to be 50 284 ha. Under the seasonal crops, corn has the largest land area (53 percent) followed by rice (37 percent), while coffee (68 percent) has the largest production for the permanent crops followed by banana (22 percent). Other crops under production include root crops (particularly camote), vegetables, legumes, fruit trees (including banana and mango), condiments (ginger, pepper and onion leeks) and other non-food and commercial crops, such as tobacco and tiger grass. Data from 2002 illustrates that there were 21 072 farms in the province and 40 369 ha of farm land, with the majority being planted to temporary crops (Provincial Government of Ifugao, 2016).

47. **Water Resources & Irrigation:** Ifugao has 55 m2 of water inland freshwater. It has has eleven major rivers. The waters of the Ibulao and Alimit Rivers flow ceaselessly to the Magat River providing water to the Magat River Integrated Irrigation System Dam and at the same time irrigating the vast rice lands of the provinces of Isabela and Quirino. Fish and other aquatic

animals are available in these bodies of waters which are also vital sources of sand and gravel. Aside from these many rivers, the province is endowed with springs that are tapped as potable water supply for the growing population.

48. **Natural habitats/protected areas:** Ifugao is home to the Rice Terraces of the Philippine Cordilleras, which have been inscribed in the World Heritage List since 1995 and were labelled a Globally Important Agricultural Heritage System by FAO in 2004 (UNESCO, 2018;FAO, 2019). They were previously declared one of the 100 Most Endangered World Heritage Sites of the World Monuments Watch.

Key species found in the rice terraces:

- 264 tree species, of which 47 are endemic and 112 are used by the community, this has now reduced to 200 species
- 5 to 6 six varieties of root crops (Anablon Rono, Gut,o, Tanghad and Cassava)
- 2 species of betel nut palms
- 5 species of fruit trees
- 10 or more varieties of rice
- 4 species of fish
- 7 species of edible mollusks

Source: DENR, 2008

49. Biodiversity (flora/fauna): Associated biodiversity in the rice terraces includes:

- 10 varieties of climbing rattan
- 45 medicinal plant species
- 41 bird species
- 6 indigenous mammal species (two of which are endemic)
- 4 varieties of legumes
- 3 varieties of bananas
- 3 varieties of leafy vegetables
- Chickens, pigs, ducks, dogs, cats, draft carabao, domesticated cattle
- Crabs, crayfish, frogs and various insects that inhabit the paddy fields and keep them active all year
- Large fish such as eels, monitor lizards and other vertebrates

SOCIAL DETAILS

50. **Demographics (including IP):** Ifugao has a total population of 202 802 (104 806 male and 97 996 female) with 43 281 households, an average household size of 4.7 people, and an average population density of 91km^2 (PSA, 2015 and Statistical Yearbook 2018). The household population for 10 years old and over is 157 512 (Ifugao Quickstat, 2018). The population growth rate was 1.69 from 2000 to 2010 and 1.14 percent from 2010 to 2015 (PSA, 2015). The majority of the population (more than 80 percent) are indigenous Ifugao people that belong to one of three ethnic groups, the Tuwali, the Ayangan and the Kalanguyam; other groups include the Yattuka and Keley-i (PCIP, 2015). A few non-indigenous people can be found in some urbanized areas in the municipalities of Alfonso Lista and Lamut due to in-migration from nearby provinces Isabela and Nueva Vizcaya, however they have now acculturated (PIA, 2019).

51. **Education:** In 2015/16, the provincial literacy rate was 95.7 percent. About 4 in every 100 children aged 6 to 15 did not attend school regardless of education level: 6.3 percent of children 6 to 11 did not attend elementary school and 30.6 percent of children 12 to 15 did not attend high school. Further disaggregation shows that while 1.6 percent of girls are out of school, the proportion of boys who are out-of-school is higher, at 5.3 percent (CBMS, 2018). 69 130 completed elementary school, 50 853 completed high school and 41 749 are college undergraduates and academic degree holders.

52. **Health:** The annual per capita food threshold is 15 832 in pesos and subsistence among the population is 16.8 percent and 12.8 percent among families (Statistical Yearbook 2018). About 0.2 percent (2 in every 1000 children) of children under five years old died during 2015/16 (CBMS, 2018), equivalent to about 46 child deaths overall. Almost two percent of children five years and younger classified as being moderately or severely underweight (CBMS, 2018). The prevalence of malnutrition is relatively equal but slightly higher for girls than boys (1.9 and 1.4 percent respectively). Almost 27 percent of households do not have access to a safe water supply and about 22 percent do not have access to sanitary toilet facilities (and are thus considered water and sanitation poor). Out of the 169 barangays, 36 are considered waterless (with less than 50 percent safe water supply coverage) (CBMS, 2018).

53. **Poverty:** The poverty incidence among families in Ifugao is the second highest in CAR next to Apayao. The poverty incidence on families is 26.1 percent and population is 32.5 percent.[19] The human development index of the province is 0.488 (Statistical Yearbook 2018). Income gap is 27.6, poverty gap is 7.2 and severity of poverty is 2.6. Annual per capita poverty threshold (in pesos) is 22, 673 and the poverty incidence among families is 26.1 percent and 32.5 percent among population (2015).

54. **Labour and Land Tenancy:** Labour force is 92 112 (total gainful workers 15 years old and over), 57 046 male and 35 066 female. The majority have elementary occupations (33 113) or are skilled agricultural forestry and fishery workers (29 395) (Statistical table 2015. According to the Community-Based Monitoring System (CBSM) data for 2015/16, almost 2 percent of the households lived in makeshift housing while 2.3 percent were informal settlers (considered housing poor and tenure poor) (Many Faces of Poverty Vol 9, 2018). The unemployment rate is 5.2 percent and is higher among females (6.3 percent) compared to males (4.6 percent). The annual average income falls below the poverty line of PHP 85 245 (NSO 2000).

55. **Languages:** the Ifugao dialect is most common, followed by Ilocano and other minor languages. English is taught as a second language and Tagalog is understood but not widely spoken.

56. **Religion:** 54 percent Roman Catholic, 15 percent Born-Again Christians, 15 percent Protestant and the remaining 16 percent other religious denominations.

57. **Indigenous Peoples (specific highlights/issues not already addressed above):** 80 percent of population are members of an indigenous tribe.

Kalinga – Provincial Baseline

ENVIRONMENTAL DETAILS

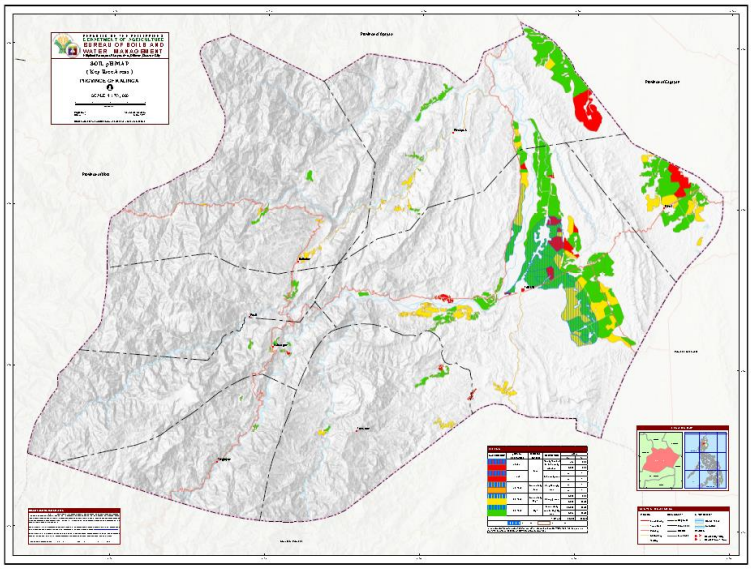
58. **Geographical location/topography:** Kalinga is located at the central part of the Cordillera Administrative Region. It is a landlocked province bounded by the provinces of Apayao on the north, Cagayan and Isabela on the east, Abra on the west and Mountain Province on the south. The province is composed of seven municipalities and one component city, with a total

[19] https://pia.gov.ph/provinces/ifugao

of 152 barangays. The province is rugged and sloping with mountain peaks ranging from 1,000 to 2,500 meters above sea level. The western province is geographically characterized by sharp-crested, interlinking peaks of steep slopes, isolated flatlands, plateaus, and valleys. The eastern portion is generally rolling and gradually sloping foothills.

59. **Climate/meteorology:** The province enjoys average temperatures ranging from 17'C to 22'C and Type III weather patterns. The dry season extends from November to April. The rest of the year is rainy. The heaviest rains usually occur in the months of July and October.[20]

60. **Soil quality:** the following soil types can be found (see map from Bureau of Soil and Water Management)[21,22]

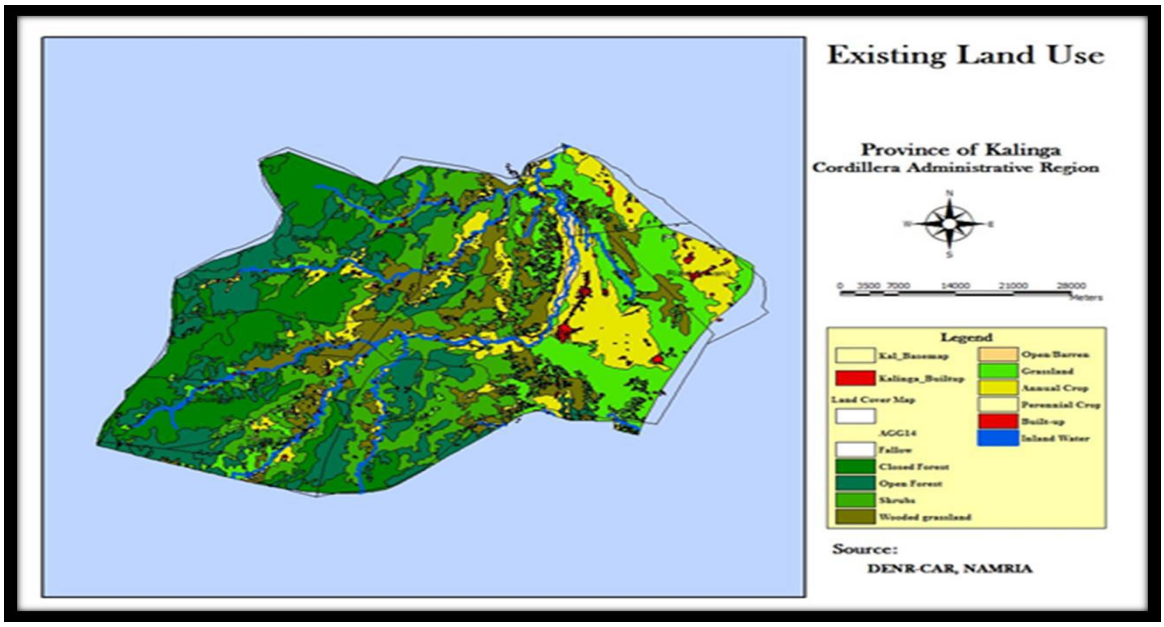


Source: Bureau of Soil and Water Management (see footnote 7 for disclaimer)

- Umingan loam- sandy loam: good land, suitable for cultivation
- Alaminos loam- clay loam, sandy clay loam: fairly good land, suitable for cultivation
- Bantay clay loam: fairly good land, suitable for cultivation
- San Juan clay: fairly good land, suitable for cultivation
- Annam clay, clay loam, sandy clay loam: lands limited to pasture or forest
- Aroman clay loam: lands limited to pasture or forest
- Bauang clay loam: lands limited to pasture or forest
- Alimodiam clay loam, sandy loam, sandy clay: lands limited to pasture or forest
- Bolinao clay loam: lands limited to pasture or forest
- Mountain soils: lands limited to forestry
- Riverwash: lands limited to wildlife

61. **Land use**: Kalinga has a total of 44,096 hectares of alienable and disposable lands or 14.35% of the total land area and 263,004 hectares or 58.65% of forestlands as of 2007. It is dominated by forest use which includes the mosy, pine, old growth and residual forests comprising 35 percent of the total land area. Built up areas are concentrated within alienable and disposable lands but these are also present in areas that are classified as forestlands especially in the upland municipalities. Of the total potential agricultural production area or 101,430 hectares, only 52,464 are planted with crops. This means that there are 49 percent production areas, which are underutilized. The main crops in the province include corn, rice and coffee.

[20] https://www.dilgcar.com/index.php/2015-07-10-09-29-38/province-of-kalinga
[21] https://psa.gov.ph/sites/default/files/1995%20%20Provincial%20Profile%20-Kalinga%20%20Apayao.pdf
[22] http://bswm.da.gov.ph/getmap/00109/kalinga-soil%20ph%20map



Source: DENR-CAR, NAMRIA[23]

Agricultural Land Area by Commodity
Province of Kalinga, 2012

COMMODITY	Area (Hectares)	Production (Metric Ton)
Palay	36,498.00	217,239.44
Corn	7,794.00	65,102.21
Coffee Arabica*	31.70	95.10
Coffee Robusta*	7417.70	2225.31
Coconut	84.00	195.95
Calamansi	8.00	10.05
Mango	84.00	79.50
Pineapple	14.00	53.75
Banana	285.00	1,200.90
Bignay	4.80	8.75
Sugarcane	130.00	6,530.00
Cacao	5.50	6.95
Tiger Grass	3.00	4.55
Tobacco	3.00	4.55
Root Crops		
Sweet Potato	55.00	132.00
Cassava	28.00	101.40
Ubi/Tugui	4.00	7.50
SPICES		
Ginger	5.00	29.65
Pepper/Sili	2.00	0.69
Garlic	8.00	14.45
TOTAL	52,464	

Source: Bureau of Agricultural statistics
- *Consolidated 2012 data from the Offices on Municipal Agriculturists*

[23] The boundaries and names shown and the designations used on this map do not imply the expression of any opinion whatsoever on the part of FAO concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers and boundaries

62. **Water Resources & Irrigation:** Within CAR, the Chico River cuts through Mountain Province into Kalinga, where it is fed by the Tanuda, Pasil, and Saltan rivers. From Kalinga, it flows into Cagayan province where it drains into the Rio Grande de Cagayan. The Cordillera's river basins have enormous water-bearing capacity. With a total drainage area of 5,447,500 hectares and groundwater storage of about 150 million cubic meters, government planners say this is more than enough for supplying the irrigation and energy needs of entire Northern Luzon.[24]

63. **Biodiversity (flora/fauna)**: Kalinga has a total of 84 families, 206 genera and 319 taxa recorded, including a new species of Rafflesia, which is a very rare parasitic plant. There are 106 Philippine endemics reported, 38 of which are Luzon endemics. 18 taxa were listed under either the Philippine Red List (Fernando et al., 2008) or on the IUCN Red List of Threatened Species (IUCN 2010).[25] There is very little information available on the birds of the extensive forests that remain in and around Balbalasang-Balbalan National Park (BBNP), but they are likely to support many of the threatened and restricted-range birds of the Luzon Endemic Bird Area. The avifauna in the montane forests may prove to be comparable to that of Mt Pulog National Park (PH004) further south in the Cordillera Central[26].

64. Some Luzon-endemic mammals, including the northern Luzon giant cloud rat Phloeomys pallidus, may be found on this IBA. The smooth-fingered narrow-mouthed frog Kaloula baleata kalingenses and the poorly-known endemic Luzon narrow-mouthed frog Kaloula rigida have been recorded there, as have two globally threatened butterflies, Papilio benguetanus and P. chikae, both restricted on the Cordillera mountains.

65. **Natural habitats/protected areas** include the Balbalasang-Balbalan National Park (BBNP).

SOCIAL

66. **Demographics (including IP):** Total population is 212 680 (110 232 male and 102 448 female) as of 2015. The population density is 65 persons/km^2. Household population is 212 003 and number of households is of 42 115. Average household size is five persons.[27]

67. **Education**: Literacy rate is 96.5%, and the number of HH population (10 years and older) who are literate is 158 989. HH population (5 years and older) disaggregated by the highest educational attainment is as follows: 68 305 elementary; 54 217 highschool (of which, 24 226 graduated); 5 055 post-secondary; and 20 790 are academic degree holders.[28]

68. **Health**: Total fertility rate is 3.75; Life expectancy at birth is 65.19 for males and 70.28 for females. There are 29.05 crude births and 6.49 crude deaths, making the crude rate of natural increase 22.56 per thousand people.

69. **Poverty**: 30% of families are experiencing poverty, and 34.9% of the population are

[24] http://www.cpaphils.org/cordillera/watersources.htm
[25] https://ejournals.ph/article.php?id=1465
[26] http://datazone.birdlife.org/site/factsheet/balbalasang-balbalan-national-park-and-proposed-extension-iba-philippines
[27] *https://psa.gov.ph/content/kalinga-quickstat-february-2018*
[28] *Ibid.*

experiencing poverty. The Human Development Index is 0.546.

70. **Labour and Land Tenancy**: Kalinga's economy is agriculture-based, where the majority of the gainful workers are engaged in agriculture-related businesses, accounting for 66.74% of the provinces total employment (approximately 48 093 workers). The other 33.26% are absorbed by the other major businesses, including wholesale, retail trade, motor vehicle repair shops, construction, transportation and storage, education, and public administrative and compulsory social security. 72 059 persons of the 122 056 person potential labor force in 2010 were considered economically active. Of the 72 059 economically active populace, 51 087 (70.89%) were males and 21 021 (29.17%) were females, both from ages 25 to 44 years old.

71. **Social Protection (additional programmes/etc.):** The province has a programme called the Kalinga Mission for Indigenous Children and Youth Development.[29]

72. **Languages spoken**: Kalinga, Ilocano, Tagalog, Gaddang are spoken, as are 39 ethnic dialects based on ethnic groupings within the municipalities.[30]

73. **Religions practiced**: Roman Catholics, Anglican Church, United Church of Christ in the Philippines, Iglesia ni Christo.

3.2.2 Cagayan Valley (Region II)

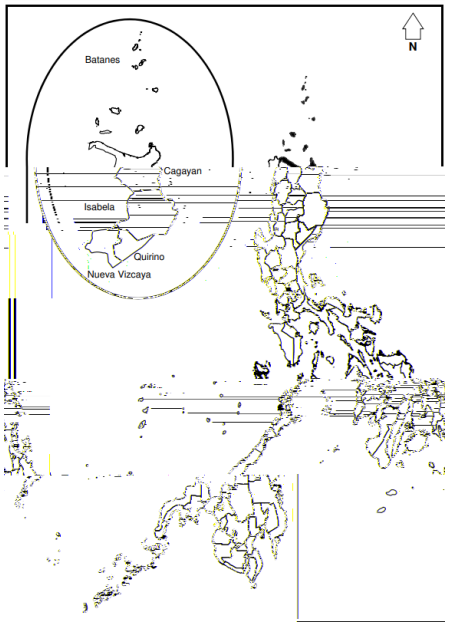
74. Within the Cagayan Valley, the provinces of Cagayan and Isabella provinces were identified for inclusion within the project.

Cagayan – Provincial Baseline

ENVIRONMENTAL DETAILS

75. **Geographical location/topography**:

- Cagayan province is located in the northeast of the Philippines, sharing a border with Isabela province to the south, and Batanes islands off the coast to the north (see figure to the right)
- Total land area of 9,398.07 km2, comprising more than 3.1 % of Philippine territory and almost 31 % of Cagayan Valley region.
- It is the second most populous province in the region, after Isabela province
- 1 city and 28 municipalities, comprising 830 barangays



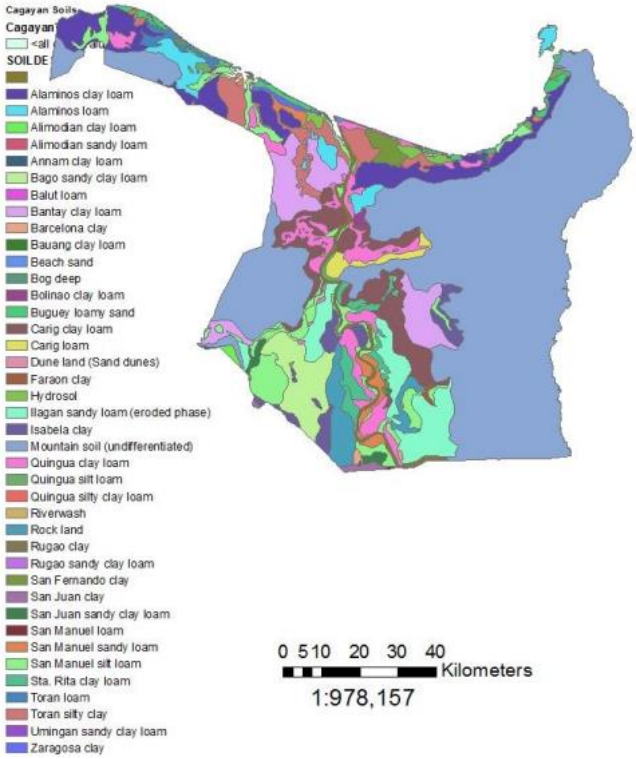
Map of Cagayan Valley
Source: PSA 2015 (see footnote 22 for disclaimer)

Climate/meteorology: The province has two pronounced seasons, with the dry season spanning

[29] https://www.povertyandconservation.info/en/org/o0166
[30] http://idplumenfoundation.com/Mars%20Files%204%20New%20Site/HOME/Profile%20of%20the%20Province%20of%20Kalinga.pdf

from March until June, and the rainy monsoon season spanning from July to September.

76. **Soil Quality:** Soil of the plains and valleys are the most suitable for agricultural production (see Map Below)



Soil Map of Cagayan Province
Source: Dawan et al. 2021[31]

77. **Land Use:**

- Land area: 904,026 ha
- Agricultural Land area of 540,812 hectares of farmland in Cagayan Valley (province specific data were not available.
- Number of farms by land use: 118,691 (2002)
- Total area of farms: 175,548ha (2002)
- Agriculture remains the main sector in the province, where 75% of the economically active population are farmers.[32]
- Main temporary crops (in terms of total number of farms): Palay, corn, fruit bearing vegetables, leguminous plants and tobacco (2002)
- Main permanent crops (in terms of total number of farms): Mango, coconut, banana, pineapple, palm.

[31] Dawan, A.F., Seridon, G.L., Casauay, R.B. 2021. Soil constraints and management options for rice production areas in Cagayan, Philippines. Journal of Biodiversity and Environmetnal Sciences, 18(2): 38-45.
[32] GovPH, n.d. Cagayan Valley: The Ibanag.
The boundaries and names shown and the designations used on this map do not imply the expression of any opinion whatsoever on the part of FAO concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers and boundaries

78. **Water Resources & Irrigation:**
    - 1,089 ha of fishponds
    - Piped water systems are present in most municipalities served by district offices and the Local Water Utility Administration.
    - 79% of the farms are irrigated (national systems, communal systems, individual irrigation systems, and other systems)[33]

79. **Natural Habitats, protected areas and biodiversity:**
    - Rich in natural heritage with land, water, marine and biodiversity resources
    - At the regional level, there are 2 national parks in Cagayan Valley: Callao Cave and Fuyot Srings, as well as 2 game refuges and bird sanctuaries, 2 wilderness areas, 4 watershed forest reserves, and 7proclaimed protected areas (Batanes Protected Landscape & Seascape, Casecnan Protected Landscape, Magapit Protected Landscape, Northern Sierra Madre Natural Park, Palaui Island Marine Reserve, Peñablanca Protected Landscape, and Salinas Natural Monument.
    - 543,976 ha of forest land, including 39378 ha of established forest reserves, 497,314 ha of established timberland, and 6,195 ha of National Parks GRBS/ WA.

SOCIAL DETAILS

80. **Demographics (including IP):** Cagayan Valley today is home to, over 1.2 million people. Majority of population are classified as Ilocanos. Quick facts:[34]
    - Total Pop: 1,268,603 (2020)
    - Sex ratio: 103.9 (2015)
    - Dependency ratio: 55.90 (2015)
    - Household Population: 1,265,539 (2020)
    - Number of Households: 301,528 (2020)
    - Average Annual Population Growth Rate (2010-2015): 1.23 Average Household Size (2020): 4.2
    - Population density: 120 persons per km^2

81. **Education:** Literacy is high where approximately 93% of the population is literate. With regard to highest educational attainment among functionally literate household members aged 10-64 years old, the following rate breakdown applies: Elementary level: 79.5%; High school: 100% and high school graduate: 100%; Post-secondary graduate: 100%; academic degree holder: 100%.

82. **Health:** life expectancy at birth is 67.52 for males, and 74.21 for females.

83. **Poverty Statistics:**
    - HDI: 0.626
    - Poverty Incidence on Families: 13.3%
    - Poverty Incidence on Population: 15.9%

84. **Labour and Land Tenancy Statistics:**
    - Labor Force Participation Rate: 61.3% (2020)
    - Employment Rate: 97.7% (April 2018)

[33] PSA 2002. 2002 Agricultural Census.

[34] For more information, refer to: https://psa.gov.ph/population-and-housing/title/Household%20Population%2C%20Number%20of%20Households%2C%20and%20Average%20Household%20Size%20of%20the%20Philippines%20%282020%20Census%20of%20Population%20and%20Housing%29

- Underemployment Rate: 16.8% (2020)
- Unemployment Rate: 8.7% (2020)

85. **Languages:** Ibanag, Itawes, Ilocano, and Malueg are the major dialects found in Cagayan Province. Locano is the most common language within the project, with over 67% of the population speaking it.

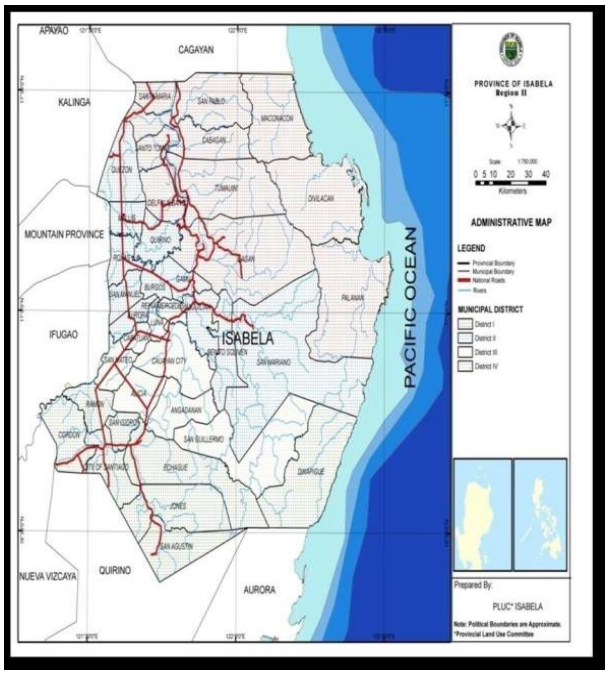
86. **Religion:** At the regional level (i.e. Cagayan Valley), over 76% of the population identified as Roman Catholics. Evangelicals comprised around 4% of the population, Aglipayans 3-4%, and other religions comprised the remaining 15%.[35]

Isabela – Provincial Baseline

ENVIRONMENTAL DETAILS

87. **Geographical location/topography**:

- located on the northeastern seaboard of the island of Luzon
- Queen province of the north and second largest in Philippines
- Total land area of 1 006 456 ha, comprising more than 3% of Philippine territory and almost 40% of Cagayan Valley region.
- Bounded on the north by Cagayan province; on the west by Kalinga, Mountain Province, and Ifugao; on the south by Nueva Vizcaya, Quirino, and Aurora; and on the east by the Philippine Sea and the Pacific Ocean
- 3 cities and 34 municipalities, comprising 1 055 barangays



Source: Isabela Provincial Land Use Committee[36]

88. **Climate/meteorology:** Two types of climate are prevalent in the province. Both Eastern Isabela and Coastal Isabela experience moderate rainfall throughout the year, while Western Isabela has more pronounced wet and dry seasons. Relatively wet from May to October, and relatively dry from November to April.

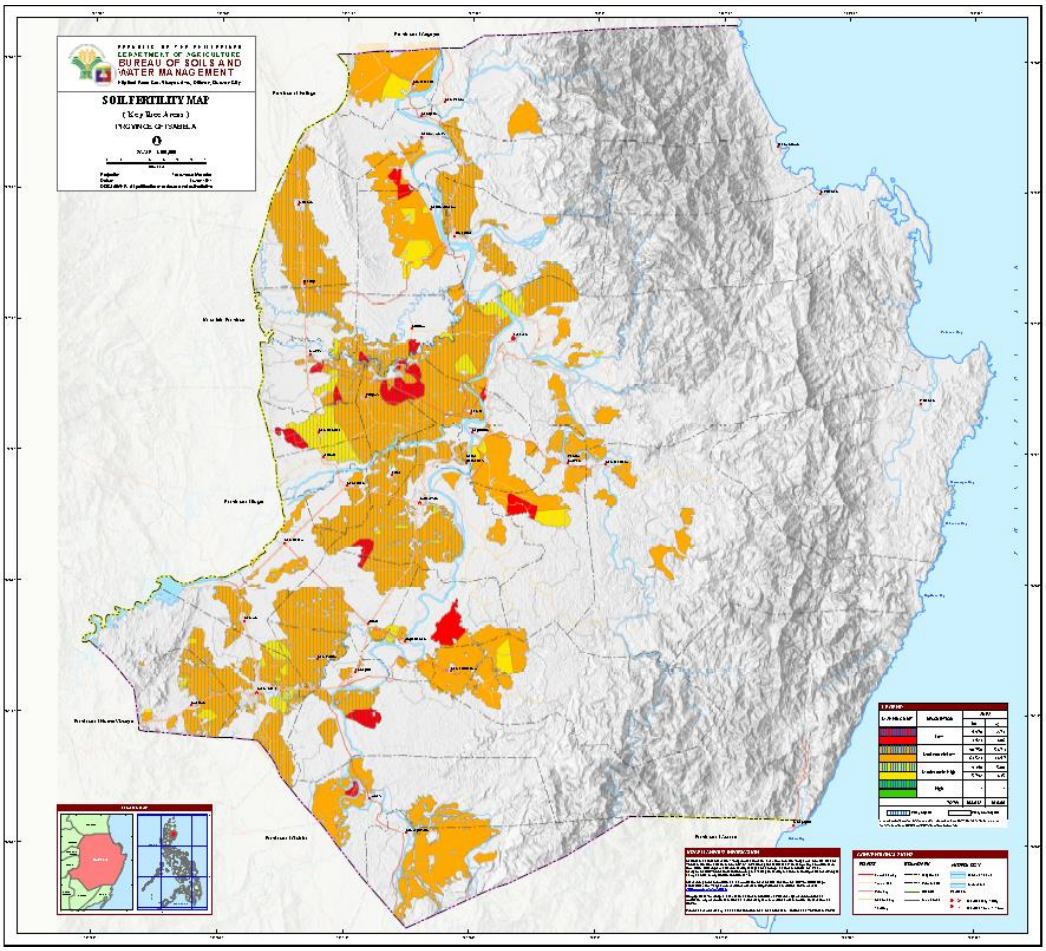
89. **Soil Quality:** map refers to soil fertility of key rice areas. Almost 54% moderately low soil fertility paddy irrigated and 34% paddy non-irrigated. Cagayan Series/ Quinga (San Felipe, Isabela) Series.

90. **Land Use:**

[35] PSA 2002

[36] The boundaries and names shown and the designations used on this map do not imply the expression of any opinion whatsoever on the part of FAO concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers and boundaries

- Land area: 12,414.93 km^2
- Recognized as major producer of quality rice and corn: contributes 15.15% of annual national yellow corn production and 6.74% of aggregate national rice production. Top producer of corn and second in rice production.
- Land area of 161,726 hectares and 144,646 hectares are devoted to rice and corn production, respectively. For 2014, its rice production reached 1,277,623 metric tons (MT) contributing 6.74% of the country's total production while for corn, the province produced 1,175,322 metric tons contributing 15.13% of the country's total production.
- Isabela is the second largest province in Philippine territory which consists of vast plain production areas between the foothills of the Cordillera Mountain ranges in the west and a landscape & seascape with rich marine ecosystem on reefs of the Pacific Ocean surrounding the famous Northern Sierra Madre Natural Park in the North.
- Number of farms by land use: 1,958 (2002)
- Total area of farms: 5,138 ha (2002)



Source: Bureau of Soils and Water Management[37]

[37] The boundaries and names shown and the designations used on this map do not imply the expression of any opinion whatsoever on the part of FAO concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers and boundaries

Area of farms by land use (in hectares)	**5,138**	3,637	4,606
Arable lands			
Land planted to temporary crops	**812**	2,220	1,373
Lands lying idle [3/]	**1,282**	500	297
Land planted to permanent crops	**43**	328	474
Land under permanent meadows and pasture	**2,658**	504	1,727
Lands covered with forest growth	**309**	24	228
All other lands [4/]	**28**	60	506

- Top 5 agricultural crops (order of production): palay (rice), corn, banana, coconut and mango
- Forest cover 2010 (ha): closed forest: 69,444; open forest: 308,106; mangrove: 723; total forest: 378,272.

91. **Water Resources & Irrigation:**

- Criss-crossing the area is the Cagayan River, the Philippines' longest river
- Home of Magat Dam, a major source of power and water supply of the Northern Luzon
- 11, 046 hectares of lakes and swamps, 815 of communal waters, and several hundred kilometers of irrigation canals.
- Piped water system are present in most municipalities served by district offices and the Local Water Utility Administration.

92. **Biodiversity:**

- Vast portions of Eastern Isabela are considered uncharted territory, characterized by thick forestlands and rugged terrain. These largely unexplored hinterlands contain a variety of still unnamed flora and fauna, with majority of the country's endemic species represented in the protected area
- Endowed with a rich soil conducive to the growing of agricultural crops, and is blessed with verdant forests, preserved wildlife sanctuaries, abundant marine life, and extensive mineral deposits.
- Philippine Rise, a 13-million-hectare undersea region east of Isabela and Aurora province
- Extensive deposit of gold, copper, zinc, chromite, nickel, manganese are found in the mountains of Eastern Isabela but these minerals reserves are yet to be fully tapped. Non- metallic minerals like marble, limestone, guano, clay, sand, and gravel are also present in large deposits. In Western Isabela, indigenous energy sources such as natural gas and hydro abound
- Northern Sierra Madre Natural Park a habitat for a number of rare and endangered species of flora and fauna such as Narra, Almaciga, Kamagong, Philippine Eagle, Isabela Oriole, Sea Turtle, Philippine Crocodile, and Giant Monitor Lizard
- NSMNP- severely threatened tree species of the dipterocarp family such as Shorea spp. and Hopea spp. The Park also protects rare forest types such as forest on ultrabasic soils and mossy forest on mountain tops and ridges.

- NSMNP hosts more than 50% of all bird species recorded in the Philippines, including endemic *Oriolus isabellae*, one of the rarest birds in the world

93. **Natural Habitats/Protected Areas:**
- Rich in natural heritage with land, water, marine and biodiversity resources
- Home to one of the largest remaining rainforests (Palanan Rainforest) in the world part of the Northern Sierra Madre Natural Park, a government reservation covering 3,590 square kilometers of terrestrial and marine ecosystems rich in genetic species and biodiversity. The park is considered among the global top ten biodiversity hotspots
- Palanan rainforest is one of Asia's remaining virgin forests (largest low altitude rainforest in Philippines- PIA gov) and was declared a protected wilderness area in 1979
- Northern Sierra Madre Natural Park (NSMNP) was designated a Protected Area by virtue of Republic Act 9125 in 2001
- The NSMNP covers a total of 359,486 hectares of which 287,861 hectares are land area and 71,625 hectares are coastline marine areas.
- Indigenous people, like the Agtas, the Paranans of Palanan, and the Kalinǵas in the eastern slopes of San Mariano, Isabela contribute to the cultural significance of the area.
- Pressures on the natural forest lead to forest degradation of at least 1,400 hectares per year

SOCIAL DETAILS

94. **Demographics (including IP):** Isabela today is home to, 1,593,566 people who are distinguished for their resilience and diligence. Majority of them are classified as Ilocanos, who constitute 69% of total households. Two other prominent ethnolinguistic groups are Ibanag at 14% and Tagalog at 10%. The balance of 7% belongs to the Gaddang, Paranan, Yogad, and other indigenous tribes. Ethnic differences notwithstanding, Isabeleños demonstrate a close kinship that allows for great ease when challenging times call for unity, cooperation, and service to family and their community. Quick facts:
- Total Pop: 1,593,566; Male: 812,580; Female: 780,986 (2015)
- Household Population: 1,591,017; Male: 810,931; Female: 780,086 (2015)
- Number of Households (CY 2015): 372,950
- Average Annual Population Growth Rate (2010-2015): 1.29
- Average Household Size (CY 2015): 4.3
- Population density: 122 persons per km^2

95. **Education:** Isabela has one of the highest literacy rates in the world at 97%. Most Isabeleños, especially those in the urban centers, speak and understand both English and Filipino. Isabela's attractive suburban lifestyle has steadily been attracting retirees of foreign descent, as well as Bicolanos, Visayans, and Filipinos from other regions, contributing to the fluency of Isabeleños in other languages and local dialects, and to interesting inter-regional cultural blends that are most evident in the lifestyle and culinary practices of the locals. Isabela State University in the Municipality of Echague in southern Isabela which established ten other campuses all over the province. With regard to highest educational attainment for household members aged five-years and up, the following breakdown applied: Elementary: 525,061; High

school: 503,803 and high school graduate: 303,391; Post-secondary graduate: 23, 666; academic degree holder: 150,608.

96. **Health:** life expectancy at birth is 66.72 for males, and 61.99 for females.

97. **Poverty Statistics:**
- HDI: 0.587
- The trends in the decrease of low income families within a span of four years (2009-2012) is an indication of significant decision making by planners on programs/projects and activities especially on capital infusion on developmental framework geared towards poverty alleviation with the current agriculture and agri-business profile in the province.
- Income Classification: 1st Class
- Poverty Incidence on Families: 10.6 %[38]
- Poverty Incidence on Population: 15.2 %

98. **Labour and Land Tenancy Statistics:**
- Labor Force Participation Rate: 65.3
- Employment Rate: 95.8
- Underemployment Rate: 24.8
- Unemployment Rate: 4.2

99. **Languages:** Ilokano, Tagalog, Ibanag, Yogad, Gaddang

100. **Religion:** More than 85% of Isabeleños are Christians, with the Roman Catholic Church playing a significant role in their cultural and social lives. Iglensia ni Cristo and other religious sects are also present.

3.2.3 Bicol (Region V)

101. Within Bicol, both Camarines Norte and Camarines Sur were selected as project provinces.

Camarines Norte – Provincial Baseline

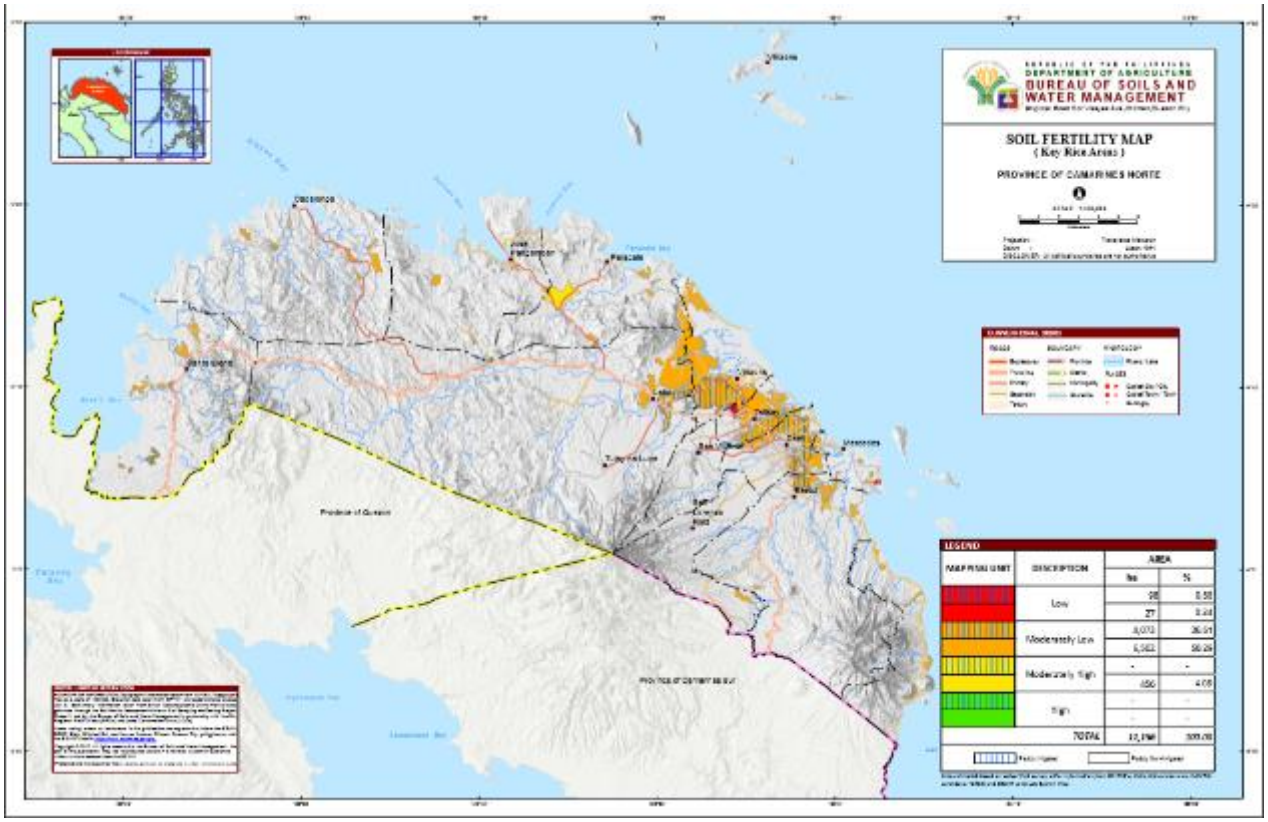
ENVIRONMENTAL DETAILS

102. **Geographical location/topography:** The province of Camarines Norte is found in the Northwestern Coast of the Bicol Peninsula, which form the Southeastern section of Luzon, the largest island in the Philippine Archipelago. One of the six provinces that make up Region V (Bicol), it is bounded in the North by the Pacific Ocean, on the east by the Pacific Ocean and San Miguel Bay, on the west by Lamon Bay, and on the south by the adjoining provinces of Camarines Sur and Quezon. Camarines Norte has a total of 12 municipalities and 282 barangays divided into two (2) districts: District 1 is composed of 5 municipalities namely: Capalonga, Jose Panganiban, Labo, Paracale and Sta. Elena; and District 2 is composed of 7 municipalities which are: Basud, Daet (the capital town), Mercedes, San Lorenzo Ruiz, San Vicente, Talisay and Vinzons.

[38] Philippine Statistics Authority, 2015

103. **Climate/meteorology:** This region has a tropical climate. There is significant rainfall throughout the year in Camarines Norte. Even the driest month still has a lot of rainfall. This climate is considered to be Af according to the Köppen-Geiger climate classification. Camarines Norte is one of the provinces prone to natural hazards because of its location and geographic landscape facing the Pacific Ocean. Hydrometeorological hazards affecting the province include flooding, rainfall, induced landslide and storm/coastal surges. Geologic hazards that are threats to the province are groundshaking, earthquake related hazards such as liquefaction, and earthquake induced landslides and tsunami. There are also climate hazards like El Niño, La Niña and sea level rise.

104. **Soil Map:** The map provides an overview of soil fertility in Camarines Norte.



Source: Bureau of Soils and Water Management[39]

105. **Land use**: The table shows area used for agriculture and fisheries by municipality.

[39] The boundaries and names shown and the designations used on this map do not imply the expression of any opinion whatsoever on the part of FAO concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers and boundaries

Particulars	Basud	Capalonga	Daet	Jose Pang.	Labo	Mercedes	Paracale	San Lorenzo Ruiz	San Vicente	Sta. Elena	Talisay	Vinzons	TOTAL
1. Production Land Use													
a. Croplands													
a1. Rice	976.51	797.60	1,194.00	573.35	2,256.30	442.00	1,209.54	91.00	112.00	1,009.00	1,244.15	1,773.00	11,670.45
➢ Irrigated	583.59	772.00	1,082.00	392.47	1,130.37	293.00	814.18	60.50	60.00	492.00	1,090.15	1,113.00	7,382.26
➢ Rainfed	393.92	517.35	112.00	155.88	965.93	144.00	385.36	25.50	47.00	485.00	154.00	660.00	4,045.94
➢ Upland		0.25		25.00	160.00	5.00	10.00	5.00	5.00	32.00			250.25
a2. Corn	6.00	1.50	110.00	12.00	35.00	35.00	179.00	38.00	10.00		20.00	123.00	569.50
a3. Coconut	7,964.00	12,895.00	1,913.00	10,467.00	32,857.00	7,590.00	5,021.00	4,502.00	5,784.00	3,036.00	1,221.00	5,935.00	99,185.00
a4. Other food crops													
➢ Rootcrops	178.68	57.00	78.50	171.00	195.00	350.50	229.50	20.00	45.00	36.75	55.00	57.00	1,423.93
➢ Vegetables	29.39	55.00	95.20	75.00	267.14	55.00	62.00	65.00	35.00	50.00	73.00	68.00	937.73
➢ Pineapple	560.00	5.50	54.00	12.50	750.00	57.00	34.00	327.00	300.00	1.00	25.00	35.00	2,161.00
➢ Fruits & Trees	300.23	10.90	19.15		275.00	0.00	20.00	50.00	100.00	10.00	12.00	42.00	863.28
➢ Legumes		122.30	25.75	12.00	17.00	5.00	5.00	5.00	5.00	3.00	25.00	10.00	235.05
➢ Bananas	294.04	30.70	40.75	52.00	025.00	95.00	155.00	150.00	60.00	60.00	6.00	11.00	1,787.49
➢ Citrus	11.07	5.30	6.50	12.00	94.00	5.00	10.00	5.00	10.00	751.50	5.50	0.00	932.67
➢ Mango	182.91	20.00	5.60	5.00		6.50	16.00	15.00	6.00	8.00	3.50		268.51
➢ Pili	196.12	15.00	12.00	25.00	475.00	20.00	40.00	8.00	45.00	49.20	10.00	34.00	929.32
➢ Watermelon	80.00	1.20	26.75			10.00			25.00	10.00	35.00	75.00	264.95
➢ Papaya		2.00	20.00					1.50	15.00	1.00	2.00	2.00	43.50
a5. Industrial Crops													
➢ Abaca	1.50	75.70	4.00	101.00	472.00	51.25	51.00	56.00	120.00	14.50			954.95
➢ Coffee & Cacao		25.00	5.03	11.00	113.43	6.00		10.00	5.00		5.00		180.46
b. Fishpond area (has.)	27.00	976.00	114.90	256.00	15.50	279.26	364.92	11.81	5.00		43.50	383.55	2,477.44
c. Municipal Marine waters (has.)	664.75	42,900.90	5,720.53	46,315.60		53,050.00	71,565.44			7,820.10	4,290.76	148,326.98	381,463.15
TOTAL	11,433.01	58,020.60	9,445.66	58,100.53	38,647.37	62,865.51	78,970.40	5,355.31	6,690.00	12,868.05	7,076.41	156,883.53	506,356.38

Source: Philippine Coconut Authority (PCA), FIDA ,Bureau of Fisheries and Aquatic Resources (BFAR), Municipal Agriculture Office (MAO)/Municipal Planning and Development Office (MPDO)

106. **Natural habitats/protected areas** include the Balbalasang-Balbalan National Park (BBNP).

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107. **Demographics:** The population of the province is accounted to 542,915, roughly 10% of Bicol population, and 0.59% of the country's population of 92,337,852. The 4,725 establishments listed by the National Statistics Office in year 2012 employed a total of 16,306 persons. The number of employed in Agriculture, forestry and fishing was 248 or 1.52% for CY 2012.

108. **Education**: Literacy rate is 99.3% as of 2015. The number of people literate from household populations age 10 years old and over is 435 805.

109. **Poverty**: In terms of poverty incidence among families which refers to the proportion of families with per capita income less than the per capita poverty threshold to the total number of families, Camarines Norte posted a poverty incidence of 30.1 percent in 2006, rank 40 throughout the country. For 2009, increased to 31.9% where the province ranks 28. Poverty incidence in year 2012 decreased to 21.7% and rank 49 throughout the country. Among the provinces in the region, Camarines Norte was the 2nd lowest in 2006 with poverty incidence of 30.1, 3rd least poor in 2009 next to Albay and rank 28 and the least poor in 2012 with 21.7%. This was based on the National Statistical Coordination Board (NSCB).

110. **Labour and Land Tenancy**: Camarines Norte's number of persons in the labor force or those 15 years old and over who were either employed or unemployed was registered at 70 percent or 212,000 in April 2001. An increase was recorded in April 2002 with 72.2% or 226,000 and declined to 65.7% or 212,000 in April 2003. The province is suitable for agriculture and

fishing production; thus, agriculture has been considered as the backbone of the provincial economy. About 24,873 farmers' province wide are dependent from agriculture for their livelihood. Camarines Norte has an employment rate of 87.7% and unemployment rate of 12.3% in 2001, slightly lower in the region's employment rate of 88.3% and slightly higher than unemployment rate of 11.7%. In 2002, employment rate increased to 89.7% compared to the region's 87.6% and the country's 86.1%. This has further increased to 91.7% in 2003 which is higher in the regions employment rate of 90.4%. Looking at the over-all trend of employment, Camarines Norte is performing positively as manifested by the increasing trend of employment from 87.7% in 2001 to 91.7% in 2003.

111. **Languages:** Coastal Bikol, which is a variant of Central Bikol, is predominantly used. Tagalog and English are also understood.

Camarines Sur – Provincial Baseline

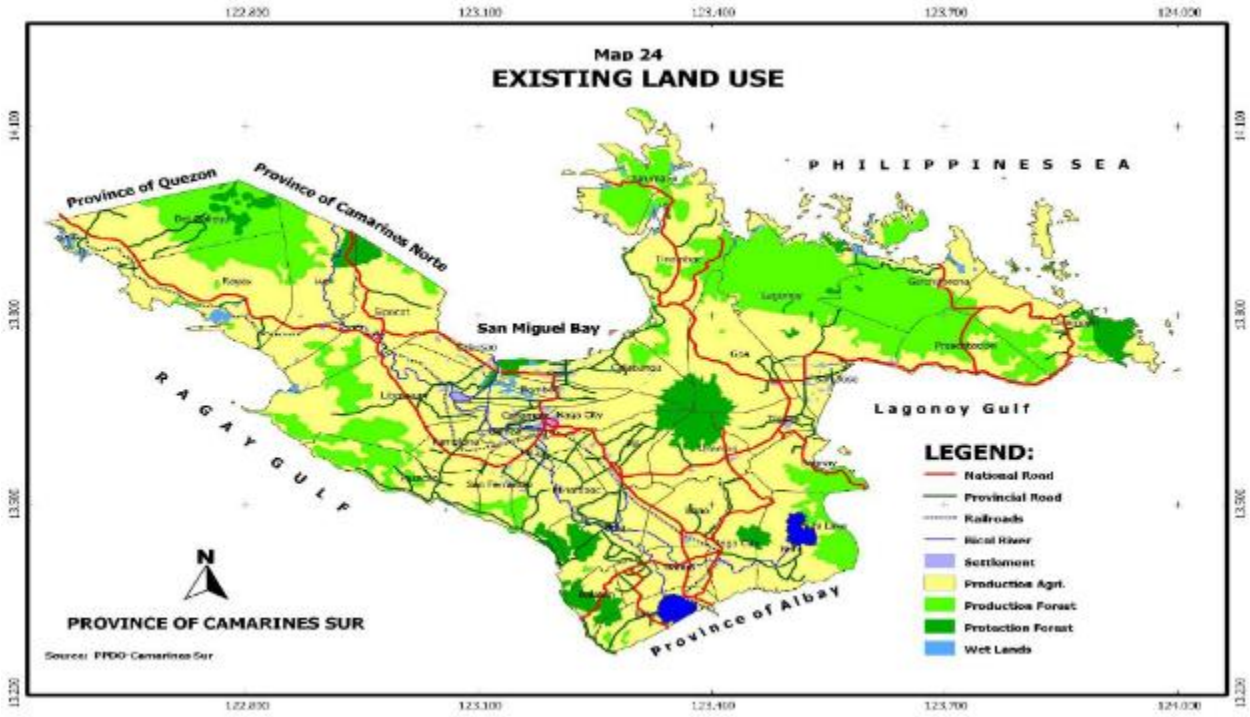
ENVIRONMENTAL DETAILS

112. **Geographical location/topography:** Camarines Sur is located in the Bicol Peninsula at the Southern part of Luzon. It is bounded on the north by the province of Camarines Norte and San Miguel Bay, on the Northeast by Pacific Ocean, on the Northwest by the province of Quezon, on the south by the province of Albay, on the southeast by Lagonoy Gulf and on the southwest by the Ragay Gulf. It is about 450 km southeast of Manila or only about 6-8 hours travel at the Maharlika Highway through the Andaya Highway. It is the biggest province in the Bicol region with the total land area of 549,703 hectares. The terrain is generally hilly and mountainous; a factor why the agricultural land (total land 326,826 hectares) is mostly favorable to coconut (204,092 hectares). Camarines Sur is subdivided into five (5) congressional districts. It is composed of 35 municipalities and the cities of Iriga and Naga with the latter classified as independent chartered city. It has a total of 1,063 barangays.

113. **Climate/meteorology:** The climate in Camarines Sur, like most of the rest of the country, is very tropical. It is dry from March to May and wet the rest of the year Annual average rainfall is 2,565 millimeters. Camarines Sur has an average temperature of 27.0 °C and a relative humidity of 25.8%.

114. **Soil quality:** Natural fertility of the soil has deteriorated not only because of continuous farming but also due to erosion. The long use of inorganic fertilizer and agricultural chemicals also reduces the natural potential of the soil to supply the nutrition for the crops. Along with the worldwide trends against use of health deadening chemicals, Camarines Sur adopts and strongly promotes organic farming.

115. **Land use**: existing land use for Camarines Sur can be seen in the map below.



Source: Provincial Planning and Development Office of Camarines Sur[40]

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116. **Demographics (including IP):** Total population is 212 680 (110 232 male and 102 448 female) as of 2015. The population density is 65 persons/km^2. Household population is 212 003 and number of households is of 42 115. Average household size is five persons.

117. **Education**: Literacy rate is 96.5%, and the number of HH population (10 years and older) who are literate is 158 989. HH population (5 years and older) disaggregated by the highest educational attainment is as follows: 68 305 elementary; 54 217 highschool (of which, 24 226 graduated); 5 055 post-secondary; and 20 790 are academic degree holders.

118. **Health**: Total fertility rate is 3.75; Life expectancy at birth is 65.19 for males and 70.28 for females. There are 29.05 crude births and 6.49 crude deaths, making the crude rate of natural increase 22.56 per thousand people.

119. **Poverty**: 30% of families are experiencing poverty, and 34.9% of the population are experiencing poverty. The Human Development Index is 0.546.

120. **Labour and Land Tenancy**: Agriculture is apparently the major economy of Camarines Sur. However, production supply and utilization accounts show that the agricultural resources are underutilized, therefore, with big potential for development. Notwithstanding the fact that the province is self-sufficient in rice and corn and that commodity outflow of products from

[40] The boundaries and names shown and the designations used on this map do not imply the expression of any opinion whatsoever on the part of FAO concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers and boundaries

abaca, sugarcane, coconut and other crops are in record.

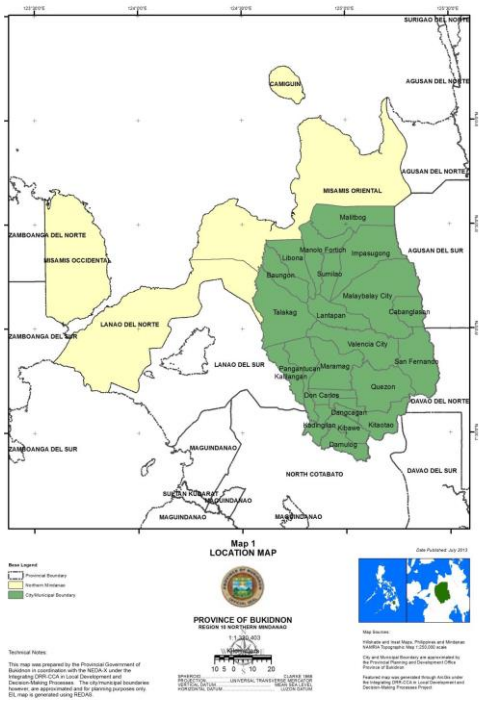
3.2.4 Northern Mindanao (Region X)

121. Within Northern Mindanao, Bukidnon Province was selected for inclusion within the project.

Bukidnon – Provincial Baseline

ENVIRONMENTAL DETAILS

122. **Geographical location/topography**: Bukidnon is a landlocked plateau, located in the center of Mindanao Island, in the southern part of the Philippines. It is bounded on the north by Cagayan de Oro and Misamis Oriental; on the east by Agusan del Sur and Davao del Norte; on the south by North Catobato and Davao City; and on the west by Lanao del Norte and Lanao del Sur. It is predominately a rolling grassland with an average elevation of 915 meters (Provincial Government of Bukidnon, 2014; Philippine Information Agency [PIA], 2019; PCIP, 2016). Bukidnon has a total land area of 1 049 859 ha (10 498 sq.km) and a population of 1 415 226, with a population density of 148/sq.km. It has 20 municipalities and two component cities (PIA, 2019).



Source: Provincial Planning and Development Office (PPDO) of Bukidnon[41]

123. **Climate/meteorology**: Bukidnon has a tropical climate; it is relatively cool and moist, which can be attributed to its fairly high altitude (Provincial Government of Bukidnon, 2014). Observations from the Philippine Atmospheric, Geophysical and Astronomical Services Administration (PAGASA) from 2006 to 2011 indicate that the province has two prevailing climatic variations in the rainfall pattern existing between its northern and southern areas. The northern area falls under type III of intermediate A, meaning, there is no pronounced rain period, but a short dry season lasting for one to three months. The southern area, starting from Malaybalay, falls under type IV of intermediate B, meaning, there is no pronounced rain period and no dry seasons, but rather rainfall is evenly distributed throughout the year. Rains are frequent and almost daily for the rest of the year. The province does not experience the usual extreme heat of the tropical region and lies outside the path of typhoons. The annual average

[41] The boundaries and names shown and the designations used on this map do not imply the expression of any opinion whatsoever on the part of FAO concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers and boundaries

monthly rainfall distribution from 2006 to 2011 was 241.68 mm. The rainy seasons last from March to October when monthly rainfall is generally in excess of 200 mm. The drier season has mean monthly falls of generally 7.1 to 150 mm. Records indicate that the months of January, February, November and December show a reasonable regularity or no effective rainfall (Provincial Government of Bukidnon, 2014). Temperature and relative humidity vary in relation to elevation. Mean annual temperature has been recorded as 27C at <500 metres above sea level (masl) and 18-28C at >500 masl, and relative humidity has been recorded as 74 percent at <500 masl and approx. 80 percent at >500 masl.

Other soil types:

- Maapag series
- San Manuel silt loam
- Mailag clay loam
- Jasaan clay
- Calauaig clay
- Faraon clay
- Bolinao clay
- Alimodian clay
- La Castellana clay
- Tacloban clay
- Rough broken land
- Mountain soils, undifferentiated

124. **Soil quality**: Bukidnon is mainly covered by Adtuyon clay (25.52 percent), Kidapawan clay loam (17.3 percent) and Macolod clay (6.58 percent) (Dejarme-Calalang and Colinet, 2014). The majority of the soils are reddish to yellowish brown clays, derived from the deep weathering of sedimentary and pyroclastic rocks. The soils have a generally medium fertility and areas where weathered pyroclastic rocks are prevalent have high soil fertility (World Bank, 2003).

125. **Land use**: Bukidon has a total land area of 1 049 859 ha, of which 669 526.25 or almost 64 percent is classified as production and forestland and 380 332.75 ha or 36 percent as alienable and disposable land (DENR, 2016). Production lands are generally used for agricultural purposes. Mossy/primary forest can be found in the Mt Kitanglad and Kalatungan ranges and account for about 17 percent of total land area. Rivers and lakes constitute nearly 1 percent, while built up areas constitute about 0.41 percent. Irrigated rice land, which is categorized as a protected area for agriculture covers about 21 716 ha (about 2 percent). It is by far the largest irrigated area in northern Mindanao (PCIP, 2016).

126. Bukidnon is a major producer of rice, corn, sugar, coffee, rubber, pineapple, tomato, flowers, cassava, and other fruits and vegetables. It is also a major producer of chicken, hogs, and cattle. Due to its fertile soil and good climate, Bukidnon is the main source of agriculture products and raw materials in the province and region, feeding the processing plants and main processing centers. For this reason, it is named the region's "Food Basket" (PIA, 2019). 2160 km2 of forest area; 2059 km2 of grasslands, shrubs unmanaged area; 1408 km2 of grasslands with livestock area; 746 km2of coconut systems.

127. **Water Resources & Irrigation**: The mountain ranges, namely, Mt. Kimangkil Range, Pantaron Range, Mt. Tangkulan Range, Mt. Tago Range, Mt. Kalatungan Range Natural Park and Mt. Kitanglad Range Natural Park contain the remaining tropical rainforests of Bukidnon. These mountain ranges host several watersheds that are vital to the ecological and economic balance of Mindanao (Provincial Government of Bukidnon, 2014). Mt. Kitanglad is a headwater source of several major rivers, namely, Pulangi, Tagoloan, Manupali, Muleta and Bobonawan.

128. **Biodiversity (flora/fauna)**: Bukidnon's biodiversity is one of the richest in the country, with 106 families in 512 genera and 996 species. The province is mostly covered by mixed Dipterocarp forests. A large part is also covered by Limestone forests (at risk of illegal logging and ranching), while Montane forest, Mossy forest, and Imperata cylindrica, a grass species, are also prevalent. A number of endemic species of fauna can also be found, namely, bats, shrews, foxes, squirrels, rats and eagle. Bukidnon is home to the Philippine Eagle, which is the most

endangered species in the province and the second largest bird in the world. Rafflesia, the world's giant flower, can also be found (World Bank, 2003).

129. **Natural habitats/protected areas**: Mt. Kitanglad Range Natural Park serves as a natural habitat for many of the mentioned endemic species.

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130. **Demographics (including IP):** Bukidnon has a population of 1 415 226 (PSY, 2015), with 736 548 men and 678 678 women. It is the second most populous province in the region. It represents nearly a third (30.20 percent) of the region's population and 1.4 percent of the country's. The population density is 135 persons/sq km and the Annual Average Growth Rate (2010-2015) is 1.64 percent. It is expected that the province's population will reach at about 2,305,502 in 2045 (PSA, 2015; PCIP, 2016). Based on the latest figures in 2010, almost 60 percent of the population (754 702 people) lived in rural areas. With a total number of 308 777 households, the average household size is 4.6 (PSA, 2015). The province is population by both indigenous and non-indigenous people.

131. **Education**: The literacy rate is high at 96.5 percent, and with 1 017 130 people (10 years old and over) that are literate. Over half of the household population has attended elementary school, the highest education level achieved by the majority of the population (571 172 households). A total of 188 485 have completed high school, while 75 975 have attained an academic degree (PSA, 2015).

132. **Health**: The life expectancy at birth is 67.4 for men and 72.2 for women. In 2016, there were 31 296 births (16 419 male and 14 877 female). The crude birth rate from 2010 to 2015 was 28.14 (per thousand people) and the crude death rate in the same period was 5.53. The total fertility rate (number of children per woman) was 3.73 from 2010 to 2015. The provincial government provides a subsidy for health insurance to the poorer population of the province. The province has four main hospitals: Bukidnon Provincial Medical Center, Maramag Provincial Hospital, Manolo Fortich Provincial Hospital and the Kibawe Provincial Hospital.

133. **Poverty:** In 2015, Bukidnon had a first semester per capita poverty threshold of PHP 11 773 and the first semester poverty incidence among the population was 58.7 percent. This is the highest in the region (PSA, 2015). Compared to the other provinces in the region, Bukidnon has experienced a significant increase in the poverty gap for the period between 2012 and 2015 (5.3 percentage points) and the severity of poverty in the same period (3.4 percentage points) (PSA, 2015). There are 638 967 poor people in the province (PSA, 2015).

134. **Labour and Land Tenancy:** The province has 270 572 persons registered as farmers, farm laborers and/or fisher folk. The agricultural labour force is dominated by men, with a ratio of 3:1. Almost 30 percent (including men and women) are registered as farmers. However, the largest number of people registered belong to the farm laborers group (41.26 percent). As the province is landlocked, only 0.15 percent are registered as fisher folk (PCIP, 2016).

135. **Languages**: The most spoken dialect in Bukidnon is Cebuano, it is the means of communication for about 45 percent of the households in the province. Other dialects include Bisaya (29 percent), Hiligaynon or Ilonggo (7.29 percent) and Bukidnon/Binukid (6.81 percent) (Provincial Government of Bukidnon, 2014).

136. **Religion**: More than 75 percent of the population are Roman Catholic; however, this

seems to be changing as other Christian groups become more widely spread. The second most dominant religious group are the Seventh Day Adventist, comprising 4 percent of the population. The Association of the Fundamental Baptist Church of the Philippines comprises 3.47 percent and other religious affiliations native to the Philippines include Iglesia Ni Cristo (1.59 percent) and Aglipay (1.51 percent) (PIA, 2019).

137. **Indigenous Peoples (specific highlights/issues not already addressed above):** The indigenous peoples community in the province belong to seven different tribes: Talaandig, Higa-onon, Bukidnon, Umayamnon, Matigsalug, Manobo and Tigwahanon. Their names derive from the rivers/ watershed areas that they inhabited (PIA, 2019).

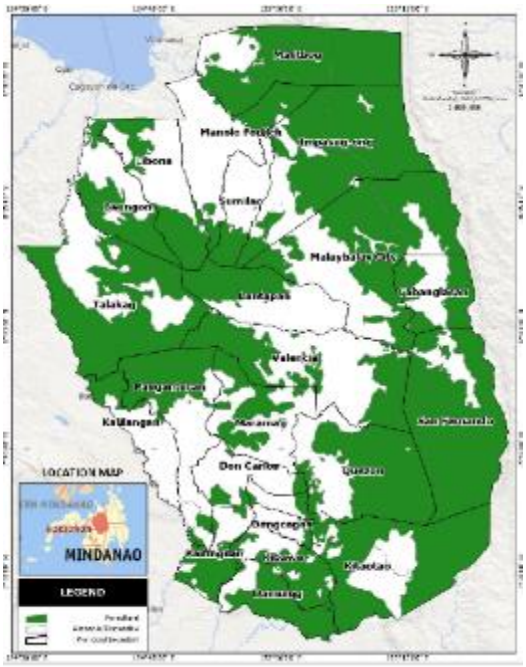
3.2.5 Soccsksargen (Region XII)

138. Within Soccsksargen, the province of North Cotabato was selected as a target province for the project.

North Cotabato – Provincial Baseline

ENVIRONMENTAL DETAILS

139. **Geographical location/topography:** Cotabato is one of the provinces of SOCCSKSARGEN, located on the eastern part of Region XII and is strategically located in the central part of Mindanao. It is bounded on the north by the Province of Bukidnon, on the northwest by Lanao del Sur, on the east by Davao City, on the southeast by Davao del Sur, on the southwest by Sultan Kudarat and on the West by Maguindanao province. Mountains to the east peak at Mount Apo, a volcanic cone and the highest mountain in the Philippines. In the west, the Piapungan Mountain Range separates it from Lanao del Sur. The fertile Pulangi River runs in the middle of these two highlands and spreads towards the southwest to the flood plains of Maguindanao.



Source: Bureau of Soil and Water Management [40]

140. The Province's terrain varies from flat, fertile plains to irregular landscape of wide valleys, scattered hills and extensive mountain ranges such as the Kitubod Range and Mt. Apo which forms the natural boundary between (North) Cotabato Province and Davao City, Davao Del Sur Province and the Tuael Range, which joins the municipalities of President Roxas, Magpet and Matalam.

141. **Climate/meteorology:** The agro-climate of the whole province is characterized by a rainfall region wherein the wet and dry seasons are not pronounced (DA-CEMIARC). The province has diverse ecosystem as can be found in the Mt. Apo National Parks and the different

protected and watershed areas scattered in the province.

142. **Soil quality:** the following soil types can be found (see map from Bureau of Soil and Water Management above)

- Umingan loam- sandy loam: good land, suitable for cultivation
- Alaminos loam- clay loam, sandy clay loam: fairly good land, suitable for cultivation
- Bantay clay loam: fairly good land, suitable for cultivation
- San Juan clay: fairly good land, suitable for cultivation
- Annam clay, clay loam, sandy clay loam: lands limited to pasture or forest
- Aroman clay loam: lands limited to pasture or forest
- Bauang clay loam: lands limited to pasture or forest
- Alimodiam clay loam, sandy loam, sandy clay: lands limited to pasture or forest
- Bolinao clay loam: lands limited to pasture or forest
- Mountain soils: lands limited to forestry
- Riverwash: lands limited to wildlife

143. **Land use**: The present Cotabato territory covers only 656,590 hectares or a bit more than one-fourth of the size of the Original Empire Cotabato. Region-wide, Cotabato land area comprises 36 % of the total area, the largest in SOCCSKSARGEN (Region XII). The classified alienable and disposable area is 149,972 hectares or 22.84% while the remaining 506,618 hectares or 77.16% are forest lands of which 3,825 hectares or 0.76% are unclassified public forest while 502,793hectares or 99.24% are classified public forest.

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144. **Demographics:** The province has a total population of 1 379 747 people as of 2015. The province has population density of 186.8 persons per square kilometer (sq. km). Among the municipalities, Midsayap was recorded as the most densely populated with 574.85 persons per sq. km. and Magpet as the sparsely populated at only 71.42 persons per sq. km.

145. **Education**: Literacy rate is 95.5%, and the number of HH population (10 years and older) who are literate is 1 001 126.

146. **Health**: Total fertility rate is 3.75; Life expectancy at birth is 65.19 for males and 70.28 for females. There are 29.05 crude births and 6.49 crude deaths, making the crude rate of natural increase 22.56 per thousand people.

147. **Poverty**: 30% of families are experiencing poverty, and 34.9% of the population are experiencing poverty. The Human Development Index is 0.546.

148. **Labour and Land Tenancy**: North Cotabato's economy is agriculture-based, where the majority of the gainful workers are engaged in agriculture-related businesses. Other major businesses, including wholesale, retail trade, motor vehicle repair shops, construction, transportation and storage, education, and public administrative and compulsory social security also provide employment. 72 059 persons of the 122 056 person potential labor force in 2010 were considered economically active. Of the 72 059 economically active populace, 51 087

(70.89%) were males and 21 021 (29.17%) were females, both from ages 25 to 44 years old.

3.2.6 Summary and implications for the project area

149. The 9 provinces have diverse environmental features. Apayao, Ifugao, and Kalinga (Region CAR) are cool, mountainous provinces with a majority of their land areas covered in forests but with agricultural lands that grow rice and high value crops. Cagayan and Isabela (Region II) lie in the valley of the northeastern border and predominantly grow rice and corn. Camarines Norte and Camarines Sur (Region V) lie in the southeastern seaboard and are major growers of rice and coconuts. Bukidnon (Region X) is also a high altitude province which is a major producer of rice, corn, and high value export cropts like pineapple, rubber, and coffee. North Cotabato (Region XII) meanwhile has both plains and mountain ranges that produce rice, corn, and coconut. All of the provinces have key biodiversity areas.

150. Among the provinces, Isabela (Region II) has the highest population at 1.59 million, followed by Bukidnon (Region X) at 1.415 million and North Cotabato (Region XII) at 1.379 million. Significant populations of indigenous peoples can be found in Apayao (Region I), Ifugao (Region I), Bukidnon (Region X), and North Cotabato (Region XII). More detailed baseline information on indigenous peoples within the project area is provided in the Indigenous Peoples Planning Framework in Chapter 6.

151. All provinces have a relatively high functional literacy rate, topped by Camarines Sur (Region V) (99.3%) and Isabela (Region II) (97%). Apayao (CAR) has the highest poverty incidence among the population at 61.40% (in 2012), followed by Bukidnon (Region X) at 58.7%. All provinces have significant agriculture-dependent labor force. All areas have high rates of unemployment in especially in Camarines Norte (Region V), Apayao (CAR), Cagayan (Region XII).

	Population	Literacy Rate	Poverty Incidence (pop)	Labour (Unemployment)
Apayao	119,184 (2015)	86.6 %(2003)	61.40% (2012)	6.4%
Ifugao	202,802 (2015)	95.7% (2015)	26.1% (2018)	5.2%
Kalinga	212,680 (2015)	96.5%	34.9%	No data
Isabela	1.59 million (2015)	97%	15.2%	4.2%
Cagayan	1.2 million (2020)	93%	15.9%	8.7%
Camarines Norte	542,915	99.3% (2015)	21.7% (2012)	11.7% (2001)
Camarines Sur	212,680	96.5%	34.9%	No data
Bukidnon	1.415 million (2015)	96.5%	58.7%	No data
North Cotabato	1.379 million (2015)	95.5%	34.9%	No data

3.3 Land tenure, conflicts and community health and safety

3.3.1 Land Tenure

152. Agricultural land is very scarce in the Philippines at mere 0.13 ha per capita. Primarily by deforestation, agricultural land could increase by 11% during 1990-2013 to cover 12.4 million

ha, or 42% of overall land area.[42] An OECD document in 2017 reported that, although 15.8 million ha is considered forest land, only 7.6 million ha is in fact forested, accounting for 25% of the country's land.[43] Less than 0.9 million ha is primary forest.[44] The country has proportionally the smallest forest cover in Southeast Asia after Singapore.[45] It is estimated that around 90% of land was covered in forest, when the Spanish colonized the country in the 16th century, but reduced to 50% by 1950.[46] Total forest cover has diminished by roughly 70% since the turn of the 19th century.[47] After the Second World War, deforestation has been driven by inadequate and corrupt regulation of logging, growing population density, urbanization and uncertain land user rights.[48] Mining activities have recently joined the force.

153. The land tenure system is highly fragmented and very complex in the Philippines.[49] As of 2011, land administration and management were governed by nineteen government agencies and numerous land titling and registration laws, some overlapping but none covering the inter-sectorial issues.[50] In 2010, roughly 70% of farmers were landless and 2.9 million smallholders had an average farm size of 2.01 ha, while some 13,000 landholders owned up to 20,000 ha.[51] The average farm size in 2012 was smaller by 0.84 ha than that in 1991,[52] due to conversion of land from agricultural to other uses and population growth.[53] The average coconut farm size was reduced from 3.6 ha in 1991 to 2.4 ha in 2002, partly due to the Comprehensive Agrarian Reform Program.[54]

154. Land tenure is often considered the dominant obstacle to more productive land management:[55]

- **Tenancy agreements for permanent agriculture production (e.g. coconut)** production: In some value chains, such as coconut, there are often land tenancy agreement. For example, the coconut tenancy in Leyte and Samar is based on trees and not on land.[56] In other words, crops grown under the trees are not included in the sharing arrangement.[57] The tenancy arrangement encumbers swift removal of debris to prepare the land for replanting and prevent infestations, because the tenants need to obtain the approval of landowners.[58] Landowners generally do not allow understory cropping to

[42] OECD, 2017. *Agricultural Policies in the Philippines*. OECD Food and Agricultural Reviews. Paris: OECD Publishing.
[43] *ibid.*
[44] *ibid.*
[45] *ibid.*
[46] *ibid.*
[47] *ibid.*
[48] *ibid.*
[49] *Ibid.*
[50] *ibid.*
[51] Elauria, M. M. E., 2015. "Farm Land Policy and Financing Program for Young Generation in the Philippines." .FFTC Agricultural Policy Platform. Food and Fertilizer Technology Center for the Asian and Pacific Region. http://ap.fftc.agnet.org/ap_db.php?id=448&print=1 (accessed July 2019).
[52] OECD, 2017. *Agricultural Policies in the Philippines*. OECD Food and Agricultural Reviews. Paris: OECD Publishing.; " Elauria, M. M. E., 2015. "Farm Land Policy and Financing Program for Young Generation in the Philippines." .FFTC Agricultural Policy Platform. Food and Fertilizer Technology Center for the Asian and Pacific Region.
[53] OECD, 2017. *Agricultural Policies in the Philippines*. OECD Food and Agricultural Reviews. Paris: OECD Publishing
[54] *ibid.*
[55] OECD, 2017. *Agricultural Policies in the Philippines*. OECD Food and Agricultural Reviews. Paris: OECD Publishing; Garrity, D. P., Kummer, D. M. and Guiang, E. S., 1993. "The Philippines." In Committee on Sustainable Agriculture and the Environment in the Humid Tropics (ed.), *Sustainable Agriculture and the Environment in the Humid Tropics by Committee on Sustainable Agriculture and the Environment in the Humid Tropics.* Washington, D.C.: National Academy Press.
[56] Focus on the Global South, 2015. "Understanding Land Grabbing, Land Rights in the 21st Century." *Policy Review*. Vol. 1 No. 6, January-June. https://focusweb.org/wp-content/uploads/2017/04/PolicyReview2015_Understanding-Land-Rights_Land-Grabbing_21stCentury.pdf (accessed July 2019).
[57] *ibid.*
[58] *ibid.*

avoid future claims to permanent occupancy[59] and have used the absence of coconut trees as a justification to either remove tenants from the land or convert them into other uses after typhoon Haiyan/Yolanda.[60] Agricultural corporations in the country have manifested their intention to replace coconut by oil palm.[61] Where land rights are secure and agrarian reform has been implemented, coconut farming has recovered from the typhoons.[62]

- **Upland agriculture:** Lack of secure land tenure is one of the prominent factors that drive farmers to engage in unsustainable resources management, all the while understanding the unsustainability of their actions. [63] In case of highlands, it is not only the tenure on agricultural lands that matter, but also that of forests. The most distinctive natural assets of the uplands in the Philippines are the forests and their biodiversity and ecosystem services, which are not only crucial for agriculture and survival of the population in the uplands but also for the lowlands. Expansion of agriculture at the expense of forests is unsustainable, as the activity depends on forests, above all for water and nutrients. The economic forces are in favor of crop agriculture rather than forests; the highest rate of poverty incidence, at 68% in 2009 in the Philippines, is found in forestry.[64] In addition, tenure on forest lands appears more dominated by the state than that of agricultural lands. [65] The 1987 Constitution of the Republic of the Philippines stipulates that forested lands, mineral lands and national parks are reserved for the public domain and can be leased only under certain conditions, but agricultural lands are considered suitable for private ownership.[66] Community management of forests is further disadvantaged by: Republic Act 7942, the Philippine Mining Act of 1996; Presidential Decree 705, the Revised Forestry Code of the Philippines; and Republic Act 11038, the Expanded National Integrated Protected Areas System Act. [67]

155. While land tenure is one of the most important factors that hinder farmers to take a long-term view in resources management, a study in the Philippines has shown that farmers' collaboration with institutions and subsequent participation in resources management at the levels of policy, initiative, research and so on, may be equally critical.[68] Interventions that create market incentives for environmentally destructive crops are likely to be unsustainable, as well as those that may be environmentally sound, but ignore the market forces;[69] farmers and institutions have different knowledge, which together can be holistic and contribute to

[59] Garrity, D. P., Kummer, D. M. and Guiang, E. S., 1993. "The Philippines." In Committee on Sustainable Agriculture and the Environment in the Humid Tropics (ed.), *Sustainable Agriculture and the Environment in the Humid Tropics by Committee on Sustainable Agriculture and the Environment in the Humid Tropics.* Washington, D.C.: National Academy Press.
[60] Focus on the Global South, 2015. "Understanding Land Grabbing, Land Rights in the 21st Century." *Policy Review*. Vol. 1 No. 6, January-June. https://focusweb.org/wp-content/uploads/2017/04/PolicyReview2015_Understanding-Land-Rights_Land-Grabbing_21stCentury.pdf (accessed July 2019).
[61] *ibid.*
[62] *ibid.*
[63] Tanguilig, H. C. and Tanguilig, V. C., 2009. "Institutional aspects of local participation in natural resource management." *Field Actions Science Reports*. Vol. 3.
[64] *ibid.*
[65] *ibid.*
[66] *ibid.*
[67] Cariño, J. K., 2012. *Country Technical Notes on Indigenous Peoples' Issues: Republic of the Philippines*. Rome: IFAD.
[68] Tanguilig, H. C. and Tanguilig, V. C., 2009. "Institutional aspects of local participation in natural resource management." *Field Actions Science Reports*. Vol. 3. Available at: https://journals.openedition.org/factsreports/pdf/275 (accessed July 2019).
[69] *ibid.*

establishment of sustainable practices. Close relationships between the two also endow farmers with some resilience to changes in local politics.[70]

156. Land reform in the agricultural sector in th Philippines is needed, however it is extremely complex and goes beyond the scope of the project. The project should continue to build on best practices, such as those that increase farmers collaboration with institutions, and increase their knowledge and access to markets for sustainable and more resilient practices, should be pursued. Social inclusion needs to be at the core of project implementation to also ensure that men and women from diverse ethnic groups, socio-economic statuses, ages, among others, are able to benefit from project implementation and strengthen their role in climate-resilient agricultural practices. The project is not expected to have an adverse negative impact on the land use rights nor tenure of farmers.

Information Box 1. Land tenure and indigenous peoples in the Philippines[71]

157. The foundation of present-day land tenure was laid during the Spanish colonization, when the Regalian Doctrine, or *jura regalia*, was introduced to the country. It is a feudal principle, under which private titles to land must emanate, directly or indirectly, from the Spanish crown who retains the titles.[72] The term, *jura regalia*, refers to the royal rights, or the rights which the King enjoys by virtue of his prerogatives.[73] Lands and resources not granted to individuals by the crown remain part of the public domain, over which none but the sovereign holds the rights.[74] The succeeding colonizing power, the Americans, maintained the framework and reinforced the State's control over land by passing laws that bolstered the system, such as the Public Land Act, Land Registration Act and Mining Acts.[75] It was further inherited by the 1987 Constitution of the Philippine Republic. which states in Section 2, Article XII that all "lands of the public domain, waters, minerals, coal, petroleum and other mineral oils, all forces of potential energy, fisheries, forests or timber, wildlife, flora and fauna and other natural resources are owned by the State." [76]

158. Under this concept, private titles to land must be traced to grant, express or implied, from the Spanish crown or its successors, presently the Philippine Republic,[77] and hence, the Philippine legal system consists of contradictory parts.[78] On the one hand, Republic Act 8371, Indigenous Peoples' Rights Act states that "[p]roperty rights within ancestral domains already existing and/or vested shall be recognized and respected,"[79] establishing the rights of indigenous peoples to their ancestral domains and land and natural resources found therein.[80] The act recognizes the indigenous concept of ownership of ancestral domains, which includes lands,

[70] *ibid.*
[71] For more detailed information, please refer to Annex 2.3
[72] Anon, 2015. "The Regalian Doctrine." and Elsewhere: Anything and Everything about Laws and Jurisprudence. http://phjuris.blogspot.com/2015/08/the-regalian-doctrine.html (accessed July 2019).
[73] *ibid.*
[74] *ibid.*
[75] Cariño, J. K., 2012. *Country Technical Notes on Indigenous Peoples' Issues: Republic of the Philippines*. Rome: IFAD.
[75] Tanguilig, H. C. and Tanguilig, V. C., 2009. "Institutional aspects of local participation in natural resource management." *Field Actions Science Reports*. Vol. 3.
[76] *ibid.*
[77] Anon, 2015. "The Regalian Doctrine." and Elsewhere: Anything and Everything about Laws and Jurisprudence. http://phjuris.blogspot.com/2015/08/the-regalian-doctrine.html (accessed July 2019).
[78] Cariño, J. K., 2012. *Country Technical Notes on Indigenous Peoples' Issues: Republic of the Philippines*. Rome: IFAD.
[79] Government of Philippines, undated. "Republic Act No. 8371." http://extwprlegs1.fao.org/docs/pdf/phi13930.pdf (accessed July 2019).
[80] Cariño, J. K., 2012. *Country Technical Notes on Indigenous Peoples' Issues: Republic of the Philippines*. Rome: IFAD.

inland waters, coastal areas and other natural resources associated with the space,[81] and ancestral lands. The act further details that "[t]he indigenous concept of ownership generally holds that ancestral domains are the ICC's/IP's[82] private but community property which belongs to all generations and therefore cannot be sold, disposed or destroyed. It likewise covers sustainable traditional resource rights."[83] The right is manifested in IP groups getting a Certificate of Ancestral Domain Title (CADT). On the other hand, Republic Act 7942, the Philippine Mining Act of 1996; Presidential Decree 705, the Revised Forestry Code of the Philippines and Republic Act 11038, the Expanded National Integrated Protected Areas System Act[84] can threaten the indigenous peoples of their ancestral land and traditional livelihoods – swidden farming, hunting and gathering in forests and small-scale mining – and allow the state to exercise greater control and to access indigenous peoples' territories and resources.[85]

159. In general, indigenous peoples have a clearer notion of their lands and resources as well as much longer history of governing their use than non-indigenous peoples who are likely to have migrated to the current residence in the uplands relatively recently. The indigenous peoples have stronger attachment to the land, regardless of the legal status given by the government, which appears to have contributed to their willingness to engage in long-term investment much more than the non-indigenous people.[86] At the same time, some indigenous people are said to be anticipating conferment of the ancestral lands title only to make use of the loophole in the Indigenous Peoples' Rights Act and sell the land to private interests.[87]

3.3.2 Other conflicts and relevant considerations related to community health and safety.

160. The following table provides an overview of conflicts and other findings related to community health and safety for the project's regions. Note: Additional stakeholder consultations are planned in summer 2022, which will provide additional feedback on the project. These consultations will also serve as an opportunity to further identify and discuss other relevant challenges/ issues related to conflicts, land tenure and community health and safety. The following Table, and other related chapters in the ESMF will be adjusted accordingly after the consultations are conducted.

Overview of land tenure, conflict and other health and safety concerns within the project regions

Region	Overview of conflicts and other risks including those related to community health and safety and indigenous peoples[88]	Description of measures to facilitate proactive and participatory processes and effective conflict resolution and management
All Regions	▪ The landless or the poorest are less likely to have the	▪ FPIC will be required for participation within the project.

[81] Philippines Commission of Women, 2009. "Republic Act No. 8371." https://www.pcw.gov.ph/law/republic-act-8371 (accessed July 2019).
[82] Indigenous Cultural Communities/Indigenous Peoples
[83] Government of Philippines, undated. "Republic Act No. 8371." http://extwprlegs1.fao.org/docs/pdf/phi13930.pdf (accessed July 2019).
[84] Cariño, J. K., 2012. *Country Technical Notes on Indigenous Peoples' Issues: Republic of the Philippines*. Rome: IFAD.
[85] *ibid.*
[86] Mission in Ifugao (4-6 February 2019).
[87] Cabreza, V. "Gov't sees flaw in IPRA to speed up sale of titled ancestral lands." Inquirer.net. 9 April 2012. https://newsinfo.inquirer.net/173591/gov%E2%80%99t-sees-flaw-in-ipra-to-speed-up-sale-of-titled-ancestral-lands (accessed July 2019).
[88] Additional stakeholder consulations to be held in summer 2022 will further inform this table, and provide a local perspective to other potential topics and concerns.

	opportunities to attend trainings. These people are amongst the most vulnerable to climate change, and special attention is required to conduct inclusive targeting to engage poor or landless persons to engage in climate-responsive, gender-equitable and socially inclusive climate-resilient agriculture. ▪ As mentioned in Chapter 3.3.1, land tenure issues persist with agriculture.	▪ Participatory and inclusive processes should be promoted by the project to avoid an mitigate potential land use conflicts, and ensure diverse contexts and differentiated priorities are adequately reflected, and potential conflicts or adverse impacts are avoided or mitigated. ▪ Special attention is needed to ensure the project engages diverse women, including considering the differentiated needs of landless and poor women to improve their livelihoods through the adoption of climate-resilient agriculture. The project will also conduct gender sensitization of men and women to valorize women's role in agricultural production, and promote more equitable division of labour (sharing reproductive and care work) ▪ Such targeting not only include monitoring within the project's gender-responsive monitoring and evaluation (M&E) framework, but also include targeted trainings, the consideration of their differentiated contexts and needs within planning, the implementation of climate-resilient agriculture practices, and regular monitoring to facilitate responsive management practices. ▪ The project's grievance redress mechanism (described in Chapter 5.6) will be available to all project-affected persons to file a grievance, and special attention will be paid to SEAH. ▪ Additional measures are highlighted in Chapter 7 and 8 of the ESMF.
Cordillera Administrative Region (CAR)	▪ Health and safety: The application of pesticide is considered relatively high due to the existence of commercialized agriculture (e.g. in Benguet Province). ▪ One study from Benguet province found More than two-thirds of surveyed farmers experienced muscle pain, weakness or fatigue after exposure to pesticides. Female farmers observed that economic profits were taking precedence over health issues.	▪ Indigenous culture and food production systems needs to be promoted, as they form the basis for climate resilient agriculture. ▪ Possible supplementary actions for strengthening the resilience of indigenous farming systems include: strengthening the capacity of the Department of Agriculture (DA) and its connection with indigenous farmers; increasing the availability of effective inputs (seeds, seedlings, water, weather information and

	▪ Many of the indigenous peoples are unaware of the gaining momentum for indigenous systems and tend to adopt modern agriculture, even in the Cordillera Autonomous Region (CAR) where the overwhelming majority are indigenous. Increasing pesticide and agrochemical use has adverse impacts on communities and local ecosystems. ▪ There are still NPA conflict-affected and conflict-vulnerable areas within the region. The regional development plan emphasizes the importance of improving access to services and providing support to meet the needs of the location population, and particularly vulnerable persons in conflict-affected communities.[89] ▪ The regional development plan also notes a challenge to balance land use for production vs. protection to safeguard ecosystem services. It calls for an integrated approach "*to promote sustainable agriculture, equity and security of land tenure, a sustainable ecosystem and disaster risk reduction*." (p. 284)[90]	credit); and improving the efficiency and equity of value chains (paragraph 209) ▪ While the project will promote good practices for climate-resilient agriculture, including alternatives to agrochemical and pesticide use (e.g. integrated pest management), additional awareness raising should be conducted on the risks of pesticides (see Pest Management Plan in Appendix 3)
Cagayan Valley	▪ Agrarian conflicts exist in the province, and the region has highlighted attention to assure credibility and the administration of justice related to agrarian reforms and related policies and procedures.[91] ▪ The Regional Development Plan highlights that the presence of New People's Army (NPA), the armed wing of the Communist Party of the Philippines, in rural communities has been largely eradicated from the region,	▪ The project will avoid working in any conflict areas, and municipalities/ villages will be carefully screened during project implementation (see FS for more detailed information on the approach). ▪ In former conflicted-affected areas, rehabilitation and peace building considerations should be integrated along with project activities. ▪ The project will promote participatory and inclusive processes to facilitate climate-informed, gender-responsive and socially

[89] National Economic and Development Authority. 2017. Cordillera Autonomous Region Regional Development Plan 2017-2022. Available online: https://neda.gov.ph/wp-content/uploads/2018/02/CAR-Cordillera-RDP-2017-2022.pdf
[90] National Economic and Development Authority. 2017. Cordillera Autonomous Region Regional Development Plan 2017-2022. Available online: https://neda.gov.ph/wp-content/uploads/2018/02/CAR-Cordillera-RDP-2017-2022.pdf
[91] National Economic and Development Authority. 2018. Cagayan Valley Regional Development Plan 2017-2022. Available online: https://neda.gov.ph/wp-content/uploads/2018/02/2-Cagayan-Valley-RDP-2017-2022-19Jan18.pdf

	however recruitment of youth persists.[92] ▪ Additional challenges remain with conflicting landholding categories, challenges to validate landholdings and identifying agrarian reform beneficiaries, in addition to challenges with land trensfers/ resulting conflicts between those claiming access and rights over land.[93]	inclusive planning and implementation. Such processes will include discussions on potential conflicts, to ensure risks are identified up front, and adverse impacts can be avoided or mitigated in close cooperation with local communities, authorities and other key stakeholders. ▪ An Indigenous Peoples Planning Framework has been developed through a consultative process (see Chapter 6), and an Indigenous Peoples Plan will be developed together with the Environmental and Social Management Plan as the specific local project implementation areas are identified. ▪ The project's M&E framework should aim to include improved collection, management, monitoring and reporting on gender- and ethnicity-disaggregated information to ensure men and women from diverse indigenous and ethnic groups are able to benefit from the project.
Bicol	▪ There are communities in Bicol region affected by internal armed conflict. The specific numbers of barangays affected in the region is not publicly disclosed, however the government reports there to be a decreasing trend. By 2022, they aim to have 22 barangays with improved access to social services in conflict affected and conflict vulnerable areas.[94] ▪ The number of Barangays affected by internal armed conflict decreased to 253 barangays[95] ▪ Attention is needed to reduce inequality and increase growth potential[96]	
Mindanao	▪ Mindanao has the largest number of indigenous population in the Philippines, but publicly available information on indigenous food production is rare, hindered by armed conflicts and focus on large-scale plantations. Moreover, many farmers in the region appear to have abandoned indigenous agriculture, lured by the profit prospects presented by the promoters of the modern agriculture.[97]	

[92] National Economic and Development Authority. 2018. Cagayan Valley Regional Development Plan 2017-2022. Available online: https://neda.gov.ph/wp-content/uploads/2018/02/2-Cagayan-Valley-RDP-2017-2022-19Jan18.pdf

[93] National Economic and Development Authority. 2018. Cagayan Valley Regional Development Plan 2017-2022. Available online: https://neda.gov.ph/wp-content/uploads/2018/02/2-Cagayan-Valley-RDP-2017-2022-19Jan18.pdf

[94] National Economic and Development Authority. 2021. Bicol Regional Development Report 2020. Available online: https://drive.google.com/file/d/1VDsoz5BJwcYNhY2l-YoJy4Kz-SGu4Ttp/view

[95] National Economic and Development Authority. 2021. Bicol Regional Development Report 2020. Available online: https://drive.google.com/file/d/1VDsoz5BJwcYNhY2l-YoJy4Kz-SGu4Ttp/view

[96] National Economic and Development Authority. 2021. Bicol Regional Development Report 2020. Available online: https://drive.google.com/file/d/1VDsoz5BJwcYNhY2l-YoJy4Kz-SGu4Ttp/view

[97] IPDEV project (Recognition of the Rights of the Indigenous Peoples in the Autonomous Region in Muslim Mindanao for Empowerment and Sustainable Development), 2013. "Breathing Life into IP farming practices." *Kêtindêg*. Vol. 2, Issue 7. https://www.kas.de/c/document_library/get_file?uuid=6ca8cba2-0467-c0a2-2e31-0878a63ca1ce&groupId=252038 (accessed July 2019).

	▪ Land acquisition and conflicts: Multinational enterprises have coveted Mindanao for their fertile land and mineral resources. Not only indigenous men, but also women have stood up against development projects, only to be ignored by their own village leader or assassinated. ▪ Since the 1970s, more than 10,000 families of Teduray-Lambangian tribe have fled from their homes because of violence;[98] the separationist movement continues to greatly affect the indigenous peoples living in the Autonomous Region in Muslim Mindanao (ARRM) ▪ The Regional Development Plan notes "The presence of CNN is heavily felt in Northern Mindanao, especially in the Province of Bukidnon", where the project is located. It further states "*Since the imposition of the unilateral ceasefire, however, there are still observations of continued extortion and continued recruitment by the CNN, especially among indigenous Peoples*." (p.316). The document highlights that IPs are more vulnerable to recuirtment due to their remote geographic locations, and limited access to government services and other support networks.[99] ▪ The Regional Development plan further highlights that there is an ongoing struggle in "*securing the tenure of ancestral lands/ domain claims."(p. 316)*[100]	

[98] Mendoza, F. T., 2018. "Non Moro Indigenous Peoples participation in the peace process and the passage of the Bangsamoro Organic Law and transition period." Canberra, Australia, 2018. http://regnet.anu.edu.au/sites/default/files/events/attachments/2018-11/Presentation-%20Froilyn%20Mendoza.pdf (accessed July 2019).

[99] National Economic and Development Authority. 2017. Northern Mindanao Regional Development Plan 2017-2022. Available online: https://neda.gov.ph/wp-content/uploads/2018/02/10-Northern-Mindanao-RDP-2017-2022.pdf

[100] National Economic and Development Authority. 2017. Northern Mindanao Regional Development Plan 2017-2022. Available online: https://neda.gov.ph/wp-content/uploads/2018/02/10-Northern-Mindanao-RDP-2017-2022.pdf

Soccsksargen	▪ There are 5 main tribes, with their own respective culture, values and traditions.[101] ▪ IPs have the right to participate fully at all levels of decision making, and have increased in the number of political representation in recent years (4% increase in 2019).[102] ▪ Challenges identified are the absence of documentation of culture and practices by IPs and settlers, lack of ethnicity-disaggregated statistics and data, slow registration of ancestral domain titles by the land registration authority[103] ▪ Specific examples of conflicts have not been identified, but will be further assessed additional local level stakeholder consultations to beheld in Summer 2022.	

161. The project needs to carefully scope target municipalities/ villages to understand conflict risks. Nearly all regions have a history of some conflicts between state and non-state groups, although Mindanao has various armed groups still present and a higher level of caution is urged. That said, the project covers the most vulnerable areas and people in the Philippines, and support in all identified provinces is urgently needed.

162. The project is not expected to induce or exacerbate conflicts or adverse impacts on communities' health and safety, and mitigation measures are introduced in the Table, as well as Chapters 5-7 of the ESMF. The project is expected to generate largely positive impacts, and will ensure targeted outreach to IPs and vulnerable farmers and communities, supporting them to strengthen the resilience of their livelihoods and further benefit from diverse socio-economic and environmental benefits associated with the project. The project has been designed to build on and align with existing community's institutions and processes, undertake multi-stakeholder consultations and secure FPIC of indigenous peoples, which are statutory requirements for projects under the Philippine legal framework. These are some safeguard measures required for projects to minimize, if not prevent potential conflicts. In terms of potential dispute on land acquisition and indigenous peoples, the project guarantees the recognition, respect, and support for tenure rights not only of the indigenous peoples but also the local communities, tenure dispute has been mitigated by partnering with rightful and legal owners and possessors of the forest land and resources and securing their FPIC. The consent is iterative and evidenced

[101] National Economic and Development Authority. 2020. Soccsksragen Regional Development Report 2019. Available online: https://issuu.com/neda12/docs/2019_rdr_final_document_12162020
[102] National Economic and Development Authority. 2020. Soccsksragen Regional Development Report 2019. Available online: https://issuu.com/neda12/docs/2019_rdr_final_document_12162020
[103] National Economic and Development Authority. 2020. Soccsksragen Regional Development Report 2019. Available online: https://issuu.com/neda12/docs/2019_rdr_final_document_12162020

by a tripartite MOA among the project, community and government. The MOA also contains provisions on benefit sharing and dispute resolution.

4. LEGAL FRAMEWORKS AND APPLICABLE SAFEGUARD POLICIES

163. This ESMF acknowledges legal regulations and guidelines from the Government of the Philippines, as well as the Green Climate Fund and the Food and Agriculture Organization of the United Nations. For any instance where discrepancies may exist between the GCF/FAO safeguards policies and Government of the Philippines law and regulations, the more stringent requirement will be followed.

4.1 Philippines Environmental and Social Legislation

164. The Government of the Philippines regulates and controls activities with environmental and social impacts (positive and negative) through legally binding documents, including – but not limited to – Presidential Decrees (PDs), Administrative Orders (AOs), and amendments issued through Memorandum Circulars (MCs) or Executive Orders (EOs). Laws relevant to this project are listed below, with brief explanations for those most pertinent:

- **Presidential Decree (PD) No. 1586 (1978)** Philippine Environmental Impact System (EIS)
- **Proclamation No. 2146 (1981)** Proclaiming Certain Areas and Types of Projects as Environmentally Critical and Within the Scope of the Environmental Impact Statement System Established Under Presidential Decree No. 1586.
- **DENR Administrative Order (DAO) No. 2003-30:** Implementing Rules and Regulations (IRR) for the Philippines EIS System (2003), and its Procedural Manual for DAO 2003-10, as prepared by DENR
- **EMB Memorandum Circular 005 series 2014:** Revised Guidelines for Coverage Screening and Standardized Requirements under the Philippine EIS System (PEISS)
- **Philippines Environment Code (1988)** which makes provision for the protection of the environment of a broad sense. The provisions are divided into titles, most of which deal with specific aspects of environment protection.
- **Republic Act (RA) 7586 (1992**) National Integrated Protected Areas System Act
- **RA 9147 (2001)** Wildlife Resources Conservation and Protection Act
- **RA 9512 (2008)** on National Environmental Awareness and Education Act, insofar as it pertains to the safe use and disposal of pesticides and/or integrated pest management (IPM), etc.
- **DAO No. 19 (2013)** Establishing the Guidelines on Ecotourism Planning and Management in Protected Areas, insofar as activities overlap and/or come near ecotourism in protected areas.
- **RA 9168 (2002)** Philippine Plant Variety Protection Act
- **Administrative Order No. 8 S. 2002** on Rules and Regulations for the Importation and Release into the Environment of Plants and Plant Products derived from the Use of Modern Biotechnology
- **RA 7308 (1992)** Seed Industry Development Act, insofar as it conserves, preserves, and develops the nation's plant genetic resources.
- **Fertilizer and Pesticide Authority Rules and Regulations, No. 1, Series 1977**, pursuant to Presidential Decree No. 1144 (1977).
- **RA 10068 (2010)** Organic Agriculture Act, which provides for the development and promotion of organic agriculture in the Philippines, including the establishment of the National Organic Agricultural Board.
- **RA 6969 (1990)** An Act to Control Toxic Substances and Hazardous and Nuclear Wastes,

Providing Penalties for Violations thereof and for other purposes

- **RA 9003 (2000)** Ecological Solid Wastes Management Act
- **PD No. 705 (1975)** Forestry Reform Code of the Philippines, revising the PD No. 389 and laying out the basic principles of forest management and conservation. Amendments made under the Act to amend the Revised Forestry Code of the Philippines (No. 7161) are also considered.
- **RA 9275 (2004)** Philippine Clean Water Act
- **RA 2056 (1958)** An Act to prohibit, remove, and/or demolish the construction of dames, dikes, or any other works in public navigable waters or waterways and in communal fishing grounds, to regulate works in such waters or waterways and in communal fishing grounds, and to provide penalties for its violation, and for other purposes.
- **RA 8550 (1998)** Philippines Fisheries Code, providing for the management and conservation of and aquaculture in the Philippines and the reconstitution or establishment of fisheries institutions at national and local levels
- **RA 8435 (1997)** Agriculture and Fisheries Modernization, including amendments made under RA 9281 (2004).
- **RA 4846 (1966)** Cultural Properties Preservation and Protection Act
- **RA 8371 (IPRA Law, 1997)** Indigenous Peoples Rights Act 1997 and its Implementing Rules and Regulations.
- **NCIP Administrative Order No. 1** on Procedures for Free, Prior, and Informed Consent
- **RA 11192** Creation of the Cordillera State Institute of Technical Education (CSITE). In 2018, there were 3,402 members of the IP community in provinces of Ifugao, Mountain Province, Kalinga, Abra and Apayao and Benguet.
- **RA 7160 (1991)** "Local Government Code", including amendments made under RA 8185 (1996), RA 8553 (1998), RA 8524 (1998), and Local Government Amendment Code (2008).
- **RA 11054 (2018)** Organic Law for the Bangsamoro Autonomous Muslim Mindanao, which serves as the foundation of government of the new autonomous region of Muslim Mindanao. This law signed in 2018, with plebiscites completed in 2019 has placed almost all (63 out of 67 barangays) of North Cotabato with the Autonomous Region
- **RA 1199 (1954)** Agricultural Tenancy Act of the Philippines, governing the relationship between landholders and tenants of agricultural lands. Amendments under RA 2263 will also be upheld.
- **RA 3844 (1963)** Agricultural Land Reform Code, instituting land reforms and abolishing tenancy, including amendments made under RA 7907, RA 10374, and RA 6389 (disturbance compensation).
- **RA 6657 (1988)** Comprehensive Agrarian Reform Law, including amendments made under RA 9700 (2009), which provides women with the right to own land (also known as the CARPER law)
- **RA 7607 (1992)** Act providing a Magna Carta of Small Farmers
- **RA 8368 (1997)** Anti-Squatting Law Repeal Act, which decriminalizes squatting
- **Commonwealth Act (CA) 141 (1936)** Public Lands Act, which includes guidance on agricultural public lands
- **RA 7192** The Women in Development and Nation Building Act
- **RA 9710 (2009)** Magna Carta of Women.
- **RA 8425** Social Reform and Poverty Alleviation Act, which institutionalizes the Social Reform and Poverty Alleviation Program, establishes the National Anti-Poverty Commission, and focuses on vulnerable farmers, fisherfolk, women, IPs, youth, rural

workers, and more.

- **Executive Order (EO) 1035** Providing the procedures and guidelines for the expeditious acquisition by the government of private real properties or rights thereon for infrastructure and other government development projects, insofar as it relates to the establishment of agromet systems and/or agricultural facilities (e.g. water harvesting, storage)
- **RA 8974 (2000)** An act to facilitate the acquisition of right-of-way, site or location for national government infrastructure projects and for other purposes
- **Constitution of the Republic of the Philippines (1987)**, specifically with regard to Article 3, Section 9 on just compensation
- **Department of Public Works and Highways DO No. 142 (1995)** on inclusion of costs of right-of-way in technical surveys for infrastructure projects

165. Additional plans which the project may complement insofar as there overlaps in mandate and/or activities during implementation include (but are not limited to):

- National Climate Change Action Plan (2011-2028)
- Joint Roadmap of the Cabinet Cluster for Climate Change Adaptation and Mitigation and Disaster Risk Reduction (2018-2022)
- Climate Change Act of 2008
- National Disaster Risk Reduction and Management Plan (2011-2028)
- National Ecotourism Strategy & Action Plan (2013-2022)
- Philippine Development Plan (2017-2022)

166. The above laws and regulations provide guidance in areas pertaining to environmental impact assessment, environmental protection, the agriculture sector, water management, indigenous rights, cultural heritage, land tenancy/reform, women's rights, rights-of-way, just compensation, and infrastructure development. Whilst all are important, further explanation is provided in the following paragraphs on the Philippines Environmental Impact Statement System (PEISS), so that the institutional arrangements are clear to any project staff developing future environmental management plans (EMPs).

167. The Philippine Government requires certain projects to undergo an Environmental Impact Assessment (EIA) by virtue of PD 1586 (1978) or the Philippines Environmental Impact Statement System (PEISS). PD 1586 was originally devised as an administrative procedure to ensure that proponents of development projects systematically study and disclose the environmental impacts of their projects.

168. In accordance with PD 1586, development projects are required to conduct an EIA and to prepare an environmental assessment report for review and approval by the Environmental Management Bureau (EMB) under the Department of Environment and Natural Resources (DENR). The law stipulates that, for any undertakings or projects that have potential adverse effects on the environment, proponents must obtain an Environmental Compliance Certificate (ECC) or a Certificate of Non-Coverage (CNC) as a pre-requisite to implementation. Under the PEISS, projects that are considered environmentally critical (Table X) and all projects that are located in environmentally critical areas (Table Y) are required to prepare an Environmental Impact Statement.

169. Further to the PEISS, the DAO No. 30 (2003) further defines four categories of projects, based on their type, scale, and location. Category A projects are the environmentally critical projects (ECPs). Category B projects are not considered to be environmentally critical, but are

located in environmentally critical areas (ECAs) and are above certain scales or thresholds. Category C projects focus on environmental enhancements like wastewater treatment and solid waste management. Category D projects are neither environmentally critical nor located in environmentally critical areas, or they fall below the scales and thresholds which would otherwise deem a non-environmentally critical project in an ECA to be critical. As such, Category D projects are not required to prepare environmental impact statements. The latest Procedural Manual for DAO No. 30 (2003) specifies the most recent scales and thresholds below which a non ECP located in an ECA would fall under Category D. The guidelines (as of March 2019) can also be found in Table 3.

TABLE 1. List of Environmentally Critical Projects[104]

Heavy Industries

- Non-ferrous metal industries
- Iron and steel mills
- Petroleum and petro-chemical industries including oil and gas
- Smelting plants

Resource Extractive Industries

- Major mining and quarrying projects
- Forestry projects
  - Logging
  - Major wood processing projects
  - Introduction of fauna (exotic-animals) in public/private forests
  - Forest occupancy
  - Extraction of mangrove products
  - Grazing
- Fishery Projects
  - Dikes for fishpond development projects

Infrastructure Projects

- Major dams
- Major power plants (fossil-fueled, nuclear fueled, hydroelectric or geothermal)
- Major reclamation projects
- Major roads and bridges.

Golf Course Projects

TABLE 2. List of Environmentally Critical Areas

- All areas declared by law as **national parks, watershed reserves, wildlife preserves and sanctuaries**;
- Areas classified as **prime agricultural lands**;
- Areas **frequently visited and/or hard-hit by natural calamities** (geologic hazards,

[104] Taken from the Revised Procedural Manual for DAO No. 03-30, citing Proclamation No. 2146 (1981) and Proclamation No. 803 (1996)

floods, typhoons, volcanic activity, etc.);

- Areas of **unique historic, archaeological, or scientific interests**;
- Areas set aside as **aesthetic potential tourist spots**;
- Areas which are **traditionally occupied by cultural communities or tribes**;
- Areas which constitute the **habitat for any endangered or threatened species of indigenous Philippine wildlife** (flora and fauna);
- Areas with **critical slopes** (slopes of 40% or greater);
- **Recharge areas of aquifers**;
- **Water bodies** characterized by one or any combination of the following conditions:
  - tapped for domestic purposes;
  - within the controlled and/or protected areas declared by appropriate authorities;
  - which support wildlife and fishery activities;
- **Mangrove areas** characterized by one or any combination or the following conditions:
  - with primary pristine and dense young growth;
  - adjoining mouth of major river systems;
  - near or adjacent to traditional productive fry or fishing grounds;
- **Areas which act as natural buffers** against natural erosion, strong winds and storm floods;
- **Coral reef** characterized by one or any combination of the following conditions:
  - With 50% and above coralline cover;
  - Spawning and nursery grounds for fish;
  - Which act as natural breakwater of coastlines.

TABLE 3. Project Parameters for Non-Environmentally Critical Projects in Environmentally Critical Areas

PROJECT/ACTIVITY	SIZE PARAMETERS	CATEGORY B	CATEGORY D
Roads, new construction, widening	length with no critical slope OR length with critical slope	>2km but <20.0km OR >2km but <10km	<2km
Bridges	length	>80m but <10km	regardless of length for foot bridges; <80m for other bridges
Irrigation (distribution system only)	service area	300ha to <1000ha	<300ha
Impounding system or flood control project	reservoir flooded area	<25ha OR impounded water 20million m^3	
Minor Dams	reservoir flooded area and water storage capacity	<25ha AND <20million m^3	

PROJECT/ACTIVITY	SIZE PARAMETERS	CATEGORY B	CATEGORY D
Sea Port, Causeways, and Harbours	area to be developed	<15ha reclamation OR <25ha (without reclamation)	<1.0ha (without reclamation)
Rice Mill	milling rate	>1 ton/hour	<1 ton/hour
Poultry	stock population	>10 000 heads but <100 000 heads	<10 000 heads
Pigs/goats (enclosed)	stock population	>100 heads but <5000 heads	<100 heads
Fishery/Aquaculture Projects (inland-based, e.g. lakes, rivers, etc.)	total water spread area to be utilized	≥1ha but <25ha	<1ha
Fishery/Aquaculture Projects in water bodies (coastal areas)	total water spread area to be utilized	≥1ha but <100ha	<1ha
Compost/fertilizer making	daily capacity	≥15 MT or 5475 MT annual capacity	<15 MT or 5475 MT annual capacity
Agricultural Plantation	area to be planted	EIS: ≥1000ha IEE: ≥100ha but <1000ha	<100ha
Agricultural Processing Facilities	annual production capacity	EIS: ≥50 000 MT IEE: ≥5000 MT but <50 000 MT	<5000 MT
Fruit and Vegetable Processing	daily processing capacity	EIS: ≥500 kg IEE: <500 kg	
Processing of Dairy Products	monthly production capacity	EIS: ≥100 000 L (liquid) OR ≥100 000 kg (solid) IEE: <100 000 L (liquid) OR <100 000 kg (solid)	
Coconut Processing Plants	monthly production capacity	EIS: ≥25 000 MT IEE: <25 000 MT	
Animal Products Processing (fish/meat processing, canning, slaughterhouses, etc.)	daily production capacity	EIS: ≥10 000 kg IEE: ≥500 kg but <10 000 kg	<500 kg
Other types of food processing industries (includes other food by-products/additives/etc.)	annual production capacity (finished product)	EIS: ≥50 000 MT IEE: <50 000 MT	
Leather and related industries	Daily production of raw hides	≥1 MT (or 25 MT per month)	<1 MT (or 25 MT/month)
Paper and plastic based products	annual production capacity	≥15 000 MT	<15 000 MT
Commercial buildings and other similar structures including food	area to be utilized (gross/total floor area including parking and other	EIS: ≥25 000 m^2	<10 000 m^2 or kiosk-type or

PROJECT/ACTIVITY	SIZE PARAMETERS	CATEGORY B	CATEGORY D
preservation (e.g. drying, freezing) and other methods aside from canning	areas)	IEE: ≥10 000 m^2 but <25 000 m^2	mobile fast foods
Storage facilities, non-toxic/hazardous materials	area to be utilized (gross/total floor area)	≥10 000 m^2	<10 000 m^2

170. Based on the expected project activities, the project can be considered a "non-environmentally critical project" which sometimes lies within "environmentally critical areas" (e.g. prime agricultural land and areas traditionally occupied by Indigenous Peoples). Prior to commencing project activities, a screening based on the PEISS and GCF/FAO safeguards criteria is mandatory. Depending on the classification and level of risk identified, Environmental Management Plans (EMPs) will then be prepared. Given that the project is considered medium risk overall, it is expected that only some of the project activities will require EMPs following the screening phase.

4.2 Relevant International Conventions and Treaties

171. The Philippines is a signatory of several Multilateral Environmental Agreements (MEAs) and regional frameworks, including:

- ASEAN Agreement on the Conservation of Nature and Natural Resources
- AESAN Agreement on Disaster Management and Emergency Response (AADMER)
- Basel Convention;
- Cartagena Protocol on Biosafety to the Convention on Biological Diversity;
- Convention on Biological Diversity (CBD);
- Convention on the Conservation of Migratory Species of Wild Animals;
- Convention on International Trade in Endangered Species (CITES); and
    i. Amendment to CITES (Article XXI);
- Convention for the Prevention of Pollution from Ships (MARPOL);
- Convention concerning the Protection of the World Cultural and Natural Heritage;
- Convention on Wetlands (Ramsar); and
    i. Protocol to amend Ramsar;
- International Plant Protection Convention;
- International Tropical Timber Agreement 2006;
- International Treaty on Plant Genetic Resources for Food and Agriculture
- Kyoto Protocol to the United Nations Framework Convention on Climate Change; and
    i. Doha Amendment to the Kyoto Protocol;
- Minamata Convention on Mercury;
- Montreal Protocol; and
    i. Amendment to the Montreal Protocol;
- Nagoya Protocol on Access to Genetic Resources and their Fair and Equitable Sharing of Benefits Arising from their Utilization to the Convention on Biological Diversity;
- Paris Agreement;
- Plant Protection Agreement for the Asia and Pacific Region;
- Protocol on Dangerous Goods
- Stockholm Convention on Persistent Organic Pollutants (POPs);

- Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade;
- UN Convention against Transnational Organized Crime;
- UN Convention to Combat Desertification;
- UN Framework Convention on Climate Change (UNFCCC);
- UN Convention on the Law of Seas (LOS);

These MEAs impose requirements and restrictions of varying degrees upon the member countries, in order to meet the objectives of these agreements. However, the efficacy of implementation mechanisms for these MEAs is variable in the Philippines, meaning that regulation and compliance cannot always be guaranteed.

172. With specific regard to the use of pesticides in the project areas, there are a number of relevant conventions to be considered – specifically the Rotterdam and Stockholm Conventions. Even though the project will not procure pesticides and will likely result in the decrease of pesticide use due to good agricultural practices, the following are relevant to general pesticide use within the project area:

173. *Rotterdam Convention:* The Philippines has been a signatory of the Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides and their Disposal since 11 September 1998. The convention was ratified on 31 July 2006, and entered into force on 29 October 2006. Many of the pesticides in Annex III of the Rotterdam Convention have been banned in the country. Despite this, monitoring and enforcement of compounds and their use is not always consistent.

174. *Stockholm Convention:* The Philippines signed the Stockholm Convention on Persistent Organic Pollutants (POPs) on 23 May 2001, ratified the convention on 27 February 2004, and it officially entered into force on 17 May 2004. A National Implementation Plan (NIP) was prepared which outlines the proposed programmes that would be required to meet obligations under the Convention. The document provides a policy framework, which lays out a road map for addressing the specific issues of POPs in the Philippines.

175. *Other relevant bans and conventions for environmental protection (including pesticide use and animal/plant health) in the Philippines:*

- The import of CFC-based compressors has been banned in line with the Montreal Protocol (ratified on 17 July 1991), and the Philippines has been gradually phasing out ozone-depleting substances (ODS). Many of the ODS have been phased out as of 2010.
- The Philippines is party to the Basel Convention, the Convention on Biological Diversity and member of the World Organization for Animal Health (OIE), the Codex Alimentarius Commission, Asia and Pacific Plant Protection Commission (APPPC), and the Animal Production and Health Commission for Asia and the Pacific. It has signed and ratified the Agreement on Application of Sanitary and Phytosanitary Measures (SPS Agreement), which pertains to food safety (e.g. bacterial contaminants, pesticides, inspection, and labelling), animal health, and plant health (e.g. addressing the issue of imported pests and diseases).
- The Philippines is a Contracting Party to the Ramsar Convention, which entered into force on 8 November 1994. It has 7 sites designated as Wetlands of International Importance, with a surface area of 244 017 hectares.

176. *International conventions and treaties in the Philippines relevant to social safeguards:* The Philippines has been a member of the International Labour Organization (ILO) since 15 June 1948 and has hosted an ILO country office since 1970. The Philippines was also a regional pioneer in pursuing decent work for its citizens, as it was the first Asian country to participate in a pilot programme on decent work in 2002. The country has ratified a total of 38 ILO Conventions, 31 of which are in force. 6 Conventions have been renounced. It should be noted that the Philippines did not ratify the Indigenous and Tribal Peoples' Convention. Table 4 provides an overview of all international treaties and conventions in the Philippines which are relevant to social safeguards in the context of this project and the agriculture sector.

Table 4. International treaties and conventions in the Philippines relevant to social safeguards

No	Name of Convention	Date of Signature	Date of Ratification/Accession
1	International Covenant on Civil and Political Rights	1966	1986
2	Optional Protocol to the International Covenant on Civil and Political Rights: 1976	1966	1989
3	Second Optional Protocol to the International Covenant on Civil and Political Rights, aiming at the abolition of the death penalty: 1991	2006	2007
4	Convention Concerning the Abolition of Forced Labour: 1957	1960	In Force (date unknown)
	Forced Labour Convention: 1930 (No. 29)	2005	In Force (date unknown)
5	Minimum Age Convention: 1973 (No. 138) **age of 15 was specified*	1998	In Force (date unknown)
6	Worst Forms of Child Labour Convention: 1999 (No. 182)	2000	In Force (date unknown)
7	Convention on the Rights of Persons with Disabilities	2007	2008
8	Vocational Rehabilitation and Employment (Disabled Persons) Convention, 1983	1991	In Force (date unknown)
9	International Convention on the Protection of the Rights of All Migrant Workers and Members of Their Families	1993	1995
10	Convention against Torture and Other Cruel, Inhuman or Degrading Treatment or Punishment	N/A	1986
11	Optional Protocol to the Convention against Torture and Other Cruel, Inhuman or Degrading Treatment or Punishment: 2006	N/A	2012
12	Convention on the Rights of the Child	1990	1990
13	Optional Protocol to the Convention on the Rights of the Child on the involvement of children in armed conflict: 2002	2000	2003
14	Optional Protocol to the Convention on the Rights of the Child on the sale of children, child prostitution, and child pornography: 2002	2000	2002
15	Convention on the Elimination of All Forms of Discrimination against Women	1980	1981
16	Optional Protocol to the Convention on the Elimination of All Forms of Discrimination against Women: 2000	2000	2003

No	Name of Convention	Date of Signature	Date of Ratification/Accession
17	International Covenant on Economic, Social and Cultural Rights	1966	1974
18	International Convention on the Elimination of All Forms of Racial Discrimination	1966	1967
19	UN Convention Against Corruption	2003	2006
20	UN Declaration on the Rights of Indigenous Peoples	2007	2007
21	Freedom of Association and Protection of the Right to Organize Convention: 1948 (No. 87)	1953	In Force (date unknown)
22	Right to Organize and Collective Bargaining Convention: 1949 (No. 98)	1953	In Force (date unknown)
23	Equal Remuneration Convention: 1951 (No. 100)	1953	In Force (date unknown)
24	Discrimination (Employment and Occupation) Convention: 1958 (No. 111)	1960	In Force (date unknown)
25	Tripartite Consultation (International Labour Standards) Convention: 1976 (No. 144)	1991	In Force (date unknown)
26	Employment Policy Convention: 1964 (No. 122)	1976	In Force (date unknown)
27	Migration for Employment Convention (Revised): 1949 (No. 97)	2009	In Force (date unknown)
28	Minimum Wage Fixing Machinery (Agriculture) Convention	1953	In Force (date unknown
29	Plantations Convention: 1958 (No. 110)	1953	In Force (date unknown)
30	Rural Workers' Organizations Convention: 1975 (No. 141)	1979	In Force (date unknown)

4.3 Relevant FAO and GCF Policies[105]

- **FAO Accountability Policy (2014)**. FAO is committed to designing and operating its approach to accountability, based on FAO's core values of commitment, respect for all, integrity and transparency, and according to the following principles: (i) Focus on FAO's purpose and outcomes for beneficiaries and partners; (ii) Define clear roles and responsibilities; (iii) Take informed and transparent decisions and communicate clearly, providing the basis for acting with a focus on outcomes and within clearly defined roles; (iv) Put FAO's values into practice through consistent application of a shared ethos and culture in the development of policy and the behaviour of employees; (v) Engage with stakeholders to make accountability real; (vi) Establish a culture of consequences - to be meaningful, accountability must be felt.
- **FAO whistleblower protection policy** (administrative circular N°2019/06) applying to any FAO personnel when internal or external reporting according to the consideration of the circular.

[105] Note: The Philippines has a progressive and robust environment, social and safeguards policies and mechanisms. Examples of requirements include: consultations, prior approvals of respective management bodies, securing FPIC of communities, recognition of bundle of rights of indigenous and recognition and adherence dispute resolution systems (traditional/ customary and statutory), which are embedded in its national laws and legal requirements for projects. Moreover, resort to alternative disputes resolution at community level is mandatory before any conflict is elevated to the regular village justice system and to the regular courts. That said, while enabling safeguards policies and mechanisms are in place, the realities on the ground may differ. In the case of a gap, the general principle applied will be to ensure compliance with the legal framework, and apply the more stringent set of principles or policies.

- **GCF Policy on the Protection of Whistleblowers and Witnesses (2018)** aims to empower GCF-project related persons to report suspicions of wrongdoing in good faith and without fear of retaliation so that the GCF can effectively protect its interests, resources, and mission.
- **FAO Policy on Gender Equality 2020-2030** strives to achieve equality between women and men in sustainable agriculture and rural development for the elimination of hunger and poverty.
- **GCF Gender Policy (2019)** reinforces the responsiveness of GCF to the culturally diverse context of gender equality to better address and account for the links between gender equality and climate change.
- **FAO Protection from sexual exploitation and sexual abuse** (PSAE) N° 2013/27. The principles of integrity, professionalism, respect for human rights and the dignity of all peoples underpin FAO's commitment to preventing and addressing acts of sexual exploitation and abuse (SEA)
- **FAO Policy on the prevention of harassment, sexual harassment and abuse of authority** N° 2015/03 (2015) and FAO policy on sexual harassment (13 February 2019) which states Sexual Harassment in all its forms is contrary to the United Nations Charter, the Staff Regulations and Staff Rules of the Organization and the Standards of Conduct for the International Civil Service.
- **GCF Revised Environmental and Social Policy (2021)** requires that the accredited entities provide and implement the environmental and social management system to manage the environmental and social risks and impacts associated with the activities, allow meaningful and inclusive multi-stakeholder consultation and engagement throughout the lifecycle of activities and that the activities proposed for GCF financing are properly screened, assigned appropriate environmental and social risk categories and that the environmental and social risks and impacts are properly and sufficiently assessed.
- **GCF Revised Policy on the Prevention and Protection from Sexual Exploitation, Sexual Abuse, and Sexual Harassment (2021)** sets clear obligations for GCF-project related persons to prevent and respond to SEAH and to refrain from condoning, encouraging, participating in, or engaging in SEAH.
- **FAO Policy against fraud and other corrupt practices** N° 2015/08 (2015) Fraud and other corrupt practices pose a grave threat to the effective implementation of the Organization's policies and objectives
- **GCF Policy on Prohibited Activities (2019)** prohibits GCF-project related persons to engage in: corrupt, fraudulent, coercive, collusive, or obstructive practices; or abuse, etc. to maintain the highest levels of integrity, accountability and efficiency.

4.4. Relevant FAO and GCF Environmental and Social Management Guidelines

177. **The FAO Environmental and Social Management Guidelines (2015)** includes general principles and nine Environmental and social standards:

Table 5. FAO environmental and social standards mains considerations

Environmental and Social standards	***Main considerations***
ESMG: General principles	Impact assessment methodology, Stakeholder engagement principles, GRM system, GBV referral pathways
ESS 1: Natural Resource Management	Land-use planning and land resource planning; Water resource and small dam planning; Land; Climate.
ESS 2: Biodiversity, Ecosystems and Natural Habitats	Protected areas, buffer zones and natural habitats; Conservation of biodiversity; Use of exotic or non-indigenous species; Living natural resources.
ESS3 : Plant Genetic Resources for Food and Agriculture	Introduction of new crops and varieties; Provision of seeds and other planting materials; Modern biotechnology; Forest plantations.
ESS 4: Animal - Livestock and Aquatic - Genetic Resources for Food and Agriculture	N/A
ESS 5: Pest and Pesticide Management	Pesticide selection; Removal/treatment; Responsibility.
ESS 6: Involuntary Resettlement and Displacement	N/A
ESS 7: Decent Work	Creation of better employment opportunities, particularly for women and young people; Non-discrimination and equal opportunities; Zero tolerance for sexual exploitation, abuse and harassment (SEAH), Occupational health and safety; Prevention of child labor; Forced labor; Workers' and producers' organizations.
ESS 8: Gender Equality	The fight against discriminatory practices; Equal opportunities for men and women to take part and to benefit; Avoid and where avoidance is not possible, mitigate the risk of SEAH.
ESS 9: Indigenous Peoples and Cultural Heritage	Identification of indigenous peoples; Rights to land, territory and natural resources; Reference impact analysis on indigenous peoples; Free, prior and informed consent; Plan for indigenous peoples.

178. **FAO Compliance reviews** following complaints related to the organization environmental and social standards guidelines (2015) give the tools and standard to manage grievance procedure. It is considered for the GRM section.

179. The **GCF** has provisionally adopted the International Financial Corporation (IFC) **ESS Performance Standards** and directives of implementation for the purposes of safeguarding GCF projects. Under these standards, there are eight which cover the main environmental and social

questions that must be considered when starting a project and determining safeguards, using best international practices. This project has been screened against FAO environmental and social standards, ensuring that the project is consistent with the objectives of GCF Performance Standards (see Table ZZ):

Table 6. IFC Performance Standards & corresponding FAO Environmental and Social Safeguards

IFC Performance Standards (PS)	FAO Environmental and Social Safeguards
PS 1 – Assessment and Management of Environmental and Social Risks and Impacts	**ESS 1** – Natural Resources Management **ESS8** – Gender Equality
PS2 – Labour and Working Conditions	**ESS7** – Decent Work
PS3 – Resource Efficiency and Pollution Prevention	**ESS5** – Pest and Pesticide Management
PS4 – Community, Health, Safety, and Security	**ESS7** – Decent Work (partially)
PS5 – Land Acquisition and Involuntary Resettlement	**ESS6** – Involuntary Resettlement and Displacement
PS6 – Biodiversity Conservation and Sustainable Management of Living Natural Resources	**ESS2** – Biodiversity, Ecosystems, and Natural Habitats **ESS3** – Plant Genetic Resources for Food and Agriculture **ESS4** – Animal – Livestock and Aquatic Genetic Resources for Food and Agriculture
PS7 – Indigenous Peoples	**ESS9** – Indigenous Peoples and Cultural Heritage
PS8 – Cultural Heritage	

Project risk classification:

180. The proposed project investments are designed to have positive social and environmental benefits. The Project has been classified as moderate risk (Category "B") and it is expected that the project activities, as described in Chapter 2, will trigger the following Environmental and Social Safeguard Policies: ESS1, ESS 2, ESS 3, ESS 5, ESS 7, ESS 8 and ESS 9. To comply with these policies, given that not all the sub-project activities can be identified during appraisal, specific safeguard instruments were identified in Table 16. As the project locations and specific activities within each location are to be determined within the first year of project implementation, an Environmental and Social Management Plan will be elaborated at the same time to ensure it reflects the specific project intervention areas and sub-project activities (see Chapter 9 for information on the project's Environmental and Social Management Plan).

Table 7. List of safeguard policies triggered for the Project

Safeguard Policies	Triggered	Safeguard Instruments & Mitigation Measures
ESS 1 – Natural Resources Management	YES	▪ Non-Eligible activities (Appendix 1) ▪ ESMF/ ESMP with risk mitigation measures.

Safeguard Policies	Triggered	Safeguard Instruments & Mitigation Measures
ESS2 – Biodiversity, Ecosystems, and Natural Habitats	YES	▪ ESMF/ESMP ▪ Biodiversity Management Planning Framework/ Biodiversity Management Plan ▪ List of non-eligible activities (Appendix 1) ▪ Elaboration of a biodiversity management planning framework ▪
ESS3 – Plant Genetic Resources for Food and Agriculture	YES	▪ ESMF/ESMP, ensuring that seeds used are registered.
ESS4 – Animal – Livestock and Aquatic Genetic Resources for Food and Agriculture	NO	▪ Non-Eligible activities (Appendix 1)
ESS5 – Pest and Pesticide Management	YES	▪ ESMF/ESMP with Integrated Pest Management (IPM) used in activities, training on the safe handling and use of pesticides in instances where avoidance is not possible, and a negative list (exclusion of all highly hazardous pesticides (HHPs)). ▪ A tentative Pest Management Plan (PMP) is provided in Appendix 3. ▪ Non-eligible activities (Appendix 1)
ESS6 – Involuntary Resettlement and Displacement	NO	▪ Non-Eligible activities (Appendix 1)
ESS7 – Decent Work	YES	▪ ESMF/ESMP; Training for farmers and sensitization sessions for government will be held on SEAH, gender equality and social inclusion, decent rural employment, age-appropriate works, and Occupational Health and Safety, and the project will utilize the Voluntary Guidelines on the Responsible Governance of Tenure of Land, Fisheries, and Forests ▪ Zero tolerance of SEAH.
ESS8 – Gender Equality	Yes	▪ The project has been designed to integrate gender as a cross-cutting element, and aims to be gender-responsive and transformative. Nonetheless, a gender assessment and action plan have been developed (FP Annex 8) with specific gender-targeted activities built into the project design and monitoring framework, including activities to contribute to the elimination of SEAH. ▪ The project will have zero tolerance for all forms of SEAH. The project's GRM will be accessible for all project-related complaints, including SEAH-specific complaints. The GRM will be survivor-centered and gender responsive, and will have specific procedures for SEAH, including confidential reporting and safe and ethical documenting (see Chapter 5.6). In addition, the project will develop a code of conduct along with the ESMP to guide project implementation and safeguard against SEAH risk, and trainings will be conducted on gender equality and social inclusion, as well as SEAH for project staff. ▪ ESMF/ ESMP also includes measures to facilitate social inclusion and enhance gender equality, and safeguard against SEAH.

Safeguard Policies	Triggered	Safeguard Instruments & Mitigation Measures
ESS9 – Indigenous Peoples and Cultural Heritage	YES	▪ ESMF and Indigenous Peoples Planning Framework (see ESMF Chapter 6), and subsequent ESMP and IPP. ▪ FPIC in accordance with FAO's "Manual for Project practitioners on Free Prior and Informed Consent: an indigenous peoples' right and a good practice for local communities', GCF's "Indigenous Peoples Policy" and "Operational Guidelines: Indigenous Peoples Policy", and the legal framework of the Philippines (Indigenous People's Rights Act of 1997, and Executive Order No. 79 from 2012) where FPIC is mandatory. ▪ Project Chance-finds procedure (Appendix 4)

181. **ESS 1- Natural Resource Management. This policy is triggered.** The project will support the adoption of proven climate-resilient agriculture, and thus will generate positive environmental benefits in terms of natural resource management. However, small-scale works may be required for the installation of agro-met stations, which could generate small-scale site specific impacts, that will need to be managed to avoid and mitigation potential adverse environmental impacts. ESMP(s) will be elaborated to manage the specific risks, and the exclusion list in Appendix 1 ensures the project will only finance interventions that are low or moderate risk. Additional information is available in the FAO checklist in Appendix 8.

182. **ESS2 – Biodiversity, Ecosystems, and Natural Habitats. This policy is triggered.** The proposed project may work with communities who live near protected areas and/or their buffer zones, specifically when considering proximity to national parks (e.g. Northern Sierra Madre Natural Park; Mt. Kitanglad Range Natural Park, and Mt. Apo Natural Park) (where some agricultural activities are permitted). Maintaining a 50m buffer will be ensured through georeferencing farms with a GPS unit in Barangays where protected areas are present, and through regular project monitoring. The goal of this will be to ensure that CRA enterprises and their farmer members are not operated in nor source from farms in protected areas or their buffer zones.

183. **ESS3 – Plant Genetic Resources for Food and Agriculture. This policy is triggered.** The proposed project includes activities under Component 2 may involve use of certified seeds for the Farmer Field Schools and may involve introduction of locally developed and registered climate-resilient crop varieties, thus ESS3[106] is triggered. The specific varieties and crops are still to be determined, however they would be determined in collaboration with the National Seed Industry Council (NSIC), Philippines Rice Research Institute (PhilRice), Regional Field Offices (RFOs) and Provincial Agriculture Offices (PAOs) of the Department of Agriculture, and farmers

[106] *ESS 3 defines Plant Genetic Resources for Food and Agriculture (PGRFA) as the entire diversity of the plants used, or with the potentials to be used, in agriculture for the production of food, fodder, and fiber. Plant Genetic Resources for Food and Agriculture (PGRFA) include the accessions of germplasm holdings (ex-situ collections), wild species found in nature (in situ) that may include crop wild relatives (CWRs); landraces or traditional varieties maintained on-farm; breeding materials in crop improvement programs; and improved varieties registered and/or released for cultivation. ESS 3 recognizes the International Plant Protection Convention (IPPC) as the framework that provides tools to protect plant resources from pests and diseases (including weeds). ESS 3 recognizes the two key instruments that regulate access and benefit-sharing, Indigenous Peoples' Rights (IPR) and farmers' rights relating to PGRFA as the International Treaty on Plant Genetic Resources for Food and Agriculture and the Convention on Biological Diversity (CBD) through its Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from their Utilization. ESS 3 recognizes that the application of the Cartagena Protocol on Biosafety to the CBD results in safeguards that ensure that the handling, transport and use of living modified organisms (LMOs) resulting from modern biotechnology do not have adverse effects on biological diversity and/or pose risks to human health.*

participating in project-supported Farmer Field Schools.

184. **ESS5**[107] **– Pest and Pesticide Management. This policy is triggered.** Many farmers in the Philippines are using pesticides in and around the proposed project areas, thus this policy is being triggered. Whilst the project will not procure pesticides and/or promote the use of pesticides, increase production may result in the indirect increased use of pesticides in nearby areas. To mitigate against this, the project will utilize and promote IPM (consistent with the national IPM programme, KASAKALIKASAN), avoid the use of any Highly Hazardous Pesticides, and, when/where applicable, will educate farmers on the safe handling, use, and disposal of pesticides. Given that the project does not promote pesticide use, allowance of pesticide use on farms engaged in the project would only extend to respecting a farmer's choice in adopting proposed climate resilient practices (e.g. Integrated Pest Management) or not. Farmers will be educated on the benefits of approaches like IPM, but will not be forced to change their practices against their will. There will be no allowance of HHP use under any circumstances.

ESS7 – Decent Work. This policy will be triggered. ESS 7 recognizes that promoting decent work and full and productive employment is essential to achieving food security and reducing poverty. ESS 7 is anchored in FAO's vision for sustainable food and agriculture, which explicitly prioritizes decent work. ESS 7 defines "Decent Work" as defined by ILO as "productive work for women and men in conditions of freedom, equity, security and human dignity." This project will engage some of the poorest farmers, and their families, living in climate-risk prone areas to increase their resilience and improve/enhance their livelihoods. Given the high levels of work poverty experienced by such farmers, as well as the presence of youth workers (15 years old and above) who assist their families outside of school hours, ESS7 has been triggered. Under ESS7, training will be provided on basic occupational health and safety pertaining to agriculture, given the hazards currently existing in the project area (e.g. pesticide use). Training for farmers and sensitization sessions for government will also be held on SEAH, gender equality and social inclusion, decent rural employment, age-appropriate work. In addition, the project will communicate its zero-tolerance policy on SEAH, as well as information on the project GRM, including special gender-responsive and victim-centered procedures for reporting SEAH.

185. **ESS 8 -Gender Equality. This policy is triggered.** The project will support gender empowerment and equality, and has been designed to take into account the specific needs and priorities of women involved in farming. Project activities have been formulated in a gender-responsive way, including respective indicators. A Gender Assessment and Gender Action Plan have been developed to safeguard the rights of women, and ensure the project is gender-responsive (see FP Annex 8). In addition, the project has zero tolerance of SEAH, and includes measures to mainstream SEAH risk management (e.g. establishing a code of conduct, training project staff and beneficiaries on gender equality, social inclusion and SEAH, promoting interventions and targeted support for women and men that challenge gender norms, ensuring gender responsive monitoring of SEAH, and developing a SEAH-specific procedure to accompany the grievance mechanism, among others).

[107] *ESS 5 defines pesticides as any substance, or mixture of substances of chemical or biological ingredients intended for repelling, destroying or controlling any pest or regulating plant growth. A pest is defined as any species, strain or biotype of plant, animal or pathogenic agent injurious to plants and plant products, materials or environments and includes vectors of parasites or pathogens of human and animal disease and animals causing public health nuisance. ESS 5 recognizes that pesticides can contribute to effective crop and food protection during production and in storage. Pesticides are also used in forestry, livestock production and aquaculture to control pests and diseases. At the same time pesticides are designed to be toxic to living organisms, are intentionally dispersed in the environment and are applied to food crops. ESS 5 recognizes that pesticide use poses risks to users, others nearby, consumers of food and to the environment. In LMICs these risks are often elevated by overuse, misuse and lack of effective regulatory control. ESS 5 follows the guidance on the life-cycle management of pesticides as provided by the International Code of Conduct on Pesticide Management and its supporting technical guidelines that are drawn up by a FAO\WHO expert panel and expand on specific articles.*

186. **ESS9 – Indigenous Peoples and Cultural Heritage. This policy will be triggered.** ESS 9 is triggered[108] because this project will be working within the Cordillera Administrative Region (CAR), which is inhabited by various Indigenous Peoples groups, and will likely work with IP groups (including unorganized IP farmers) located outside of CAR in other regions (e.g. Cagayan Valley, Bicol, Northern Mindanao and Soccsksargen). In order to address the requirements of Free Prior and Informed Consent, consultations were held with IP groups during project preparation, and a comprehensive IP Plan has been prepared to delineate responsibility and requirements moving forward during project implementation. The FPIC process already commenced and will continue with the aim of determining the differentiated needs and priorities, key concerns, and preferred method(s) of grievance redress for any IP communities included in the project. As part of this process, IP groups (and other minority groups, like Muslim communities in Mindanao) have received information on potential positive and negative impacts of the project. All groups, thus far, have provided tentative support for and interest in the project during consultations conducted throughout project preparation, and iterative discussions will be confirmed at the barangay or municipal levels (depending on the specific project areas) once the project has been approved. This approach, whereby part of the FPIC process is completed during project implementation, has been taken in order to avoid losing trust of the communities (e.g. promising to hold a project when their village might not be selected as a final site). The plan for addressing indigenous communities is addressed in the stakeholder engagement chapter of this ESMF as well as in the IP Plan.

187. An exclusion (non-eligibility) list is provided in Appendix 1, which details activities that will not be financed under the project.

4.5 Summary of Objectives and Principles for Implementation of the Gender Action Plan

188. **Gender Action Plan.** To safeguard against issues of gender equality (ESS8) and to ensure mainstreaming of gender throughout the project design, a Gender Action Plan was prepared for the project. Specifically, the plan ensures adequate inclusion and promotion of women throughout the project's activities and helps in safeguarding women's rights. It further includes measures to mainstream SEAH risk mitigation, ensure accessibility to survivor-centered and gender-responsive GRM, and ensure gender-responsive monitoring and evaluation for project implementation.

189. *Objective.* The objective of the Gender Action Plan is to establish clear targets, in a time-bound framework, to ensure the inclusion of women in the project and operationalization of the GCF Gender Policy. The GCF Gender Policy is meant to ensure that the project adopts a gender-

[108] *ESS 9 recognizes indigenous peoples' traditions and knowledge present opportunities for many of the challenges that humankind will face in the coming decades. This is of particular significance in relation to indigenous food systems in the face of increasing food demand and traditional knowledge with respect to adapting to climate change vulnerabilities and impacts. Indigenous peoples are estimated to comprise about 5% of the world's population, yet 15% of the global poor. An agenda that pursues global food security, sustainable natural resources management and poverty alleviation is incomplete unless it addresses indigenous peoples' needs. For this reason, FAO approved in 2010 its Policy on Indigenous and Tribal Peoples which is based on international legal agreements, such as the UN Declaration on the Rights of Indigenous Peoples (UNDRIP), adopted by the General Assembly in 2007, and ILO Convention 169. The FAO Policy on Indigenous Peoples underpins ESS 9 and provides the corporate guidance to respect, include and promote indigenous peoples' issues in FAO's work. The core principles of the policy are: self-determination: respect for indigenous knowledge, cultures and traditional practices that contribute to sustainable and equitable development; and Free, Prior and Inform Consent (FPIC). ESS 9 furthermore recognizes the importance of tangible and intangible cultural heritage for current and future generations.*

sensitive approach so that the GCF-funded project will efficiently contribute to gender equality and achieve greater and more sustainable climate change results, outcomes and impacts.

190. *Principles*. The principles that govern the Gender Action Plan are in accordance with ESS8 – Gender Equality, as well as the GCF's guidance on Gender Action Plans, vis-à-vis their Gender Policy. The following six fundamental principles provide the basis upon which the Gender Action Plan has been developed:

- Commitment to gender equality and equity;
- Inclusiveness in terms of applicability to all GCF-funded activities;
- Accountability for gender and climate change results and impacts;
- Country ownership in terms of alignment with national policies and priorities and inclusive stakeholder participation;
- Competencies throughout the GCF's institutional framework; and
- Equitable resource allocation so that women and men benefit equitably from the Fund's adaptation and mitigation activities.

191. There are the following priority areas for the Gender Action Plan, namely:

- Governance and institutional structure;
- Operational guidelines;
- Capacity building;
- Outputs, outcomes, and impact indicators for monitoring and reporting purposes;
- Resource allocation and budgeting; and
- Knowledge generation and communications.

192. The Gender Analysis and Gender Action Plan for this project are provided as separate, stand-alone documents, submitted in complement to this ESMF (see FP Annex 8). FAO, as the tertiary executing entity, would be responsible for implementation, compliance, and reporting of safeguards.

5.0 STAKEHOLDER ENGAGEMENT

5.1 Stakeholder Identification

193. Since its conception in late 2016, this project has involved a high level of country ownership and stakeholder engagement. Stakeholders were initially identified by the Department of Agriculture, the Nationally Designated Authority (NDA)[109], and FAO during preliminary project concept discussions in late 2016 and early 2017, and broader workshops then commenced with those stakeholders by mid-2017. Initial discussions with the DA identified ministries, departments, line agencies, and target participants (farmers, etc.) that would likely be involved in the project. During subsequent workshops and field visits, connections were made with relevant Civil Society Organizations (CSOs), Non-Governmental Organizations (NGOs), other UN agencies, multinational organizations (e.g. World Bank), and community organizations working within the project area to further determine overlap and areas for collaboration in relation to the project. The workshops and field visits (which included meetings with farmers, women (including women farmers), IP groups, and religious/ethnic minorities) were held in in order to best understand the needs of the populations in each region, including differentiated needs based on gender and/or minority status.

194. Given that the exact communities to be included for project implementation have not yet been determined, more specific stakeholder identification (including identification of IP groups in final project areas), will occur during the first months of project implementation. The purpose of this would be to ensure that direct beneficiaries are consulted with, once the exact project locations are determined.

5.2 Stakeholder Engagement during Project Preparation/Formulation

5.2.1 Consultations at the National Level

195. This project was prepared in response to an official request sent in October 2016 by the Department of Agriculture's Systems Wide Climate Change Office (DA-SWCCO) for technical assistance in packaging a full GCF proposal to scale up resiliency work done under the Department's, "Adaptation and Mitigation in Agriculture Project 2" (AMIA-2). By December 2016, the Department of Agrarian Reform (DAR) also officially conveyed their intention to work with FAO to pursue the project then entitled, "Climate Change Adaptation in Vulnerable Agrarian Reform Communities".

196. In response to the requests, FAO organized an ideas workshop for "Developing Practical Integrated and Transformative Actions to Address Climate Change in the Agriculture Sectors" on

[109] It should be noted that the NDA for GCF to the Philippines changed at various points throughout project preparation, with the DENR, DA, and Climate Change Commission all having served as NDA at some point. FAO consulted with and kept all informed, despite shifts in responsibilities.

14 December 2016 at Dolce Latte, Quezon City. The workshop aimed to raise the awareness of participants to the GCF mechanisms and priorities, as well as to generate and discuss project ideas for GCF. A total of 21 participants from the DA, DAR, National Economic and Development Authority (NEDA), Philippine Crop Insurance Corporation (PCIC), Department of Environment and Natural Resources (DENR), and the United Nations Development Programme (UNDP) attended. The workshop yielded several proposal ideas from the agencies, and participants agreed to examine the template for the GCF and provide the information needed based on the guidelines to further refine their ideas. The FAO Philippine Representative also met with Commissioner Emmanuel De Guzman of the Climate Change Commission (CCC) on 14 December 2016 for a comprehensive briefing of the Commission's priorities and importance attached to agriculture and land sectors in the Philippines' response to climate change. Formal commitments to facilitate GCF Access for Philippine Agriculture sectors were made in early January 2017 to the Climate Change Commission, with agreement that FAO would offer various technical areas of support as well as an update on the GCF proposal development process initiated.

197. Acting on its commitment and building on prior workshops, FAO facilitated another multi-stakeholder workshop on 16 January 2017 in Quezon City to further validate project ideas identify any missed opportunities not previously captured. The workshop gathered information to ensure that project ideas were aligned with the GCF investment criteria, the National Framework Strategy on Climate Change (NFSCC), the National Climate Change Action Plan (NCCAP), and the country's Intended Nationally Determined Contributions (INDCs). A total of 25 representatives from the DA, Bureau of Soils and Water Management (BSWM), Bureau of Fisheries and Aquatic Resources (BFAR), DAR, PCIC, NEDA, UNDP, University of the Philippines Los Baños (UPLB), UPLB Foundation Inc. (UPLBFI), and the International Center for Tropical Agriculture (CIAT) participated. The workshop narrowed down proposal ideas to four key ideas: (i) Building Climate-Resilient Agrarian Communities & Institutions; (ii) Climate Resilient Integrated Development Project in ARC Clusters; (iii) Small-scale Renewable Energy Sources-Irrigation Systems in Climate Change Affected Areas; and (iv) Upscaling AMIA. In the months following, FAO facilitated technical consultations with involved agencies to further refine project objectives and identify long-term goals.

198. By mid-2017, two early draft concept notes from DA and DAR had been prepared with FAO support, both with same aim of increasing farmer capacity to use climate information systems (CIS) to increase their resilience to climate change and disasters. Both concepts hinged on using CIS with farmer level climate field schools for testing and adoption of adaptation options, enabling investments by farmers in such options, helping to increase coverage of and capacity for risk transfer, and enhancing capacity of DA, local government units (LGUs) and other agencies to implement support to farmer and fishers. Given their similarities, FAO decided to prioritize resources for the Philippines for further refinement of a single strategic concept note, and possible full proposal preparation. The DA project concept was thus taken forward with the support of the NDA on the condition from DAR that Agrarian Reform Beneficiaries (ARBs) should be included when present in the proposed project areas.

199. By May 2017, the DA formally wrote to FAO to be the GCF implementing entity to develop the proposal "Scaling Up Adaptation and Mitigation Initiative in Agriculture", thus assisting with concept note preparation of the concept note and organization of necessary processes to develop a full proposal in addressing priority climate change adaptation and mitigation actions. This was formally acknowledged by the NDA (the DENR at that time), and FAO continued facilitating national-level consultations and stakeholder workshops to design the project. Agencies and organizations consulted included the DA Central Office divisions and bureaus (e.g. Field Operations Service, Planning and Monitoring Service, Agricultural Training Institute or ATI, SWCCO, BFAR, BSWM,), DENR, CCC, DAR, PCIC, ACPC, Landbank, non-government organizations (NGOs), science agencies, UNDP and other UN agencies, as well as other international financing institutions like the International Fund for Agricultural Development (IFAD), Asian Development Bank (ADB), and the World Bank. Based on the meetings with these agencies and a well-attended multi-stakeholder consultation, broad agreements on scope of concept and partnerships for the proposed project were reached.

200. The FAO mission team met with OIC-Director Elenida Basug of the DENR/GCF NDA on 4 September 2017 and with CCC Commissioner Emmanuel de Guzman on 5 September 2017 to discuss the progress of the GCF proposal, including strategy, scope and project modalities, potential partnerships, and ways forward. Further dialogues were then conducted in November-December 2017 when the draft concept note was presented to various stakeholders including the DA Central Office units, the new head of the SWCCO, the DA Operations unit head, and the UNDP (to ensure complementarity with their planned GCF project).

201. Meetings in late 2017 were also held with Ms. Maria Theresa Espino-Yap, National Coordinator of the GCF Readiness Coordinator of the DENR, ACPC, and LandBank. These were held to identify capacity limitations of local level branches in assessing the feasibility of loans for CRA; note the possibility of developing new products; discuss various credit instruments and project opportunities to facilitate stronger utilization of potential loan instruments. More localized finance agencies were also consulted, as were research institutes like IRRI Los Baños.

202. In January 2018, FAO met with the heads and officers of DA SWCCO, Field Operations Service (FOS), and Planning and Monitoring Service (PMS), to further revise the project concept note. The Philippine Atmospheric Geophysical and Atmospheric Services Administration (PAGASA) was also commissioned at that time to contribute an (i) inventory of existing climate and weather stations, and other surface-based sensors; (ii) assessment report on the ICT requirements for a national climate and weather information system; and (iii) assessment reports of upgrading and expansion requirements to increase forecast coverage to all vulnerable area. The inventory and reports greatly contributed to the development of Component 1. By late February 2018, the Mindanao Development Authority (MinDA) also expressed interest in collaborating on a comprehensive GCF project.

203. From March 2018 until February 2019, FAO continued to facilitate consultations at the national level in the interest of refining and submitting a full project funding proposal by May

2019. Consultations were also held with government staff who implement, monitor, and evaluate safeguards for existing investment projects (e.g. the World Bank Philippines' Rural Development Project) in order to determine existing capacity and/or obstacles for safeguards implementation and M&E by those staff. Throughout 2018 and early 2019, consultations were also held at regional, provincial, municipal, and barangay/community levels. In 2020 and 2021, consultations focused at the national level, engaging not only DA and PAGASA but also the LandBank, NGOs and other stakeholders. In August 2022, additional consultations were held at community level, particularly among Indigenous People farmers.

5.2.2 Consultations at Regional, Provincial, Municipal, and Community Levels

204. In-depth consultations with stakeholders were held across the country in regions and communities most hard-hit by climate change. These consultations were partly conducted by FAO during missions in May/June 2018, November 2018, and January/February 2019, but were also complemented by consultations conducted by CIAT in 2018, which had been commissioned to identify and review (i) differentiated climate change impacts across regions; (ii) existing CRA practices in use; (iii) barriers to adoption; and (iv) most effective methods for knowledge transfer and information delivery.

205. Aside from more general consultations about project design and farmer interest, safeguards-specific consultations were held in November 2018 and January/February 2019 to assess possible environmental and social safeguard issues related to proposed project activities. The consultations were focused on meetings with local communities, especially the potential project affected peoples, minorities (including both IP communities and Muslim communities), and other relevant stakeholders. The consultations were conducted to provide information on the: a) purpose of the project; b) overview of potential impacts; and c) project implementation plan. The local-level consultations were also used as forums to determine (i) stakeholder preferences on how a project-level grievance redress mechanism could be established, and (ii) broad scale community support for the project. Care was given to ensure that vulnerable communities, specifically women, youth, IP groups, and Muslim minorities, were met with in each region (where applicable) to determine their unique needs, sensitivities, and potential risks. Key results of the consultations are listed under section 5.4 of this ESMF. Both this ESMF and the related Gender Action Plan are outcomes of the November 2018 and January/February 2019 fieldwork, and the consultations were used to inform both the safeguards documents as well as overall project design.

206. Discussions in November 2018 involved the following locations and groups:

DATE	LOCATION AND GROUPS MET
14 November 2018	**TUGUEGARAO CITY, Cagayan:** • Regional Agriculture & Fisheries Council (RAFC)

15 November 2018	**Province of Cagayan**
	• Provincial Agriculture Office of Cagayan
	• Municipal Agriculture Office of Penablanca (4 ATs)
	• Agrarian Reform Communities (ARCs) of Cagayan
	• Field visit/community consultations:
	  ○ Farmers of Brgy. Salamagues, Municipality of Iguig
	  ○ Farmers of Brgy. San Isidro, Municipality of Iguig
	  ○ Farmers of Brgy. Sta. Barbara, Municipality of Iguig

16 November 2018	**Province of Isabela**
	• DA Regional Office 2 – Regional Executive Director (on 16th in Ilagan), regional technical staff dealing with rice, corn, and high value crops (HVC) and climate change
	• Provincial Agriculturist of Isabela
	• City Agriculturist of Ilagan, and RAFC members
	• Agrarian Reform Communities (ARCs) of Isabela
	• Regional research station Ilagan, including gene bank for corn.
	• Field visit / community consultations:
	  ○ Farmers of Brgy. Lucban, Benito Soliven
	  ○ Farmers of Sta. Victoria, Ilagan City

19 November 2018	**KORONADAL CITY, Province of South Cotabato** • DA Regional Office 12 – Regional Executive Director, regional technical staff dealing with rice, corn, and high value crops (HVC) and climate change • Provincial Agriculturist of North Cotabato in Kidapawan City

20 November 2018	**KIDAPAWAN CITY, Province of North Cotabato**
	• Field visit and community consultations:
	  ○ Farmers' irrigation association in Brgy. Macebolig, Kidapawan
	  ○ ARBs of various ARCS from municipalities in North Cotabato (including Pikit, Carmen, etc).

21 November 2018	**Province of North Cotabato**
	• Field visit and community consultations:
	  ○ Rural Improvement Club in Kidapawan City
	  ○ Upland farmers in Brgy Ilomavis, Kidapawan City
	  ○ Corn farmers in Brgy. Manupal, Municipality of Matalam

DATE	LOCATION AND GROUPS MET
22 November 2018	**Province of North Cotabato** • Field visit and community consultations: ○ Muslim farmers in Brgy. Patadon East, Kidapawan, and Brgy. Patadon West, Matalam *(pictured below)*  ○ Manobo IP community in Brgy. Ginatilan, Kidapawan *(pictured below)* 

207. The project design team made every effort possible to meet with diverse but representative communities in each potential project region. It should be noted that, even with these efforts, challenges existed to reaching some of the upland IP groups, Muslim communities, and "tri-communities" (comprised of IP groups, Muslims, and Christians) due to security restrictions. In order to address this challenge, the design team met representatives of ARCs located in upland communities (including some which were all Muslim, all IP, and mixed/tri-partite communities) during the 20 November consultations held in Kidapawan. Further consultations are expected during implementation, most likely to be facilitated by national staff when adequate time is available for security clearances.

208. Based on the initial safeguards consultations conducted in 2018, the subsequent safeguards-focused consultations were held in January/February 2019 to meet with IP groups

and women in areas not yet covered (e.g. IP groups within the Cordillera Administrative Region). The mission involved an FPIC specialist, a gender specialist, and an agribusiness specialist. Groups consulted included:

DATE	LOCATION AND GROUPS MET
30 January 2019	**Province of Camarines Sur** • DA Regional Office 5 – Regional Executive Director, regional technical staff dealing with rice, corn, and high value crops (HVC) • Regional Agriculture & Fisheries Council (RAFC) • Provincial Agriculturists of Camarines Sur and Camarines Norte, and select Municipal Agriculturists

31 January 2019	**Province of Camarines Sur**
	• President of Bicolandia Seed Growers of Goa, CamSur
	• Minalabac Coconut Nursery operator
	• Manager Camarines Sur Multipurpose Cooperative
	• Site visit to Rice Processing Center 1
	• Field visit and community consultations:
	  ○ Farmers of Brgy. Sta. Teresita, Iriga City
	  ○ Farmers of Gatbo, San Francisco, Municipality of Ocampo
	  ○ IP Farmers of Brgy. Burocbusoc, Municipality of Buhi
	  ○ Farmers of Brgy. Cagbunga, Municipality of Pamplona
	  ○ Farmers of Brgy. Veneracion, Municipality of Pamplona

1 February 2019	**Province of Camarines Norte**
	• Provincial Agriculturist of Camarines Norte with Municipal Agriculturists of Daet, Talisay, Vinzons
	• Management of Ambos Agriculture Cooperative
	• Site visits:
	  ○ Camarines Vet Pro Plus (agriculture store)
	  ○ Rice Processing Center 2
	  ○ Coconut Nursery
	• Field visits and community consultations:
	  ○ Farmers of Brgy. Itomong, Municipality of Talisay
	  ○ IP farmers of the Municipality of Jose Panganiban
	  ○ Farmers of Brgy. Sto. Domingo, Vinzons

DATE	LOCATION AND GROUPS MET
4 February 2019	**Cordillera Administrative Region** • DA CAR RFO– Regional Executive Director, regional technical staff dealing with rice, corn, and high value crops (HVC), provincial coordinators, etc. • NCIP CAR Regional Office • Tebtebba • Benguet State University – Northern Philippines Root Crops Research and Training Center • Site Visits: o La Trinidad Benguet Agricultural Trading Post o La Trinidad Strawberry Farm
5 February 2019	**Province of Ifugao** • Provincial Agriculturist of Ifugao and Municipal Agriculturists of Lamut, Lagawe, and Banaue • Site visit of local stores • Field visit and community consultations: o Farmers of Brgy. Anao, Municipality of Hingyon o Farmers of Brgy. Poblacion, Municipality of Banaue
6 February 2019	**Province of Kalinga** • Provincial Agriculturist of Kalinga, and Municipal Agriculturists of Tabuk, and Tinglayon • Field visit and community consultations: o Farmers of Municipality of Tinglayon o Farmers of Municipality of Lubuagan • Mandiga Community Center INC. (women's org)

209. Both sets of safeguards consultations aimed to:

- **Inform affected households and communities** about the project and its potential impacts;
- **Collect information and feedback from the local peoples**, including women and as many representatives as possible from IP and Muslim/minority groups in potential project areas; and
- **Confirm the broad community support**, especially from potentially affected IP and Muslim/minority groups, for project implementation. Confirmation was tentatively received from these groups based on the initial presentation of project purpose, activities, implementation plan, and potential impacts, with the understanding that a full FPIC procedure will be followed and formal confirmation will be received from exact communities following project approval.

210. A full list of participants from the safeguards consultations in 2018/2019 and 2022 can be found in Appendix 5.

11 – 12 August 2022	**Province of Ilfugao** • Consultation with the Tuwali People of Hungduan • Consultation with the Tuwali People of Banaue  

18-19 August 2022	**Province of Bukidnon** • Consultation with the Tigwahanon People of San Fernando, Bukidnon • Consultation with the Manobo People of Quezon  
27 August 2022	**Province of North Cotabato** • Consultation with the Obo-Manobo People of Barangay Ilomavis, Kidapawan City 

Consultations with IP groups, Muslim communities, and women farmers.

5.3 Stakeholder Engagement during Project Implementation

211. Consultation through community outreach during implementation is a good practice that can be adopted to ensure that potential negative impacts and concerns are properly addressed during construction and operation of a project. Ongoing consultations also provide opportunistic feedback loops which enhance positive impacts. Extensive consultation with project affected populations, including IPs and minority groups are required if/when sub-project activities involve temporary impacts affecting income generation activities, livelihoods, and agricultural production of those peoples.

212. Feedback loops have been designed into the project components, not only with respect to agrometeorological services and advisories (under Component 1), but also with respect to Farmer Field School and crop programme participants (under Component 3). Component 2 is also designed to support a continuous CRA experiments, learning and feedback including a year-long learning process by farmer groups/CRA enterprises. It includes a feedback loop for farmers and farmer their enterprises, to share their views and learning, through, amongst others, the CRA enterprise development facilitators, extension workers and cooperative apex organizations and farmer networks, with municipal LGUs, regional project coordination office, provincial CIS

Centres/LGUs and the regional TWGs. The feedback mechanism includes reporting on CRA implementation and results to the National CRA Monitoring System, led by DA and sharing knowledge through the national CIS Platform.

213. When considering safeguards-specific feedback loops, stakeholder engagement, and monitoring, the project consultations will be held at least bi-annually. The field-level consultation process will be facilitated by the local project staff, whilst the overall schedule for consultations will be coordinated by the Lead Safeguards Specialist based in the central project management office within the DA in Manila, Luzon. Due regard and special consideration will be given to engagement with IP and minority groups, with IP engagement covered in greater detail until the IP Plan (Chapter 6 of this ESMF). Full implementation arrangements are provided in Chapter 9 of this ESMF, and Appendix 6 provides an overview of the timeline for stakeholder consultations, as well as other safeguards measures.

5.4 Public Consultation Results

214. On the basis of potential project impacts, the consultations with community members provided the following feedback.

- **Potential Project Impact(s):** Participants agreed that the project would have largely positive impacts, and concurred with the positive social and environmental impacts described. Some of the peoples met with had been part of the AMIA-2 project, and were thus familiar with practices intended to increase agricultural resiliency (including IPM, alternate wetting and drying, etc.). The farmers familiar with climate resilient practices still expressed interest in further engagement in similar projects.
    - Farmers consulted (including Muslims and IPs) did not have concerns regarding their land tenancy, even when questioned about land access if/when farms became more productive. Some of the upland communities, however, did express concern that thieves would steal their crops if production increased – something which is already existent in some of the upland communities in Mindanao. The project design team made note of this concern, and also explained that the project would have safeguards to mitigate against any potential issues re: land use and decent rural employment. When applicable, the project will build on land tenure work already established within the project areas and/or utilizing FAO's Voluntary Guidelines on the Responsible Governance of Tenure of Land, Fisheries, and Forests (VGGT).
    - With respect to pest management and the potential risk of increased pesticide use due to increases in productivity, it was explained that the project would promote and train farmers on IPM, also offering training on the safe use and handling of pesticides, during related Farmer Field Schools under Component 3. This was appreciated by farmers and consultation participants, given that farmers from all regions consulted expressed concern with the current use of synthetic pesticides (many lamenting that use of synthetic pesticides was becoming necessary to manage the existing agricultural systems setup, such as mono-cropped corn/etc.).

- Whilst potential project-affected persons did not express concern with potential negative impacts of the project, they conveyed the urgent need for water harvesting units under the project, given their existing at-(climate)-risk situation. This was noted within the project design, however it was also explained that FAO and GCF safeguards requirements limit the construction of water harvesting units based on size and, if needed, a water accounting to ensure that downstream communities are not negatively impacted.

- **Grievances Redress Mechanism (GRM).** Farmers, women, and minority (IP groups and Muslim communities) were met with in the proposed project regions in order to determine how they typically lodged any complaints for projects and/or within their communities – particularly in mixed communities. All consultation participants indicated comfort with existing traditional, community, and/or governmental structures of grievance redress – for instance, in the case of conflict between project participants, this would imply that the barangay council provides resolution for smaller disputes; or, for IP groups, it would imply that the Indigenous Peoples Minority Representative (IMPR) works with the concerned parties using their traditional methods of conflict resolution. Procedures already exist for instances of inter-group conflict (e.g. IP with non-IP), though this ESMF and its FPIC-engagement and IP Plan require that traditional methods of grievance redress for IPs be explained during the FPIC process, such that project implementers have clear direction on how to proceed in instances of conflict with IP-only vs. mixed-communities. This was explained to the consultation participants. Members from tri-partite communities explained that conflict resolution in their communities is addressed by having both the responsible barangay council official and IPMR present with the concerned parties, and that resolution (including any punitive actions) is determined based on the respective procedures for whomever was at fault (e.g. barangay rules are followed for the non-IP, and traditional customs are followed for the IP-member). Regardless, and in order to ensure consistency across all project areas, grievances (and resolutions) must be recorded within project records, as specified in section 5.6 of this ESMF. For project-specific grievances that do not involve other participants but, rather, are the subject of project activities, the consultation participants agreed that a project-specific grievance box (or hotline) would be amenable. This was also requested by the Muslim communities in Mindanao to provide a back-up GRM which avoids any potential religious discrimination.

- **Participation.** Consultations helped discern ways in which women, IP groups, and Muslim minorities could be encouraged to participate in project activities, based on activities that were/are appropriate to them in terms of culture, farming practices, and timing. Feedback from this was provided directly to the project design team and incorporated within the Full Project Funding Proposal and Feasibility Study.

- **Gender.** Women are involved with crop production (growing, transplanting, harvesting) and livestock, and some had kitchen/homestead gardens, though much of the work is unofficially recognized. Men work more with pest management and fertilizer application, given that those are considered “heavier” types of work with heightened health and safety risks due to the chemical compounds. Men also typically deal with

irrigation of crops and agricultural land. During consultation, women were met with as part of the larger mixed-gender groups, as well as separately, to ensure that they had ample time and an open space to share their stories, concerns, and preferences. One notable issue was that of knowledge transfer and timing of trainings: women were often available for trainings, whereas their male partners were not (as they were out farming), and yet the transfer or knowledge from the women to their male partners has not always been successful. It was identified that trainings must be held at times in which male farmers can also participate. Overall feedback from women in the proposed project areas is detailed and acted upon within the Gender Action Plan.

- **Community Support**. Given the high potential for positive social and environmental impacts, and that the project benefits outweigh the limited adverse impacts, all participants consulted with, including Muslim minority groups and IP groups, indicated their tentative support for project implementation (with the understanding that, for IP groups, full FPIC will be conducted prior to commencement of activities).

5.5 Disclosure

215. According to GCF and FAO policies on information disclosure, all safeguard instruments under this project, including the ESMF and Gender Action Plan must be disclosed online and in locally accessible places convenient to affected peoples in the English and local language (Tagalog, in the case of the Philippines) at least 30 days prior to GCF board meeting and approval of the project. Access to the documents must be accessible for locals (i.e. it must be disclosed locally in an accessible place) in a form and language understandable to those key stakeholders. In instances where dialects, rather than English or Tagalog, are used, a summary will be provided in the local dialect. The exception is the IPPF, where the full document will be provided in English, Tagalog, Bisaya and Bikol languages. Such disclosure of relevant project information helps stakeholders effectively participate. FAO is committed to disclosing information in a timely manner and in a way that is accessible and culturally appropriate, placing due attention to the specific needs of community groups which may be affected by project implementation (e.g. literacy, gender, differences in language or accessibility of technical information or connectivity).

216. For moderate risk projects like this one, FAO releases the applicable information as early as possible, and no later than 30 days prior to project approval, as per the GCF Revised Environmental and Social Policy and the GCF Information Disclosure Policy. The 30 day period commences only when all relevant information requested from the project has been provided and is available to the public, allowing stakeholder sufficient time to review, request further information and provide inputs/ feedback on the proposed project and related safeguard documents (e.g. ESMP).[110] FAO undertakes disclosure for all moderate risk projects, using a

[110] Note: Information will be considered complete when it meets the requirements of the GCF Information Disclosure Policy and Section 7.1 of the Revised GCF Environmental and Social Policy (pertaining to information disclosure). For safeguards related information, the following information must provide at least the following information (at a minimum): a) the purpose, nature, and scale of the activities and the intended beneficiaries, b) the duration of the proposed activities, c) a summary of stakeholder consultations and the planned stakeholder engagement process, and d) the available grievance mechanisms are minimum information needed as for the summary of activities, which should be disclosed in addition to environmental and social safeguards documents required.

disclosure portal to publicly disclose all of the projects' documentation related to environmental and social safeguards (e.g. Environmental and Social Management Frameworks, Gender Action Plans, Indigenous Peoples Plans, and other relevant documents). The website is: http://www.fao.org/environmental-social-standards/disclosure-portal/en/.

217. For the elaboration of the ESMP, IPP and other safeguard related activities for sub-project activities (see Chapter 9 for more detailed information), GCF's Information Disclosure Policy will apply, and require documents are disclosed online and in locations convenient to affected peoples within the project area in English and Tagalog. IPPs will be provided in English, Tagalog, Bisaya (especially for provinces in Mindanao region), and Bikol language (for provinces in Bicol Region). All documents will be disclosed at least 30 days prior to approval/ endorsement.

218. In order to ensure the widest dissemination and disclosure of project information, including any details related to applicable environmental and social safeguards, local and accessible disclosure tools including audiovisual materials (e.g. flyers, brochures, community radio broadcasts) will be utilized in addition to the standard portal disclosure tool. Furthermore, particular attention will be paid to farmers, indigenous peoples, illiterate or technological illiterate people, people with hearing or visual disabilities, those with limited or no access to internet and other groups with special needs. The dissemination of information among these groups will be carried out with the project counterparts and relevant local actors (e.g. municipalities, barangays, IP groups, Muslim groups, farmers associations, government, women's Rural Improvement Clubs (RICs) and others).

219. The above ESMF and the accompanying Gender Action Plan will be disclosed in English and Tagalog (national language of the Philippines) on the websites of FAO, the DA, and GCF. Both documents will be disclosed at the village level in Tagalog, prior to project implementation. In instances where Tagalog is not the main language understood, further translation of the Executive Summary is provided in local dialects.

5.6 Grievance Redress Mechanism

220. The grievance redress mechanism (GRM) is an integral project management element that intends to seek feedback from beneficiaries and resolve of complaints on project activities and performance. The mechanism is based on FAO requirements and most importantly, it is based on existing, community-specific grievance redress mechanisms preferred by the local beneficiaries. FAO, DA and PAGASA will inform communities about the GRM through culturally appropriate mechanisms, ensuring information on the mechanisms at all three levels is communicated (i.e. GCF Independent Redress Mechanism,[111] FAO-level redress mechanisms and the project-level GRM).

FAO's Approach to the GRM:

221. FAO is committed to ensuring that its programs are implemented in accordance with the Organization's environmental and social obligations. In order to better achieve these goals,

[111] For detailed information on GCF's Independent Redress Mechanism, please refer to: https://irm.greenclimate.fund/.

and to ensure that beneficiaries of FAO programs have access to an effective and timely mechanism to address their concerns about non-compliance with these obligations, the Organization, in order to supplement measures for receiving, reviewing and acting as appropriate on these concerns at the program management level, has entrusted the Office of the Inspector-General with the mandate to independently review the complaints that cannot be resolved at that level.

222. FAO will facilitate the resolution of concerns of beneficiaries of FAO programs regarding alleged or potential violations of FAO's social and environmental commitments. For this purpose, concerns may be communicated in accordance with the eligibility criteria of the Guidelines for Compliance Reviews Following Complaints Related to the Organization's Environmental and Social Standards[112], which applies to all FAO programs and projects.

223. Concerns must be addressed at the closest appropriate level, i.e. at the project management/technical level, and if necessary at the Regional Office level. If a concern or grievance cannot be resolved through consultations and measures at the project management level, a complaint requesting a Compliance Review may be filed with the Office of the Inspector-General (OIG) in accordance with the Guidelines. Program and project managers will have the responsibility to address concerns brought to the attention of the focal point.

224. The principles to be followed during the complaint resolution process include: impartiality, respect for human rights, including those pertaining to indigenous peoples, compliance of national norms, and coherence with the norms, equality, transparency, honesty, and mutual respect.

Project-Level GRM:

225. Consultations during project preparation highlighted that, with the exception of IP groups whose GRM will be more explicitly stated during the FPIC process, the potential project-affected peoples would prefer to share the same Grievance Redress Mechanism (GRM). For communities like the Muslim communities in Mindanao, this view was shared insofar as the project offered a back-up to the existing government structures (i.e. the barangay council) in case there are any questions of discrimination based on religion/ethnicity. For IP communities, the GRM would depend on the given customary traditions of their respective communities, based on the thorough FPIC process delineated in the ESMF's IP Plan. For the purposes of the project, and to streamline the process, either FAO or local community organizations acting on FAO's behalf (for example, those engaged through a contract or Letter of Agreement) would manage the GRM, including collection and reporting of grievances – even if the decisions are made through traditional (or community-approved) practices with the IPMRs and/or Barangay councils. Consultations also highlighted the utility of a hotline or grievance box on which/to which grievances could be made. With these recommendations in mind, this project-level GRM has been designed.

226. FAO ensures that project personnel at the executing entities will be trained on prevention of sexual exploitation, abuse and harassment to achieve maximum prevention of SEAH and GBV. Community gatekeepers will be sensitized on the subject so that they may support and catalyze community-driven support measures against SEAH. FAO Philippines' Grievance Redress Mechanism will be reinforced to deal effectively with SEAH and GBV incidents

[112] *Available online at: http://www.fao.org/3/a-i4439e.pdf*

(including the development of a procedure to accompany the GRM on SEAH to ensure surviror-centered mechanisms that are gender-responsive and ensure confidentiality, and sensitive and ethical complaint and grievance handling). Referral pathways for GBV will be established and professionals trained for their operationalization. All SEAH and GBV activities will be inclusive, survivor-centred, and gender-responsive.

227. The project will establish one or more grievance mechanisms at the field level to file complaints, sensitive to the location wherein the project is being implemented. Both (i) contact information and (ii) information on the process one must follow in order to file a complaint will be disclosed in all meetings, workshops and other related events throughout the life of the project. It is also expected that all awareness raising material to be distributed under the project will include the necessary information regarding the process for filing grievances and key contacts. The project will be responsible for documenting and reporting, as part of the safeguards performance monitoring, on any grievances received and how they were addressed.

228. The Grievance Redress Mechanism for this project includes the following steps:

- Following on preferences indicated in consultations, minor grievances will begin processing at the local level, and will sought to be resolved through traditional means of community discussion at the barangay level with the concerned parties and respected councilors, officials, and/or elder(s). In instances where an IP member is reporting a grievance with a non-IP member, both a barangay representative and the IPMR must be present.

- In instances whereby the claimant would prefer to have the grievance addressed directly through FAO or a higher level of government, but does not have the ability to file a claim personally, the concerned person(s) will express the grievance (either orally or in writing) to the local implementation unit (e.g. the LGU, FAO, or a contracting community organization). The project staff at the local level who receives the complaint will be responsible for presenting/filing those complaints to the Lead Safeguards Specialist based in the central Project Management Unit (PMU) in Manila. In instances where the claimant has the means to directly file a claim, he/she has the right to do so, presenting it directly to the Lead Safeguards Specialist within the PMU in Manila. The process of filing a complaint will duly consider anonymity as well as any existing traditional or ethnic dispute resolution mechanisms and it will not interfere with the community's self-governance system. Contact information will also be given for processing a grievance directly to the Lead Safeguards Specialist within the PMO by phone.

- After the complainant files a complaint through one of the channels of the grievance mechanism, this complaint will be registered by the Lead Safeguards Specialist and sent to the PMU Project Coordinator to confirm that the complaint is eligible. The confidentiality of the complaint must be preserved during the process.

- Eligible complaints will be addressed by the PMU or the applicable institution. The PMU Project Coordinator will be responsible for recording the grievance and how it has been addressed, if a resolution was agreed.

- If the situation is too complex, or the complainer does not accept the resolution, the complaint must be sent to a higher level, until a solution or acceptance is reached.

- For every complaint received, a written proof will be sent within ten (10) working days; afterwards, a resolution proposal will be made within thirty (30) working days.

- In compliance with the resolution, the person in charge of dealing with the complaint, may interact with the complainant, or may call for interviews and meetings, to better understand the reasons.

- All complaints received, its response and resolutions, must be duly registered.

Internal Process:

229. **Lead Safeguards Specialist.** The complaint could come in writing or orally (including over the phone) to the Lead Safeguards Specialist within the PMU. At this level, received complaints will be registered and screened by the Lead Safeguards Specialist for eligibility. Screened complaints will then be sent to the Project Coordinator in the PMU.

230. **Project Management Unit.** The complaint should come in writing from the Lead Safeguards Specialist within the PPIU to the Project Coordinator in the PMU directly. The Project Coordinator will provide final confirmation of eligibility and proceed to investigate and resolve the complaint.

231. **Project Steering Committee (PSC).** If the complaint has not been solved and could not be solved with the PMU, then the chair of the PSC must address the complaint. If this still cannot be resolved, then the complaint is sent to the next level (FAO Representative).

232. **FAO Representative.** The assistance of the FAO Representative is requested if a resolution was not agreed in the first two levels (PMU and PSC).

233. **FAO Regional Office for Asia and the Pacific.** The FAO Representative will request, if necessary, the advice of the Regional Office to resolve a grievance, or will transfer the resolution of the grievance entirely to the regional office, if the problem is highly complex.

234. **The FAO Regional Representative** will request – only on very specific situations or complex problems – the assistance on the FAO Inspector General, who would then pursue procedures of the Office of the Inspector General (OiG) to solve the problem.

Resolution:

235. Upon acceptance of a resolution by the complainant, a document with the agreement should be signed, clearly indicating the terms of the resolution.

RECIPIENT OF GREIVANCE	ACTIONS REQUIRED
Lead Safeguards Specialist (Central PMO)	Must register the complaint and send eligible complaints to the PMU within 2 working days.
Project Management Unit	Must respond within 5 working days of receipt.

RECIPIENT OF GREIVANCE	ACTIONS REQUIRED
Project Steering Committee (PSC)	Any organization may receive a complaint and must provide proof of receipt of said complaint. If the case is accepted, then the receiver must send all of the information to all of the Project Steering Committee members and call for a meeting to find a resolution. The response must be sent within 5 working days after the meeting of the Project Steering Committee.
FAO Representative in the Philippines	Must respond within 5 working days, in consultation with PSC. **FAO Representative a.i:** Sheila Wertz FAO-PH@fao.org; sheila.wertz@fao.org Tel. (+63 2) 638 9886
FAO Regional Office for Asia and the Pacific	Must respond within 5 working days in consultation with FAO's Representation. **FAO Representative:** Jongjin Kim FAO-RAP@fao.org; Jongjin.Kim@fao.org Tel.: (+66 2) 697 4000
Office of the Inspector General	To report possible fraud and bad behavior by fax, confidential: (+39) 06 570 55550 By e-mail: Investigations-hotline@fao.org By confidential hotline: (+ 39) 06 570 52333

236. Members of IP and minority group communities can make a complaint or appeal on any and all aspects of sub-activities' design and implementation. A complaint and grievance feedback form, as well as a pamphlet explaining the mechanism, will be developed under the project and distributed to IP and minority group communities for their use. IP and minority group community members will be clearly informed of the complaint and appeal channels (as described above, or as delineated through their FPIC process) in community meetings and via other forms of communication that are convenient to them. Information and communications technology and media tools should be used to disseminate information. Opinions and suggestions related to resettlement which are provided by concerned people and/or organizations should be well documented.

6.0 INDIGENOUS PEOPLES' PLANNING FRAMEWORK

6.1 Indigenous Peoples in the Philippines

237. The Philippines has an estimated 14 million indigenous peoples (IP) belonging to 110 ethno-linguistic groups.[113] The highest concentration of indigenous peoples is in Mindanao (61%) and followed by the Cordilleras (33%).[114] The indigenous population and distribution across the country is not completely known, the reported number is still based on estimated population by ethnic group per province, released by NCIP in 2007 at an estimated 14,184,645. According to the 1997 Indigenous Peoples' Rights Act (IPRA), Indigenous Peoples in the context of the Philippines refers to a group of people sharing common bonds of language, customs, traditions, and other distinctive cultural traits, and who have, since time immemorial occupied, possessed and utilized a territory.[115] IP rights to land and natural resources including pasture lands, forests, trees, and water bodies within the indigenous concept of ownership[116] are recognized by the state, subject to regulation by the Department of Environment and Natural Resources (DENR) for land, forestry and natural resources matters and the Department of Agriculture for agriculture and fishery matters. Their fulfillment of their rights to land and natural resources are defined under Republic Act 8371 or the Indigenous Peoples' Rights Act.

238. The indigenous peoples, particularly those in rural areas, remain largely poor. Their geographically isolated location makes government services and facilities such as health and education inaccessible, resulting to IPs' high illiteracy rate and high vulnerability to diseases. In agriculture, marginalized and vulnerable IPs live in the upland areas and geographically difficult to reach areas, hence, climate information, training and support services of DA and the LGUs (e.g. seeds, organic fertilizers) were proven difficult to deliver. However, the "isolation" of the upland communities has protected them from destructive farming technologies and their associated impacts to health, in particular. Indigenous farming systems which are traditional, organic and equitable have thrived in the uplands. (Please note that, whilst there are IP fishermen in ancestral waters, no IP fisherman have been identified in the project sites so far).

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[113] *National Commission of Indigenous Peoples Strategic Directions (2016-2022)*

[114] *Tebtebba, Submission to the Committee on Economic, Social and Cultural Rights, 57th Pre-Sessional Workshop, March 7-11, 2016*

[115] *Section 3h, R.A. 8371, IPRA defined "Indigenous Cultural Communities/ Indigenous Peoples (ICCs/IPs)- Refer to a group of people or homogenous societies identified by self-ascription and ascription by others, who have continuously lived as organized community on communally bounded and defined territory, and who have, under claims of ownership since time immemorial, occupied, possessed and utilized such territories, sharing common bonds of language, customs, traditions and other distinctive cultural traits, or who have, through resistance to political, social and cultural inroads of colonization, non-indigenous religions and cultures, became historically differentiated from the majority of Filipinos. ICCs/IPs shall, likewise include peoples 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 present state boundaries who retain some or all of their own social, economic, cultural and political institutions, but who may have been displaced from their traditional domains or who may have resettled outside their ancestral domains.*

[116] *Section 4-5, Republic Act 8371, the Indigenous Peoples Rights Act, 1997*

"SEC. 4. Concept of Ancestral Lands/ Domains. - Ancestral lands/domains shall include such concepts of territories which cover not only the physical environment but the total environment including the spiritual and cultural bonds to the areas which the ICCs/IPs possess, occupy and use and to which they have claims of ownership.

Section 5 Indigenous Concept of Ownership. - Indigenous concept of ownership sustains the view that ancestral domains and all resources found therein shall serve as the material bases of their cultural integrity. The indigenous concept of ownership generally holds that ancestral domains are the ICCs/IPs private but community property which belongs to all generations and therefore cannot be sold, disposed or destroyed. It likewise covers sustainable traditional resource rights"

239. IP farmers are experiencing the impacts of climate change (temperature is higher than before; droughts are more frequent; heavier rains; fewer typhoons but with increased intensity, increased occurrence of pests, etc.). IP representatives have demanded due recognition of their contribution to climate change mitigation and adaptation through traditional practices and livelihoods, and promotion and enhancement of time-tested traditional knowledge and innovations of Indigenous Peoples[117]. To some extent, the Philippine National Climate Change Action Plan strategy to "develop appropriate technologies and adaptation measures, including indigenous knowledge and autonomous adaptation practices"[118] includes such recognition. The proposed project is in line with the major thrust of the NCIP on reducing the incidence of poverty among the indigenous cultural communities in line with the President's economic agenda.

6.2 Laws and Policies on Indigenous Peoples

240. The **1987 Philippine Constitution** provides the highest form of recognition and protection for indigenous peoples. It mandates the State to: (i) promote the rights of IPs within the framework of national unity; (ii) recognize their rights to land, resources, and culture; and (iii) legislate a national law on IP. The **Republic Act (RA) 8371, i.e. the Indigenous Peoples' Rights Act (IPRA**) provides the definition of Indigenous Peoples and the bundle of IP rights, including the right to: (i) ancestral domains and lands; (ii) self- governance and empowerment; (iii) social justice and human rights; and (iv) cultural integrity. The IPRA Implementing Rules and Regulations (NCIP Administrative Order IRR-1998) provides more details and sets of conditions, requirements, and safeguards for plans, programs, and projects affecting IPs.

241. **Republic Act 7160, or the Local Government Code of 1991,** provides IPs with the option to establish tribal barangays as similarly recognized by IPRA (Section 18), which provides that IPs "living in contiguous areas or communities where they form the predominant population but which are located in municipalities, provinces, or cities where they do not constitute the majority of the population, may form or constitute a separate barangay in accordance with the Local Government Code on the creation of tribal barangays". Another piece of legislation recognizing self-determination and self-identity is **Republic Act 11054, Organic Law for the Bangsamoro Autonomous Muslim Mindanao**, which serves as the foundation of government of the new autonomous region of Muslim Mindanao. This law signed in 2018, with plebiscites completed in 2019 has placed almost all (63 out of 67 barangays) of North Cotabato with the Autonomous Region.[119] Another law that can possibly linked with the project is the **Republic Act (RA) 11192, creation of the Cordillera State Institute of Technical Education (CSITE).** In 2018, there were 3,402 members of the IP community in provinces of Ifugao, Mountain Province, Kalinga, Abra and Apayao and Benguet. [120]

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[117] *Philippine State of the Indigenous Peoples Address 2015, accessed at http://www.tebtebba.org/index.php/content/350-philippinestate-of-indigenous-peoples-address-2015*

[118] *NCCAP, p. 64*

[119] http://nine.cnnphilippines.com/news/2019/02/08/North-Cotabato-Bangsamoro-plebiscite.html

[120] http://www.pna.gov.ph/articles/1063359

242. **Magna Carta of Women, Republic Act No. 9710 (2009)** Indigenous women's customary rights to the land, including access to and control of the fruits and benefits, their indigenous practices on seed storage and cultivation as well their roles as knowledge holders are protected under the Magna Carta of Women, the Philippines' comprehensive women's human rights law. The law further mandated agencies to provide economic opportunities for the indigenous women, particularly access to market for their produce, amongst others.

243. **Social Reform and Poverty Alleviation Act, Republic Act No. 8425** identified 14 basic sectors to be prioritized for support (livelihood training micro-finance services, capacity building, community organizing, etc.) and participation in government decision-making processes. It created a **National Anti-Poverty Commission** (NAPC), government agency who will coordinate poverty reduction program by national and local government. Included in the 14 sectors are artisanal fisherfolk, farmers, landless rural workers, indigenous peoples, women, youth and students, victims of disasters and calamities, NGOs and Cooperatives.

244. **Comprehensive Agrarian Reform Program (CARP) Republic Act No. 6657 as amended.** The Department of Agrarian Reform (DAR) and Department of Environment and Natural Resources (DENR) implement the agrarian reform program for private agricultural lands and public lands and there are IPs who are agrarian reform beneficiaries (ancestral domain titling is tedious so they thought they are better off as ARBs, but agrarian lands are not free) and there are also titled agrarian lands issued by DAR within ancestral lands.

245. **NCIP Administrative Order 3, Series of 2012** "Revised Guidelines on Free and Prior Informed Consent (FPIC) and Related Processes" guides the proper implementation and ensures the respect of the fundamental human rights notions contained in the IPRA, including the FPIC principle. These Guidelines distinguish between three categories of projects which require different FPIC processes for: (i) extractive, large-scale intrusive activities (ELSA); (ii) non-extractive, small-scale activities (NESSA); and (iii) projects requiring validation (e.g. community solicited/initiated activities). Furthermore, undertaken by NCIP by itself or in cooperation with other government agencies, LGU Projects, and Sustainable Traditional Resource Rights). The NCIP AO 3 Series of 2012 Section 24 made further reference to **NCIP AO 1 Series of 2012**, "research undertaken by government, private persons, or corporations or foreign entities for purposes intended directly or indirectly for any purpose shall be governed by the **Guidelines on Research and Documentation of Indigenous Knowledge Systems and Practices (IKSP) and Customary Laws."**

246. **National Guidelines for the Mandatory Representation of Indigenous Peoples in Local Legislative Councils, NCIP Administrative Order No. 1, s. 2009 and the DILG-NCIP Joint Circular No. 001, Series of 2011, Guidelines for the Determination of the Minimum Threshold of IP/ICC Population in a Local Government Unit LGU) to Allow Mandatory Representation in the Local Sanggunians.** These are the two administrative issuances governing the selection of mandatory representation of indigenous peoples in policy-making bodies and other local legislative councils pursuant to Indigenous Peoples' Rights Act.

247. **United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP), 2007**. The Philippines voted in favour of the adoption of the UNDRIP, establishing the principles with which the government should promote and protect the rights of indigenous peoples, including the right to FPIC. The UNDRIP recognizes the right of indigenous peoples to determine their own development priorities and more specifically it links the principles of FPIC with self-determination.

6.3. Guiding Principles

248. Guiding principles for this IPPF and activities under the project include:

249. **Freedom of IPs to Pursue Economic, Social and Cultural Development**, where IPs can decide on projects, activities, and plans within their ancestral domain. The project operationalizes this right of self-determination of IPs through FPIC and sustainable development and protection plans for their ancestral domains.

250. **Cultural Sensitivity.** The implementation of project activities and participation approaches shall be culturally appropriate and responsive with the customs, traditions, values, beliefs, interests and institutions of IPs. The Ancestral Domain Sustainable Development and Protection Plan (ADSDPP) shall be used as a tool for planning intervention with IPs to preserve and protect such culture, traditions and institutions. This project recognizes that IKSPs are owned by the IPs s as their collective property and are an inherent part of their cultural patrimony, and will engage with farmers, knowledge-holders/living masters within this context.

251. **Interdependence**, where the ancestral domain and all resources found therein cannot be separated from the social and economic systems and the benefits derived therefrom. The ancestral domain is treated as the primary unit for planning and for FPIC processes.

252. **Fulfillment of Responsibility to Future Generations.** The project activities are consistent with the IP intergenerational responsibility to sustainably manage and protect their resources and IKSPs for the future generations. In the management of the ancestral domain, due consideration must be given to the resources as well as conflict management systems, indigenous knowledge, systems and practices, and peace building mechanisms and institutions of the Indigenous Cultural Communities (ICCs)/IPs.

253. The project will operate in a **participatory**, **transparent and accountable** manner guided by equity, efficiency and effectiveness;[121]

[121] *This statement and the following four statements are based on the proposed GCF Framework for the Indigenous Peoples Programme on Climate Change in the Philippines. The framework was drafted and finalized in 2016 by Elatia (Tebtebba and 18 indigenous peoples' organization partners from 13 countries in Asia, Africa and Latin America). It was also presented, discussed, contextualized and agreed by indigenous representatives during the National Indigenous Peoples Consultation on Upscaling Climate Resilient Indigenous Communities in the Philippines on 8-9 November 2018 in Mandaluyong City, Philippines.*

254. The project will be flexible, giving primary consideration to indigenous peoples' needs and priorities on climate change adaptation and mitigation within the framework of **Indigenous Peoples Sustainable Self-Determined Development**;

255. The project will be **continuously learning** and can make a valuable contribution to broader knowledge sharing and management;

256. The project will take a **gender-responsive** and intergenerational approach. It will foster cooperation, unity and solidarity;

257. The project commits to build the capacity of IP organizations to foster partnerships with relevant government agencies and other stakeholders, based on mutual trust and respect.

6.4 Institutional Systems

258. Institutional systems involving indigenous peoples and their concerns include both the formal and customary institutions - the formal is the government, led by the **National Commission of Indigenous People** (NCIP) created under the IPRA to protect and promote the interests and well-being of the indigenous peoples with due regard to their beliefs, customs, traditions and institutions (Section 39, IPRA). The NCIP is responsible for IPRA implementation and coordination with other agencies such as the DA, LGUs, oversees the process for Free and Prior Informed Consent (FPIC) and issues ancestral land and domain titles, amongst others. NCIP is led by a commission comprised of seven commissioners belonging to indigenous peoples representing the seven ethnographic regions. At the national level, the Commission is supported by an Executive Director and seven offices: (i) Socio-Economic Services and Special Concerns; (ii) Ancestral Domains Office; (iii) Policy Planning and Research; (iv) Empowerment and Human Rights; (v) Education Culture and Health; (vi) Finance and Administration; and (vii) Legal Affairs. NCIP has 12 Regional Offices overseeing 46 provincial offices and 108 Community Service Centers. They also support micro-livelihood projects promoting IPs' traditional livelihood activities, such as small-scale organic vegetable farming, coconut farming, seaweed farming, raising native chicken, pigs, goats and other animals. The budget for these activities is, however, insufficient to achieve desired impact in the economic standing of the IP communities (NCIP Strategic Directions).

259. Customary institutions are the governance structures within the **Indigenous Political System (IPS)** of each clan, tribe, and ancestral domain. The Indigenous Political System is the organizational and cultural leadership systems, institutions, relationships, patterns and processes for decision making and participation identified by the IPs such as the Council of Elders, Council of Timuay, Bodong Holders, or any other tribunal or body of similar nature. The first step of the FPIC process, the **Identification of the Indigenous Peoples Concerned and their Representatives, should be done within this system.** Within this system, there are IPs who group themselves as **Indigenous Peoples Organizations (IPOs)** for a common purpose (e.g. farmers' cooperative, livestock association, weavers group, etc.) and apply to have legal

personality as – for example – an association under the Securities and Exchange Commission, a cooperative of IP farmers under the Cooperative Development Act, or a workers group under the Department of Labor and Employment.

260. There is also the IPRA-mandated consultation body, known as the **Indigenous Peoples' Consultative Assembly**. The Indigenous Peoples' Consultative Assembly is active at the national, regional, provincial, municipal and barangay level and was constituted by the NCIP to advise on matters relating to the problems, aspirations, and interests of IPs. The body is composed of traditional leaders, elders, and representatives from the women and youth sectors of different ethnic groups. The creation of consultative assemblies are still yet to be fully implemented. There are also **Indigenous Peoples' Mandatory Representatives (IPMRs),** which are distinct from the traditional leaders, but ideally selected with the IPs. IPMRs require further capacity-building to ensure they are able to meaningfully participate in the legislative process in the councils.

6.5 Regional and Provincial-Level Scoping of Indigenous Peoples

261. **Scope of indigenous peoples whose consent shall be secured.** The general rule under IPRA and its implementing rules (Section 4, NCIP Administrative Order 1, 1998) – and the subsequent two FPIC guidelines relevant to this project – is that the scope of whose FPIC is required depends upon the impact area of the proposed policy, program, projects and plans. If such affects only the particular community within the ancestral domain, only such community shall give their FPIC and if it's the entire ancestral domain, the consent of the concerned IPs within the ancestral domain shall be secured. Impact area is not limited to direct impacts but also includes areas with potential indirect impacts, whether positive or negative. Once Indigenous peoples are identified to be affected by or located within the project area, the specific FPIC procedure is determined based on classification of project activities provided under the two guidelines. The right of FPIC under IPRA cannot be disassociated with IPs claim of time immemorial possession of the ancestral domain, their life and rights are connected to the ancestral land/domain, hence, existing FPIC rules are built on this premise. If there are two or more domains affected, the IPs owning such domains shall exercise the right to FPIC separately (Section 20, NCIP AO 3, 2012). Moreover, the rules are silent on their exercise of the right to FPIC once they have voluntarily resettled in areas outside their domains, except if such areas are within the public domain. At the minimum, their right to be consulted and give consent is covered under other laws such as the Local Government Code, where the local government units are accountable for their welfare together with NCIP. This is somehow dissimilar from the requirements outlined under safeguard 9 (Indigenous Peoples and Cultural Heritage) of the FAO Environmental and Social Management Guidelines[122] and the FAO FPIC procedure, where the right to FPIC is to be guaranteed to all IPs regardless of the nature of lands inhabited. In cases where FPIC is only required under the FAO procedures, the project will secure the consent of the IPs following FAO FPIC procedure[123] (this is consistent with the general FAO safeguards policy whereby the most stringent rules/guidelines are applied for each context).

262. In case of **affected indigenous peoples who are not ancestral domain holders, their right to FPIC will be secured under existing national FPIC rules and the FAO IP Policy.** Note that

[122] *FAO 2015. Environmental and Social Management Guidelines.* http://www.fao.org/3/a-i4413e.pdf
[123] *As per the procedures outlined in the 2016 FAO's Manual on Free Prior and informed Consent:* http://www.fao.org/3/a-i6190e.pdf

Philippine law does not distinguish between titled or not titled ancestral lands, both are recognized as ancestral domain under the law

- **Resettled, Displaced and Relocated IPs as well as Migrant IPs Living in Co-existence with the Original IPs within the Domain**. The right to FPIC of the resettled, displaced and relocated or migrant IPs will depend on the custom, practice or tradition of the owners of the ancestral domain allowing or disallowing the exercise thereof. Whether allowed or not allowed by the owners of the ancestral domain to participate in the FPIC proceedings, they shall likewise be entitled to the benefits by virtue of the Memorandum of Agreement (MOA) and to compensation for damages, loss or injury to them or their properties. The obligation to compensate what is rightfully due to the resettled, displaced, and/or relocated IPs or migrant IPs shall be recognized by the applicant in writing either in the MOA or in a separate undertaking made as an integral part of the MOA (as stipulated in Section 47, NCIP AO 3, 2012). The project shall secure their FPIC under the IPRA and the two FPIC Guidelines.
- **Resettled/Relocated or Displaced IPs living outside ancestral domain areas but within Public Domains.** This group or community of IPs occupying a portion of public domain, whether as a result of a resettlement/relocation project of the government or as a result of displacement, can exercise their right to: (i) stay in territory; and (ii) be provided, in cases of displacement, with lands of quality and legal status at least equal to that of the land previously occupied, suitable to provide for their present needs and future development. This group shall not be treated as migrants and can likewise exercise their right to FPIC under existing rules (section 46, NCIP AO 3, 2012).
- **Indigenous peoples living outside their ancestral domain but in public domain**. The project will secure their consent in line with the FAO Policy on Indigenous and Tribal Peoples and through the process detailed in FAO Manual on FPIC. Depending on location and logistics, their orientation and consultation meetings can be in the same venue as meetings held for other IPs. A written agreement between the project representative and the IP individual/household/group shall be executed as manifestation of their understanding and consent. This will not be submitted to NCIP for validation, but as it is, shall serve as evidence of consent and a monitoring tool for FAO and the GCF.

263. Two of the primary focus regions of the project – (i) Cordillera (with a focus on two out of three provinces from Apayao, Kalinga, and Ifugao); and (ii) Central Mindanao (North Cotabato and Bukidnon) – are comprised of provinces with ethnographic regions, including the two highest areas inhabited by indigenous peoples. Most of the Cordillera in northern central Luzon is the ancestral domain of a number of ethnic groups, including Abra (*Tinggian*), Apayao (*Isneg*), Benguet (*Kankanaey and Ibaloi*), Ifugao (*Ifugao),* Kalinga (*Kalinga, Isneg),* Mountain Province (*Kankanaey*), each of which has its own family of languages and cultures. There are three ethnic groups in Ifugao who have similar farming systems, practices, zoning, and indigenous varieties resistant to pests. About 40 percent of the Ifugao diet comes from agriculture, most of it wetland rice while ten percent is from fish, clams and snails living in the rice fields.[124] In Mindanao, indigenous groups collectively identified as *Lumad* (non-Islamized indigenous peoples) and

[124] *http://factsanddetails.com/southeast-asia/Philippines/sub5_6d/entry-3880.html*

belong to 18 ethnic groups, namely: *Atta, Bagobo, Banwaon, B'laan, Bukidnon*[125]*, Dibabawon, Higaonon, Mamanwa, Mandaya, Manguwangan, Manobo, Mansaka, Subanon, Tagakaolo, Tasaday, Tboli, Teduray,* and *Ubo*. The upland *Lumad* farmers are faced not only with climate change but also with displacement due to military operations, Agribusiness Venture Arrangements (AVAs) which allows for the re-concentration of lands back to big landlords and intrusion of giant multinational plantations into peasant communities and ancestral domains

264. In Region V (Bicol) where the provinces of Camarines Norte and Camarines Sur are potentially included, the ethnic groups are known as the *Agta*, part of the hunter-gather tribes of the Philippines who have now settled in farming areas. Their traditional means of livelihood are farming and fishing. They exchange part of the meat and some forest products for starchy food and other goods with nearby farmers. Today, however, many *Agtas* take on seasonal jobs, such as copra and charcoal making, and gold panning. The *Agta* tribal communities in Bicol are subdivided into several sub-tribes: (i) *Agta-Cimarron; (ii) Agta-Tabangnon* of Camarines Sur; and (iii) *Kabihug in* Camarines Norte. The latter are still a hunter- gathering group, but also depend on root crops, rice and vegetables that they grow. In a study by DA V Regional Office on the socio-economic characterization of the *Agtas*, "families surveyed in the research sites did not have sufficient income from rice, agricultural crops and non-agricultural sources to cover their annual basic needs, clearly needing interventions to reduce costs and increase income from farm production." Identified constraints to upland rice production include the lack of available land area since production of other crops (indigenous forest products such as abaca, root crop and fruit-bearing trees thrived in the uplands), the difficulty of sourcing upland seeds, and most of the IP lowlanders have no idea how to establish rice farming in the mountains.[126]

265. Other constraints to farming and the practice of climate resilient agriculture, identified by the by IPs themselves are as follows: (relevant items will be addressed at project design and implementation phases)

- General lack of recognition and support for IKSP based agriculture;
- Proliferation of chemical based farming is eroding the genetic base of IP agriculture;
- At the LGU level, there is no participation of the IPs, even if the DA or the LGU staff are IPs themselves, IP farmers' needs are not reflected, so in effect they are not reflected in the the LCCAPs;
- Mitigation/coping after post typhoons and linking with government agencies for assistance are difficult. The process for availing Philippine Crop Insurance is not easy.
- DA programs reached the "rich farmers" or the farmers connected with the LGUs and the DA, not always the poorest and most vulnerable farmers, IP farmers, and/or IP women farmers.

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[125] *In seven Bukidnon tribes: they are: the Bukidnons (people from the lowlands), Tigwahanuns (people along the Tigwa river), Umayamnuns (the inhabitants along the Umayam river amidst the Pantaran mountains), Talaandigs (people from Talakag, Songco, Kibangay and Basak), Higaonons(people who come from Agusan), and the Manobos (people whose spread has been noted to be great in Kalilangan, Pangantucan, Kitaotao, Kibawe, Kadingilan, Don Carlos and Quezon). Matigsalugs (people along the Salug River), These tribes of people are bearers of the wealth of ethnic, cultural, spiritual and social diversity of Bukidnon. (Bukidnon provincial data)*

[126] *Movillon, Mario, Canilao, Jacqueline Lee, et al. "Anthropological and Socio-Economic Characterization of Bicol's Agta Indigenous Peoples". Bicol Integrated Agricultural Research Center, DA Regional Office V.*

- Experience of farmers in asking seeds from DA and LGU is discouraging, since there are many bureaucratic requirements. IPs ask help from NGOs, but they still lack seeds. They also said that seed preservation is very active (community seed banks for 2 000 indigenous rice, corn, and vegetables)
- DA has lending programs for disaster recovery, one of which is the Agriculture Credit Policy Council (ACPC) and is accessible to farmers without collateral; however IPs are not documented at all (even without birth certificates), thus, in effect, they cannot borrow.
- Issues on land tenure security and extractive industries should be considered. These greatly impact IP agriculture. Programs are limited in number and impacts are smaller than those of destructive activities, such as mining.
- Aging farming population and lack of interest by the young population

266. All community members, including women, youth and elders will be equally involved in the FPIC process; however, there could be some communities in which the prevailing indigenous self-governance systems and structures state otherwise. Example will be IP communities who involves only tribal leaders or household leaders in the decision-making process. Under such circumstances, the project will initiate special measures to ensure broader participation of all stakeholders. Such measures may include: (i) separate discussions with each specific group; (ii) provision of accessible, community-friendly information materials; (iii) selecting discussion venues located inside the community to enable women, elderly persons, and youth to attend; (iv) provision of feedback boxes in the community during the FPIC process; (v) agreement with the community on the use and value of the feedback boxes; and/or (vi) advising the community to have a consensus-of-all, rather than majority rule (i.e. 50% + 1); to name a few. For the FPIC process, engagement with the IP communities will be initiated through the NCIP, traditional leaders, and their Indigenous Peoples Mandatory Representatives (IPMRs) at the provincial, municipal, and barangay level. Engaging the IPMR from the onset is strategic, as s/he is the IP representative in the local legislative council and can pave the way for the support of the mainstreaming of IKSP-related CRA in the LGU policy and plans. For the FPIC process for IPs outside the ancestral domain, the project engagement will be initiated directly to the communities in coordination with the NCIP and local government unit. In cases where the same project areas include communities comprised of both indigenous and non-indigenous individuals, general orientation will be provided to both groups, however the detailed discussions and consent seeking process will be separately undertaken for these two groups.

6.6 FPIC Process

267. In order to determine potential impacts of project on IP communities, as well as the scope and classification of the FPIC activities, the following FPIC assessment screening was conducted:

Table 7. FPIC Assessment Checklist – Screening Tool

Criteria	Yes	No	Details
Will the project activities result in displacement of IPs?		**No**	The project intends to increase resilience to climate change of the most vulnerable IP farmers and its support institutions for improved farm management in their ancestral lands and domains.
Will the project activities involve indigenous peoples directly?	**Yes**		IPs (including women, youth, elderly, and disabled), living in climate-change vulnerable areas are targeted project beneficiaries. They may be directly involved in the awareness and capacity development on climate change and the project; Farmer Field Schools; Farmer Peer-to-Peer Exchanges; local planning for integrating CRA in their Ancestral Domain Sustainable Development and Protection Plan (ADSDPP); and IP farmer trainer, etc.
Will there be activities involving the sacred grounds, burial sites, cultural and heritage sites, critical and special areas identified by the IPs?		**No**	The project recognizes that these are excluded areas and can be used only for the purposes for which they were established. There is possibility that agricultural landscapes considered as cultural heritage sites may be used by the IP farmer beneficiaries to document or showcase IKSP related to CRA, but these are IP led, will be according to their ADSDPP, pre-identified during FPIC and pursuant to the priorities of the IP community.
Will there be project activities undertaken inside the ancestral lands and ancestral domains?	**Yes**		Agrometeorological facilities may be installed in ancestral lands and domains, but subject to the land use/ zoning of the ADSDPP and to the appropriate FPIC process. The FPIC process will ensure that consent is provided prior to the installation of the facilities and will include the determination of the compensation for the land to be used. It will be ensured that a community monitoring plan on securing the station is agreed upon among PAG-ASA, the project team (DA, FAO, LGUs), community, and NCIP. Farmer field schools or demo farms may be located inside ancestral lands and domains, and small scale direct inputs for agriculture will be provided and possibly be stored in the community areas; knowledge sharing on climate advisories may also be inside the community. The areas within ancestral lands and domains will be pre-identified by the IPs, consistent with the agreement during the FPIC and pursuant to the priorities of the IP community.

Criteria	Yes	No	Details
Will there be project activities involving research on indigenous knowledge, systems and practices related to agriculture, forestry, watershed and resource management systems and technologies?	**Yes**		Yes, to some extent. There will be some gathering, documenting and analysis of Indigenous knowledge systems related to agriculture and CRA, but these are aimed at supporting, recognizing and promoting such IKSPs and mainstreaming them into the ADSDPP and LGU plans (LCCAP, etc.) Research activities will be designed within the IPs right to own, control, develop and protect their IKSP. Measures to protect IPs' rights, value systems, community intellectual property rights are guaranteed by the project and will be formally agreed during the FPIC process. If there are Introduction of seed varieties it will be with due consideration and risk assessment of the impact of those said varieties with local varieties.
Will there be gathering of genetic resources for bio-prospecting?		**No**	If there are instances of gathering of genetic resources such as seeds, it will not be for the purposes of applying the derived knowledge solely for commercial purposes. Seed banking in IP areas will be (i) IP-led; (ii) primarily for their own benefit; and (iii) within the framework of farmers' rights to seed and the FPIC of the IPs.

268. Based on Table 7, there are two national guidelines pertaining to FPIC which are relevant to the project – both of which result in different kinds of FPIC applications at the regional level, however they equally require reaching consent. It should also be noted that the primary unit for conducting FPIC is the ancestral domain. The guidelines relevant to this project are as follows:

269. **Indigenous Knowledge Systems and Practices (IKSP):** NCIP Administrative Order 1 Series of 2012 states that research undertaken by government, private persons, corporations, or foreign entities which will directly or indirectly affect Indigenous Cultural Communities/Indigenous Peoples for any purpose shall be governed by the Guidelines on Research and Documentation of IKSPs and Customary Laws. Under this project, not all project areas involving IPs, ancestral lands, and domains will have research and documentation of IKSP. For areas that do, the research will be conducted only in carefully selected indigenous communities based on criteria established, such as the presence of IKSP related to farming and CRA and CC impact, amongst others.

270. **Project activities within Ancestral Domains:** The second FPIC guideline which applies to this project is with regard to the potential establishment of agro-meteorological stations and/or project activities within ancestral domains. Establishing agro-meteorological stations in high-risk areas where there are critical gaps (based on the PAGASA map of existing agro-met stations) may involve some areas that fall within ancestral domain. In addition, farmer field schools and demo farms, farmer peer-to-peer exchanges, local planning for integrating CRA into Ancestral Domain Sustainable Development and Protection Plans (ADSDPPs), and all activities involving IPs and their ancestral domain are to be implemented on the ground by the Provincial

Agriculture Office of the Local Government Unit (LGU) together with DA, PAGASA and FAO project team. The NCIP classifies these project activities as LGU Projects, which **are subject to the process of consent validation under Section 40 of the Revised FPIC Guidelines.**

271. Details for each of these two guidelines can be found below, first for the IKSP and second for the project activities within ancestral domains (particularly for agro-meteorological stations).

272. **FPIC Process for activities involving IKSP of indigenous peoples, as per the IKSP Research Guidelines:** The IKSP Research Guidelines are applicable to four kinds of research: (i) community initiated or solicited research; (ii) academic research; (iii) research to aid policy; and (iv) social research. This project may fall under two categories: (i) community initiated or solicited research; and/or (ii) research to aid policy, both of which follow the same procedure. Key elements of the FPIC application for these are:

- **Applicant/ Proponent:** Lead will be Local Government Units (Provincial) and supported by the project team (DA Regional Office and FAO)
- **Facilitator:** National Commission on Indigenous Peoples (NCIP) Regional Offices, and Provincial Offices and in particular the FPIC IKSP team) to be created by the NCIP Regional
- **Ownership of research:** Indigenous Cultural Communities/ Indigenous Peoples (ICCs/IPs) have joint rights to all works and materials resulting from such research, whether or not the same is published or communicated in any medium
- **Dispute Resolution**: the principle of primacy of customary laws shall apply hence referral to the Council of Elders/Leaders is mandatory and the same shall be resolved in accordance with the customary mode of dispute settlement. If unresolved, the parties can resort to the Rules on Procedures, Pleadings and Practice before the NCIP (this is under NCIP quasi-judicial powers)
- **Consent seeking processes (no.7)** varies in each community and conditions for the consent may also vary, however basic safeguards – especially genuine representation, community intellectual property rights, culture sensitivity, benefit sharing, etc. – are already provided in the guidelines.
- **Procedure for the consent seeking process,** Steps 1- 10 and the actual research, publication and validation of the research output by the community is laid down in Table Y.

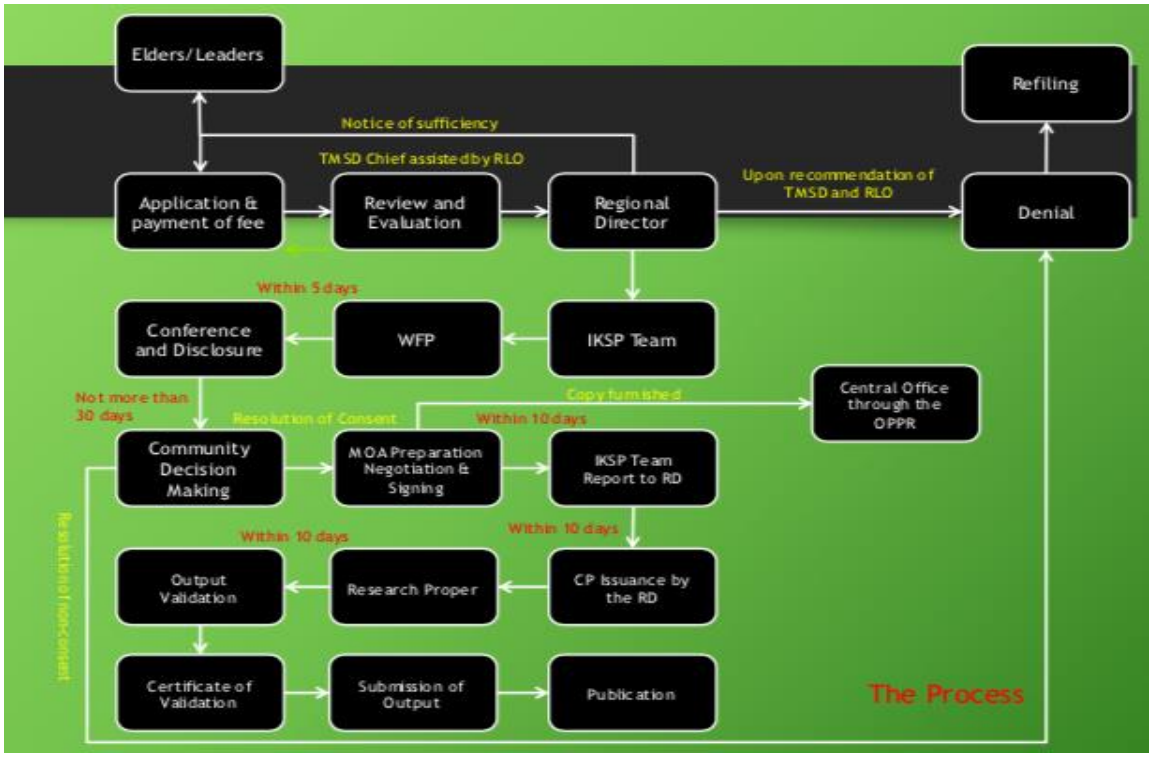
Table 8. FPIC Steps for IKSP Research

STEP	PROCESS REQUIRED
1	**File application with the NCIP Regional Office to undertake FPIC.** The application consists of an application letter from the project, signed by a representative (Governor/PAO or the DA), as well as an organizational or team profile which emphasizes the person(s) to be involved in the research activities and a simplified research proposal with local translation. The research proposal shall contain the following: (i) identity of the researcher; (ii) purpose/rationale of the research; (iii) methodologies or methods; (iv) materials to be used and data gathering instruments; (v) scope and limitation of the study; (vi) source of funding; (vii) period of research and chronology of activities involved; and (viii) a manifestation agreeing to shoulder the administrative costs incidental to the research activities. An "Undertaking in Good Faith" shall be executed by the proponent and s/he will abide by these guidelines and/or other requirements. A payment of fees (PHP 500) is made during the application filing.

STEP	PROCESS REQUIRED
2	**Review and evaluation of the application by the Technical Management and Services Division (TMSD) Chief and the Regional Legal Officer.** The sufficiency of the application will be reviewed and the research can be denied in any cases where the research involves the intrusive and actual experimentation of human persons that will pose an imminent threat to their life and limb. Examples of such cases include the excavation or destruction of sacred places of worship grounds or other culturally sensitive areas restricted by tradition or any cases which may violate the rights of ICCs/IPs. For this project, none of the above cases are present/apply. If on the basis of objective evaluation, the application is found to be lacking in material points or there is a need for revision to make it more culturally appropriate, this shall be communicated and returned to the researcher for compliance.
3	**Once the application is in order, the Regional Director transmits notice of sufficiency to both the applicant and the community through their elder(s) and leader(s).** In this case, the project may (i) assist with transmittal to the community; (ii) obtain names and mobile numbers of leaders/elders of the community; and (iii) initiate the networking/informal information dissemination with the community, if appropriate.
4	**Regional Director directs the formation of the IKSP team who will facilitate the process.** The team is composed of the Provincial Legal Officer, Community Development Officer, and Tribal Affairs Assistant having jurisdiction over the area subject of the research
5	**Preparation of the Work and Financial Plan by the IKSP team and the proponent.** The specific details of the FPIC process is discussed such as date, venue, identifying leaders and members who will be attending he meetings, expenses for food and transportation of the IC/IP community, documentation expenses (e.g. photo and/or video, cassette recordings, reproduction of documents), and other logistical costs. Estimated costs for the entire FPIC process (around three months) for one municipality covering around six barangays in Ifugao province would be approximately PHP 150 000 in year 2019. The baseline was PHP 105 000 as of 2017, but with only 10-25 IP members in each community (DA-BAR project).
6	**Conference and Disclosure with the community.** This is scheduled within five days of the approval and signing of the work and financial plan. In this community meeting, the proponent will present the purpose of the research; parameters; methodologies; materials; costs and source of funding; related information on the intended research; benefits that the community may derive from the research activity; and/or data gathering tools. A proposed research work plan is presented for the community's consideration and inputs. It is very important that the project prepares community-friendly materials which are simple and available in local dialect, with a preference for visual materials, especially videos. It is also best if the presenter speaks in the native language.
7	**Community Decision-Making.** The community is expected to make a decision within thirty days from the termination of the conference, but this time limit may be surpassed if required by the community. The community will issue a resolution expressing their consent or denial, and the grounds thereof, to the said research application. If the community says YES, then the community identifies the key informants and the extent of information which can be disclosed, as well as any restrictions, and the authorized person to represent them in the written agreement. A resolution of consent is drafted by the IPs/NCIP and reviewed by the NCIP. In case of denial of the research, the IKSP Team shall submit to the Regional Director a report on proceedings conducted together with the resolution of denial by the community.

STEP	PROCESS REQUIRED
8	**Preparation of the Memorandum of Agreement (MOA) negotiation and signing.** The NCIP IKSP Team shall facilitate and assist with the drafting and negotiation of the terms and conditions of the agreement. It should be available in both English and the local language. The MOA shall contain the following: (i) detailed premises of the agreement; (ii) all parties involved; (iii) inclusive dates/duration of the agreement; (iv) rights and responsibilities of the parties; (v) extent of the information that may be disclosed to the researcher, possible restrictions, and such terms and conditions which the community may deem appropriate; (vi) benefits to be received by the community; (vii) dispute resolution mechanisms and sanctions for non-compliance with the agreement; and (viii) other terms and conditions agreed to by the parties. After final review of the MOA by all the parties, it shall be signed by the three parties: community, project, and NCIP.
9	**The IKSP team submits report to the Regional Director and to the NCIP National Office.** The report must include the Resolution of Consent and the signed MOA.
10	**Issuance of the Certificate of Precondition (CP) by the Regional Director.** Within ten days of submission by the IKSP Team of their report and favorable recommendation, the Regional Director shall issue the Certificate of Precondition
11	**Conduct of Research Activities**, ensuring culture sensitivity and compliance with the guidelines and conditions of the consent.
12	**Validation of the research output in the communities.** Within ten days of research completion, the researcher shall present the output to the community for validation. The IKSP Team shall facilitate the conduct of validation.
13	**Issuance of Certificate of Validation by the community.** Resolution by the community validating the outputs serves as the basis for the certificate of validation issued by the NCIP. The certificate is evidence that the researcher presented their research output(s) to the community for validation and that the IPs are fully satisfied with the content, extent, and manner of presentation of the information or knowledge that may be published or communicated. This is needed for the publication of the research results.
14	**Submission of Outputs to the Community Registry, Regional Office, and Central Office Library.** Copies of the validated and approved research output(s) are submitted to these offices.
15	**Publication.** The community has the sole and exclusive right to determine the extent, content, or manner of presentation of the information or knowledge that may be published or communicated if the research output pertains to their religious beliefs, cultural beliefs, ceremonial paraphernalia, or sites. IP ownership rules apply, and it should be noted that prior to any publications, the researcher must provide a translation of their major findings and recommendations, as well as the pertinent research documentation, to the indigenous community concerned who shall have the right to comment and/or to correct factual data.

Figure 5. Illustration of FPIC Steps for IKSP Research



Legend: *TMSD: Technical Management and Services Division; RLO: Regional Legal Officer; IKSP: Indigenous Knowledge System and Practices; WFP: Work and Financial Plan; OPPR: Office on Policy, Planning and Research. (Source: NCIP Central Office, Quezon City)*

273. **FPIC Process for activities within ancestral domains:** The NCIP specifies four project classifications for projects with activities occurring in ancestral domains: (i) community solicited or initiated activities; (ii) projects, programmes and activities undertaken by NCIP or in cooperation with other government agencies and LGU projects; (iii) foreign-funded projects undertaken in cooperation with the NCIP; and (iv) exercise of traditional resource-use rights. As part of Component 1, this project may cover expansion of agro-met stations within ancestral domains. An agro-met station is a grouping of small to medium components, including a: (i) remote data-acquisition unit; (ii) multi-parameter sensor; (iii) rain-gauge sensor; (iv) soil moisture and temperature sensor; (v) 15W solar panel; (vi) mechanical mountings and sensor housing (as detailed on the DA website). The station receives data from the sensor for transmission via the SMS or Satellite network. The size of one station is similar to that of a lamppost, the instrument/s are not intrusive to the ancestral domain, and there are no known health effects of operations from agrometeorological stations to nearby IP communities. The agro-met stations will assist in the short term forecasting and tracking of longer terms climate trends. They will provide standardized capture of data on agriculture-relevant climate data which can be processed by PAGASA and the DA to serve as basis for climate information/advisories to be given to farmers under the project. Based on the above overview of project activities within ancestral domains, the project falls under the NCIP classification of an LGU project ("projects undertaken by NCIP or in cooperation with other government agencies and LGU projects"), whereby the LGU-MAO/PAO are the lead implementers at the community level, together with the DA, PAG-ASA and FAO).

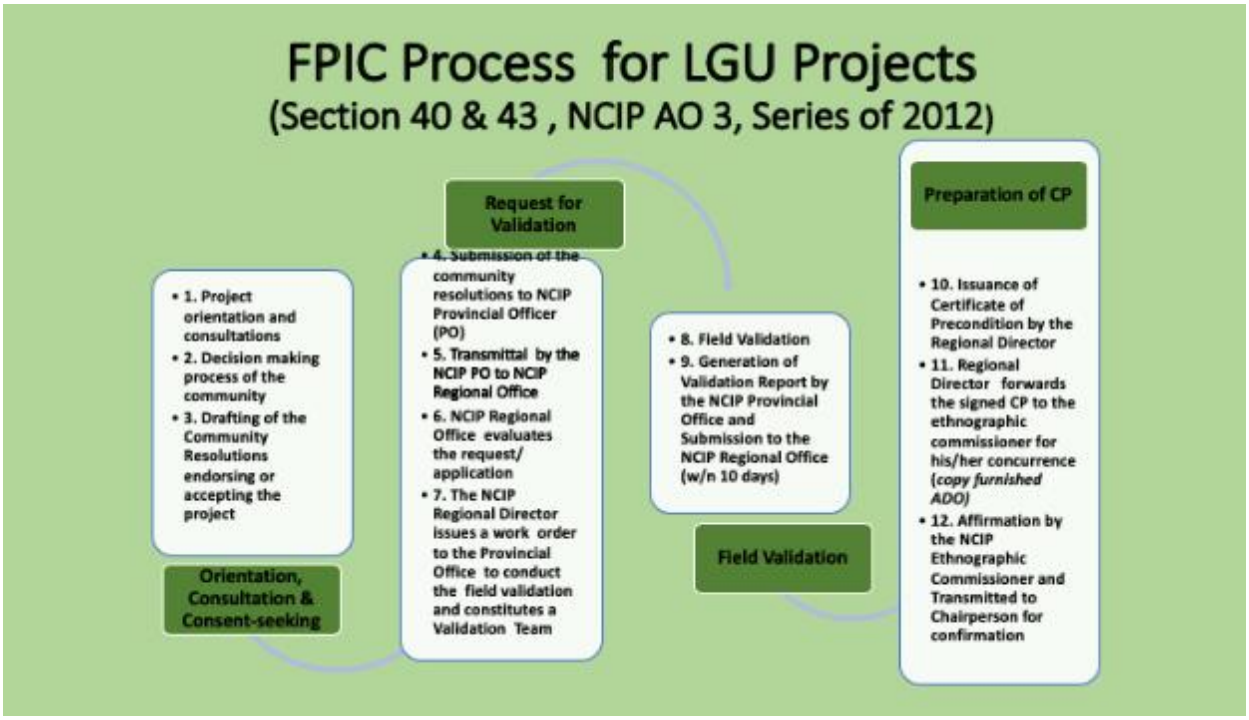
274. Based on this classification as an LGU project, the activities are subject only for the field validation of consent (Section 40, Revised FPIC Guidelines). The project areas span several regions, a number of them with IPs. Given this, the law states that any project within two or

more regions shall transmit their application to the Director of the Ancestral Domains Office (ADO). The ADO in the NCIP Central Office in Manila shall then decide which Regional Office should lead in facilitating the appropriate and applicable FPIC process, taking into consideration the extent of the expected effects/impacts and the size of the areas that will be affected (Section 6, NCIP AO 3, 2012). Specific FPIC steps for LGU projects are detailed in Table X and Figure X.

Table 9. FPIC Steps for Local Government Unit (LGU)'s Classifications of Projects

STEP	PROCESS REQUIRED
1	**Orientation and consultation (or a series of both) by the proponent on project details, in preparation for the Community Decision Process.** Orientation and consultation sessions are to be led by the LGUs with support from the NCIP, the provincial/municipal/barangay Indigenous Peoples Mandatory Representative (IPMR), and the project team. **Decision making process of the community.** The community, led by their leaders, discuss amongst themselves the project details, clarify their level of involvement and conditions, and if there are any in acceptance of the project. Rituals are often conducted during this process. The ADSDPP can be emphasized as the tool whereby communities may identify their needs and plans, and it should be used as the basis for project. The FPIC process will also include the determination of compensation for any land to be used for agro-meteorological stations, if applicable. It will be ensured that a community monitoring plan on securing the station is agreed upon, and that the conditions are included in the subsequent community resolution. The output of this process will be community resolution(s), a document handwritten or typed, signed by the leader or chosen representatives of the community.
2	**Submission of a request for validation of the Community Resolutions at the NCIP Provincial Office.** The purpose of the validation is to determine the genuineness of FPIC and whether or not the LGU project is pursuant to or complementary with the development priorities of the community and will not in any way adversely affect their well-being.
3	**Field Validation.** The objective of the validation is to determine that said community consent was secured following the principle and standards of FPIC through interviews of elders/leaders and other community members. The validation team is composed of NCIP personnel from the provincial offices and community service centers, the process is documented, and a report is made to the Regional Director.
4	**Preparation of the Certificate of Precondition and issuance thereof by the Regional Director.** Upon a favourable result from the field validation as stated by the field validation report, and after review conducted by the Regional Legal Officer, the Regional Director signs the Certificate of Precondition (CP). The Regional Director forwards the signed CP to the ethnographic commissioner for his/her concurrence. The Ancestral Domain Office (ADO) is then furnished a copy.

Figure 6. Illustration of FPIC Process for LGU Project Classifications



275. **Venue of community decision making processes.** The national FPIC guidelines provided by NCIP stipulate that community assemblies should be held within the ancestral domains. This FPIC process is done per IP community or by tribe. For IPs living outside of their ancestral domain, the venue of consultation will be their chosen area or community barangay hall. Results of the process will be integrated in the overall monitoring and evaluation plan for IPs.

276. **Monitoring, evaluation, and feedback process.** The FPIC process as detailed by NCIP provides steps to ensure IPs' full and effective participation and ownership throughout the FPIC process and into project implementation, including monitoring and feedback. According to national guidelines, the NCIP leads the monitoring of IP-relevant project activities, whilst the feedback processes/institutions/platforms for each community are more local and culturally specific.

6.6 Grievance Redress Mechanism and Dispute Resolution

277. Indigenous Peoples have the right to have their own justice system, conflict resolution institutions, and peace building processes (Section 15, IPRA). The Indigenous Justice System is an alternative method of dispute resolution which gives primary importance to the customs and practices of the Indigenous Peoples. Dispute resolution is established and included in the FPIC process; it is embedded in both the NCIP-led process and the community decision making process. From the onset, it is very important for the project to ensure transparency and full disclosure of intent, extent, and impacts of proposed activities.

278. The guiding principle in dispute resolution is the principle of **primacy of customary** law over all conflicts related to ancestral domains and lands involving IPs such as but not limited, to conflicting claims and boundary disputes. It must be noted, however, that the right of IPs to use

their customary justice systems is not absolute because what the law speaks of is only primacy of its use. If customary process fails, it can be escalated to the Katraungang Pambarangay (Barangay Justice Systems) under the Local Government Code. Note that all conflicts related to the ancestral domains or lands where one of the parties is a non-IP, or where the dispute could not be resolved through customary law, shall be heard and adjudicated before the NCIP and then the regular courts.

279. Specifically, IPRA clearly states that rules of application of **customary laws, traditions and practices of the IPs of the land where the conflict arises shall first be applied** with respect to property rights, claims and ownership, hereditary succession and settlement of land disputes, and such rule is applicable in any disputes arising from the FPIC process. Second, **any ambiguity in the application of such laws shall be resolved in favor of the IPs.** On top of these safeguard measures, the **IPRA law gives the IPs and the NCIP the right to stop and suspend projects.** The NCIP may on its own, or upon the complaint by the IPs, stop and suspend the implementation of any development program, project, policy or plan, in instances where (i) due investigation shows proof that consent was obtained due to manipulation, coercion, intimidation, and deceit; or (ii) where the proponent has violated any or all of the terms and conditions stipulated in the Memorandum of Agreement (MOA). **In cases where FPIC controversies cannot be resolved within the customary processes, any aggrieved party can file the complaint with the NCIP Regional Hearing Officer, who has the jurisdiction over such cases** (Section 67, NCIP AO 3, 2012).

280. **Any GRM developed** under future IP Plans **must be specific to the indigenous peoples' community being engaged**, given that the indigenous justice systems of the ICCs/IPs within the Philippines differ from one another. One example of this is in the case of customary dispute settlement procedures. The Tinoc-Kalanguya tribe is an indigenous community located in Ifugao, Benguet, Pangasinan, Nueva Vizcaya, and Nueva Ecija. The justice system of the Tinoc-Kalanguya tribe involves the presence of lallakays, recognized leaders in the tribe who are called upon to arbitrate disputes within the community or among themselves. Matters such as age, impartiality, experience, and the family and economic status of a person are considered in determining these leaders. The lallakays form a group, called the tongtong or tongtongan, and this group is respected as the highest arbitration body of the tribe. In contrast, in the Kalinga province (one of the proposed priority provinces in the north), they strongly adhere to the indigenous way of settling problems, applying cultural practices whereby "bodong holders" (peace pact holders) appointed by respected community elders secure a peace agreement with another tribe. *Bodong* refers to the peace pact or treaty; it is a unique judicial system wherein the peace pact holder appointed by the pangat (tribal leaders) of a certain tribe holds a peace agreement with another tribe. During tribal conflicts, students who belong to the conflicting tribes automatically stop going to school and the workers do not report for work, however there are designated peace zones in the region, such as Baguio City and Benguet. In 1993, Kalinga tribal elders and city and provincial officials of Baguio City and Benguet signed an agreement declaring the peace zones. Thus, any hostility triggered by tribal wars in Kalinga should not spill over to the city and the province. Any tribal conflicts which escalate into a regional issue are addressed by the Regional Peace and Order Council (RPOC), and the Regional Development Council (RDC)[127].

[127] *"Cordillera, Kalinga officials, elders ask for sobriety amid tribal row" Philippine News Agency. http://www.pna.gov.ph/articles/1040703*

281. **Prior to commencing any project activities, full FPIC will be conducted** in the relevant communities **and will involve confirmation of the community-specific Grievance Redress Mechanism (GRM) required.** This will be detailed in any IP Plans developed under the project. The GRMs confirmed in the respective IP plans (determined through the FPIC process) will abide by the following guiding principles, in addition to the overall guiding principles listed in section 6.3 of this IPPF:

- **Primacy of customary law** – including the upholding of laws (oral or written) in resolving disputes involving IPs. Dispute resolutions are, thus, first lodged within the traditional governance process and this is a required provision in the MOA during the FPIC process.
- **Sensitivity** to the community's norms and preferences
- **Inclusivity and accessibility**, including for women, youth, disabled peoples, and the elderly
- **Transparency** of process
- **Opportunity for anonymity** (particularly in instances where the claimant may be otherwise put at risk)
- **Timely action** (includes a clear timeline for response)

6.7 Recommendations for Implementation

282. Based on consultations conducted thus far with IP communities, the following recommendations have been advised and incorporated into the overall project design:

Relating to Project Activities:

- *For upland IP farmers:* continue traditional ways of farming (in rain-fed areas and without any synthetic inputs) whilst incorporating local climate information, seeds support, and market linkages. Mechanization is also desired, if appropriate and accepted.
- *For lowland IP farmers (mostly rice and commercial crops):* provide training and support for machine operation and greater linkages with banner programs.
- *Capacity building activities*: IP farmers should be given options to determine how they can best be assisted. Approaches which can be explored include: (i) training separately from non-IPs; (ii) training and facilitation of CRA enterprises development grouped by ethnic community; or (iii) if they are as big as one municipality, grouping each tribe according to their level of assimilation or exposure to agricultural technology, upland/lowland or to value chains. Groupings based on crop or livestock is discouraged, unless it is explicitly proposed by them.
- *Two-way learning process:* exchange of information from the extension officers and the IPs should be stimulated based on mutual trust and benefit.
- *If project sites overlap with ancestral domains experiencing tenure issues or ongoing titling processes:* the project, if requested by the IPs, should then endeavor to facilitate a solutions-oriented process with NCIP through the National and Regional Project Steering Committees.
- *Training-of-Trainers and CRA Enterprise Development Facilitators for IP farmer leaders:* Selected IP farmer leaders (e.g. *Tumana* in CAR) may undergo a CRA Training-of-Trainers (TOT) and CRA Enterprise Development facilitation , and the IP farmer leaders will then lead their respective IP community into the CRA learning and development and investment planning with support from LGU agricultural technicians.

- *IKSP in CRA enterprise development learning and FFS:* FFS/CRA demonstration with IP participants should take into account their good agricultural practices and climate resilient techniques based on their IKSP, whenever present.
- *Closer coordination between IP communities and LGUs:* by including agriculture-based investments from the ADSDPP into the LGU plans and vice-versa (e.g. Comprehensive Development Plans, LCCAP, etc.).
- *Insurance:* for small landholdings, especially in upland areas, the risks of adopting new technologies can be higher than for lowland areas, thus provision of insurance is recommended.

Relating to Implementation Arrangements:

- *IP representation within the project's national decision-making and oversight body:* representation may come from the National Consultative Assembly (based on the official self-selection processes of the IPs), ideally an IP farmer themselves, and/or national government agencies supporting the IPs (e.g. NCIP and civil society organizations working with indigenous peoples in the country).
- *Decision-making bodies to include and enable full and effective participation of IPs:* arrangements may vary at the local level, depending on the IP organizations, LGUs and communities involved.
- *IP representatives at the local level from more than just the IPMR:* it was strongly suggested that the project include representatives to the project aside from just the Indigenous Peoples' Mandatory Representatives (IPMR), even though there are some provinces where the IPMR was selected based on indigenous political structure and not tainted by local politics.
- *IP farmer beneficiaries selected based on vulnerability and need:* selection should be based on pre-determined criteria such as vulnerability and need, to minimize selection of "rich" IP farmers.
- *Closer coordination at the regional level:* At the regional level (where FPIC will be lodged), closer coordination is advised between the Regional NCIP and the Regional DA. If not already existing, a partnership agreement may be explored.
- *Hiring of an IP specialist:* An IP specialist, preferably with an agriculture and community development background, will be hired to support project implementation.

Relating to Monitoring and Reporting:

- *The TOR for the project team:* should include responsibilities to ensure implementation of this IPPF and subsequent IP Plans.
- IP Plans (more detailed and context-specific than the IPPF) will be developed with each particular ethnic group once project areas are finalized, and the *IP Plans will include monitoring and feedback systems* using traditional means. An outline of the IPPs is included in Appendix 9.
- *The FPIC process, as laid down in this IPPF (based on both FAO/GCF and national guidelines) will provide the methodology* to ensure Indigenous Peoples' participation and ownership throughout project implementation and monitoring. Proceedings of consultations for the consent-seeking process and community resolution will inform the IP engagement plan throughout project implementation, including monitoring and feedback mechanisms, and dispute resolutions lodged within the traditional governance process.

- *Regular on-ground monitoring is included within IP plans*, and an independent third party evaluation is advised for the terminal report.

283. Documentation of the consultation process conducted with IP groups during project design can be found in Annex 10, results from the consultations specifically with CAR (including the general strategy for consultation) can be found in Annex 11.

6.8 Budget Considerations and Costing

284. Based on consultations and research conducted thus far, the following budget and costing considerations must be made:

- FPIC implementation is estimated at PHP 200 000 (USD 4000) for one ethnic group in one cluster of municipalities in Ifugao. This costing includes documentation, food, transportation, facilitation, and monitoring costs of the NCIP (based on the work and financial plan of the NCIP).
- Possible FPIC clusters for the project: ten clusters in total, two clusters each for Ifugao, Kalinga, North Cotabato, Bicol, and BukidnonDevelopment of community-friendly project materials and local translations/interpretations must also be included in the overall budget.

7.0 EXPECTED PROJECT IMPACTS

7.1 Overview of Environmental and Social Impacts

285. Overall, the project is expected to bring about major positive impacts, as the overall objective is to increase climate resiliency of the most vulnerable farmers in the Philippines. Even with these expected positive impacts, the project has been classified as moderate risk (Category B) largely due to instances of working poverty in the project areas, potential use of water harvesting facilities, proximity to protected areas, and the involvement of IP communities. The key findings on potential positive and negative impacts of the project include:

21. **Positive Impacts:** The project will support the agriculture sector in its transition to a climate-resilient development pathway. Investments under Component 1 in climate and agrometeorological technology, alongside institutionalized feedback loops to improve climate information advisories and climate resilient agriculture services, will enable farmers to proactively manage their farms in the face of climate risks based on localized information. The project will focus on building institutional capacities to improve coordination and collaboration between the Department of Agriculture (DA) and the Philippine Atmospheric, Geophysical, and Astronomical Services Administration (PAGASA). It is expected that this work, combined with work under Component 3, will positively impact government ministries and departments, local government units (LGUs), facilitating improved coordination and planning of natural resources and agricultural extension services with a climate focus.

22. Under Component 1, local CRA strategic plans will be developed, using improved climate information and CRA advisories. It is expected that this will help target farmer groups learn and develop enterprises for adoption of economically profitable and financially viable CRA measures under Component 2. Based on the localized information and institutionalized support, the development and implementation of CRA enterprise investment plans under Component 2 is expected to improve the natural resources and agricultural land upon which farmers work based on improved, CRA practices and natural resources management (including water management). Environmentally, improved farming practices will support better functioning ecosystems which, in turn, can positively affect human health and well-being in the long run. Investments in machinery and equipment, as well as high quality agricultural inputs used on-farm and off-farm, are expected to reduce impacts of climate change on agricultural productivity and production. Special Farmer Field School (FFS) sessions and activities as part of CRA enterprise development learning will ensure that farmers are able to proactively “do better” than they would under the without-project scenario. For example, Integrated Pest Management (IPM) will be used under the project in order to promote sustainable pest management that reduces reliance on (and overall use of) pesticides. Socially speaking, livelihoods are expected to improve based on increased adaptive capacities within the target communities. This is also expected in the instances of IP groups, with expected impacts of increased resiliency and adaptive capacities which are sensitive to the traditional and cultural preferences of those communities (as defined earlier in the IP Plan and in specific FPIC agreements). The project also engages women through a Gender Action Plan that ensures proactive mainstreaming of women into all activities, empowering women with agricultural skills and knowledge – and, where necessary, ensures that men also receive training and adequate services in instances where prior efforts have supported only the women (e.g. training on specific adaptation practices). CRA awareness raising and mainstreaming activities under Component 3 will facilitate the adoption of these climate resilient, low emission and environmentally sustainable practices at scale, beyond the project

target areas while institutionalizing them in DA and other government programmes and services and in the private sectors' businesses and financial mechanisms.

286. **Negative Impacts:** Potential negative impacts are minor, mitigatable, and forecast only for the implementation/operation stages. From the social perspective, youth often assist with the farming work of their respective families, and there is always a risk that those youth may work beyond what is age-appropriate, unless closely monitored.

287. From the environmental perspective, increased agricultural production may trigger increased pesticide use, even if the pesticide use is indirect and not promoted under the project. Provision of seed and planting materials for the FFS/CRA demonstrations and introduction of climate-resilient crop varieties also increases the project to medium risk, even though the inputs used and varieties recommended would be registered/certified and already in use within the country (albeit on a smaller scale).

288. In terms of natural resources management, some of the project areas may be located near to protected areas. However, the project will not permit activities within PAs or their buffer zones (Appendix 1 non-eligibility). In order to avoid impacts, a 50 m buffer will be established between the project location and the PA or buffer area.

289. Last of all, while the project is not focused on construction activities, minor construction activities may be pursued for the sake of establishing the new agro-met systems and/or water harvesting units and disaster risk reduction infrastructure. Due to the small size of such infrastructures, potential negative impacts are expected to be minor and mitigatable, for example: noise pollution during installation, air pollution due to dust, and health/safety risks during installation. All of these negative impacts – most of which are linked to Component 1 and Component 3 – are envisaged to be low-to-moderate, localized, temporary, and mitigatable.

7.2 Breakdown of Impacts by Component

290. A breakdown of the expected positive and potential negative impacts, by component, is provided in the following charts, based on component:

Component 1: Increased institutional capacities for development and provision of CRA services

SUBCOMPONENT	POSITIVE IMPACTS	NEGATIVE IMPACTS
Strengthened coordination and capacity for CIS	• Built capacity of the DA to assess, interpret, and process agro-meteorological data which has been collected and processed by PAGASA • Improved coordination mechanisms (including Technical Working Groups at national and regional levels) on climate/agromet information requirements and services, agency activities, and strategic planning	• Installation of agromet systems may require (i) acquisition of small portions of land (ESS 1, 2,9); and/or (ii) involve temporary noise/dust pollution (ESS 1, 2)

	• CIS platform established to ensure standardized agrometeorological data gathering, analysis, sharing, and interoperability with PAGASA systems and climate data • Localized climate change data, maps, and tailored forecasts specific to agriculture • Feedback loops established for continued improvement of CIS	• Agromet systems may be located in areas which are considered ancestral lands by IP-groups (ESS 9)
Developed capacity for localized CRA services	• Inventory of CRA practices for mainstreaming into existing programmes and training • Comprehensive CRA training programmes and materials that are widely disseminated • increased number of CRA Master Trainers and CRA enterprise development facilitators including among IP communities • Enhanced agricultural advisory and extension capacity of LGUs, MAROs, and other partners • CRA Strategic Plans developed to guide investments and adaptation actions	

Component 2: Farmers enhance resilience and reduce agriculture emissions by adopting CRA

SUBCOMPONENT	POSITIVE IMPACTS	NEGATIVE IMPACTS
CRA enterprise investment plans prepared and implemented	• Increased use of CIS/agromet advisories and adoption of CRA practices amongst farmer, and agrarian reform community groups • CRA practices selected for mainstreaming in each area will be based on participatory CRVA, feedback and relevant to community needs • Improved knowledge sharing between farmers • Reduced on-farm risk, increasing access to credit products • Improved agricultural land, based on good agricultural practices that are climate smart and beneficial to the ecosystem (increased soil fertility, etc.)	• Provision of seeds and other agricultural inputs for FFS carries a risk of uncertified/unregistered seeds being used (ESS 3). • Climate-resilient varieties may be developed and in-use within the country, but not yet fully registered (ESS 3) •

	• Developed farmers' capacities on important technical, farm management, and entrepreneurship skills
	• Increased resilience of farmers to climate change
	• Farmers and cooperatives/farmers' groups will be able to identify feasible, small-scale infrastructure investments (e.g. small water harvesting structures and/or storage facilities)
	• Identification of critical common infrastructure required for CRA
	• Increased finance to support CRA implementation, including matching finance for things like:
	  ○ CIS products and delivery modes
	  ○ Common infrastructure and support services (e.g. tolerant seed variety propagation system, other communal seed systems, nurseries for sloping land and diversified agriculture, or collective input storage)
	  ○ Small scale water harvesting structures
		• Increased agricultural productivity could result in issues with increased, indirect use of pesticides/fertilizers (ESS 5)
		• Increased land productivity may cause issues with age-appropriate work and/or increased thievery of crops (ESS 7)
		• Increased value of land may prompt issues of land tenancy *(though land tenancy was not flagged as an issue by consultation participants) – (ESS 1, 9)*
		• If farmers choose to pursue certain small infrastructure investments under the project, these would require adequate screening (ideally part of the cost-benefit analysis and feasibility study done for each proposal) to ensure that water harvesting and storage structures do not negatively impact water availability and/or the surrounding natural environment (ESS 1, 2, 8, 9). Moreover, social conflict could arise in issues where water availability is scarce. (ESS 1, 8, 9)

Component 3: Enabling Environment to mainstream and scale up CRA

SUBCOMPONENT	POSITIVE IMPACTS	NEGATIVE IMPACTS
CRA mainstreamed into national & LGU programmes	• Increased outreach and delivery of locally tailored climate advisories • Availability of agriculturally relevant climate information through print, web, radio, TV, and various social platforms	

SUBCOMPONENT	POSITIVE IMPACTS	NEGATIVE IMPACTS
	• Community-developed extension videos on CRA, with better community ownership and knowledge transfer • Increased knowledge sharing between LGUs, extension agents, and other relevant institutions • Accelerated learning and increased use of agrometeorological services and CRA practices in all major CC-vulnerable areas in the country	
Enabling financial mechanisms and value chains for sustainable CRA adoption	• Increased climate resilient and low emission agriculture value chains • Better understanding of aggregated climate risks as they pertain to financial capital and supports • Increased linkages to financial supports (e.g. credit and insurance) • Increased linkages to social protection for special groups and areas in which mainstream packages and subsidies are not available	• As above, if certain critical common infrastructure is identified, it must be based on adequate screening otherwise negative impacts could accrue hydrologically (e.g. water infrastructure), environmentally (water or storage structures, etc.), and/or socially (conflict about benefits access) (ESS 1, 2, 8, 9)

8.0 MITIGATION MEASURES & APPROACH TO ENHANCE POSITIVE IMPACTS

291. This section discusses the impacts and mitigation measures for two prospective components. The following table is described the impacts and mitigation measure from the agricultural production activities.

Table 10: Proposed Mitigation Measures

POTENTIAL RISK	MITIGATION MEASURES & OPPORTUNITIES TO ENHANCE POSITIVE IMPACTS
Component 1: Increased institutional capacities for development and provision of CRA services	
Temporary dust/noise pollution during installation of agrometeorological stations (ESS 1)	Wetting of installation site during dry and windy weather, when within 50m of an occupied dwelling. Installation to be conducted during regular working hours.
Component 2: Farmers enhance resilience and reduce agriculture emissions by adopting CRA	
Effects of intensified agricultural Production (ESS 1, 2, 3, 5)	Train farmers on environmentally appropriate farming practices. Instruction in safe selection and use of pesticides (in instances where use is unavoidable), promotion of organic fertilizers, as well as the informed use of mineral fertilizers (when unavoidable), promotion of the concept of integrated pest management, and emphatic discouragement of the use of persistent herbicides/ pesticides.
Indirect overuse of herbicides/ pesticides (ESS 5)	Provision of training on IPM and GAP procedures/practices to farmer groups at demonstration sites. When use of pesticides is inevitable, bio-pesticides will be recommended over other types. Training will also be provided on the safe handling of pesticides. No pesticides will be procured under the project, and highly-hazardous pesticides (HHP) will not be used (see Annex 1 for the non-eligibility list, and Annex 2 for the list of banned pesticides in the Philippines). Annex 3 provides guidelines for pest management.
Excessive application of fertilizer (ESS 5)	Provision of extension and training on correct identification and use of fertilizer appropriate to the soil and crop(s); promotion of composting and use of manure, when possible. For the use of fertilizers, as management practices differ according to the site conditions and farm systems, fertilizers (nutrients) will be applied following the guiding principles of **4R Stewardship**, specifically: 1. **R**ight Source (suitable source of nutrients) 2. **R**ight rate (quantity applied according to crop requirement and soil test)

POTENTIAL RISK	MITIGATION MEASURES & OPPORTUNITIES TO ENHANCE POSITIVE IMPACTS
	3. **R**ight time (Fertilizer applied at the time when the crop can best utilize it) 4. **R**ight placement (Suitable method of nutrient/fertilizer application)
Introduction of climate resilient varieties developed and used within country, but not yet properly registered (ESS 5)	Only use native species and/or locally developed varieties that are registered (see negative list in Annex 1 for more details). When deemed necessary, screening by FAO's technical unit on plant protection (AGPM) will be conducted.
Provision of seeds (carrying risk of uncertified/unregistered varieties) (ESS 5)	Only use registered, certified seeds (see negative list in Annex 1 for more details)
Age-inappropriate youth work (ESS 7)	Sensitization training on safe, decent rural employment and age-appropriate work, given that youth often assist with the farming work of their respective families.
Indirect, increased instances of crop thievery in upland areas due to heightened agricultural production (ESS 1, 8, 9)	Whilst the project cannot be expected to take on responsibility for existing issues of crop thievery amongst communities, it will be careful to note areas in which thievery is present and, in those instances, encourage broader participation of community members, including vulnerable peoples, in order to reduce potential tensions that would otherwise exist.
Increased value of land due to heightened agricultural productivity, prompting issues with land tenancy arrangements (ESS 1, 9)	Use of the Voluntary Guidelines on the Responsible Governance of Tenure of Land, Fisheries and Forests (VGGT)
SEAH Risk (ESS 7, 8)	Communication of the project's zero tolerance policy for SEAH to all staff and project beneficiaries Communication of project grievance mechanism, including SEAH-specific gender-responsive and victim-centered SEAH procedures. Train pproject personnel and sensitize community gatekeepers on SEAH to support and catalyse community-driven support measures against SEAH. Establish referral pathways for SEAH and GBV/ All staff trained on GESI and SEAH, and trainings to mainstream on GESI, including SEAH (see also the project's gender action plan in FP Annex 8 for more detailed information).
Inadequate inclusion of IP communities, women, Muslim groups, and/or other vulnerable groups in the project activities (ESS 1, 8, 9)	Overall, the project supports equal opportunity for participation in FFS with respect to gender, IP groups, non-IP groups, and specific vulnerable groups (including Muslim minorities). For IP groups, the Free, Prior, and Informed Consent process will be followed throughout the project as sub-project activities are identified, and participatory monitoring and evaluation will be practiced, thus feeding into ongoing improvement of the project activities. The components have

POTENTIAL RISK	MITIGATION MEASURES & OPPORTUNITIES TO ENHANCE POSITIVE IMPACTS
	built-in, institutionalized feedback loops such that all project affected persons are able to contribute to the ongoing selection and improvement of activities. For grievance redress, the GRM will be sensitive to both IP groups and minority communities like the Muslim communities in Mindanao.
Environmental (e.g. hydrological) and social impacts (e.g. conflict on benefits access) resulting from financial support for (i) critical common infrastructure (e.g. tolerant seed variety propagation system, other communal seed systems, nurseries for sloping land and diversified agriculture, or collective input storage); (ii) small scale water harvesting structures; and/or (iii) feasibility studies for other critical infrastructure (ESS 1, 2, 3)	The project will not be directly constructing common infrastructure, however there is a risk that, if identified as crucial for CRA, some farmers and communities may pursue small-scale construction activities for the purposes of seed propagation, storage, and/or water harvesting. If water harvesting structures are requested, there financing and installation would be contingent upon a water accounting (depending on the size). This would be intended to mitigate potential social and or hydrological conflicts/impacts which may otherwise arise.

292. **Summary of Environmental Mitigation Measures:** With respect to on-farm impacts, the indirect, increased use of pesticides will be mitigated against be proactively offering training on IPM. In instances where pesticide use is unavoidable, training on the safe handling of pesticides will be provided and bio-pesticides will be promoted over other varieties. There will be no pesticide procurement under the project, and highly-hazardous pesticides (HHP) would not be used in the project areas. Fertilizer application and recommendations will be governed by 4R Stewardship, and any agricultural inputs (seeds, etc.) will be registered, certified, and/or native to the area of application. For infrastructure-related impacts, any recommendations for critical infrastructure will be based on feasibility and a water accounting (when/where applicable). Moreover, construction will follow the required guidelines detailed by the Philippines EIS and the tables in this ESMF so as to reduce dust and/or noise pollution at the time of installation (e.g. with agrometeorological systems).

293. **Summary of Social Mitigation Measures:** Risks associated with decent rural employment, occupational health, and land tenure will be mitigated with application of: (i) the Voluntary Guidelines on the Responsible Governance of Tenure of Land, Fisheries and Forests; (ii) sensitization training on safe, decent rural employment and age-appropriate work, given that youth often assist with the farming work of their respective families; and (iii) safe use of pesticides. With respect to IP groups, FPIC will be used and ongoing consultations/participatory M&E will continue throughout the project as a means of providing a feedback loop. These feedback loops will also be available for minority groups and vulnerable populations (e.g. Muslim communities). The established grievance redress mechanism (GRM) will be conducted in line with the requests from community consultations and will be sensitive to the needs of minority populations and IP groups (as specific in their FPIC agreements). To dissuade crop thievery (an

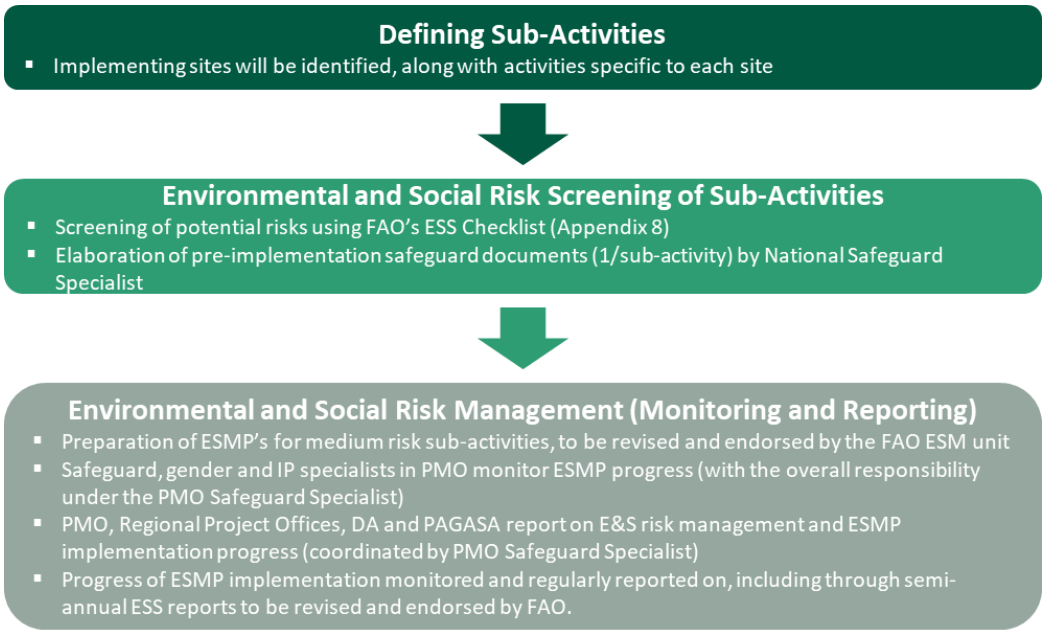
existing issue for some upland communities in the Philippines), the project will encourage broader participation of community members, including vulnerable peoples, in order to reduce potential tensions that would otherwise exist. Any infrastructure pursued as a result of the project will be based on a thorough feasibility study and (where applicable) water accounting to ensure that upstream/downstream (or other) community members are not negatively impacted and conflicts on benefits access are not created. Last but not least, prevention of sexual exploitation, abuse and harassment to achieve maximum prevention of SEAH and GBV will be implemented by training project personnel and sensitizing community gatekeepers on the subject so that they may support and catalyze community-driven support measures against SEAH. FAO Philippines' Grievance Redress Mechanism will be reinforced to deal effectively with SEAH and GBV incidents. Referral pathways for GBV will be established and professionals trained for their operationalization. All SEAH and GBV activities will be inclusive, survivor-centred, and gender-responsive.

9.0 PRINCIPLES AND PROCEDURES TO MITIGATE IMPACTS FOR IMPLEMENTATION

294. This ESMF, including its IP Plan and along with the accompanying Gender Action Plan, is not being used solely as a compliance process: it goes beyond compliance and takes a proactive approach in design. Similarly, the grievance redress mechanism included in this document is not just about being a last-resort mechanism; rather, the GRM is about creating a project culture of transparency with built-in feedback systems. Both the ESMF and the Gender Action Plan are taken as positive aspects that help the project implementation units in identifying and developing activities for greater environmental and social co-benefits. In order to ensure that the environmental and social issues are addressed properly in accordance and in compliance with the FAO and GCF Policies, all project activities shall undergo screening, assessment, review, and clearance process before execution of the project activities.

295. This chapter describes the process for ensuring that environmental and social concerns are adequately addressed through the institutional arrangements and procedures used by the project for managing the identification, preparation, approval, and implementation of sub-project activities.[128]

296. Detailed environmental and social safeguard process are as follows:



[128] The term 'sub-project activity' from a safeguards perspective would simply be a way of conveniently grouping existing project financing commitments but where it may be believed that this set of activities have a distinct and important risk profile that warrants being the subject of a safeguards screening and possible additional / specific risk mitigation actions. This is usually beca use during the design the exact locations of activities have not yet been identified and/or the details of activities have not yet been defined.

At project start up an assessment will be undertaken which will result in a decision as to whether additional safeguards risk screening is required for any of the types of project activities and/or a particular geography of the project. If so then a focused Environmental and Social Management Plan will be conducted in order to further detail those aspects, as the emphasis at this point will be on a Plan rather than the Framework already providing general orientation at the design stage.

9.1 Step 1: Defining Sub-project activities

297. By design, the project is expected to have far greater environmental benefits than adverse environmental impacts. The potential adverse environmental impacts from the project are likely to be small and limited. However, it is recognized that such impacts can accrue into larger impacts if they are not identified early during the planning cycle and their mitigation measures integrated into the project planning and implementation.

298. The project intervention areas will be identified during Year 1 of the project, and will inform the elaboration of the ESMP. Considering the activities to be implemented in each implementing site will be very similar in nature and scale across the implementation area, it is proposed that screening for potential risks is undertaken at sub-activity level.[129] Sub-project activities constitute a valid tool to identify expected impacts and mitigation and monitoring measures.

299. In this context, sub-project activities will be identified during the inception phase in Year 1. For each sub-activity, implementing sites will be identified along with activities, including capacity building/training and stakeholder engagement information specific to each site.

9.2 Step 2: Environmental and Social Risk Screening of Sub-project activities

300. FAO's environmental and social screening determines if a sub-activity will require an Environmental and Social Management Plan (ESMP). While the nature, magnitude, reversibility, and location of impacts are main elements in the screening of sub-project activities, expert judgment from the PMO Safeguard Specialist and the FAO ESM Unit (for last-step quality control) will be a main factor in deciding whether an ESMP is required for a sub-activity or not. The FAO screening template, included in Appendix 8, will be used to guide the screening. Additional safeguard documents would be required for sub-project activities that are flagged as moderate risk.[130]

301. For a sub-activity that requires an ESMP, the proposal must include a set of mitigation measures with monitoring and institutional arrangements to be taken during the implementation phase to correctly manage any potential adverse environmental and social impacts that may have been identified.

302. FAO undertakes environmental and social screening following FAO's Environmental and Social Screening Checklist. Once the implementation sites and beneficiaries are determined, a screening checklist is completed and signed off by the safeguards specialist at the PMO. The results of the screening are aggregated by the safeguards specialist. This document is sent to ESM unit in FAO HQ for endorsement.

[129] Note: In terms of environmental and social safeguards, the term sub-project activity refers to conveniently grouping existing project financing commitments where it is believed that this set of activities have a distinct and important risk profile that warrants being the subject of a safeguards screening and possible additional/ specific risk mitigation actions. Since the exact locations of activities have not yet been defined within the project, such an approach is needed (outlined in detail under Chapter 9.1-9.3). At project start up an assessment will be undertaken which will result in a decision as to whether additional safeguards risk screening is required for any of the types of project activities and/or a particular geography of the project. If so then an Environmental and Social Management Plan will be elaborated (example ESMP template provided in Appendix 11).

[130] The project will not finance any high-risk (category A) activities. See also the project's non-eligibility list in Appendix 1.

303. Screening of sub-project activities involves:

- Checking that the activities involved are permissible (as per the legal and regulatory requirements of the project);
- Determining the level of environmental assessment required based on the level of expected impacts.
- Assessing the level of risk related to SEAH.[131]

304. The E&S screening checklist (attached in Appendix 8) will result in the following screening outcomes: (i) determine the category for further assessment; and (ii) determine which environmental assessment instrument to be applied.

305. Additional safeguards documents (i.e. those prepared after project start) will be prepared by the environmental and social safeguards specialist in the PMU prior to the implementation of activities and sent to ESM Unit in FAO Headquarters for endorsement.

306. The documents will outline the following information relative to each sub-activity:

a. description of the activities to be carried out in all sites
b. description of each implementing site:
    i. geography and specificities in terms of activities
    ii. Beneficiaries and stakeholders
    iii. Map of the site
c. Description of the stakeholder engagement process that was carried out in the inception phase and the stakeholder engagement plan to be carried during implementation
d. Breakdown of information by site about the grievance mechanism and disclosure
e. Aggregated results of the environmental and social screening checklists per sub-activity signed off by the Safeguards Specialist in the Management Unit.
f. Where applicable, Environmental and Social Management Plans identifying mitigation measures, indicators, responsibilities and timeframe. The ESMP will be added to the monitoring plan to ensure safeguards performance is regularly reported upon along with stakeholder engagement monitoring per site.

307. For this project, the ESMP will be elaborated once the project has been approved, and will be conducted in close coordination with the initial steps to identify the specific project intervention municipalities/ villages and sub-project activities to be implemented.

9.3 Step 3: Environmental and Social Risk Management (Monitoring and Reporting)

308. Sub-project activities classified as medium risk based on the environmental and social risks identified during the screening process will then be required to develop ESMPs that include

[131] FAO has recently developed a new policy that supersedes the existing 2015 policy – FAO's Framework for Environmental and Social Management (FESM) – has just been endorsed in June 2022. FESM has explicit reference to SEAH, and will be accompanied by relevant operational guidance. In the meantime, FAO confirms that sufficient technical resources and capacities to ensure compliance with GCF requirements regarding SEAH are available (see also the FAO Annual Report on Corporate Policy, Processes and Measures on the Prevention of Harassment, Sexual Harassment and Sexual Exploitation and Abuse, https://www.fao.org/3/ng643en/ng643en.pdf). It is also our understanding from GCF's SEAH Action Plan is that GCF will develop a SEAH risk screening tool in October that would be taken into account when developing SEAH operational guidance.

information on the mitigation actions, the indicators and timeframe where the completion of such mitigation actions are expected. It should be noted that the project will not finance high risk activities or sub-project activities (see Non-eligibility list in Appendix 1).

309. While the nature, magnitude, reversibility, and location of impacts are main elements in the screening of sub-project activities, expert judgment will be a main factor in deciding whether an ESMP is required for a sub-activity or not.

310. The ESMP should include:

- **Mitigation Measures:** Based on the environmental and social impacts identified from the checklist, the ESMP should describe with technical details each mitigation measure, together with designs, equipment descriptions and operating procedures as appropriate. It should also cover measures to mitigate and monitor SEAH.
- **Monitoring:** Environmental and social monitoring during the implementation of the sub-project activities, in order to measure the success of the mitigation measures. Specifically, the monitoring section of the ESMP provides:
    - A specific description and technical details of monitoring measures that include the parameters to be measured, the methods to be used, sampling locations, frequency of measurements, detection limits (where appropriate), and definition of thresholds that will signal the need for corrective actions.
    - Monitoring and reporting procedures to ensure early detection of conditions that necessitate particular mitigation measures and to furnish information on the progress and results of mitigation, e.g. by annual audits and surveys to monitor overall effectiveness of this ESMF.
- **Institutional Arrangements:** The ESMP should also provide a specific description of institutional arrangements, i.e. who is responsible for carrying out the mitigating and monitoring measures (for operation, supervision, enforcement, monitoring of implementation, remedial action, financing, reporting and staff training). Additionally, the ESMP should include an estimate of the costs of the measures and activities recommended so that the necessary funds are included. The mitigation and monitoring measures recommended in the ESMP should be developed in consultation with all affected groups to incorporate their concerns and views in the design of the ESMP.

311. The ESMP may also include or accompany other required management plans (e.g. indigenous peoples plans) where relevant. The particular needs and circumstances of women and men, particularly marginalized, vulnerable and disadvantaged groups, shall be addressed in any ESMP.

312. Once drafted, the ESMP will be disclosed for at least 30 days prior to its official endorsement both online and in locally accessible places convenient to affected persons in the project area. This will follow the same disclosure protocols as described in Chapter 5.5 (i.e. ESMP will be disclosed online on the FAO, GCF and DoA websites, and physical copies will be made available in English and Tagalog).

313. Once the ESMPs are endorsed by the ESM unit in FAO Headquarters, the safeguards specialist from the PMU will ensure ESMPs are included and reported upon, along with

stakeholder engagement in the context of the monitoring plan.

314. In this context, field staff will be responsible for monitoring the progress, as relevant, in the monitoring plan, as well as to identify any potential risks that may emerge through the implementation phase. This information will be compiled in progress reports and templates will include a section on E&S risk management, where the above information will be reported upon.

315. Information from progress reports will be received by the environmental and social safeguards specialist in the PMU who will compile the information received in the progress reports, as well as that related to grievances to feed in a semi-annual report on Environmental and Social Safeguards Performance to be endorsed by the ESM unit in FAO.

10.0 IMPLEMENTATION ARRANGEMENTS

316. The implementation of the environmental and social safeguards is based on the overall project implementation arrangement. FAO will serve as the Accredited Entity (AE) for this project. As such, FAO will be responsible for the overall management of the project, including: (i) all aspects of project appraisal; (ii) administrative, financial and technical oversight and supervision throughout project implementation; (iii) ensuring funds are effectively managed to deliver results and achieve objectives; (iv) ensuring the quality of project monitoring, as well as the timeliness and quality of reporting to the GCF; and (v) project closure and evaluation. FAO will assume these responsibilities in accordance with the detailed provisions outlined in the Accreditation Master Agreement (AMA) between FAO and GCF.

317. To perform these Accredited Entity functions, FAO will set up a FAO Project Task Force (PTF) comprising relevant staff from the FAO country office in the Philippines, the FAO regional office for Asia and the Pacific, and FAO Headquarters. Members of this PTF will perform the necessary supervision and oversight functions, including: supervision and backstopping missions during the entire implementation period; reviews of regular progress and financial reports prepared by the Executing Entities; and commissioning regular spot checks and audits. The project PTF will remain independent of the Executing Entity functions also performed by FAO (more information below). In line with the GCF policy on fees adopted through GCF Board Decision B.19/09, the above-mentioned segregation of responsibilities within FAO will ensure that the Organization can effectively perform the types of Accredited Entity functions listed in the GCF *General principles and indicative list of eligible costs covered under GCF fees and project management costs*.

Overall Project Implementation and Execution (not safeguards-specific):

318. The Executing Entities (EEs) of the project are the Republic of the Philippines (Host Country), acting through: (i) the Department of Agriculture (DA); and (ii) the Department of Science and Technology's (DOST) Philippine Atmospheric, Geophysical and Astronomical Services Administration (PAGASA) (iii) Philippine Bureau of the Treasury (BTr) and FAO. The DA and PAGASA are also co-financiers of the Project.

319. The DA, PAGASA and FAO will be responsible for the delivery of the project activities under each Output and will cater to the respective individual, professional, or institutional beneficiaries for these actions. At the local level, DA and PAGASA Regional Project Offices (RPOs) will serve as the lowest level interface between the project and the local beneficiaries (farmers in the project municipalities). Procured Parties (more information below) will coordinate with the EEs at the appropriate levels (national or regional) and may deliver services directly to the beneficiaries.

320. **DA will serve as a part of Executing Entities for this project.** In this capacity, the DA will host the Project Management Office (PMO) that will coordinate the overall project implementation and lead day-to-day delivery of project activities for which DA is the EE. The DA will do so in close consultation and collaboration with PAGASA and the FAO Technical Assistance Team (TAT). The PMO will be located at the central DA office in Manila. A full-time National Project Coordinator will be recruited by the project to lead the PMO, which will also

include a range of other operational and technical staff. Under the leadership of the National Project Coordinator, the PMO will prepare consolidated annual work plans & budgets and progress & financial reports – drawing on inputs from, and operating in close collaboration with PAGASA PET, the FAO TA Team and the Regional Project Offices (RPOs) – and share them with the Project Steering Committee and FAO-GCF project supervision team for review and approval. In addition, the PMO and FAO TA Team will bear primary responsibility for ensuring operationalization and delivery of the ESMF (with the IP Plan) and Gender Action Plan for this project.

321. The PMO will coordinate the activities of (initially) five RPOs, which will be based in the DA offices in CAR and Regions 2, 5, 10, and 12. These RPOs will act as extensions of the central PMO in Manila (adhering to its rules, policies and procedures) and coordinate delivery of DA-executed activities at the regional, provincial and local levels (i.e. particularly under Components 1 and 2). The project-recruited staff in these RPOs can operate more efficiently than if they were based in Manila, and better ensure that the project remains aligned with (and contributes to) local planning and budgeting processes and programme delivery. Each RPO will be led by a full-time Regional Project Coordinator (RPC) recruited by the project, who will operate under the overall supervision of the relevant DA Assistant Regional Director (ARD) and will report to the National Lead Climate Change Adaptation Specialist in the PMO with regards to day-to-day project management. Each RPC will manage a modest number of project-recruited staff.

322. **The Philippine Atmospheric, Geophysical and Astronomical Services Administration (PAGASA) will serve as a part of the EEs for this project.** In this capacity, PAGASA will establish its own Project Execution Team to lead day-to-day delivery of activities for which PAGASA is the EE (i.e. specifically those under Component 1). This team will be led by a project-recruited National Lead Agromet Specialist based in the PAGASA office in Manila, and supported by a modest number of operational and technical staff. In addition, the PET will work closely with other PAGASA technical experts and service delivery staff – who will collaborate with the project, benefit from it, and contribute to enhancing coordination with DA – with the view of strengthening PAGASA's support and services beyond project closure.

323. To complement the work of DA and PAGASA, **FAO Philippines as project EE will establish a Technical Assistance Team (TAT)** that will work closely with PMO and PET**.** The FAO TA Team will not work independently of the EE (i.e. by executing its own distinct sub-components), but rather work closely with them as a partner to deliver technical assistance and capacity building to complement the activities DA and PAGASA are executing, drawing on FAO's comparative advantage and in-house expertise. To enable this, the FAO TA Team will be based in the PMO and RPOs, and work seamlessly with members of these offices. A project-recruited National Operating Partner Implementation (OPIM) Manager will serve as FAO Philippines/EE focal point and coordinate the FAO- TA Team. The National OPIM Manager will be supported by a modest number of operational and technical staff, including the National Safeguards and Gender and Social Inclusion Specialists. . The FAO TA Team will function independently of the FAO-GCF project supervision team to ensure FAO's Accredited Entity and Executing Entity functions are kept separate.

324. The central PMO in the DA will provide overall leadership to ensure the project is delivered in a coordinated manner. For administrative reasons, each EE will develop its own annual work plans & budgets that reflect the sub-components, activities and budget items for which they are responsible. The central PMO (in addition to being responsible for DA own work planning & budgeting) will consolidate these annual work plans & budgets (ensuring they are

coordinated and coherent) and submit them to the Project Steering Committee (PSC) for endorsement. After PSC endorsement, the PMO will send the consolidated work plans & budgets to the FAO-GCF project supervision team for final review/approval. Similarly, EEs will generate their own progress and financial reporting, which will be reviewed and consolidated by the PMO before being shared with the PSC, and ultimately with the FAO-GCF project supervision team. In addition, the FAO-GCF project supervision team will collect and review the independent (un-consolidated) work plans, budgets and procurement plans, as well as progress and financial reports, from each EE. This will enhance transparency vis-à-vis the actions of each EE, and ensure accountability for non-performance (guided by the separate legal agreements to be signed between FAO-DA and FAO-PAGASA). The FAO-GCF project supervision team will review both the consolidated and independently-produced documentation before (e.g.) clearing reports and approving subsequent disbursements of funds.

325. Working in close collaboration with one another, the EEs will deliver support that will benefit four types of entities and individuals:

- **National and regional public entities.** National, regional and provincial government authorities will directly benefit from this project. DA and PAGASA will be particularly important beneficiaries, including staff and units that are not directly involved in fulfilling these entities' EE functions. In addition, the project will be working closely with the other national agencies such as the Landbank and DAR, and NCIP. All these entities will benefit from enhanced capacities and mechanisms to coordinate and collaborate with one another to deliver more climate-informed programmes and services on the ground, both during and after the project.

- **Local public entities.** The Local Government Units (LGUs) will be important beneficiaries, but also the local operating units of agencies such as DAR and NCIP. The project will support them to strengthen local planning and budgeting processes, to ensure mainstreaming of CRA approaches and support within ongoing programs. Importantly, the project will strengthen their capacities to deliver climate-informed support and services to farmers and farmer groups (the ultimate beneficiaries) during and after the project.

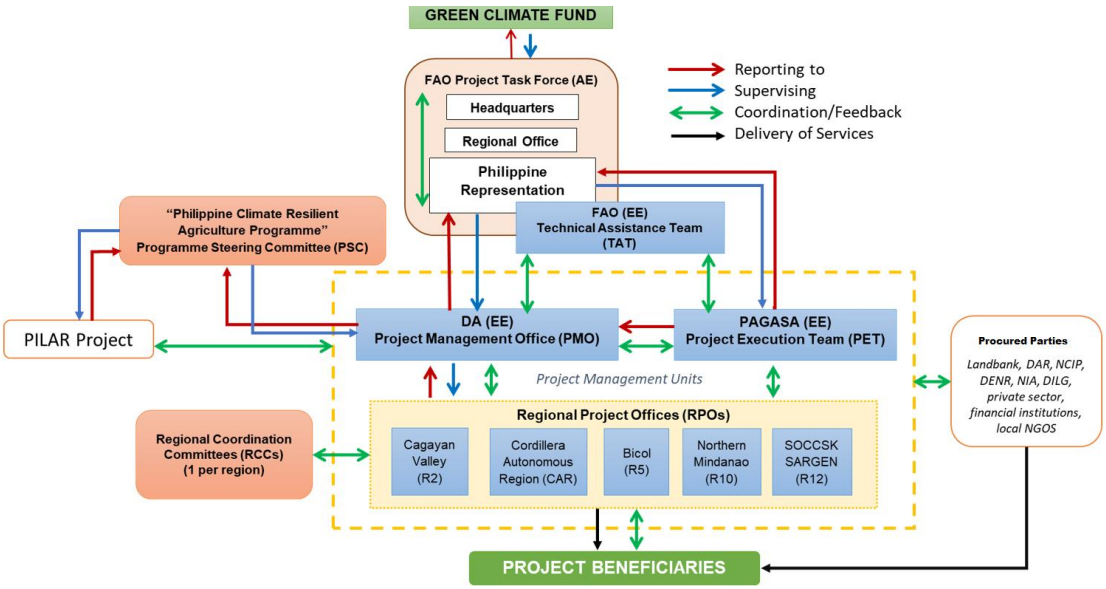
- **Private institutions.** Non-state entities, including NGOs, play an important role in providing services to farmers and shaping patterns of agricultural development in the Philippines. Several such entities will directly benefit from the project, primarily from capacity building activities aimed at improving their access to, and ability to utilize, agro-meteorological information for targeting and delivering services and increasing access by farmers. Landbank branches and other agencies delivering financial services at local level, will be a particularly important beneficiary in this context.

- **Farmers and farmer oganizations (ultimate beneficiaries).** Farmers and farmers groups are the ultimate beneficiaries of this project. They will directly benefit from a range of project activities, particularly under Component 2. In addition, they will benefit – both during and after the project – from the enhanced capacities, plans and programme/service delivery that the project will support among the three other types of beneficiaries (listed above). The project will therefore reach 1.25 million direct beneficiaries as farming household members and 5.0 million indirect

beneficiaries, but will also enable: (i) farmers and farmer organizations to continue benefiting from institutionalized CIS and CRA services and support after project closure; and (ii) additional farmers and farmer groups to be reached/benefit through Component 3 and as government and non-state entities (themselves project beneficiaries) scale up support and services to additional municipalities, provinces and regions.

326. The roles of the entities involved in the proposed project, and the ways in which they will deliver support, are summarized in Figure 7. ore details on the project execution structure – including the anticipated ways in which the three EEs will work together – is provided in the Funding Proposal and Annex 2 - Feasibility Study.

Figure 7: Implementation Arrangements



Project Implementation Arrangement for Safeguards:

11. **Summary of institutional arrangements related to environmental and social safeguards:** Overall compliance with the project's ESMF and ESMP will be assured by the project's National Safeguards Specialist, hired within the Project Management Office (PMO), who will work closely together with a National Gender, Indigenous Peoples and Social Inclusion Specialist (who will oversee the GAP and Indigenous Peoples Planning Framework/ Plan) and two international safeguard specialists (one for ESS and the other for gender, indigenous peoples, and social inclusion). These specialists will closely collaborate with the DA and PAGASA, and the Regional Project Offices. Regular updates and reporting on safeguards will be provided at PSC and RCC meetings by the National Safeguard Specialist, and regional counterparts (specifically the Regional Project Coordinator, who will be responsible for coordinating and supporting the National Safeguard Specialist). The following paragraphs provide more detailed information on these institutional arrangements for environmental and social safeguards.

327. **Project Management Office (PMO)**: Within the PMO, a National Safeguards Specialist, a National Gender and Social Inclusion/IP Specialist and two International Safeguards Specialists

(one for ESS, the other for Gender and Social Inclusion/IP) will be hired[132] to work as part of the FAO TA Team. These specialists are responsible for ensuring that staff on-ground in the project areas conduct a screening for sub-project activities prior to implementation, and then mitigate for any medium-risk activities using ESMPs and IP Plans developed during project implementation, based on that screening. The approach allows for specificity under each project area and for the nature of the sub-project activities, rather than blanketing all districts with the same training/mitigation measures (some measures will only be applicable in a few areas, and this will only be discernible once specific villages/communities have been selected during implementation). Guidance for screenings and for ESMPs is provided as part of the ESMF. The Safeguards and Gender and Social Inclusion/IP Specialists would also manage the monitoring and evaluation (M&E)/reporting for the environmental and social safeguards aspects of the project, working closely with the project's Monitoring, Evaluation, Accountability and Learning (MEAL) teams. Ultimately, the Safeguards Specialists must ensure compliance with the ESMF, GAP and their implementation, and regular reporting across all project activities.

328. The Safeguards Specialists will collaborate with the DA and PAGASA to ensure screening and compliance, depending on the specific project activity (e.g. agro-met installation will be under the responsibility of PAGASA, whereas provision of agricultural inputs will rest with the DA). For safeguards implementation, the Safeguards Specialists will receive grievances at the central level, responsible for sharing the reported grievances with the National Project Coordinator, as detailed in the Grievance Redress Mechanism process (section 5.6 of this ESMF). They will also be responsible for ensuring that Regional Project Coordinators are aware of the GRM to be used under the project, including adequate reporting mechanisms such that complaints are registered by the National Safeguards and Gender and Social Inclusion Specialists with notification to the PMO.

329. To ensure adherence at the field level, the Safeguards Specialists will ensure that, within the RPOs, monitoring and reporting duties for safeguards are included within the Terms of Reference of the most relevant RPO staff. In some instances, this may include mobilization of safeguards-specific human resources, like an FPIC specialist in CAR, a Social Safeguards Specialist in R12, and/or a Safeguards Specialist with a Biodiversity Focus in project areas near buffer zones, and/or ad-hoc activities to support the safeguards implementation (for this, a lump-sum of USD 140,000 has been allocated).

330. The Safeguards Specialists must also ensure adequate training of RPOs, subsequent safeguards specialists, and relevant project staff on how to screen and reporting on the environmental and social risks of sub-project activities. Relevant government staff will also be trained on the screening process, as well as the GRM, as part of the annual implementation workshops.

331. **Regional Project Offices (RPOs):** Five RPOs will initially be established (in CAR, R2, R5, R10, and R12). Within each, the Regional Project Coordinator (RPC) will be responsible for ensuring that project activities and sub-activities are screened and monitored for safeguards, as specified in this ESMF and by the Lead Safeguards Specialist in the PMO. The RPCs will ensure effective liaison and coordination with PMO, provincial authorities, local government units (LGUs), and other entities involved with project activity implementation on the ground. They will also be responsible for delivering complaints received during project implementation to the Safeguards Specialists in the PMO, in any instances where the Safeguards Specialists have not

[132] *This hire is listed under Annex 9 as the "Lead Safeguards Specialist", based in the PMO situated in Manila.*

received the complaint directly. In cases where the complaint is resolvable at the municipal, provincial, or regional level, notification will be given to the Safeguards Specialists, however resolution will be identified and enacted at those respective levels as applicable (with the PMO kept informed of any resolutions).

332. To facilitate and ease the work of the Regional Project Coordinator, specific safeguards specialists may be hired as part of the FAO TA Team in areas which require additional attention. As mentioned previously, this may involve an FPIC specialist for CAR, a Social Safeguards Specialist for R12, and/or a Safeguards Specialist with a Biodiversity Focus in project area which are near buffer zones of protected areas. These additional specialists must report to the Lead Safeguards Specialist. These specialists will report to the Lead Safeguards Specialist for smooth implementation of the ESMF (and resulting ESMPs), as well as the semi-annual and reporting required.

333. In order to ensure long term sustainability of the project activities, most of the implementation at the field level will be undertaken by government staff with support from the FAO TA Team as required. As mentioned previously, any government staffers involved with safeguards will receive training as well as technical support from FAO.

APPENDIXES

APPENDIX 1: NON-ELIGIBILITY LIST

1. The following activities are prohibited under the Project (ineligible or the "Non-eligibility list") in order to avoid adverse irreversible impacts on the environment and people, the following activities are explicitly excluded from funding:

(i) Relocation and/or demolition of any permanent houses or business.

(ii) Use of the project as an incentive and/or a tool to support and/or implement involuntary resettlement of local people and village consolidation.

(iii) Land acquisition.

(iv) New settlements or expansion of existing settlements.

(v) Activities that would likely create adverse impacts on indigenous peoples (IP) and/or ethnic peoples within villages and/or in neighboring villages, or activities unacceptable to IP groups living in an IP homogenous village or a village of mixed ethnic/IP composition (e.g. "tri-communities" in Mindanao, comprised of IP, Christian, and Muslim groups).

(vi) Imposing ideas and changing priorities identified by the community and endorsed at the Barangay or LGU level meetings without community consultation, prior review and clearance from the PMU.

(vii) Damage or loss to cultural property, including sites having archeological (prehistoric), paleontological, historical, religious, cultural and unique natural values.

(viii) Resources access restriction (e.g. restricted access to farming land) that could not be mitigated and will result in adverse impacts on the livelihoods of IP, ethnic groups, and disadvantaged peoples.

(ix) Activities of any kind within natural habitats and existing or proposed protected areas.

(x) Purchase of banned pesticides, insecticides, herbicides and other unbanned pesticides, unbanned insecticides and unbanned herbicides and dangerous chemicals exceeding the amount required to treat efficiently the infected area. If a pest invasion occurs, the use of small amounts of eligible and registered pesticides in the Philippines will be allowed if supplemented by additional training of farmers to ensure the safe use of pesticides in accordance with FAO/IFC policies and procedures (FAO clearance is needed). No pesticides, insecticides, and/or herbicides will be allowed in the buffer zone of protected areas, protected forests, and/or natural habitats. Highly Hazardous Pesticides (HHP) will not be used by the project.

(xi) Purchase of destructive farming gear and other investments detrimental to the environment.

(xii) Forestry operations, including logging, harvesting or processing of timber and non-timber products (NTFP).

(xiii) Unsustainable exploitation of natural resources.

(xiv) Introduction of non-native species, unless these are already present in the vicinity or known from similar settings to be non-invasive.

(xv) Introduction or use of seeds that are unregulated and/or not yet approved/certified by the concerned government bodies.

(xvi) Significant conversion or degradation of natural habitat or where the conservation and/or environmental gains do not clearly outweigh any potential losses.

(xvii) Production or trade in any product or activity deemed illegal under (i) the Government of the Philippines' laws or regulations; (ii) international conventions and agreements; or (iii) subject to international bans.

(xviii) Labor and working conditions involving harmful, exploitative, involuntary or compulsory forms of labor, forced labor[133], child labor[134] or significant occupational health and safety issues.

(xix) Trade in any products with businesses engaged in exploitative environmental or social behavior.

(xx) Sub-project activities that require a full EIA will not be funded, including any activities that will use or induce the use of hazardous materials (including asbestos) or any banned chemicals, and/or activities involving the construction of Small Water Impounding Stations with dimensions falling outside of FAO liability.

Preference list

(i) Promote climate resilient agriculture practices;

(ii) Promote sustainable and climate-smart management of water resources;

(iii) Promote utilization of Integrated Pest Management (IPM), as well as the use of natural/organic pesticides from herbs (biopesticides), rather than chemical pesticides, in instances where pesticides must be used;

(iv) Promote skills development to increase climate resiliency of farmers; and

(v) Promote improvement of the enabling environment (financial opportunities, governing institutions, agricultural extension, policies and/or acts) to facilitate increased and sustained uptake of CRA practices and climate-informed water management.

(vi) Activities which benefit indigenous peoples and/or any such peoples at highest-risk of negative climate change impacts

[133] Forced labor means all work or service, not voluntarily performed, that is extracted from an individual under threat of force or penalty.
[134] Harmful child labor means the employment of children that is economically exploitive, or is likely to be hazardous to, or to interfere with, the child's education, or to be harmful to the child's health, or physical, mental, spiritual, moral, or social development.

APPENDIX 2: LIST OF BANNED AND RESTRICTED PESTICIDES IN THE PHILIPPINES

Regulation on the control of pesticides in the Philippines is controlled by the Fertlizer and Pesticide Authority (FPA) within the Department of Agriculture. The following tables provide an overview of banned and restricted pesticides in the Philippines.

Banned Pesticides and Active Ingredients of Pesticides:

NAME OF CHEMICALS	DETAILS OF RESTRICTION (e.g. reason for control action, remaining allowed uses)
1-Naphthylthiourea (ANTU)	Banned as per FPA Circular No. 04, Series of 1989.
2, 4, 5-T	Banned as per FPA Circular No. 04, Series of 1989.
Aldrin	Banned as per FPA Circular No. 4, Series of 1989 (Banned since 1989. There are alternatives to aldrin as prescribed by UNEP).
Azinphos Ethyl	Banned as per FPA Resolution No. 01, Series of 1993.
Brestan Organotin	Banned as per FPA Circular No. 04, Series of 1989.
Chlordane	Banned as per FPA Resolution No. 01, Series of 1999.
Chlorodimeform	Banned as per FPA Circular No. 04, Series of 1989.
Copper Aceto-Aresenic (Paris Green)	Banned as per FPA Circular No. 04, Series of 1989.
DBCP	Banned as per FPA Circular No. 04, Series of 1989.
DDT	Banned as per FPA Board Resolution No. 04, Series of 2005.
Dieldrin	Banned as per FPA Circular No. 4, Series of 1989 (Banned since 1989. There are alternatives to dieldrin as prescribed by UNEP).
Elemental Phosphorus (White & Yellow)	Banned as per FPA Circular No. 04, Series of 1989.
Endosulfan	Banned as per FPA Board Resolution No. 01, Series of 2015.
Endrin	Banned as per FPA Circular No. 4, Series of 1989 (Banned since 1989. There are alternatives to endrin as prescribed by UNEP).
EPN	Banned as per FPA Circular No. 04, Series of 1989.
Ethylene Bromide (EDB)	Banned as per FPA Circular No. 04, Series of 1989.
Gophacide	Banned as per FPA Circular No. 04, Series of 1989.

NAME OF CHEMICALS	DETAILS OF RESTRICTION (e.g. reason for control action, remaining allowed uses)
HCH/BHC	Banned as per FPA Circular No. 04, Series of 1989.
Heptachlor	Banned as per FPA Circular No. 4, Series of 1989 (Banned since 1989. There are alternatives to heptachlor as prescribed by UNEP).
Leptophos	Banned as per FPA Circular No. 04, Series of 1989.
Mercuric Fungicides	Banned as per FPA Circular No. 04, Series of 1989.
Nitrofen	Banned as per FPA Circular No. 04, Series of 1989.
Organotin Compounds	Banned as per FPA Resolution No. 01, Series of 1993.
Parathion-Ethyl	Banned as per FPA Circular No. 04, Series of 1989.
Parathion-Methyl	Banned as per FPA Resolution No. 01, Series of 1993.
Sodium Fluoroacetamide (1801)	Banned as per FPA Circular No. 04, Series of 1989.
Sodium Fluoroacetate	Banned as per FPA Circular No. 04, Series of 1989.
Strychnine	Banned as per FPA Circular No. 04, Series of 1989.
Thalium Sulfate	Banned as per FPA Circular No. 04, Series of 1989.
Toxaphene/Campechlor	Banned as per FPA Circular No. 4, Series of 1989 (Banned since 1989. There are alternatives to toxaphene as prescribed by UNEP).
Triphenyltin	Banned as per FPA Circular No. 04, Series of 1989.

Restricted Pesticides and Active Ingredients of Pesticides:

NAME OF CHEMICALS	DETAILS OF RESTRICTION (e.g. reason for control action, remaining allowed uses)	
Pentachlorophenol (PCP) - *(Severly Restricted)*	Restricted as per FPA Circular No. 04 Series of 1989	For use in wood treatment only by FPA Accredited wood treatments plants and institutions.
Aldicarb	Restricted as per FPA Circular No. 04 Series of 1989	Importation not allowed except in cases of emergency as determined by the authority.

NAME OF CHEMICALS	DETAILS OF RESTRICTION (e.g. reason for control action, remaining allowed uses)	
Carbon Disulfide	Restricted as per FPA Circular No. 04 Series of 1989	Adequate time for aeration is required after treatment before commodities are processed into food or feed.
Carbon Tetrachloride	Restricted as per FPA Circular No. 04 Series of 1989	Adequate time for aeration is required after treatment before commodities are processed into food or feed.
Chlorobenzilate	Restricted as per FPA Circular No. 04 Series of 1989	Importation not allowed except in cases of emergency as determined by the authority.
Chloroform	Restricted as per FPA Circular No. 04 Series of 1989	Adequate time for aeration is required after treatment before commodities are processed into food or feed.
Entropop	Restricted as per FPA Circular No. 04 Series of 1989	For use in banana plantations only.
Ethylformate	Restricted as per FPA Circular No. 04 Series of 1989	Adequate time for aeration is required after treatment before commodities are processed into food or feed.
HCN Generating Materials	Restricted as per FPA Circular No. 04 Series of 1989	Adequate time for aeration is required after treatment before commodities are processed into food or feed.
Inorganic Arsenicals (Arsenic Trioxide)	Restricted as per FPA Circular No. 04 Series of 1989	For use by FPA Accredited wood treatment and wood preserving plants only.
Lindane (Gamma/BHC)	Restricted as per FPA Circular No. 04 Series of 1989	The only allowed use to date is on pineapple plantations by soil pre-plant application.

NAME OF CHEMICALS	DETAILS OF RESTRICTION (e.g. reason for control action, remaining allowed uses)	
Methidation	Restricted as per FPA Circular No. 04 Series of 1989	For use in banana plantations only.
Methyl Bromide	Restricted as per FPA Circular No. 04 Series of 1989	Adequate time for aeration is required after treatment before commodities are processed into food or feed.
Monocrotophos	Restricted as per FPA Resolution No. 01, Series of 1993.	Allowed use is for beanfly control on legumes only.
Paraquat	Restricted as per FPA Circular No. 04 Series of 1989	Restricted for institutional Use Only. Approval of use will be based on strick compliance by the imported/end-user of the requirements act for its use.
Phenamiphos	Restricted as per FPA Circular No. 04 Series of 1989	For use in banana and pineapple plantations.
Phosphine Generating Compounds	Restricted as per FPA Circular No. 04 Series of 1989	Adequate time for aeration is required after treatment before commodities are processed into food or feed.

APPENDIX 3: PEST MANAGEMENT PLAN

This appendix provides guidance on pest and pesticide management within field projects, as well as a simplified pest management plan. It should be noted that the Philippines has a National IPM Programme Officer within the Department of Agriculture and has had its own National Integrated Pest Management Plan (KASAKALIKASAN) ongoing since 1993, thus the most current and area/crop-specific IPM practices based on the national plan – in conjunction with FAO guidelines – should be utilized throughout the projects' implementation.

FAO Guidance Document for Pest and Pesticide Management in Field Project:

This guidance document has been prepared by the FAO Plant Production and Protection Division (AGPM) and replaces a Field Programme Circular from 8/92 on Pesticides Selection and Use in Field Projects.

It provides guidance on pest management and the selection and use of pesticides in FAO projects. Its objective is to reduce reliance on pesticides through promotion of Pest Management (PM) and to avoid that pesticides procured by FAO, or on the advice of FAO, cause harm to people, animals, plants or the environment. As such, it also serves to limit reputational risk and liabilities for FAO.

The outlined rules and procedures apply to all pesticide procurement, and advice on pesticide procurement, within the framework of FAO field projects, including emergency assistance and activities implemented by subcontractors. It involves an established procedure for mandatory clearance of such projects and activities by the Deputy Director AGP, as specified below.

Background

Pesticides require special attention because they are toxic and their distribution and use should always involve managing the risks to human health and the environment. Furthermore, inappropriate use of pesticides may reduce agricultural productivity and result in pesticide residue levels that become a constraint to marketability of crops both on domestic and export markets.

Although most countries have pesticide legislation, many may still lack capacity to ensure appropriate selection, management, use and disposal of pesticides. Circumstances in developing countries often make it difficult for farmers to follow recommended practices regarding personal protection, use and cleaning of application equipment, storage of pesticides, and disposal of obsolete pesticides and empty containers.
In many cases, use of pesticides is still unnecessarily high, uneconomic and unsustainable. Available non-chemical techniques and PM approaches often can help reduce pesticide use.

The overall framework for sound pest and pesticide management is provided by the FAO/WHO International Code of Conduct on Pesticide Management[135] and its accompanying technical guidelines.

[135] *AGPM Website: FAO/WHO International Code of Conduct on Pesticide Management (2014): http://www.fao.org/agriculture/crops/thematic-sitemap/theme/pests/code/en/*

Pest management

The protection of plants from pests is an integral part of agriculture. The presence of pests does not automatically require control measures, as pest populations are usually under some form of natural control and actual economic damage may be insignificant. When plant protection measures are deemed necessary, available non-chemical pest management techniques should be considered with preference before a decision is taken to use pesticides, even if the cost is higher or specialist inputs are required that make use of non-chemical options more complex.

Proper comparison of pest management strategies requires a full assessment of costs that takes into account additional private costs (e.g. personal protection, storage, health effects on users) and public costs (negative effects on public health and the environment).

Where possible, pest management strategies should be based on an IPM approach. Pesticides should only be supplied following a detailed assessment of the actual field situation, the nature and the impact of the pest, and an evaluation of available pest management options.

Selection and procurement of pesticides

If pesticides are deemed to be the best or only available option, then careful and informed consideration should be given to the selection of pesticide products. Factors to be taken into account include efficacy and likelihood of development or presence of resistance by the target organism. Overriding importance should be given to reducing negative effects on human health and the environment.

FAO does not maintain a list of permitted or non-permitted pesticides. However, in line with the provisions of the FAO/WHO International Code of Conduct on Pesticide Management and relevant multilateral environmental agreements that include pesticides, the following list of criteria will need to be met in order for a pesticide to be considered for use in an FAO project:

1. The product should not be subject to the Stockholm Convention on Persistent Organic Pollutants. The list of pesticides concerned can be found at: http://chm.pops.int
2. The product should be registered in the country of use. If specified in the registration decision, the product should be permitted for the crop-pest combination concerned.
3. Users should be able to manage the product within margins of acceptable risk. This means that FAO will not supply pesticides that fall in WHO Hazard Class 1 or GHS Class 1 and 2. Pesticides that fall in WHO Hazard Class 2 or GHS Class 3 can only be provided if less hazardous alternatives are not available and it can be demonstrated that users adhere to the necessary precautionary measures[136].
4. Preference should be given to products that are less hazardous, more selective and less persistent, and to application methods that are less hazardous, better targeted and

[136] *The hazard classification concerns the formulated product. Formulations with a low concentration of active ingredient are less hazardous than formulations with a high concentration of the same active ingredient. The WHO Recommended Classification of Pesticides by Hazard and Guidelines to Classification (http://www.who.int/ipcs/publications/pesticides_hazard/en/) classifies technical products based on acute oral and dermal toxicity. It includes a conversion table that allows determination of the hazard class for the pesticide formulation under consideration. Towards 2008, this list will be replaced by the Globally Harmonized System of Classification and Labelling of Chemicals, which in addition to acute toxicity also takes into consideration chronic health risks and environmental risks (http://www.unece.org/trans/danger/publi/ghs/ghs_welcome_e.html). The term "pesticide formulation" means the combination of various ingredients designed to render the product useful and effective for the purpose claimed; the form of pesticide as purchased by users. The term "active ingredient" means the biologically active part of the pesticide.*

requiring less pesticides. Products listed in Annex 3 of the Rotterdam Convention should for instance be avoided.

Any international procurement of pesticides must abide with the provisions of the Rotterdam Convention on the Prior Informed Consent (PIC) Procedure for Certain Hazardous Chemicals and Pesticides in International Trade. Pesticides listed in Annex III of the Convention and subject to the PIC procedure, and requirements of the Convention, can be found at the website of the Secretariat of the Rotterdam Convention: http://www.pic.int/Implementation/Pesticides/tabid/1359/language/en-US/Default.aspx.

In addition, any pesticide utilized within the project must meet the legal requirements of the Government of the Philippines (see Appendix 2 for a list of banned and restricted pesticides in the Philippines).

Pesticide management

The following requirements apply to all pesticides that are being supplied directly by FAO and to pesticides supplied by others within the framework of FAO projects.

1. Procurement of pesticides should be preceded by a thorough risk assessment, which should lead to adequate measures to reduce health and environmental risks to acceptable levels.
2. Quantities to be provided should be based on an accurate assessment of actual needs in order to avoid over-use or accumulation of stockpiles that may become obsolete. Pesticides should not be provided as fixed components of input packages of projects, credit schemes or emergency assistance.
3. Appropriate application equipment and protective gear should be provided in adequate quantities along with the pesticides, unless it is explicitly confirmed that the recommended equipment and gear is already sufficiently available.
4. Training of users may be required to ensure they are capable of handling the supplied pesticides in a proper and responsible manner.
5. Proper storage of pesticides in accordance with FAO guidelines should be ensured for all supplies.

Clearance

The following documents and activities require clearance from the respective FAO Sub- and/or Regional Coordinator and Plant Protection Officer. Review and clearance of pesticide purchase requests including treated seeds and treatment of stored agricultural products will be carried out in close collaboration with FAO HQ based Pest and Pesticide Management Group (AGPMC) (c/o Senior Officer Pesticide Risk Reduction Group (AGPMC):

- All orders for pesticides to be procured by FAO, regardless of whether bought through Headquarters order, field project order or local purchase.
- Project documents that envisage procurement of pesticides.
- Terminal reports for projects that involved pesticide supply.

Requests for clearance should be submitted to the respective FAO Sub-/Regional Coordinator and Plant Protection Officer (focal point for pesticides and crop protection). Requests for

procurement of pesticides must include a completed Request for Procurement of Pesticides (Annex I: Pesticide check list) for each pesticide.

In addition, clearance must be obtained from the respective FAO Sub-/Regional Coordinator and Plant Protection Officer for any contemplated collaboration with a pesticide company or other entity of the pesticide industry (e.g.: in designing or implementing training). This in addition to the established general procedure for OPC approval of collaboration with the private sector as described in DGB 2014/14.

Conditions to be met for purchase and use of pesticides

For the purchase and use of any pesticide product, it must be assured, that the following conditions are met:

- The product must be registered in the *target country* by the respective national authority;
- The company providing the pesticide has to declare that they are observing the **FAO/WHO International Code of Conduct on Pesticide Management**, especially its provisions on labelling[137], as well as packaging and transport of pesticides;
- Individuals involved in applying the pesticide will be trained in the use of protective equipment, use of the pesticide application equipment and protection of health and the environment from exposure to pesticides;
- The protective equipment supplied to applicators complies with EC, US or appropriate internationally accepted standards;
- Suitable application equipment that permits pesticide applicators to apply the pesticide in the correct dose without causing human and environmental exposure, will be used or provided if it is not available;
- All empty pesticide containers will be triple rinsed and punctured in accordance with FAO guidelines[138]

If pesticides are to be purchased for seed treatment (seed storage chemical or seed treatment), the following conditions must be met:

At the seed treatment facility:

- Each pesticide seed treatment product must be cleared by AGP and must be registered in *Countries concerned* (*importing/exporting country*) by the relevant national authority/authorities.
- The company providing the pesticide has to declare that they are observing the **FAO/WHO International Code of Conduct on Pesticide Management**, especially its provisions on labelling, as well as packaging and transport of pesticides or pesticide-treated seeds.
- Users of seeds treated with pesticides must adhere to the necessary precautionary measures described on the product labels (e.g. wearing a protective mask, goggles and gloves).
- The treatment of seeds must be done in an appropriately equipped facility that ensures full containment of the pesticides.

[137] *Reference to Guideline on Good labelling practice for pesticides: http://www.fao.org/ag/AGP/AGPP/Pesticid/Code/Download/label.pdf*
[138] *Reference to Guideline on Management options of empty pesticide containers: http://www.fao.org/fileadmin/templates/agphome/documents/Pests_Pesticides/Code/Containers08.pdf*

- Users of seed treatment equipment should be provided with suitable application equipment and instructed on calibration, use and cleaning of the equipment.
- Treated seeds must be dyed using an unusual and unpalatable colour to discourage consumption.
- All packages containing treated seeds must be clearly marked "*Not for human or animal consumption*" and with the skull and crossbones symbol for poison.

At the point of use of the treated seeds:

- Those handling treated seeds should be informed that the seeds are treated with pesticides which can have toxic effects on their health, the health of others and on the environment.
- Handlers should be advised to wear clothes that fully cover their body (long sleeves, long trousers/skirt and closed shoes), and -if not available- be provided with gloves and dust masks and instructed on their use and advised to wash themselves and their clothes after handling the seed.
- Packaging from treated seeds should not be reused for any purpose.

Further guidance

Further guidance on all aspects of pesticide distribution, handling and use, is provided by the International Code of Conduct on Pesticide Management, and the Technical Guidelines that have been produced in support of the Code itself (Copies are available from the AGPMC website: http://www.fao.org/agriculture/crops/core-themes/theme/pests/en/).

The Plant Production and Protection Department (AGPM) and Pest and Pesticide management group/Pesticide Risk Reduction team (AGPMC) and Sub-, Regional Plant Protection Officers will be available to provide further clarification.

SAMPLE: Simplified Pest Management Plan (PMP):

This simplified PMP aims to provide basic knowledge to the national, provincial and local government, the project implementation team, consultants, Barangay officials, village officials, and any private and public sector agencies partnered with for the purposes of the project, with adequate guidance for effectively addressing the safeguard issues in line with ESS5. The process will be implemented as part of the project cycle and fully integrated into the sub-activity selection, approval, implementation, and monitoring and evaluation process. The project does not include procurement of pesticides, but the ESMF identifies key issues related to the existing use of pesticide and chemical fertilizers and identified mitigation measures required in relation to prohibited items, training, and guidelines on safe use and disposal of pesticides. The PMP will be applicable for all project activities related mostly to:

- **Component 3:** Strengthen farmer group communities to identify, adopt, and access investment for climate resilient technologies, which supports (3.1) Expanding representative climate resilient field schools (CRFS) in high impact climate change areas; (3.2) Large scale delivery of CIS and participatory advisories on CRA practice knowledge; and (3.3) Advisories on appropriate value chain and financial support services for farmers.

Community consultations indicted that chemical based pesticides (and, in some instances, fertilizers) are currently being used in the project areas, particularly in instances where monoculture is practiced.

Responsible agency: The project staff at central and local levels will be responsible for implementation of the PMP and ensuring full compliance, including keeping proper documentation in the project file for possible review by the GCF and FAO.

This document is considered a living document and could be modified and changed as it is appropriated. Close consultation with the GCF and FAO, including final clearance of revisions to the PMP, will be necessary.

SECTION I. POLICY AND REGULATIONS

FAO's safeguard policy on pest management (ESS5):
The ESS5 policy requires that projects involving procurement and/or use of pesticides to prepare and implement a Pest Management Plan to ensure that the handling, transportation, usage, disposal of pesticides is safe for both human and the environment. The project will not promote the procurement of any chemical pesticides or herbicides. However, if pest invasion occurs, small amounts of eligible and registered pesticides in the project provinces is allowed if supplemented by additional training of farmers to ensure pesticide safe uses in line with FAO policies and nationally/internationally recognized guidelines. Given that the project is designed to promote the reduction in chemical pesticide and fertilizer use in existing farm land by enhancing climate resilient and sustainable farming practices, this simplified Pest Management Plan was prepared, along with a negative list (Appendix 1). While the project will not procure and promote use of chemical pesticides and fertilizers which are included in the non-eligibility list, it may be unrealistic to completely prevent all farmers from applying chemical inputs. Specifically, shifts is agriculture production and/or control of infestation of diseases may necessitate – in some instances – the use of pesticides, herbicides, and insecticides. To mitigate this potential impact, this simplified PMP has been prepared outlining clear regulations and procedures for management of pesticides and/or toxic chemical as well as providing knowledge and training on health impacts and safe use of pesticides and/or, when possible, promotion of non-chemical use alternatives such as organic farming. The simplified PMP is informed by the laws and regulations of Government of the Philippines, the KASAKALIKASAN (ongoing since 1993), and international guidelines and best practices, including guidelines on Integrated Pest Management (IPM) provided by the Food and Agriculture Organization of the United Nations (FAO).

Relevant definitions under ESS 5 include the following:

- ***Pesticides*** as any substance, or mixture of substances of chemical or biological ingredients intended for repelling, destroying or controlling any pest or regulating plant growth.
- ***Pest*** is defined as any species, strain or biotype of plant, animal or pathogenic agent injurious to plants and plant products, materials or environments and includes vectors of parasites or pathogens of human and animal disease and animals causing public health nuisance.

The ESS 5 safeguard recognizes that pesticides can contribute to effective crop and food protection during production and in storage. Pesticides are also used in forestry, livestock

production and aquaculture to control pests and diseases. At the same time pesticides are designed to be toxic to living organisms, are intentionally dispersed in the environment and are applied to food crops. ESS 5 recognizes that pesticide use poses risks to users, others nearby, consumers of food and to the environment. In LMICs these risks are often elevated by overuse, misuse and lack of effective regulatory control. ESS 5 follows the guidance on the life-cycle management of pesticides as provided by the International Code of Conduct on Pesticide Management and its supporting technical guidelines that are drawn up by a FAO\WHO expert panel and which expand on specific articles. Given that chemical pesticides are used in some of the project areas, and that not all farmers wear the necessary protective gear, this policy is being triggered. The project, while it will not procure pesticides and/or promote the use of pesticides, may result in indirect increased use of pesticides in nearby areas if production increases. To mitigate against this, the project will be using IPM and also avoiding the use of any Highly Hazardous Pesticides.

The PMU will work closely with the Department of Agriculture and the Fertilizer and Pesticide Authority (FPA) to apply the Pest Management Plan and subsequent IPM.

Government regulation related to pest management:
The FPA is responsible for the safe and appropriate use of fertilizers and pesticide inputs. It covers functions including: (i) licensing of handlers; (ii) import control; (iii) product quality and adherence to safety; (iv) institutionalization of the products stewardship program; (v) fertilizer and pesticide product registration; (vi) providing public information; and (vii) further development with respect to industry and government coordination and support.

Within the FPA, the Pesticide Regulations Division is responsible for establishing and upholding the regulations on pesticide registration, importation, distribution, and use. The division provides lists of: (i) registered pesticides (as of December 2016); (ii) licensed dealers (fertilizer and pesticides, as of July 2017); (iii) pesticide distributors; (iv) pesticide importation (2012-2014, 2016); and (v) registered plant-incorporated protectants derived from modern biotechnology (as of 30 October 2018).

SECTION II. KEY ISSUES AND MITIGATION MEASURES

Key issues related to use of pesticides and chemical fertilizer:

The PMP is developed to support project community and a responsibility of all parties to support the implementation and proper applicability of the ESS5. Negative impacts from the use of pesticides and chemical fertilizers are expected to be minor and localized and could be mitigated during the planning and implementation of the project. Given that the use of pesticides and inorganic fertilizers is normal practice for some farmers, the project will promote IPM to avoid inappropriate use of these inputs. However, it is important for the PMU, government staff, and local communities to understand the nature of such activities to encourage farmers to reduce the uses of pesticides and inorganic fertilizers.

Below summarize the possible activities which could be associated with the uses of pesticides and inorganic fertilizers under project.

- Implementation of sub-project activities resulting in increased agriculture productivity within key crops for commercialization may lead to indirect increased use of pesticides, chemicals, and fertilizers.

Actions for mitigation:

The negative impacts from the use of pesticides and chemical fertilizers from project activities would be minor and localized and could be mitigated during the planning and implementation of the project. Based on community consultations, there are opportunities to enhance positive impacts during the planning and selection of the sub-project activities. Below summarizes the activities to be carried out during the planning and implementation of the project as they relate to pest management.

(a) Prohibition

To avoid adverse impacts due to pesticides, procurement of pesticides will not be promoted and this has been included in the "non-eligibility list" (Appendix 1).

(b) Project and Government Staff Training

The project will continue providing basic knowledge on alternative options for climate-resilient agriculture development and /or livelihood activities, including safe use of pesticides and other toxic chemicals. Budget is allocated under Component 2 and 3 to government/extension and project staff training to understand: 1) overall policy on Pest Management (government and FAO policy); 2) basic knowledge on possible negative impacts on the environment and health from the use of pesticides and chemical fertilizers; and 3) basic knowledge on how to prevent these impacts, including an overview of the prohibited items in the country for pesticide and chemical fertilizers, how to prevent or mitigate the negative impacts from their use etc. (training could be done jointly with other topics). This training would be provided for sub-project activities that involve the use of fertilizer and/or pesticides.

(c) Providing Training and Knowledge to Farmers

Pest management will be included as one topic for barangay consultation meetings (which could be held at the municipal level). If it is identified through a screening by the PMU safeguards specialist that the project area is an area where pesticides are being used, then training on pest management should be provided on the following:

- Pest management training: The objective is to provide basic knowledge to the target farmer on prohibited pesticides, the negative impacts of the use of pesticides and chemical fertilizers both on environmental and human health, and how to mitigate their negative impacts if there is a need for using them. It is also to inform farmers that the project is not intended to support the use of any pesticides and chemical fertilizers in any agricultural productivity but promote climate resilient agriculture and conservation agriculture instead. However, if the country experiences severe pest invasions, this may lead to the usage of pesticides and chemical fertilizers in specific instances to limit losses and damages to the agriculture products. The procurement of pesticides and chemical fertilizers will not be funded under the project budget, though proper training will be offered to farmers in instances where special circumstances (e.g. insect invasion) demand use of some pesticides.

- Training on Government of Philippines regulations: The project will train target farmers on national rules/regulations pertaining to pesticide use before any sub-project activities are implemented, subject to compliance with ESS5.

- Technical training: This training would aim at enabling target farmers to clearly understand the technical aspects of pesticides, and skills in using them (e.g. what are the eligible and prohibited items of pesticides in the Philippines, the level of negative impacts for each eligible item, how to properly use them, how to protect and minimize the negative impacts while using them, how to keep them before and after use, etc.). Trainers would be someone from either FAO or the relevant specialists from the FPA who are knowledgeable on the topic.

- Procurement, storage, and usage of pesticides: the project will not involve procurement of pesticides. That said, any pesticides currently used in the project areas would require proper storage and usage monitoring throughout the course of the project, and this responsibility will lie fully with FAO and/or contracted parties at the barangay level (when/where applicable). FAO and any contracted parties should strictly follow the existing Philippines FPA regulations as well as FAO guidance, particularly concerning transportation, storage, trans-boundary transportation of pesticides, and the safe use of pesticides.

- Continued monitoring of pesticide use: As part of the regular monitoring of project activity, the PMU safeguard specialist will delegate monitoring responsibilities to one member of the project team at the local level. These delegates will monitor changes in pesticides, insecticides and chemical fertilizers use in all project related activities. Programs and trainings will be specifically amended to address any such changes.

(d) Promotion of non-chemical agriculture:

The project has been designed also to promote good agricultural practices and conservation of natural resources based on expected climate changes. It is anticipated that linking the climate-resilient agriculture activities with conservation agriculture techniques will be important for improving quality of life and climate-resiliency among farmers. Sustainable use of natural resources would be critical for farmers' livelihoods development and poverty reduction. If protected areas or critical natural habitats are located nearby, it is necessary to also take measures to minimize potential negative impacts and/or enhance positive impacts through community-driven processes. In this context, a "conservation agriculture technique" should be introduced for target communities, if and when applicable. During the planning process, actions will be carried out by FAO, the relevant government departments, and any contracted implementation parties to plan and train farmers.

Implementation arrangement and budget

(a) Planning and implementation

In close cooperation with the FPA, the PMU-level project staff will be responsible for providing training to project staff at the provincial and local levels, including any barangay-level facilitators that may be used for the purposes of consultation and planning. Budget for training will be included in the sub-activity cost or capacity building as appropriate, under Components 2 and 3.

(b) Monitoring

Project staff at the local level will work with DA/FPA staff for the monitoring of the use of pesticides in target communities including: a) ensuring pesticides are not listed in the non-eligibility list provided in Annex 1; b) ensuring pesticides are properly kept and transported to the target areas; c) ensuring training delivery to the user before distribution; and d) monitoring compliance and usage of pesticide according to the Government of the Philippines' regulations. The safeguard specialist in the PMU will carry out periodic review missions (e.g. every six months) to check for compliance. FAO will draw from its technical expertise on Pest Management as a standard to monitor compliance of the use of pesticide used under the project.

APPENDIX 4: CHANCE FIND PROCEDURES

Chance find procedures shall be conducted in accordance with the Philippines' RA 4846 Cultural Properties Preservation and Protection Act. The following *"chance find"* procedures must be included in all third-party contracts (e.g. Letters of Agreement), in instances where the contracted party is assisting with implementation of Component 1 or Component 2:

If the Contractor discovers archeological sites, historical sites, remains and objects, including graveyards and/or individual graves during project implementation, the Contractor shall:

- Stop the 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 Culture Administration take over;
- Notify the supervisory Safeguards Specialist within the PMU who, in turn, will notify the responsible local and provincial authorities immediately (within 24 hours or less);
- Responsible local and/or provincial authorities would be in charge of protecting and preserving the site before deciding on subsequent appropriate procedures. This would require a preliminary evaluation of the findings to be performed by government approved archeologists. 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 or research, social and economic values;
- Decisions on how to handle the finding shall be taken by the responsible local and provincial authorities. This could include changes in the layout (such as when finding an irremovable remain of cultural or archeological importance) conservation, preservation, restoration and salvage;
- Implementation for the authority decision concerning the management of the finding shall be communicated in writing by relevant local authorities; and
- Project activities could resume only after permission is given from the responsible local or provincial authorities concerning safeguard of the heritage.

Note that the reporting of chance finds only occurs when an item/area/etc. of cultural significance is found, and is only carried out insofar as what is detailed above (i.e. reporting the find, reporting how the item/area will be treated moving forward). Reporting begins with the local level implementer (e.g. staff tasked to the implement the project within a barangay) notifying the Safeguards Specialist, after which, the Safeguards Specialist guides the process according to the instructions above (e.g. notifying the relevant government authorities).

APPENDIX 5: LIST OF CONSULTATIONS & ATTENDANCE

CONSULTATIONS FOR SAFEGUARDS DURING 2018-2019 and in August 2022
(SEE PDF WITH LIST & ATTENDANCE)

Food and Agriculture Organization
of the United Nations

APPENDIX 6: ESMF TIMELINE

	ACTIVITY	INDICATOR	YEAR 1				YEAR 2				YEAR 3				YEAR 4				YEAR 5				YEAR 6				RESPONSIBILITY
			Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	
LFM	CAPACITY BUILDING																										
2.1.13	1. Capacity Building of project staff on E&S Safeguards	Training of Project Implementation staff on E&S Safeguards during the project's start up workshop.																									ESM Unit FAO
2.1.13	2. Refresher training for project staff/implementing partners on E&S Safeguards	Training of Project Implementation staff on E&S Safeguards at the annual implementation workshops.																									Project Safeguards Specialists
	E&S SCREENING AND ASSESSMENT																										
2.1.2	1. Identification of sub activities	List of Sub Activities																									Project Safeguards Specialists/ESM Unit
[redacted]																											Project Safeguards Specialists/ESM Unit
[redacted]																											Project Safeguards Specialists/ESM Unit
RING AND REPORTING																											
ring and reporting on. . ds Performance and Stakeholder' ent	Semi-Annual Progress reports on Stakeholder Engagement & ESMPs for sub activities																						2.1.2				Project Safeguards Specialists with selected IPs/women to ensure participatory monitoring
	Annual Compilation of E&S Safeguards performance																						2.1.2/ 2.1.6				Lead Safeguards Specialist/National Monitoring and Evaluation Specialist/ESM Unit
LDER ENGAGEMENT																											
n Council Characterization and tion Process Planning	Consultation Reports																										FAO/Implementing Partners
n Council level Consultations	Consultation Reports																										FAO/Implementing Partners
ge Level Consultations	Consultation Reports																										FAO/Implementing Partners
sultations with Ethnic Minority	Consultation Reports																						2.1.2				Ethnic Minorities Specialist
sultations with Women	Consultation Reports																						2.3.4				Gender Specialist

	ACTIVITY	INDICATOR	YEAR 1				YEAR 2				YEAR 3				YEAR 4				YEAR 5				YEAR 6				RESPONSIBILITY
			Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	
	TENURE																										
2.1.7/ 4.1.13	1. Survey to determine the type of access to land for farmers	Baseline Survey Results in Year 1, 3, and 6																									(3 enumerators per district, $50 daily rate, 2 days)
2.1.2	2. Land tenure legal framework review to identify gaps to promote sustainable agricultural practices and adaptation to climate change	Review Report																									Land Tenure Specialist
2.1.2	3. Action plan to support landless farmers with adoption of climate resilient agriculture practices, based on the Voluntary Guidelines for the Responsible Governance of Tenure of Land, Fisheries, and Forests (VGGT)	Action Plan																									Land Tenure Specialist
2.1.2/ 3.2.1.2	4. Implementation of action plan to support landless farmers with adoption of CRA practices	Safeguards progress reports (as listed for M&E)																									Safeguards Specialists/Institutional Development Expert/FAO/Implementing Partners
	ETHNIC MINORITY PLAN																										
2.1.2	1. Free, Prior, and Informed Consent finalized for communities identified as part of the project.	Signed agreement from heads of the ethnic minorities with whom the project will engage																									Ethnic Minorities Specialist
2.1.2/ 2.1.6	2. Participatory development of a workplan with ethnic minorities, including confirmation of grievance redress mechanism and participatory monitoring system	Ethnic Minority workplan is written & implemented																									Ethnic Minority Specialist/National M&E Specialist
2.1.6/ 2.1.19/ 2.1.21	3. Incorporation of the traditional Indigenous Peoples' (IP) practices found to be climate resilient within Farmer Field Schools and Women's Open Schools, incorporating ancestral knowledge where applicable	FFS and WOS curricula to be tailored to ethnic minority communities, in applicable areas																									Farmer Field School Specialist (with support from the Ethnic Minority Specialist)
2.1.20	4. Development of a capacity building plan for extension agents on the traditional IP practices which are climate resilient	All extension agents working in areas with ethnic minorities are trained in issues relevant to those minorities																									Farmer Field School Curriculum Specialist (with support from the Ethnic Minority Specialist)
2.1.2	5. Engagement process with ethnic minorities (linked to activities 1.3.1) for feedback into FFS and WOS, as needed	Annual consultations with ethnic minorities																									Ethnic Minority Specialist
2.1.2/ 2.1.6	6. Use of a participatory monitoring system with ethnic minorities for the monitoring of ESMP implementation and Stakeholder Engagement Activities (including FPIC commitments)	Participatory M&E reports																									Ethnic Minority Specialist/National Monitoring and Evalutation Specialist
	BIODIVERSITY MANAGEMENT																										
2.1.7/ 4.1.13	1.Survey of protected area proximity with project areas	Baseline Survey Result																									(3 enumerators per district, $50 daily rate, 2 days)
2.1.2	2.Monitoring to ensure no encroachment of project activities on protected areas	Report																									Provincial Safeguard Specialist (Biodiversity Background)
	GENDER ACTION PLAN (GAP)																										
	Details in Gender Action Plan	Consult GAP for Indicators																									Executing Agency (FAO)

APPENDIX 7: ESMF BUDGET

Position	Approximate Person Months	Cost (USD)
International Safeguards Consultant	90 working days (30 days in years 1, 4, and 7)	$ 45,000
International Gender and Social Inclusion/Indigenous Peoples' Specialist	90 working days (30 days in years 1, 4, and 7)	$45,000
National Safeguards Specialist	84	$ 117,600
National Gender and Social Inclusion/Indigenous Peoples' Specialist	84	$ 117,600
Lump-Sum for ad-hoc Safeguards Activities (e.g. special requirements to support FPIC, biodiversity management, etc.)	not applicable	$ 140,000
	TOTAL:	$ 465,200

Food and Agriculture Organization of the United Nations

APPENDIX 8: FAO ENVIRONMENTAL AND SOCIAL SCREENING CHECKLIST

Every sub-activity will must undergo an initial screening, utilizing FAO's Safeguards Screening Checklist, found at the end of this Appendix (see ESMF Chapter 9 for a detailed overview of the screening process and ESMP development). Based on the screening, sub-project activities will be categorized as low, moderate, or high risk. Based on the screening, sub-project activities will either be approved for implementation, or will be amended to meet the requirements detailed within this ESMF (specifically, all sub-project activities must have low to-moderate impact; high risk sub-project activities will not be allowed under the project, nor will sub-project activities which involve elements listed in the ESMF Appendix 1 project non-eligibility list).

Guidance and Examples for Sub-Activity Categorization

Categorization: To ensure that the extent of the review is commensurate with the nature of risk, categorization is a useful step in procedures where based on basic information about a project such as sector and scale, the level of E&S risk the project could pose is determined. This also enables the PMU Safeguards and Gender Specialists to determine the extent and sophistication of the E&S review required. Categorization may be low, moderate or high. For the purposes of this project, all sub-project activities are expected to be Category B (Medium) or Category C (Low) risk.

High Risk (Category A) Sub-Activity

The location of the farmers/project enterprise or activity may be:

- Near sensitive and valuable ecosystems, protected areas and habitat of endangered species;
- Near sensitive receptor such as hospital, school, temple, etc.;
- Near areas with archaeological and/or historic sites or existing cultural and social institutions;
- Near or in areas occupied by vulnerable ethnic minorities or indigenous peoples, or lands to which they are collectively attached, where negative impacts are expected and/or have not involved prior consultation;
- In densely populated areas, where resettlement may be required or potential pollution impacts and other disturbances may significantly affect communities;
- In regions where there are conflicts in natural resources allocation;
- Near watercourses, aquifer recharge areas or in reservoirs used for potable water supply; or in close proximity to lands or waters containing valuable resources.

Examples of sensitivity issues are those where the sub-activity can:

- Cause adverse global or regional environmental impacts;
- Concern the rights of indigenous people or vulnerable ethnic minorities;

- Require large scale land acquisition or subsequent change in land use that produces loss or damage of assets or income for local residents;
- Lead to involuntary settlements or displacement of people from their livelihoods;
- Impact protected or otherwise recognized areas of high biodiversity or cultural value; or
- Lead to toxic waste disposal.
- Acquisition of small parcels of land, even if obtained on a negotiated basis with property owners or those with recognized rights to the land, should be considered as sensitive if expropriation or other compulsory measures would have resulted upon the failure of negotiation.

Examples where the nature of the sub-activity may:

- Cause irreversible degradation or unsustainable exploitation of natural resources; or
- Pose serious risks of significant harm to human health and safety.

Examples of the magnitude of the sub-activity where:

- A high amount of scarce resources may be put at risk;
- The timing and duration of the negative impacts are long; or
- The cumulative effects of many similar, but individually small transactions together lead to serious impacts.

Category A sub-project activities are perceived to have significant adverse environmental and/or social impacts, and are not permitted to form part of the target portfolio.

Medium Risk (Category B) Sub-Activity

Transactions with a limited number of potentially adverse environmental or social impacts that are generally site-specific, largely reversible, and readily addressed through mitigation measures that reduce the risk to moderate or low levels are normally classified as Category B.

The following characteristics indicate a Category B sub-activity:

- Environmental and social risks for the most part are mostly limited to and readily mitigated through application of good industry practice as described in relevant Environmental, Health and Safety

Guidelines;

- Labor and working conditions are unlikely to include harmful child labor, involuntary or compulsory labor, SEAH, or significant occupational health and safety issues;
- Significant land acquisition or significant land use change is not expected, nor is there expectation of displacement of people or significant loss of livelihoods due to project activities; and
- Socially or economically disadvantaged groups, such as tribal or ethnic groups or similar communities, are not known to occur in the project's area of direct impact, nor does the

activity involve use of lands to which they are collectively attached, or where those communities are present but consultation has indicated Free Prior and Informed Consent (FPIC).

Low Risk (Category C) Sub-Activity:

Sub-activity proposals that are perceived to have minimal or no adverse environmental or social impacts are classified as Category C, and no further environmental or social assessment work needs to be done after initial screening and categorization.

FAO Environmental and Social Risk Identification – Screening Checklist

First level questions

#	Question	YES	NO
1	Would this project: ▪ result in the degradation (biological or physical) of soils or undermine sustainable land management practices; or ▪ include the development of a large irrigation scheme, dam construction, use of waste water or affect the quality of water; or ▪ reduce the adaptive capacity to climate change or increase GHG emissions significantly; or ▪ result in any changes to existing tenure rights[139] (formal and informal[140]) of individuals, communities or others to land, fishery and forest resources?		
2	Would this project be executed in or around protected areas or natural habitats, decrease the biodiversity or alter the ecosystem functionality, use alien species, or use genetic resources?		
3	Would this project: ▪ Introduce crops and varieties previously not grown, and/or; ▪ Provide seeds/planting material for cultivation, and/or; ▪ Involve the importing or transfer of seeds and or planting material for cultivation or research and development; ▪ Supply or use modern biotechnologies or their products in crop production, and/or ▪ Establish or manage planted forests?		
4	Would this project introduce non-native or non-locally adapted species, breeds, genotypes or other genetic material to an area or production system, or modify in any way the surrounding habitat or production system used by existing genetic resources?		
5	Would this project: ▪ result in the direct or indirect procurement, supply or use of pesticides[141]: - on crops, livestock, aquaculture, forestry, household; or - as seed/crop treatment in field or storage; or		

[139] Tenure rights are rights to own, use or benefit from natural resources such as land, water bodies or forests

[140] Socially or traditionally recognized tenure rights that are not defined in law may still be considered to be 'legitimate tenure rights'.

[141] Pesticide means any substance, or mixture of substances of chemical or biological ingredients intended for repelling, destroying or controlling any pest, or regulating plant growth.

#	Question	YES	NO
	- through input supply programmes including voucher schemes; or - for small demonstration and research purposes; or - for strategic stocks (locust) and emergencies; or - causing adverse effects to health and/or environment; or ▪ result in an increased use of pesticides in the project area as a result of production intensification; or ▪ result in the management or disposal of pesticide waste and pesticide contaminated materials; or ▪ result in violations of the Code of Conduct?		
6	Would this project permanently or temporarily remove people from their homes or means of production/livelihood or restrict their access to their means of livelihood?		
7	Would this project affect the current or future employment situation of the rural poor, and in particular the labour productivity, employability, labour conditions and rights at work of self-employed rural producers and other rural workers?		
8	Could this project risk overlooking existing gender inequalities in access to productive resources, goods, services, markets, decent employment and decision-making? For example, by not addressing existing discrimination against women and girls, or by not taking into account the different needs of men and women.		
9	Would this project: ▪ have indigenous peoples[142] living outside the project area[143] where activities will take place; or ▪ have indigenous peoples living in the project area where activities will take place; or ▪ adversely or seriously affect on indigenous peoples' rights, lands, natural resources, territories, livelihoods, knowledge, social fabric, traditions, governance systems, and culture or heritage (physical[144] and non-physical or intangible[145]) inside and/or outside the project area; or ▪ be located in an area where cultural resources exist?		

[142] FAO considers the following criteria to identify indigenous peoples: priority in time with respect to occupation and use of a specific territory; the voluntary perpetuation of cultural distinctiveness (e.g. languages, laws and institutions); self-identification; an experience of subjugation, marginalization, dispossession, exclusion or discrimination (whether or not these conditions persist).

[143] The phrase "Outside the project area" should be read taking into consideration the likelihood of project activities to influence the livelihoods, land access and/or rights of Indigenous Peoples' irrespective of physical distance. In example: If an indigenous community is living 100 km away from a project area where fishing activities will affect the river yield which is also accessed by this community, then the user should answer "YES" to the question.

[144] Physical defined as movable or immovable objects, sites, structures, group of structures, natural features and landscapes that have archaeological, paleontological, historical, architectural, religious, aesthetic or other cultural significance located in urban or rural settings, ground, underground or underwater.

[145] Non-physical or intangible defined as "the practices, representations, expressions, knowledge and skills as well as the instruments, objects, artifacts and cultural spaces associated therewith that communities, groups, and in some cases individuals, recognize as part of their spiritual and/or cultural heritage"

Second Level Questions

SAFEGUARD 1 NATURAL RESOURCES MANAGEMENT

Question	Management of soil and land resources	No	Yes	Comments
1.1	Would this project result in the degradation (biological or physical) of soils	LOW RISK	MODERATE RISK Demonstrate how the project applies and adheres to the principles of the World Soil Charter	
1.2	Would this project undermine sustainable land management practices?	LOW RISK	HIGH RISK A full environmental and social impact assessment is required. Please contact the ESM unit for further guidance.	

	Management of water resources and small dams	No	Yes	Comments
1.3	Would this project develop an irrigation scheme that is more than 20 hectares or withdraws more than 1000 m3/day of water?	LOW RISK	MODERATE RISK Specify the following information: a) implementation of appropriate efficiency principles and options to enhance productivity, b) technically feasible water conservation measures, c) alternative water supplies, d) resource contamination mitigation or/and avoidance, e) potential impact on water users downstream,	

			f) water use offsets and demand management options to maintain total demand for water resources within the available supply. g) The ICID-checklist will be included, as well as appropriate action within the project to mitigate identified potential negative impacts. h) Projects aiming at improving water efficiency **will carry out thorough water accounting** in order to avoid possible negative impacts such as waterlogging, salinity or reduction of water availability downstream.	
1.4	Would this project develop an irrigation scheme that is more than 100 hectares or withdraws more than 5000 m3/day of water?	LOW RISK	HIGH RISK A full environmental and social impact assessment is required. Please contact the ESM unit for further guidance.	
1.5	Would this project aim at improving an irrigation scheme (without expansion)?	LOW RISK	MODERATE RISK The ICID-checklist will be included, as well as appropriate action within the project to mitigate identified potential negative impacts. Projects aiming at improving water efficiency **will carry out thorough water accounting** in order to avoid possible negative impacts such as waterlogging, salinity or reduction of water availability downstream.	
1.6	Would this project affect the quality of water either by the release of pollutants or by its	LOW RISK	HIGH RISK	

	use, thus affecting its characteristics (such as temperature, pH, DO, TSS or any other?		A full environmental and social impact assessment is required. Please contact the ESM unit for further guidance.	
1.7	Would this project include the usage of wastewater?	LOW RISK	MODERATE RISK Demonstrate how the project applies and adheres to applicable national guidelines or, if not available, the WHO/FAO/UNEP Guidelines on Safe Usage of Waste Water in Agriculture	
1.8	Would this project involve the construction or financing of a dam that is more than 15 m. in height?	LOW RISK	CANNOT PROCEED	
1.9	Would this project involve the construction or financing of a dam that is more than 5 m. in height?	LOW RISK	HIGH RISK A full environmental and social impact assessment is required. Please contact the ESM unit for further guidance.	

	Tenure	No	Yes	Comments
1.10	Would this project permanently or temporarily deny or restrict access to natural resources to which they have rights of access or use?	LOW RISK	PROCEED TO NEXT Q	

	Could this project result in any changes to existing *tenure rights*[1] (*formal and informal*[2]) of individuals, communities or others to land, fishery and forest resources? [1]Tenure rights are rights to own, use or benefit from natural resources such as land, water bodies or forests [2]Socially or traditionally recognized tenure rights that are not defined in law may still be considered to be 'legitimate tenure rights'.				
	1.10.1	Could this project result in a negative change to existing legitimate tenure rights?	MODERATE RISK Demonstrate how the project applies and adheres to the principles/framework of the Voluntary Guidelines on the Responsible Governance of Tenure of Land, Fisheries and Forests in the Context of National Food Security (VGGT)	HIGH RISK A full environmental and social impact assessment is required. Please contact the ESM unit for further guidance.	

	Climate		No	Yes	
1.11	Could this project result in a reduction of the adaptive capacity to climate change for any stakeholders in the project area?		LOW RISK	HIGH RISK A full environmental and social impact assessment is required. Please contact the ESM unit for further guidance.	
1.12	Could this project result in a reduction of resilience against extreme weather events?		LOW RISK	HIGH RISK A full environmental and social impact assessment is required. Please contact the ESM unit for further guidance.	
1.13	Could this project result in a net increase of GHG emissions beyond those expected from increased production?		LOW RISK	PROCEED TO NEXT Q	
	1.13.1	Is the expected increase below the level specified by FAO guidance or national policy/law (whichever is more stringent)?	HIGH RISK A full environmental and social impact assessment is required. Please contact the ESM unit for further guidance.	LOW RISK	

	1.13.2	Is the expected increase above the level specified by FAO guidance or national policy/law (whichever is more stringent)?	LOW RISK	HIGH RISK A full environmental and social impact assessment is required. Please contact the ESM unit for further guidance.	

SAFEGUARD 2 BIODIVERSITY, ECOSYSTEMS AND NATURAL HABITATS

	Protected areas, buffer zones or natural habitats	**No**	**Yes**	**Comments**
2.1	Would this project be implemented within a legally designated protected area or its buffer zone?	**LOW RISK**	**HIGH RISK** A full environmental and social impact assessment is required. Please contact the ESM unit for further guidance.	.

	Biodiversity Conservation	**No**	**Yes**	**Comments**
2.2	Would this project change a natural ecosystem to an agricultural/aquacultural/forestry production unit with a reduced diversity of flora and fauna?	**LOW RISK**	**HIGH RISK** A full environmental and social impact assessment is required. Please contact the ESM unit for further guidance.	
2.3	Would this project increase the current impact on the surrounding environment for	**LOW RISK**	**MODERATE RISK** Demonstrate in the project document what measures will be taken to minimize adverse	

	example by using more water, chemicals or machinery than previously?		impacts on the environment and ensure that implementation of these measures is reported in the risk log during progress reports.	

	Use of alien species	**No**	**Yes**	**Comments**
2.4	Would this project use an alien species which has exhibited an invasive* behavior in the country or in other parts of the world or a species with unknown behavior? *An invasive alien species is defined by the Convention on Biological Diversity as "an alien species whose introduction and/or spread threaten biological diversity" (see https://www.cbd.int/invasive/terms.shtml).	**LOW RISK**	**HIGH RISK** A full environmental and social impact assessment is required. Please contact the ESM unit for further guidance.	

	Access and benefit sharing for genetic resources	**No**	**Yes**	**Comments**
2.5	Would this project involve access to genetic resources for their utilization and/or access to traditional knowledge associated with genetic resources that is held by indigenous, local communities and/or farmers?	**LOW RISK**	**MODERATE RISK** Ensure that the following issues are considered and appropriate action is taken. The issues identified and the action taken to address them must be included in the project document and reported on in progress reports.	

			For **PGRFA falling under the Multilateral System of Access and Benefit-sharing** (MLS) of the International Treaty on Plant Genetic Resources for Food and Agriculture (Treaty), ensure that Standard Material Transfer Agreement (SMTA) has been signed and comply with SMTA provisions. For **genetic resources, other than PGRFA falling under the MLS of the Treaty**: 1. Ensure that, subject to domestic access and benefit-sharing legislation or other regulatory requirements, prior informed consent has been granted by the country providing the genetic resources that is the country of origin of the resources or that has acquired the resources in accordance with the Convention on Biological Diversity, unless otherwise determined by that country; and 2. Ensure that benefits arising from the utilization of the genetic resources as well as subsequent applications and commercialization are shared in a fair and equitable way with the country providing the genetic resources that is the country of origin of the resources or that has acquired the resources in accordance with the Convention on Biological Diversity; and 3. Ensure that, in accordance with domestic law, prior informed consent or approval and involvements of indigenous and local communities is obtained for access to genetic resources where the indigenous and local communities have the established right to grant such resources; and	

			4. Ensure that, in accordance with domestic legislation regarding the established rights of these indigenous and local communities over the genetic resources, are shared in a fair and equitable way with the communities concerned, based on mutually agreed terms. For **traditional knowledge associated with genetic resources** that is held by indigenous and local communities: 1. Ensure, in accordance with applicable domestic law, that knowledge is accessed with the prior and informed consent or approval and involvement of these indigenous and local communities, and that mutually agreed terms have been established; and 2. Ensure that, in accordance with domestic law, benefits arising from the utilization of traditional knowledge associated with genetic resources are shared, upon mutually agreed terms, in a fair and equitable way with indigenous and local communities holding such knowledge. Ensure that the project is aligned with the Elements to Facilitate Domestic Implementation of Access and Benefit Sharing for Different Subsectors of Genetic Resources for Food and Agriculture when it is the case	

SAFEGUARD 3 PLANT GENETIC RESOURCES FOR FOOD AND AGRICULTURE

	Introduce new crops and varieties	No	Yes	Comments
3.1	Would this project Introduce crops and varieties previously not grown?	**LOW RISK**	**MODERATE RISK** • Follow appropriate phytosanitary protocols in accordance with IPPC • Take measures to ensure that displaced varieties and/or crops, if any, are included in the national or international *ex situ* conservation programmes	

	Provision of seeds and planting materials		No	Yes	Comments
3.2	Would this project provide seeds/planting material for cultivation?		**LOW RISK**	**PROCEED TO NEXT Q**	
	3.2.1	Would this project involve the importing or transfer of seeds and/or planting materials for cultivation?	**LOW RISK**	**MODERATE RISK** • Avoid undermining local seed & planting material production and supply systems through the use of seed voucher schemes, for instance • Ensure that the seeds and planting materials are from locally adapted crops and varieties that are accepted by farmers and consumers • Ensure that the seeds and planting materials are free from pests and diseases according to agreed norms, especially the IPPC • Internal clearance from AGPMG is required for all procurement of seeds and planting materials. Clearance from AGPMC is required for chemical treatment of seeds and planting materials	

				• Clarify that the seed or planting material can be legally used in the country to which it is being imported • Clarify whether seed saving is permitted under the country's existing laws and/or regulations and advise the counterparts accordingly. • Ensure, according to applicable national laws and/or regulations, that farmers' rights to PGRFA and over associated traditional knowledge are respected in the access to PGRFA and the sharing of the benefits accruing from their use. Refer to ESS9: Indigenous peoples and cultural heritage.	
	3.2.2	Would this project involve the importing or transfer of seeds and/or planting materials for research and development?	**LOW RISK**	**MODERATE RISK** Ensure compliance with Access and Benefit Sharing norms as stipulated in the International Treaty on Plant Genetic Resources for Food and Agriculture and the Nagoya Protocol of the Convention on Biodiversity as may be applicable. Refer also to ESS2: Biodiversity, Ecosystems and Natural Habitats.	

	Modern biotechnologies and the deployment of their products in crop production	**No**	**Yes**	**Comments**
3.3	Would this project supply or use modern plant biotechnologies and their products?	**LOW RISK**	**MODERATE RISK** • Adhere to the Cartagena Protocol on Biosafety of the Convention on Biological Diversity to ensure the safe handling, transport and use of Living Modified Organisms (LMOs) resulting from modern	

			biotechnology that may have adverse effects on biological diversity, taking also into account risks to human health. • Adhere to biosafety requirements in the handling of Genetically Modified Organisms (GMOs) or Living Modified Organisms (LMOs) according to national legislation or[146] • Take measures to prevent gene flow from the introduced varieties to existing ones and/or wild relatives	

	Planted forests	No	Yes	Comments
3.4	Would this project establish or manage planted forests?	**LOW RISK**	**MODERATE RISK** • Adhere to existing national forest policies, forest programmes or equivalent strategies. • The observance of principles 9, 10, 11 and 12 of the Voluntary Guidelines on Planted Forests suffice for indigenous forests but must be read in full compliance with ESS 9- Indigenous People and Cultural Heritage. • Planners and managers must incorporate conservation of biological diversity as fundamental in their planning, management, utilization and monitoring of planted forest resources. • In order to reduce the environmental risk, incidence and impact of abiotic and biotic damaging agents and to maintain and improve planted forest health and productivity, FAO will work together with stakeholders to develop and	

[146]Food and Agriculture Organization of the United Nations 2011: http://www.fao.org/docrep/014/i1905e/i1905e00.htm

			derive appropriate and efficient response options in planted forest management.	

SAFEGUARD 4 ANIMAL (LIVESTOCK AND AQUATIC) GENETIC RESOURCES FOR FOOD AND AGRICULTURE

#	Introduce new species/breeds and change in the production system of locally adapted breeds		No	Yes	Comments
4.1	Would this project introduce non-native or non-locally adapted species, breeds, genotypes or other genetic material to an area or production system?		**LOW RISK**	**PROCEED TO NEXT Q**	
	4.1.1	Would this project foresee an increase in production by at least 30% (due to the introduction) relative to currently available locally adapted breeds and can monitor production performance?	**CANNOT PROCEED**	**LOW RISK**	
	4.1.2	Would this project introduce genetically altered organisms, e.g. through selective breeding, chromosome	**LOW RISK**	**HIGH RISK** A full environmental and social impact assessment is required.	

		set manipulation, hybridization, genome editing or gene transfer and/or introduce or use experimental genetic technologies, e.g. genetic engineering and gene transfer, or the products of those technologies?		Please contact the ESM unit for further guidance.	
4.2	Would this project introduce a non-native or non-locally adapted species or breed for the first time into a country or production system?		**LOW RISK**	**MODERATE RISK** A genetic impact assessment should be conducted prior to granting permission to import (cover the animal identification, performance recording and capacity development that allow monitoring of the introduced species/ breeds' productivity, health and economic sustainability over several production cycles) • http://www.fao.org/docrep/012/i0970e/i0970e00.htm • ftp://ftp.fao.org/docrep/fao/012/i0970e/i0970e03.pdf	
4.3	Would this project introduce a non-native or non-locally adapted species or breed, independent whether it already exists in the country?		**LOW RISK**	**MODERATE RISK** • If the project imports or promotes species/breeds with higher performance than locally adapted ones, ensure: feed resources, health management, farm management capacity, input supply and farmer organization to allow the new species/breeds to express their genetic potential	

			• Follow the OIE terrestrial or aquatic code to ensure the introduced species/breed does not carry different diseases than the local ones • Include a health risk assessment and farmer/veterinary capacity development in the project to ensure the introduced species/breed do not have different susceptibility to local diseases including ecto-and endo-parasites than the locally adapted/native species/breeds.	
4.4	Would this project ensure there is no spread of the introduced genetic material into other production systems (i.e. indiscriminate crossbreeding with locally adapted species/breeds)?	**MODERATE RISK** Introduce a) animal identification and recording mechanism in the project and b) develop new or amend existing livestock policy and National Strategy and Action Plan for AnGR	**LOW RISK**	

#	Collection of wild genetic resources for farming systems	No	Yes	Comments
4.5	Would this project collect living material from the wild, e.g. for breeding, or juveniles and eggs for on-growing?	**LOW RISK**	**MODERATE RISK** Guidance to be provided	**No**

	Modification of habitats	No	Yes	Comments

4.6		Would this project modify the surrounding habitat or production system used by existing genetic resources?	**LOW RISK**	**MODERATE RISK** Guidance to be provided	
4.7		Would this project be located in or near an internationally recognized conservation area e.g. Ramsar or World Heritage Site, or other nationally important habitat, e.g. national park or high nature value farmland?	**LOW RISK**	**MODERATE RISK** Guidance to be provided	
4.8	**AQGR**	Would this project block or create migration routes for aquatic species?	**LOW RISK**	**MODERATE RISK** Guidance to be provided	
4.9		Would this project change the water quality and quantity in the project area or areas connected to it?	**LOW RISK**	**MODERATE RISK** Guidance to be provided	
4.10		Would this project cause major habitat / production system changes that promote new or unknown chances for gene flow, e.g. connecting geographically distinct ecosystems or water bodies; or would it disrupt habitats or migration routes and	**LOW RISK**	**HIGH RISK** A full environmental and social impact assessment is required. Please contact the ESM unit for further guidance.	

	the genetic structure of valuable or locally adapted species/stocks/breeds?			
4.11	Would this project involve the intensification of production systems that leads to land- use changes (e.g. deforestation), higher nutrient inputs leading to soil or water pollution, changes of water regimes (drainage, irrigation)?	**LOW RISK**	**MODERATE RISK** Guidance to be provided	

SAFEGUARD 5 PEST AND PESTICIDES MANAGEMENT

#	Supply of pesticides by FAO	No	Yes	Comments
5.1	Would this project procure, supply and/or result in the use of pesticides on crops, livestock, aquaculture or forestry?	**LOW RISK**	**MODERATE RISK** • Preference must always be given to sustainable pest management approaches such as Integrated Pest Management (IPM), the use of ecological pest management approaches and the use of mechanical/cultural/physical or biological pest control tools in favour of synthetic chemicals; and preventive measures and monitoring, • When no viable alternative to the use of chemical pesticides exists, the selection and procurement of pesticides is subject to an internal clearance procedure http://www.fao.org/fileadmin/templates/agphome	

			/documents/Pests_Pesticides/Code/E_SS5_pesticide_checklist.pdf • The criteria specified in FAO's ESM Guidelines under ESS5 must be adhered to and should be included or referenced in the project document. • If large volumes (above 1,000 litres of kg) of pesticides will be supplied or used throughout the duration of the project, a Pest Management Plan must be prepared to demonstrate how IPM will be promoted to reduce reliance on pesticides, and what measures will be taken to minimize risks of pesticide use. • It must be clarified, which person(s) within (executing) involved institution/s, will be responsible and liable for the proper storage, transport, distribution and use of the products concerned in compliance with the requirements.	
5.2	Would this project provide seeds or other materials treated with pesticides (in the field and/or in storage) ?	**LOW RISK**	**MODERATE RISK** The use of chemical pesticides for seed treatment or storage of harvested produce is subject to an internal clearance procedure [http://www.fao.org/fileadmin/templates/agphome/documents/Pests_Pesticides/Code/E_SS5_pesticide_checklist.pdf]. The criteria specified in FAO's ESM Guidelines under ESS5 for both pesticide supply and seed treatment must be adhered to and should be included or referenced in the project document.	

5.3	Would this project provide inputs to farmers directly or through voucher schemes?	**LOW RISK**	**MODERATE RISK** • FAO projects must not be responsible for exposing people or the environment to risks from pesticides. The types and quantities of pesticides and the associated application and protective equipment that users of a voucher scheme are provided with must always comply with the conditions laid out in ESS5 and be subject to the internal clearance procedure [link]. These must be included or referenced in the project document. • Preference must always be given to sustainable pest management approaches such as Integrated Pest Management (IPM), the use of ecological pest management approaches and the use of mechanical or biological pest control tools in favour of synthetic chemicals	
5.4	Would this project lead to increased use of pesticides through intensification or expansion of production?	**LOW RISK**	**MODERATE RISK** Encourage stakeholders to develop a Pest Management Plan to demonstrate how IPM will be promoted to reduce reliance on pesticides, and what measures will be taken to minimize risks of pesticide use. This should be part of the sustainability plan for the project to prevent or mitigate other adverse environmental and social impacts resulting from production intensification.	
5.5	Would this project manage or dispose of waste pesticides, obsolete pesticides or pesticide contaminated waste materials?	**LOW RISK**	**HIGH RISK** A full environmental and social impact assessment is required.	

			Please contact the ESM unit for further guidance.	

SAFEGUARD 6 INVOLUNTARY RESETTLEMENT AND DISPLACEMENT

#		No	Yes	Comments
6.1	Would this removal* be voluntary? *temporary or permanent removal of people from their homes or means of production/livelihood or restrict their access to their means of livelihoods	**CANNOT PROCEED**	**HIGH RISK** A full environmental and social impact assessment is required. Please contact the ESM unit for further guidance.	

SAFEGUARD 7 DECENT WORK

#		No	Yes	Comments
7.1	Would this project displace jobs? (e.g. because of sectoral restructuring or occupational shifts)	**LOW RISK**	**HIGH RISK** A full environmental and social impact assessment is required. Please contact the ESM unit for further guidance.	

#		No	Yes	Comments
7.2	Would this project operate in sectors or value chains that are dominated by subsistence producers and other vulnerable informal agricultural workers, and more generally characterized by high levels “working poverty”?	**LOW RISK**	**MODERATE RISK** Take action to anticipate the likely risk of perpetuating poverty and inequality in socially unsustainable agriculture and food systems. Decent work and productive employment should appear among the priorities of the project or, alternatively, the project should establish synergies with specific employment and social protection programmes e.g. favouring access to some social protection scheme or form of social insurance. Specific measures and mechanisms should be introduced to empower in particular the most vulnerable /disadvantaged categories of rural workers such as small-scale producers, contributing family workers, subsistence farmers, agricultural informal wage workers, with a special attention to women and youth who are predominantly found in these employment statuses. An age- and gender-sensitive social value chain analysis or livelihoods/employment assessment is needed for large-scale projects.	
7.3	Would this project operate in situations where youth work mostly as unpaid contributing family workers, lack access to decent jobs and are increasingly	**LOW RISK**	**MODERATE RISK** Take action to anticipate likely risk of unsustainably ageing agriculture and food systems by integrating specific measures to support youth empowerment and employment in agriculture. A	

#		No	Yes	Comments
	abandoning agriculture and rural areas?		youth livelihoods/employment assessment is needed. Complementary measures should be included aiming at training youth, engaging them and their associations in the value chain, facilitating their access to productive resources, credit and markets, and stimulating youth- friendly business development services.	
7.4	Would this project operate in situations where major gender inequality in the labour market prevails? (e.g. where women tend to work predominantly as unpaid contributing family members or subsistence farmers, have lower skills and qualifications, lower productivity and wages, less representation and voice in producers' and workers' organizations, more precarious contracts and higher informality rates, etc.)	**LOW RISK**	**MODERATE RISK** Take action to anticipate likely risk of socially unsustainable agriculture and food systems by integrating specific measures to reduce gender inequalities and promote rural women's social and economic empowerment. A specific social value chain analysis or livelihoods/employment assessment is needed for large-scale projects. Facilitation should be provided for women of all ages to access productive resources (including land), credit, markets and marketing channels, education and TVET, technology, collective action or mentorship. Provisions for maternity protection, including child care facilities, should be foreseen to favour women participation and anticipate potential negative effects on child labour, increased workloads for women, and	

#		No	Yes	Comments
			health related risks for pregnant and breastfeeding women.	
7.5	Would this project operate in areas or value chains with presence of labour migrants or that could potentially attract labour migrants?	**LOW RISK**	**MODERATE RISK** Take action to anticipate potential discrimination against migrant workers, and to ensure their rights are adequately protected, with specific attention to different groups like youth, women and men.	
7.6	Would this project directly employ workers?	**LOW RISK**	**MODERATE RISK** FAO projects will supposedly guarantee employees' rights as per UN/FAO standards as regards information on workers' rights, regularity of payments, etc. Decisions relating to the recruitment of project workers are supposed to follow standard UN practices and therefore not be made on the basis of personal characteristics unrelated to inherent job requirements. The employment of project workers will be based on the principle of equal opportunity and fair treatment, and there will be no discrimination with respect to any aspects of the employment relationship, such as recruitment and hiring, compensation (including wages and benefits), working conditions and terms of employment, access to training, job assignment, promotion, termination of employment or retirement, etc.	

#		No	Yes	Comments
7.7	Would this project involve sub-contracting?	**LOW RISK**	**MODERATE RISK** Take action to anticipate likely risk of perpetuating inequality and labour rights violations by introducing complementary measures. FAO projects involving sub-contracting should promote, to the extent possible, subcontracting to local entrepreneurs – particularly to rural women and youth – to maximize employment creation under decent working conditions. Also, FAO should monitor and eventually support contractors to fulfil the standards of performance and quality, taking into account national and international social and labour standards.	
7.8	Would this project operate in a sector, area or value chain where producers and other agricultural workers are typically exposed to significant occupational and safety risks[147]?	**LOW RISK**	**MODERATE RISK** Take action to anticipate likely OSH risks by introducing complementary provisions on OSH within the project. Project should ensure all workers' safety and health by adopting minimum OSH measures and contributing to improve capacities and mechanisms in place for OSH in informal agriculture and related occupations. For example, by undertaking a simple health and safety risk assessment, and supporting	

[147] Major OSH risks in agriculture include: dangerous machinery and tools; hazardous chemicals; toxic or allergenic agents; carcinogenic substances or agents; parasitic diseases; transmissible animal diseases; confined spaces; ergonomic hazards; extreme temperatures; and contact with dangerous and poisonous animals, reptiles and insects.

#		No	Yes	Comments
			implementation of the identified risk control measures. Awareness raising and capacity development activities on the needed gender-responsive OSH measures should be included in project design to ensure workers' safety and health, including for informal workers. Complementary measures can include measures to reduce risks and protect workers, as well as children working or playing on the farm, such as alternatives to pesticides, improved handling and storage of pesticides, etc. Specific provisions for OSH for pregnant and breastfeeding women should be introduced. FAO will undertake periodic inspections and a multistakeholder mechanism for monitoring should be put in place.	
7.9	Would this project provide or promote technologies or practices that pose occupational safety and health (OSH) risks for farmers, other rural workers or rural populations in general?	**LOW RISK**	**HIGH RISK** A full environmental and social impact assessment is required. Please contact the ESM unit for further guidance.	

#		No	Yes	Comments
7.10	Would this project foresee that children <u>below</u> the nationally-defined minimum employment age (usually 14 or 15 years old) will be involved in project-supported activities?	**LOW RISK**	**CANNOT PROCEED**	
7.11	Would this project foresee that children <u>above</u> the nationally-defined minimum employment age (usually 14 or 15 years old), but under the age of 18 will be involved in project-supported activities?	**LOW RISK**	**MODERATE RISK** Take action to anticipate likely risk of engaging young people aged 14-17 in child labour[148] by changing design or introducing complementary measures. For children of 14 to 17 years, the possibility to complement education with skills-training and work is certainly important for facilitating their integration in the rural labour market. Yet, children under the age of 18 should not be engaged in work-related activities in connection with the project in a manner that is likely to be hazardous or interfere with their compulsory child's education or be harmful to the child's health, safety or morals. Where children under the age of 18 may be engaged in work-related activities in connection with the project, an appropriate risk assessment will be conducted,	

[148] Child labour is defined as work that is inappropriate for a child's age, affects children's education, or is likely to harm their health, safety or morals. Child labour refers to working children below the nationally-defined minimum employment age, or children of any age engaging in hazardous work. Hazardous work is work that is likely to harm the health, safety or morals of a child. This work is dangerous or occurs under unhealthy conditions that could result in a child being killed, or injured and/or made ill as a consequence of poor health and safety standards and working arrangements. Some injuries or ill health may result in permanent disability. Countries that have ratified ILO Convention No.182 are obligated to develop National lists of hazardous child labour under Article 4.

#		No	Yes	Comments
			together with regular monitoring of health, working conditions and hours of work, in addition to the other requirement of this ESS. Specific protection measures should be undertaken to prevent any form of sexual harassment or exploitation at work place (including on the way to and from), particularly those more vulnerable, i.e. girls.	
7.12	Would this project operate in a value chain where there have been reports of child labour?	**LOW RISK**	**HIGH RISK** A full environmental and social impact assessment is required. Please contact the ESM unit for further guidance.	
7.13	Would this project operate in a value chain or sector where there have been reports of forced labour[149]?	**LOW RISK**	**HIGH RISK** A full environmental and social impact assessment is required. Please contact the ESM unit for further guidance.	

[149] Forced labour is employed, consists of any work or service not voluntarily performed that is exacted from an individual under threat of force or penalty. It includes men, women and children in situations of debt bondage, suffering slavery-like conditions or who have been trafficked. "In many countries, agricultural work is largely informal, and legal protection of workers is weak. In South Asia, there is still evidence of bonded labour in agriculture, resulting in labour arrangements where landless workers are trapped into exploitative and coercive working conditions in exchange for a loan. The low wages associated with high interest rates make it quite difficult for whole families to escape this vicious circle. In Africa, the traditional forms of "vestiges of slavery" are still prevalent in some countries, leading to situations where whole families (adults and children, men and women) are forced to work the fields of landowners in exchange for food and housing. In Latin America, the case of workers recruited in poor areas and sent to work on plantations or in logging camps has been widely documented by national inspection services and other actors." (ILO, Profits and poverty: the economics of forced labour / International Labour Office. - Geneva: ILO, 2014)

SAFEGUARD 8 GENDER EQUALITY

		No	Yes	Comments
8.1	Could this project risk reinforcing existing gender-based discrimination, by not taking into account the specific needs and priorities of women and girls?	**LOW RISK**	**MODERATE RISK** Take action to anticipate likely risk of perpetuating or reinforcing inequality by conducting a gender analysis to identify specific measures to avoid doing harm, provide equal opportunities to men and women, and promote the empowerment of women and girls.	
8.2	Could this project not target the different needs and priorities of women and men in terms of access to services, assets, resources, markets, and decent employment and decision-making?	**LOW RISK**	**MODERATE RISK** Take action to anticipate likely risk of socially unsustainable agriculture practices and food systems by conducting a gender analysis to identify the specific needs and priorities of men and women, and the constraints they may face to fully participate in or benefit from project activities, and design specific measures to ensure women and men have equitable access to productive resources and inputs.	

SAFEGUARD 9 INDIGENOUS PEOPLES AND CULTURAL HERITAGE

		No	Yes	Comments

9.1	Are there *indigenous peoples** living *outside the project area*** where activities will take place?[150]?		**LOW RISK**	**GO TO NEXT QUESTION**	
	9.1.1	Do the project activities influence the Indigenous Peoples living outside the project area?	**LOW RISK**	**MODERATE RISK** A Free, Prior and Informed Consent Process is required Project activities should outline actions to address and mitigate any potential impact Please contact the ESM/OPCA unit for further guidance.	
9.2	Are there indigenous peoples living in the project area where activities will take place?		**LOW RISK**	**MODERATE RISK** A Free Prior and Informed Consent process is required. **If the project is for indigenous peoples,** an Indigenous Peoples' Plan is required in addition to the Free Prior and Informed Consent process. Please contact the ESM/OPCA unit for further guidance. **In cases where the project is for both, indigenous and non-indigenous peoples,** an Indigenous Peoples' Plan will be required only if a substantial number of beneficiaries are Indigenous Peoples. project activities should outline actions to address and mitigate any potential impact. Please contact ESM/OPCA unit for further guidance. A Free, Prior and Informed Consent Process is required	

* FAO considers the following criteria to identify indigenous peoples: priority in time with respect to occupation and use of a specific territory; the voluntary perpetuation of cultural distinctiveness (e.g. languages, laws and institutions); self-identification; an experience of subjugation, marginalization, dispossession, exclusion or discrimination (whether or not these conditions persist).
** The phrase "Outside the project area" should be read taking into consideration the likelihood of project activities to influence the livelihoods, land access and/or rights of Indigenous Peoples' irrespective of *physical distance*. In example: If an indigenous community is living 100 km away from a project area where fishing activities will affect the river yield which is also accessed by this community, then the user should answer "YES" to the question

9.3	Would this project adversely or seriously affect on indigenous peoples' rights, lands, natural resources, territories, livelihoods, knowledge, social fabric, traditions, governance systems, and culture or heritage (*physical** and *non-physical or intangible***) inside and/or outside the project area? **Physical defined as movable or immovable objects, sites, structures, group of structures, natural features and landscapes that have archaeological, paleontological, historical, architectural, religious, aesthetic or other cultural significance located in urban or rural settings, ground, underground or underwater.* ***Non-physical or intangible defined as "the practices, representations, expressions, knowledge and skills as well as the instruments, objects, artifacts and cultural spaces associated therewith that communities,*	**LOW RISK**	**HIGH RISK** A full environmental and social impact assessment is required. Please contact the ESM unit for further guidance.	

	groups, and in some cases individuals, recognize as part of their spiritual and/or cultural heritage"			
9.4	Would this project be located in an area where cultural resources exist?	**LOW RISK**	**MODERATE RISK** To preserve cultural resources (when existing in the project area) and to avoid their destruction or damage, due diligence must be undertaken to: a) verify that provisions of the normative framework, which is usually under the oversight of a national institution responsible for protection of historical and archaeological sites/intangible cultural heritage; and b) through collaboration and communication with indigenous peoples' own governance institutions/leadership, verifying the probability of the existence of sites/ intangible cultural heritage that are significant to indigenous peoples. In cases where there is a high chance of encountering physical cultural resources, the bidding documents and contract for any civil works must refer to the need to include recovery of "chance findings" in line with national procedures and rules.	

ADDITIONAL INFORMATION	**YES**	**NO**
Is there any other potential environmental and/or social risk of this project that has not been captured in the screening checklist?		
Is the proposed project considered potentially controversial?		

Is there a risk of sexual exploitation, abuse or harassment (SEAH)?[151]		

[151] Note: Additional screening tools related to SEAH are being developed by GCF and FAO, due to their relatively new adoption of policies and frameworks that have a strengthened emphasis on mainstreaming SEAH risks. As such, additions will likely be made to this checklist later in 2022. The ESMF will be updated as these tools and additional information becomes available.

APPENDIX 9. INDIGENOUS PEOPLES PLAN TABLE OF CONTENTS[152]

If the proposed project may affect indigenous peoples, an Indigenous Peoples Plan (IPP) needs to be elaborated and included in the project documentation. The IPP is to be elaborated and implemented in a manner consistent with the requirements of FAO ESS8. The IPP will have a level of detail proportional to the complexity of the nature and scale of the proposed project and its potential impacts on indigenous peoples' rights, lands, territories, resources, traditional livelihoods, and cultural heritage. Where the specific project activities, and/or locations have not been fully defined, the executing entity must prepare an Indigenous Peoples Planning Framework (IPPF).

With the effective and meaningful participation of the affected peoples, the IPP shall be elaborated and contain provisions addressing, at a minimum, the substantive aspects of the following outline:

A. Executive Summary of the Indigenous Peoples Plan: Concisely describes the critical facts, significant findings, and recommended actions
B. Description of the Project: General description of the project, the project area, and components/activities that may lead to impacts on indigenous peoples
C. Description of Indigenous Peoples: A description of affected indigenous peoples and their locations, including:
    i. description of the community or communities constituting the affected peoples (e.g. names, ethnicities, dialects, estimated numbers, etc.);
    ii. description of the resources, lands and territories to be affected and the affected peoples connections/ relationship with those resources, lands, and territories; and
    iii. an identification of any vulnerable groups within the affected peoples (e.g. uncontacted and voluntary isolated peoples, women and girls, the disabled and elderly, others).
D. Summary of Substantive Rights and Legal Framework: A description of the substantive rights of indigenous peoples and the applicable legal framework, including:
    i. An analysis of applicable domestic and international laws affirming and protecting the rights of indigenous peoples (include general assessment of government implementation of the same).
    ii. Analysis as to whether the project involves activities that are contingent on establishing legally recognized rights to lands, resources, or territories that indigenous peoples have traditionally owned, occupied or otherwise used or acquired. In such cases, this shall include:
        a. identification of the steps and associated timetable for supporting legal recognition of such ownership, occupation, or usage with the support of the relevant authority, including the manner in which delimitation, demarcation, and titling shall respect the customs, traditions, norms, values, land tenure systems and effective and meaningful participation of the affected peoples, with legal recognition granted to titles with the full, free prior and informed consent of the affected peoples; and
        b. list of the activities that are prohibited until the delimitation, demarcation and titling is completed.
E. Summary of Social and Environmental Assessment and Mitigation Measures
    i. A summary of the findings and recommendations of the required prior social and environmental impact studies, specifically those related to indigenous peoples, their rights, lands, territories, resources, traditional livelihoods, and cultural heritage. This should include the manner in which

[152] This outline has been extracted and adapted from the *UNDP SES, Standard 6 Guidance Note on Indigenous Peoples (2017*)

the affected indigenous peoples participated in such study and their views on the participation mechanisms, the findings and recommendations.

ii. Where potential risks and adverse impacts to indigenous peoples, their lands, resources and territories are identified, the details and associated timelines for the planned measures to avoid, minimize, mitigate, or compensate for these adverse effects. Identification of special measures to promote and protect the rights and interests of the indigenous peoples including compliance with the affected peoples' internal norms and customs.

F. Participation, Consultation, and FPIC Processes
   i. A summary of results of the culturally appropriate consultation and FPIC processes undertaken with the affected peoples' which led to the indigenous peoples' support for the project.
   ii. A description of the mechanisms to conduct iterative consultation and consent processes throughout implementation of the project. Identify particular project activities and circumstances that shall require consultation and FPIC.

G. Appropriate Benefits: An identification of the measures to be taken to ensure that indigenous peoples receive equitable social and economic benefits that are culturally appropriate, including a description of the consultation and consent processes that lead to the determined benefit sharing arrangements.

H. Gender assessment and action plan

I. Capacity support: Description of measures to support social, legal, technical capabilities of indigenous peoples' organizations in the project area to enable them to better represent the affected indigenous peoples more effectively.

J. Grievance Redress: A description of the procedures available to address grievances brought by the affected indigenous peoples arising from project implementation, including the remedies available, how the grievance mechanisms take into account indigenous peoples' customary laws and dispute resolution processes, as well as the effective capacity of indigenous peoples under national laws to denounce violations and secure remedies for the same in domestic courts and administrative processes.

K. Monitoring, Reporting, Evaluation
   i. Mechanisms and benchmarks appropriate to the project for transparent, participatory joint monitoring (including independent expert), evaluating, and reporting, including a description of how the affected indigenous peoples are involved.
   ii. Define the mechanisms put in place to allow for periodic review and revision of the IPP in the event that new project circumstances warrant modifications developed through consultation and consent processes with the affected indigenous peoples.

L. Institutional Arrangements: Describes institutional arrangement responsibilities and mechanisms for carrying out the measures contained in the IPP, including participatory mechanisms of affected indigenous peoples. Describes role of independent, impartial entities to audit, conduct social and environmental assessments as required, and/or to conduct oversight of the project.

M. Budget and Financing: An appropriately costed plan, with itemized budget sufficient to satisfactorily undertake the activities described.

Note: The IPP will be implemented as part of project implementation. However, in no case shall project activities that may adversely affect indigenous peoples take place before the corresponding activities in the IPP are implemented. Where other project documents already develop and address issues listed in the above sections, citation to the relevant document(s) shall suffice.

For an IPPF, the above outline would be modified to include the procedures for screening, assessment and development of specific IPP(s) once the project components, sub-project activities and/or activities have been fully defined. The procedures would generally replace section E above, however the IPPF would still seek to identify types of anticipated potential adverse social and environmental impacts.

APPENDIX 10. TERMS OF REFERENCE FOR SAFEGUARD DOCUMENT PREPARATION

A10.1 Template for development of an Environmental and Social Management Plan

ESOP 1 indicates that, for projects that are screened as being either high-risk or moderate-risk, an Environmental and Social Management Plan (ESMP) should be produced. The ESMP should be integrated into the overall project design.

The ESMP consists of a set of mitigation, monitoring and institutional measures, including policies, procedures and practices – as well as the actions needed to implement these measures – to achieve the desired environmental and social outcomes.

An ESMP documents the project's risk management strategy. It serves as an "umbrella document" that integrates the findings of all impact studies carried out during the design phase, the plans and other provisions for complying with the requirements of the Standards that have been triggered, as well as country-and-site-specific information relevant for the project's risk management strategy.

Recognizing the dynamic nature of the project development and implementation process, the implementation of an ESMP will be responsive to changes in project circumstances, unforeseen events, and the results of monitoring.

An ESMP will consist of separate sections on:

(i) environmental and social impact mitigation;
(ii) environmental and social monitoring;
(iii) capacity development;
(iv) stakeholder engagement; and,
(v) an implementation action plan.

Mitigation:

Identifies measures and actions in accordance with the mitigation hierarchy that avoid, or if avoidance not possible, reduce potentially significant adverse social and environmental impacts to acceptable levels. Specifically, the ESMP: (a) identifies and summarizes all anticipated significant adverse social and environmental impacts; (b) describes – with technical details – each mitigation measure, including the type of impact to which it relates and the conditions under which it is required (e.g., continuously or in the event of contingencies), together with designs, equipment descriptions, and operating procedures, as appropriate; (c) estimates any potential social and environmental impacts of these measures and any residual impacts following mitigation; and (d) takes into account, and is consistent with, other required mitigation plans (e.g. for displacement, indigenous peoples).

Monitoring

Identifies monitoring objectives and specifies the type of monitoring, with linkages to the impacts assessed in the environmental and social assessment and the mitigation measures described in the ESMP. Specifically, the monitoring section of the ESMP provides: (a) a specific description, and technical details,

of monitoring measures, including the parameters to be measured, methods to be used, sampling locations, frequency of measurements, detection limits (where appropriate), and definition of thresholds that will signal the need for corrective actions; and (b) monitoring and reporting procedures to (i) ensure early detection of conditions that necessitate particular mitigation measures, and (ii) furnish information on the progress and results of mitigation.

Capacity development and training

To support timely and effective implementation of social and environmental project components and mitigation measures, the ESMP draws on the environmental and social assessment of the existence, role, and capability of responsible parties on site or at the agency and ministry level. Specifically, the ESMP provides a description of institutional arrangements, identifying which party is responsible for carrying out the mitigation and monitoring measures (e.g. for operation, supervision, enforcement, monitoring of implementation, remedial action, financing, reporting, and staff training). Where support for strengthening social and environmental management capability is identified, the ESMP recommends the establishment or expansion of the parties responsible, the training of staff and any additional measures that may be necessary to support implementation of mitigation measures and any other recommendations of the environmental and social assessment.

Stakeholder Engagement

Outlines plan to engage in meaningful, effective and informed consultations with affected stakeholders. Includes information on (a) means used to inform and involve affected people in the assessment process; (b) summary of stakeholder engagement plan for meaningful, effective consultations during project implementation, including identification of milestones for consultations, information disclosure, and periodic reporting on progress on project implementation; and (c) description of effective processes for receiving and addressing stakeholder concerns and grievances regarding the project's environmental and social performance.

Implementation action plan (schedule and cost estimates)

For all four above aspects (mitigation, monitoring, capacity development, and stakeholder engagement), the ESMP provides (a) an implementation schedule for measures that must be carried out as part of the project, showing phasing and coordination with overall project implementation plans; and (b) the capital and recurrent cost estimates and sources of funds for implementing the ESMP. These figures are also integrated into the total project cost tables. Each of the measures and actions to be implemented will be clearly specified and the costs of so doing will be integrated into the project's overall planning, design, budget, and implementation.

A10.2 Template for development of an Environmental and Social Impact Assessment

Once it has been decided from the review of environmental screening checklists, that an environmental impact assessment (ESIA) study is required, and the following steps must be carried out:

- Clearly state the objectives of the ESIA for sub project (extractive project), summarize the scope of the ESIA and its timing relative to project preparation, design, and approval. Within the scope of the study, outline the time, space and jurisdictional boundaries of the study. Furthermore, identify the tasks and studies to be carried out, information deficiencies to be addressed, methodologies etc.
- Provide details on target sub-project activities, which are subject to an ESIA, and their function, and provide information on the relevant activities of the License Holder that are causing environmental and social impacts, use pictures and maps (at appropriate scale) where deemed necessary;
- Identify the relevant Afghan regulations and guidelines governing the conduct of the ESIA and/or specify the content of the report. Provide information on the pertinent regulations and standards governing social and environmental quality, health and safety, protection of sensitive areas, protection of endangered species, land use control, etc.
    - Identify and address the relevant ESF environmental and social standards, applicable environmental health and safety guidelines.
    - Identify gaps between the National Regulations and guidelines and world bank ESF and propose gap filling measures.
    - Describe the situation by presenting baseline data on the relevant environmental characteristics of the study area. Include information on any changes anticipated by the support of AGASP project;
    - Determine the potential impacts of the proposed project: distinguish between significant positive and negative impacts, direct and indirect impacts, and immediate and long-term impacts. Identify impacts that are unavoidable or irreversible. Wherever possible, describe impacts quantitatively, in terms of environmental costs and benefits;
    - Analyze and describe alternatives which would achieve the same objective(s), exploring technological, economical and other appropriate criteria;
    - Together with social expert or team assigned for conducting Social Impact Assessment, carryout review and analyze the social dimension of the project, particularly the i) review of the land ownership documentation where land is required for project, ii) ensure that allocated land for project is free of squatters and any disputes, iii) ensure application of Grievance Redress Mechanism and proper recording of grievances, and provide inputs in the development of ESMP.
    - Prepare a pragmatic management plan to avoid and mitigate negative impacts: recommend feasible and cost-effective measures to prevent or reduce significant negative impacts to acceptable levels and describe the actions necessary to implement them: prepare the plans identified in ESMF such as ESMP, SEP, Labor management plan, Emergency preparedness and response plan, OHS plan, labor influx risk mitigation plan, safety awareness program,
    - Identify the institutional needs to implement environmental & social assessment recommendations by reviewing the authority and capability of institutions at mining company, local, provincial/regional, and national levels. Recommend steps to strengthen or expand them so that management and monitoring plans in environmental assessment may be implemented;
    - Design a detailed Environmental Management Plan, propose budget for its implementation, layout institutional arrangements. Develop monitoring plan for the implementation of mitigation measures, and set indicators to track the progress against the desired objective of the Environmental impact study;

- Consult stakeholders and describe the arrangements for obtaining the views of local CSOs and affected groups and for keeping records of meetings and other activities, communications, and comments at their deposition;
- Prepare a professional ESIA report, keeping it concise and limited to significant environmental issues, with the focus on key findings, conclusions and recommended actions.

A10.3 Template for Development of an Indigenous Peoples Plan

Thee consultant will be required to present the IPP according to following format (whilst ensuring alignment with the GCF Indigenous Peoples Policy):

1. Description of indigenous peoples and members of excluded/ marginalized groups, including any relevant social/political arrangements, decision making processes, and baseline information about their social and economic conditions;
2. Description of activities to be conducted in the area (It will be listed from the identified intervention packages for the project)
3. Elaborate FPIC process for particular community, and include proof of iterative discussions and (if obtained) consent or proof of refusal to participate in the project;
4. Results of the consultations/FPIC, include the positive and negative impacts expected based on the project's sub-project activities and preferred Grievance Redress Mechanism or any instances in which project activity implementation will differ because of the preferences of the IP community; and
5. Description of how stakeholder consultations with IPs will continue being held throughout implementation.
6. If applicable, IPP Management Plans will:
    - Identify mitigation measures to address potential negative impacts identified, as well as additional actions/measures geared toward promoting greater social inclusion to ensure IPs and people from excluded/ marginalized groups can benefit from project activities/support;
    - Indicators to monitor implementation of the IP Management Plans;
    - Roles and responsibilities for implementing specific actions/measures included in the IP Management Plans, as well as monitoring and reporting; and
    - Timeframes for the implementation of the IP Management Plans.
    - Clearly describe how participatory monitoring and reporting will be conducted at that site.

APPENDIX 11. ENVIRONMENTAL AND SOCIAL MANAGEMENT PLAN (ESMP) TEMPLATE

Part I

1. Mitigation action plan

    1.1 Mitigation measures from the E&S analysis/ESIA

    1.2 Justification of mitigation hierarchy72

Part II

2. Mitigation implementation

    2.1 Recipients institutional/organizational structure to implement mitigation

    2.2 Roles and responsibilities

    2.3 Budget

    2.4 Time frames specified for each mitigation action

3. Monitoring and reporting

    3.1 Mitigation indicators to be monitored

    3.2 Time frame agreed

    3.3 Report on findings template

    3.4 Reporting time frame

4. Adaptive management

    4.1 Where project changes occur, unforeseen circumstances arise, or monitoring determines a need to change mitigation plan, it is changed in accordance with an agreed adaptive management process.

APPENDIX 12. BIODIVERSITY MANAGEMENT PLANNING FRAMEWORK

1. Introduction

The risk to biodiversity from the APA project is considered to be low. The project expects to generate substantial positive environmental benefits from the scaling up of climate-resilient land use practices that will not only increase the resilience of ecosystems and local communities to climate change, but will also reduce land degradation.

This Biodiversity Management Framework aims to describe the planned approach taken by the APA project to safeguard biodiversity resources, and to manage and mitigate potential impacts that could arise during project implementation. It provides an overview of the potential risks and impacts, and outlines strategies to avoid and mitigate them. ESMPs will include a section on biodiversity to ensure the biodiversity management planning frameworks measures are effectively integrated and implemented.

2. Biodiversity characterization

The Philippines outlines the following categories of protected areas: (a) Natural Park; (b) Natural Monument; (c) National Park; (d) Wildlife Sanctuary; (e) Protected Landscape/Seascape; (f) Resource Reserve; (g) Natural Biotic Area; (h) Marine Reserve; (i) Managed Resource Protected Area; (j) Game Refuge and Bird/Fish Sanctuary; (k) Watershed Forest Reserve; (l) Watershed Reservation; (m) Wilderness Area; (n) Mangrove Swamp Forest Reserve; and (o) Other Categories established by law, conventions or international agreements which the Philippine Government is a signatory.[153]

There are over 244 protected areas that cover over 7.7 million ha under the National Integrated Protected Areas System (NIPAS, see Table below). [154]

Protected areas in the Philippines as of 2020

Region	Initial Component		Proclaimed		Legislated		Total	
	No.	Area (Ha)	No.	Area (Ha)	No.	Area (Ha)	No.	Area (Ha)
Cordillera Administrative Region (CAR)	6	89,236.66	1	78,005.32			7	167,241.98
National Capital Region (NCR)	2	480.71			2	205.46	4	686.17
Region 1 (Ilocos)	7	10,203.18			8	18,626.40	15	28,829.58
Region 2 (Cagayan Valley)	5	19,009.62	2	187,215.91	8	793,094.64	15	999,320.17
Region 3 (Central Luzon)	17	239,067.15			7	44,193.26	24	283,260.41
Region 4A (CALABARZON)	13	124,754.09			9	105,827.06	22	230,581.15
Region 4B (MIMAROPA)	12	1,283,824.73	5	438,763.27	6	617,502.80	23	2,340,090.80
Region 5 (Bicol)	13	13,755.79	2	117.85	11	496,343.22	26	510,216.85
Region 6 (Western Visayas)	9	65,091.73			5	145,688.70	14	210,780.43
Region 7 (Central Visayas)	8	28,271.96			11	609,620.84	19	637,892.79
Region 8 (Eastern Visayas)	4	8,752.27			7	453,175.29	11	461,927.56
Region 9 (Zamboanga Peninsula)	2	11,650.37			12	294,630.33	14	306,280.69
Region 10 (Northern Mindanao)	3	881.61			9	138,103.61	12	138,985.21
Region 11 (Davao Region)	2	2,084.37	1	114.87	7	111,983.08	10	114,182.32
Region 12 (SOCCSKSARGEN)	3	159,721.57			2	224,834.69	5	384,556.27
Region 13 (CARAGA)	8	42,077.84	1	43,345.66	3	329,237.47	12	414,660.98
Bangsamoro Autonomous Region in Muslim Mindanao (BARMM)	10	176,062.12					10	176,062.12
Inter-Regional (2/3/4A/5)			1	357,903.10			1	357,903.10
Total	**124**	**2,274,925.75**	**13**	**1,105,465.98**	**107**	**4,383,066.86**	**244**	**7,763,458.60**

Source: DENR-BMB in Senate of the Philippines 2022, p. 1

[153] Senate of the Philippines. 2021. Philippine protected areas at a glance. Available online: https://legacy.senate.gov.ph/publications/SEPO/AAG%20on%20Protected%20Areas_Final%20Sept2021.pdf

[154] Senate of the Philippines. 2021. Philippine protected areas at a glance. Available online: https://legacy.senate.gov.ph/publications/SEPO/AAG%20on%20Protected%20Areas_Final%20Sept2021.pdf

The project's regions and provinces comprise rich biodiversity. The following sub-sections provides a brief summary of the main protected areas and biodiversity hotspots within each region.

CAR

CAR includes a total of 7 protected areas covering a total area of 167,241.98 ha (2% of protected areas in the Philippines in terms of area). [155] Most of these protected areas are in the initial stages of establishment, and only one PA is proclaims.

Overview of proclaimed and legislated protected areas in CAR

National Parks	Watershed Forest Reserves	Wilderness Areas	Mangrove swamp forest reserves	Proclaimed protected areas (under NIPAS)
N/A	**N/A**	**N/A**	**N/A**	• Upper Agno River Basin Resource

Target Provinces:

The main biodiversity hotspots located in the project provinces include the Apaoy Lowland Forest Key Biodiversity Area, and Balbalasang-Balbalan National Park (neither are officially proclaimed protected areas yet). The following information zooms in on the three project provinces included within this region:

- Apayao: Within the province, the Apayao Lowland Forest (ALF) Key Biodiversity Area (KBA)covers an area of 156,732.6 ha. For management, the Lapat system is an indigenous natural resources management system practiced by the Isnags, and it is assisted and recognized by some LGUs in Apayao as a way of conserving natural resources. As a result, Apayao remains as the province with the largest forested areas in the region.[156] The forest types found within the ALF KBA are identified as Tropical Evergreen Lowland Rainforest; Tropical Lower Montane Rainforest; and Forest Over Limestone. There are 71 families with 206 species of trees within the area. It is worth noting that six species (Panau, White Lauan, Red Lauan, Mayapis, Bunga, and Guijo – of which most are endemic and indigenous), are already under the critically endangered category and eight species are vulnerable. The Department of Environment and Natural Resources has recognized areas of Apayao as the new habitat of the endangered Philippine Eagle.[157] Three species of rats are found in theALF/KBA. Two out of the three species are endemic, whilst the other was introduced and considered to be the most destructive species in the country. The most common rat species in the area are the Philippine Forest Rat. There are 13 species of bats in the ALF-KBA which belong to four families: Fruit Bats, False Vampire Bats, Horseshoe and Leaf-nosed Bat and Evening Bats. Five of the species are endemic to the area, whilst eight are considered widely distributed in different parts of Asia. The Large Rufous Horseshoe Bat is considered to be under the Near Threatened category of the IUCN. The most abundant bats on the area are the Fruit Bats. A total of 22 species of herps (11 amphibians and 11 reptiles) are present in the ALF KBA. There are five families and 11 species of amphibians. Five out of the 11 species are endemic to the area. Three are considered native and only two are introduced

[155] Senate of the Philippines. 2021. Philippine protected areas at a glance. Available online: https://legacy.senate.gov.ph/publications/SEPO/AAG%20on%20Protected%20Areas_Final%20Sept2021.pdf
[156] Ibid.
[157] http://rbco.denr.gov.ph/wp-content/uploads/2017/10/apayaoabulogexecutivesummary.pdf

species. The endemic species of Luzon Fanged Frog and Diminutive Forest Frog are already near Threatened while Pygmy Forest Frog is vulnerable. The reptiles are composed of three families with 11 species of which were observed in agricultural lands, forest, grass and scrublands. Eight out of the 11 species are endemic to the area while the rest are commonly found in the countries within Southeast Asia.

- **Ifugao**: Rice Terraces of the Philippines Cordillera World Heritage site is located in Ifugao, and includes rich biodiversity such as: 10 varieties of climbing rattan, 45 medicinal plant species, 41 bird species, 6 indigenous mammal species (two of which are endemic), and large fish such as eels, monitor lizards and other vertebrates.
- **Kalinga:** Kalinga has a total of 84 families, 206 genera and 319 taxa recorded, including a new species of Rafflesia, which is a very rare parasitic plant. There are 106 Philippine endemics reported, 38 of which are Luzon endemics. 18 taxa were listed under either the Philippine Red List (Fernando et al., 2008) or on the IUCN Red List of Threatened Species (IUCN 2010).[158] There is very little information available on the birds of the extensive forests that remain in and around Balbalasang-Balbalan National Park (BBNP), but they are likely to support many of the threatened and restricted-range birds of the Luzon Endemic Bird Area. The avifauna in the montane forests may prove to be comparable to that of Mt Pulog National Park (PH004) further south in the Cordillera Central[159].

Region II

Region II includes a total of 15 protected areas covering a total of 999,320.17 ha (13% of protected areas in the Philippines in terms of area). [160] The following table summarizes the main protected areas in Region II.

Overview of proclaimed and legislated protected areas in Region II

National Parks	Wilderness Areas	Watershed Forest Reserves	Proclaimed protected areas (uder NIPAS)
• Callao Cave • Fuyot Srings	• Isabela (Monte-Alto Timber Resource Corporation Parcel 1 and 2) • Palanan	• Bawa • Casecnan River Watershed • Dupax Watershed Reservation • Wangag	• Batanes Protected Landscape & Seascape • Casecnan Protected Landscape • Magapit Protected Landscape • Northern Sierra Madre Natural Park • Palaui Island Marine Reserve • Peñablanca Protected Landscape • Salinas Natural Monument

[158] https://ejournals.ph/article.php?id=1465
[159] http://datazone.birdlife.org/site/factsheet/balbalasang-balbalan-national-park-and-proposed-extension-iba-philippines
[160] Senate of the Philippines. 2021. Philippine protected areas at a glance. Available online: https://legacy.senate.gov.ph/publications/SEPO/AAG%20on%20Protected%20Areas_Final%20Sept2021.pdf

National Parks	Wilderness Areas	Watershed Forest Reserves	Proclaimed protected areas (uder NIPAS)
			• Tumauini Watershed Natural Park

Target Provinces:

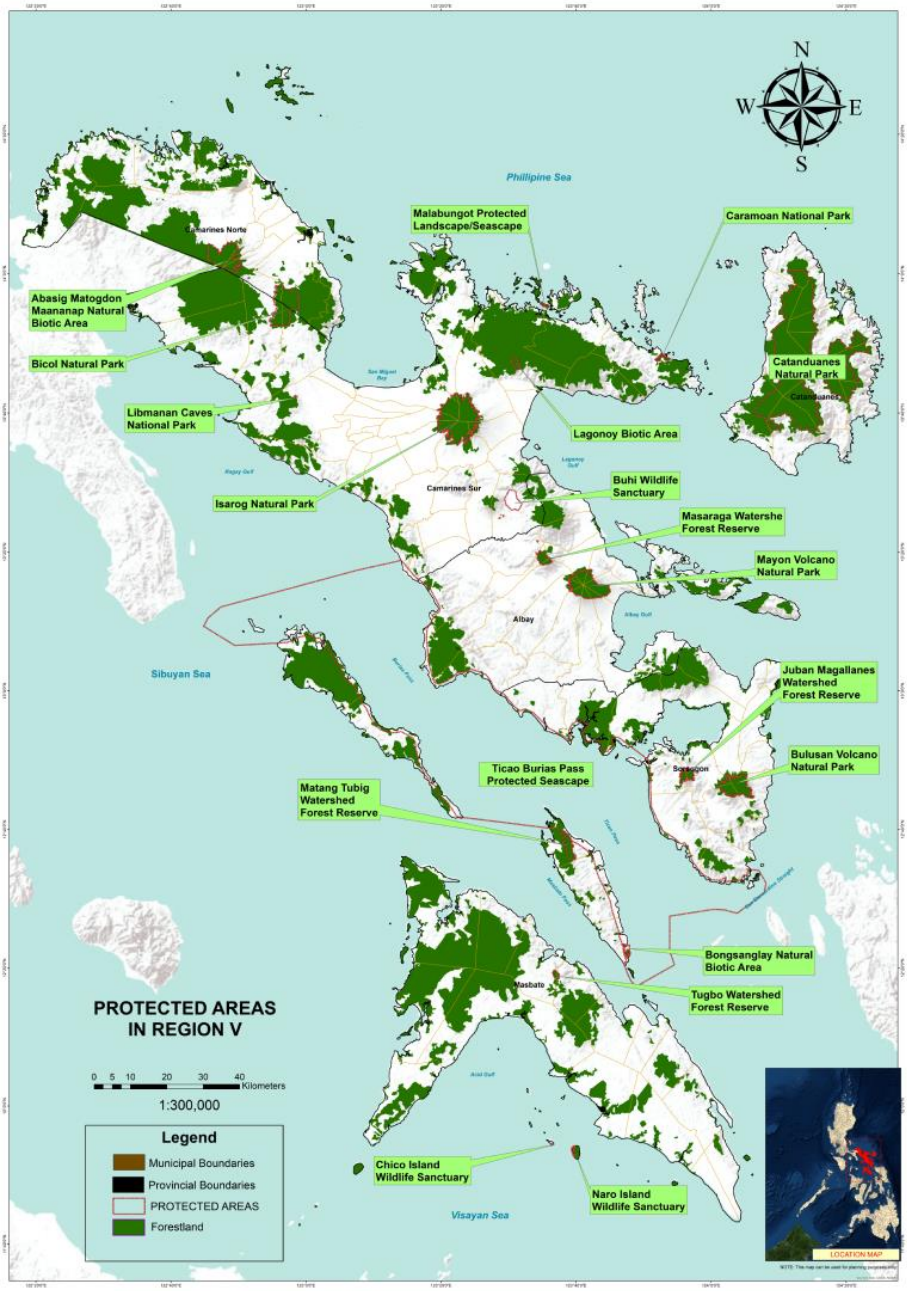
The project provinces comprise the following protected areas: Northern Sierra Madre National Park (NSMNP) and the Tumauini Watershed Natural Park in Isabella Province, and Palaui Island Protected Landscape and Seascape and Peñablanca Protected Landscape and Seascape in Cagayan Province. More information is as follows:

- Isabella: Vast portions of Eastern Isabela are considered uncharted territory, characterized by thick forestlands and rugged terrain. These largely unexplored hinterlands contain a variety of still unnamed flora and fauna, with majority of the country's endemic species represented in the protected area The Northern Sierra Madre Natural Park a habitat for a number of rare and endangered species of flora and fauna such as Narra, Almaciga, Kamagong, Philippine Eagle, Isabela Oriole, Sea Turtle, Philippine Crocodile, and Giant Monitor Lizard. NSMNP-also is home to severely threatened tree species of the dipterocarp family such as Shorea spp. and Hopea spp. The Park also protects rare forest types such as forest on ultrabasic soils and mossy forest on mountain tops and ridges. It further hosts more than 50% of all bird species recorded in the Philippines, including endemic *Oriolus isabellae*, one of the rarest birds in the world
- Cagayan: The Peñablanca Protected Landscape is adjacent to Isabella province and connects with the NSMNP, sharing much of the same biodiversity as described above. It is home to the Callao Cave Eco-Tourism Zone that promotes ecotourism for its unique caves and geology. The Palaui Island Protected Landscape and Seascape corresponds to Palaui Island which lies northeast off the coast of Luzon island.

Region V

Region V includes a total of 26 protected areas covering a total of 510,216.85 ha (7% of protected areas in the Philippines in terms of area. [161] The following Figure depicts many of the protected areas within Bicol (Region V), and the following Table provides more information on their classification.

[161] Senate of the Philippines. 2021. Philippine protected areas at a glance. Available online: https://legacy.senate.gov.ph/publications/SEPO/AAG%20on%20Protected%20Areas_Final%20Sept2021.pdf



Map of protected areas in Region V

Source: DENR 2020[162]

[162] The boundaries and names shown and the designations used on this map do not imply the expression of any opinion whatsoever on the part of FAO concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers and boundaries

Overview of proclaimed and legislated protected areas in Region V

National Parks	Watershed Forest Reserves	Wilderness Areas	Mangrove swamp forest reserves	Proclaimed protected areas (under NIPAS)
• Bicol • Bulusan Volcano • Caramoan • Libmanan Caves • Mayon Volcano • Mt. Isarog • Tiwi	• Abasig-Matogdon-Manang (Amendment) • Capalonga • Catanduanes • Dahican • Lagonoy	• Island of Basot, Quinalaang and Malabungot • Island of Dampalit • Island of Guinauyan, Naro, Chico, and Pobre • Island of Majaba and Napayuan	• Basin Island • Malaquing River up to Mabung River • Mangrove areas from Del Pilar River to Palita Island, Bo. Salvacion and Dahican • Panciscan Point in Bitos Bay up to Bano Sanlay • Pigbucan to Paron Point • Putiao River to Malbog River • Tanglar Point to Bicol River	• Abasig-Matogdon Mananap Natural Biotic Area • Bicol Natural Park • Bongsalay Natural Park • Bulusan Volcano Natural Park • Catanduanes Natural Park • Chico Island Wildlife Sanctuary • Lagonoy Natural Biotic Area • Malabungot Protected Landscape & Seascape • Mayon Volcano Natural Park • Mt. Isarog Natural Park • Naro Island Wildlife Sanctuary • Buhi Wildlife Sanctuary • Ticao Burias Pass Protected Seascape

Target provinces:

- Caminares Norte includes the Abasig-Matogdon-Mananap Natural Biotic Area. It is a mountainous area, comprising diverse vegetation including mossy and montane forest, brushland, and grassland areas.[163]

[163] Retuerma-Dioneda, A., Grecebio, J.D.A. 2022. Inventory of Annonacae in Abasig-Matogdon-Mananap Natural Biotic Area, Caminares Norte, Bicol, Philippines. Biodiversitas, 23(4): 2213-2224.

- Caminares Sur includes Bicol Natural Park, Lagonoy Natural Biotic Area, Malabungot Protected Landscape, Mt. Isarog Natural Park, and Buhi Wildlife Sanctuary.

Region X

Region X includes a total of 12 protected areas covering a total area of 138,985.21 ha (just under 2% of protected areas in the Philippines in terms of area. [164]

Overview of proclaimed and legislated protected areas in Region X

National Parks	Watershed Forest Reserves	Wilderness Areas	Mangrove swamp forest reserves	Proclaimed protected areas (under NIPAS)
N/A	N/A	N/A	N/A	• Initao and Libertad PLS • Mimbilisan Protected Landscape • Mt. Kalatungan Range Natural Park • Mt. Kitanglad Natural Park • Mt. Malindang Natural Park • Baliangao Protected Landscape and Seascape • Mt. Balatukan Range Natural Park • Mt. Kalatungan Range Natural Park • Mt. Timpoong Hibok-Hibok Natural Monument • Mt. Inayawan Range Natural Park

Target province:

Bukidnon is home to the Mount Kalatungan Range Natural Park, which is a natural habitat for many endemic species, including bats, shrews, foxes, squirrels, rats and the Philippine Eagle (which is the most endangered species in the Province and second largest eagle in the world). Bukidnon's biodiversity is one of the richest in the country, with 106 families in 512 genera and 996 species. The province is mostly covered by mixed Dipterocarp forests. A large part is also covered by Limestone forests (at risk of illegal logging and ranching), while Montane forest, Mossy forest, and Imperata cylindrica, a grass species, are also prevalent.

[164] Senate of the Philippines. 2021. Philippine protected areas at a glance. Available online: https://legacy.senate.gov.ph/publications/SEPO/AAG%20on%20Protected%20Areas_Final%20Sept2021.pdf

Region XII

Region 12 includes a total of 5 protected areas covering a total area of 384,556.27 ha (5% of protected areas in the Philippines in terms of area). [165] Only two of these are legislated, namely: Mt. Matutum Protected Lanscape and Sarangani Bay Protected Seascape.

Target province:

There are no formal protected areas established in North Cotabato. A protected area has been suggested for Arakan Valley, which is home to the Manobo indigenous peoples.

3. Assessment of the project's impact on biodiversity

The project is aligned with the Philippine's Biodiversity Strategy and Action Plan 2015-2028, which aims to restore and rehabilitate, value, effectively manage, and maintain ecosystem services to sustain healthy, resilient Filipino communities and deliver benefits to all. It highlights the importance of agro-biodiversity, and the sustainable management of natural resources.

In general, the project is expected to have a predominantly positive impact on biodiversity through the implementation of climate-resilient agricultural practices that facilitate a transition towards more sustainable development pathways. The project's holistic and integrated approach to climate-resilient agriculture and sustainable land management, building the capacities of local authorities, farmers and other stakeholders, will improve awareness of climate risk and vulnerability as well as best practices to strengthen the resilience of local livelihoods and the ecosystems upon which they depend. This includes the conservation and protection of biodiversity, both agro-biodiversity and biodiversity in other ecosystems. Benefits of climate-resilient agricultural practices on biodiversity include (among others):soil protection from wind and water erosion (vegetative cover due to cover crops, agroforestry, etc.), improved soil nutrition due to the use of green manure, compost and integrated pest management practices that provide alternatives to harsh agro-chemicals, improved protective functions of ecosystems that strengthen the resilience of ecosystems to extreme climate-related hazards (e.g. flooding, droughts), micro-climate buffering due to agroforestry, and promotion of local varieties and more diverse production systems, among others. CRA interventions supported by the project also aim to improve production, and could reduce pressure on surrounding ecosystems by providing better production alternatives that improve their livelihoods on existing agricultural land.

Nonetheless, given the previous history of agricultural expansion into forested areas and biodiversity hotspots, it is critical that all biodiversity impacts and risks are carefully monitored by the project team, and measures to avoid or mitigate risks are taken to ensure robust safeguarding of biodiversity. The following table provides an overview of potential impacts, and measures to be implemented to avoid or mitigate any adverse negative impacts or risks.

[165] Senate of the Philippines. 2021. Philippine protected areas at a glance. Available online: https://legacy.senate.gov.ph/publications/SEPO/AAG%20on%20Protected%20Areas_Final%20Sept2021.pdf

Overview of the project's impact on biodiversity

Component/ activity	Impact on biodiversity	Mitigation measures
Component 1. Institutional capacities for climate resilient agriculture services development		
Activity 1.1.1	No risk	Ensure biodiversity mainstreaming throughout trainings, and raise awareness and build capacities on biodiversity-related project benefits and safeguards
Activity 1.1.2	No risk	
Activity 1.2.1	No risk	
Activity 1.2.2	No risk	
Component 2. Climate resilient agriculture adoption through enterprise development		
2.2.1	This activity is expected to have predominantly positive biodiversity impacts through promoting sustainable climate-resilient agricultural practices that reduce the use of pesticides, and promote agro-biodiveristy, local seed systems, and practices that help restore soils and maintain or even enhance ecosystem services. Nonetheless, a major risk would be the location of CRA enterprise groups and demonstration farms (i.e. if they are located in protected areas or their buffer zones (if not screened), which could have an adverse impact on biodiversity. Demonstration farms will also be established, which need to ensure they are not located within or directly adjacent to a protected area.	Ensure biodiversity mainstreaming throughout trainings, and raise awareness and build capacities on biodiversity-related project benefits and safeguards Collect baseline information on key biodiversity areas within and nearby municipalities. Screen CRA enterprise groups to ensure no farmers nor CRA enterprises are located within protected areas nor 50 m of their buffer zones. The monitoring system developed under Activity 3.1.3 will also increase transparency and support monitoring.
2.1.2	Again project promoted practices (outlined in the Feasibility Study in Annex 2) include agro-ecological practices that are expected to generate substantial social and environmental impacts. Nonetheless, investment plans will need to be carefully screened to ensure there are no adverse biodiversity impacts from investments (e.g. production within protected areas, use of non-authorized practices). The risk is considered relatively low, since farmers will develop these plans after 1 year of implementation and CRA enterprise scorecards include information on the adoption of climate-resilient and low-carbon practices.	Ensure investment plans do not comprise activities that would have an adverse impact on biodiversity, ensuring also that all production and processing will occur outside of protected areas and their buffer zones.
2.1.3	A lack of compliance with investment plans could lead to adverse impacts on biodiversity.	Terms of the agreement for financing the investment plan will clearly stipulate the conditions of what

Component/ activity	Impact on biodiversity	Mitigation measures
		practices can be implemented, what cannot be implemented, and what safeguards and monitoring requirements the enterprises must comply with. Monitoring investment plan implementation should include biodiversity monitoring (e.g. that production is not expanding into forests or causing other unanticipated adverse impacts on biodiversity). The monitoring system developed under Activity 3.1.3 will also increase transparency and support monitoring.
Component 3. Mainstreaming climate resilient agriculture		
3.1.1	None	Awareness raising activities should also highlight biodiversity benefits from implementing climate resilient agriculture
3.1.2	None	Mainstreaming should also consider biodiversity, and best practices to enhance biodiversity benefits within climate resilient agricultural practices, as well as best practices for biodiversity safeguarding.
3.1.3	None	Monitoring system should include monitoring, evaluation and learning related to biodiversity within the context of CRA. This should also increase transparency and accountability related to monitoring impacts on biodiversity.
3.2.1	None	Ensure biodiversity mainstreaming throughout trainings, events and fora, and raise awareness and build capacities on best practices to generate biodiversity-related benefits from climate-resilient agriculture and emphasize key practices to safeguard biodiversity.
3.2.2	None	Ensure biodiversity mainstreaming throughout trainings, events and fora, and raise awareness and build

Component/ activity	Impact on biodiversity	Mitigation measures
		capacities on best practices to generate biodiversity-related benefits from climate-resilient agriculture and emphasize key practices to safeguard biodiversity. Recommend measures for financial products and insurance to consider biodiversity within screening, monitoring and reporting.

A detailed analysis of potential negative impacts will be carried out within the elaboration of the project's ESMPs, especially in areas where Protected areas and areas of key biodiversity value area identified. This is critical, as the specific implementation areas will be determined within project implementation, and, thus, attention must be paid to ensure the selection carefully considers biodiversity and ensures compliance with this planning framework and the ESMF in general. Screening will be conducted using FAO´s environmental and social screening checklist, which will help identify sub activities that require mitigation measures, including those discussed in Section 6 and 7 of this document. For sub-project activities that require mitigation measures, and environmental and social management plan will be developed to be monitored thought the implementation phase.