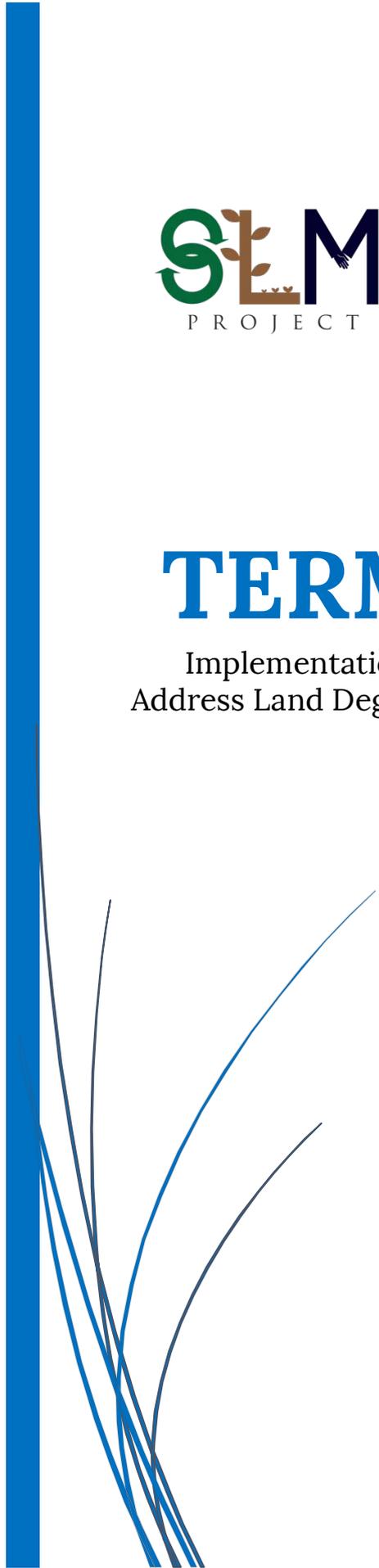




TERMINAL REPORT

Implementation of Sustainable Land Management Practices to
Address Land Degradation and Mitigate Effects of Drought, 2015-2019



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A. PROJECT INFORMATION

1. **Project Title** Implementation of Sustainable Land Management Practices to Address Land Degradation and Mitigate Effects of Drought
2. **Executing Agency** Department of Agriculture-Bureau of Soils and Water Management (DA-BSWM)
3. **Implementing Agency** United Nations Development Programme (UNDP)-Philippines
4. **Funding Agency** Global Environment Facility (GEF)
5. **Project Duration** 2015-2020
6. **Project Location** Malaybalay City, Bukidnon and Abuyog and Sta. Fe, Leyte
7. **Project Funding** USD 6,674,052.00

B. PURPOSE OF THE PROJECT

Land degradation in the Philippines is largely caused by the susceptibility of its soil to erosion due to the hilly and mountainous landforms in many parts of the country. The widespread clearing of forest lands in steeply sloping and rolling topography leaves the bare soil highly vulnerable to accelerated erosion of topsoil caused by heavy rainfall and consequential erosive force of water run-off. The practice of kaingin (or shifting cultivation) and other forms of unsuitable upland farming in cleared forest areas further worsens the erosion problem and loss of fertile and productive top soils. Land degradation in the Philippines is manifested by (i) the loss of productive topsoil through water erosion, (ii) loss of soil fertility due to over-cultivation, (iii) loss of vegetation cover due to illegal logging and widespread forest tree cutting, and (iv) expansion of slash and burn agriculture in critical slopes. Other kinds of degradation which cover a relatively smaller part of the landscape include (i) water logging due to poor drainage and water management; (ii) soil salinization due to over-harvesting of ground water near coastal areas; and (iii) soil pollution from excessive pesticide application and contamination by industrial and household wastes.

The project focused principally at the systemic and institutional levels, and hence strengthened the enabling regulatory, institutional and financial framework that would govern efforts to address land degradation in the Philippines. It mainstreamed Sustainable Land Management (SLM) policies and programs into the Comprehensive Land Use plans of local government units (LGUs) through the guidance of government agencies such as Department of Agriculture (DA), Department of Environment and Natural Resources (DENR), Department of Agrarian Reform (DAR), Department of Interior and Local Government (DILG) and Housing and Land Use Regulatory Board (HLURB) to strengthen complementation among these government institutions concerned with land degradation and ensure that the incidence and spread of land degradation in vulnerable ecosystems are avoided and/or reduced. The project aid in the improvement of the land productivity and socioeconomic well-being of small farmers. This was achieved through a participatory cross-sectoral approach involving all the key stakeholders in project design and implementation. The focus in the field investments of the project, is the promotion of SLM measures and technologies for the adoption of vulnerable farming communities. Through the establishment of SLM demonstration sites, farmers learned,

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adopted and adapted various methods of soil conservation farming and water resources conservation that would improve their crop production and income.

The project aimed to strengthen the SLM frameworks to address land degradation process and mitigate the effects of drought in the Philippines.

C. TECHNICAL ACCOMPLISHMENTS

1. SUMMARY

The objective of the Project in strengthening the SLM frameworks to address land degradation process and mitigate the effects of drought in the Philippines was achieved through the following outcomes:

Outcome 1: Effective national enabling environment to promote integrated landscape management.

Under this outcome, the following are the accomplishments of the project classified under Developmental Research and Policy Issuances:

- **Developmental Research**
 - Integrated Land Management Framework Planning Tool with entry points for Mainstreaming SLM in the Provincial Development and Physical Framework Plan (PDPFP) under the National Economic and Development Authority (NEDA) and the Comprehensive Development Plan (CDP) under the Department of Interior and Local Government (DILG)
 - Published Supplemental Guidelines for Mainstreaming SLM in the Comprehensive Land Use Plan (CLUP)
 - Published Guidebook on Composite Land Degradation Index Mapping
 - Published Guidebook on the SLM Geodatabase: City/Municipal Level Agro-Environmental Data Model
 - Published SLM Training Manual for Trainors
 - Published Manual on the Preparation of the ILMF Plan and Mainstreaming SLM in the CLUP
- **Policy Issuances**
 - Issuance of Housing and Land Use Regulatory Board Resolution no. 991 series of 2019 Approving the Supplemental Guidelines for Mainstreaming SLM in the CLUP
 - Issuance of DA Memorandum Order on the Adoption and Operationalization of the Supplemental Guidelines for Mainstreaming SLM in the CLUP
 - Joint Memorandum Circular between the DA and DENR on the Adoption of the Integrated Land Management Framework (ILMF) Planning Tool for Sustainable Agriculture and Agro-forestry Development drafted

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- Issuance of DA Memorandum Circular on the Adoption of the Composite Land Degradation Index Mapping Guidebook
- Issuance of DA Memorandum Circular on the Adoption of the SLM Training Manual for Trainers
- Issuance of DA Memorandum Circular on the Adoption Manual on the Preparation of the ILMF Plan and Mainstreaming SLM in the CLUP
- Certified Trainers on SLM Various SLM Management and Physical Technologies for Mainstreaming SLM into the CLUP
- Capacity Development Monitoring Scorecard of the BSWM
- Capacity Development Monitoring Scorecard of the HLURB
- Capacity Development Monitoring Scorecard of the Forest Management Bureau (FMB)

Outcome 2: Long-term capacities and incentives in place for local communities and LGUs to uptake of SLM practices in two targeted municipality in the Philippines.

Under this outcome, the following are the accomplishments of the project classified under Developmental Research, Technology Development and Policy Issuances:

- **Developmental Research**
 - Land Degradation Index and the Composite Land Degradation Index Monitoring System
- **Technology Development**
 - Published SLM Packaged Technology Manual titled Muyong Agro-forestry Ridge Stabilization System, The Malaybalay City, Bukidnon Case on Addressing Soil Erosion
 - Published SLM Packaged Technology Manual titled Adaptive Balanced Fertilization Management System, The Abuyog and Sta. Fe, Leyte Case on Addressing Soil Fertility Decline
- **Policy Issuances**
 - Issuance of DA Memorandum Circular on the Adoption of Adaptive Balanced Fertilization Management for Enhanced Crop Production and Increased Income of Rice Farmers

The abovementioned achievements are discussed in detail in the next section of this report.

2. ACCOMPLISHMENTS AT THE OUTPUT LEVEL

This section discusses the accomplishments of the Project at the output level noting the indicators and targets set at the start of the project.

Outcome 1: Effective cross-sectoral national and local enabling environment to promote integrated landscape management

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Output 1.1 Multi-sectoral stakeholders committee strengthened at national level to oversee and give technical advice on the integration of SLM into LGU's development plans

The implementation of SLM project is a collaborative endeavour among many of national and sub-national agencies, local government units (LGUs), academe, and civil society organizations (CSOs). The DA-BSWM as the executing agency has the overall responsibility for the timely and cost-effective implementation of project activities.

An Inter-Agency Technical Committee (IATC) was created to ensure the technical aptness of the implementation of the project in the pilot sites, formulation of guidelines and policies, and in the formulation of technology modules for use in training and dissemination. The Committee also serves to assess and evaluate the outputs of the consultants, determine its acceptability and viability, and recommend for its approval and acceptance by the Project Board. Lastly, they ensured that the work and financial plan of the project is geared towards the achievement of the project outcomes hence, recommend for its approval by the Project Board.

It is chaired by the National Project Director and OIC-Director of DA-BSWM, co-chaired by DENR-FMB and HLURB. The regular members are DA-Special Projects Coordination, Monitoring and Assistance Division (SPCMAD), DA-Regional Field Offices VIII and X, DA-Agricultural Training Institute (ATI), DAR, DILG, NEDA, NCIP, UNDP, IIRR, UPLB, Central Mindanao University, Visayas State University, Provincial Agriculture Office in Bukidnon and Office of the Provincial Agriculturist in Leyte. On-call experts per discipline were also created, for Discipline 1 – Sustainable Land Management are composed of BSWM Laboratory Services Division (LSD), Soil Survey Division (SSD), Soil Conservation and Management Division (SCMD), Dalwangan Research Station, DA-Agricultural Credit and Policy Council (ACPC) and Philippine Crop Insurance Corporation (PCIC); for Discipline 2 – Comprehensive Land Use Planning are BSWM Agricultural Land Management and Evaluation Division (ALMED), Geomatics Soil Information and Technology Division (GSITD), Provincial Planning and Development Offices (PPDOs) of Bukidnon and Leyte provinces; for Discipline 3 – Capacity Development and Training includes BSWM Dalwangan Research Station; and for Discipline 4 – Geographic Information Systems/Database are BSWM-GSITD, PPDOs. The members of the IATC were nominated by their respective representatives to the Project Board.

The institutional membership of the IATC are also members of the Committee on the Conservation and Management of Resources for Development (CCMRD) through NEDA- Philippine Council for Sustainable Development (PCSD). In addition, the Policy Development Group of HLURB has a sub-committee where SLM-related to planning concerns are discussed. Having said this, other concerns on SLM that will be raised to the members of the IATC formed under the project are to be raised in the existing committees in the Government. Institutionalization of the IATC and strengthening the committee thru a capacity building was not seen to be a separate activity but instead it was integrated to existing committees and sub-committees in the agencies concerned.

Description of indicator: An integrated land management framework incorporating SLM practices and technologies

Baseline level: Presence of guidelines in mainstreaming CCA-DRR and biodiversity conservation in CLUP

End of project target level: A national ILMF mainstreaming SLM practices and technologies developed and adopted by HLURB

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End of project achievement/accomplishment: The National Integrated Land Management Framework (ILMF) for mainstreaming SLM practices and technologies supported by the Project was adopted by HLURB.

The Project supported the development of the ILMF. The ILMF plan is a logical construct establishing the rationale planning process for the management of land resources for sustainable agriculture development. The ILMF identifies the actions i.e. Policies, Programs, Projects and Activities needed to attain SLM for agricultural development. This tool is used to mainstream SLM in the CLUPs of the LGUs as well to the national strategic development plans. It aims to develop a framework on ILM for adoption by DA, DENR and LGUs in the preparation of their development and management plans for sustainable agriculture and agro-forestry conservation and production. The scope of the ILMF includes the following activities and outputs: 1) formulation of Integrated Land Management Policy Framework (ILMPF) as a template for SLM planning by LGUs; 2) preparation of major steps and guidelines in preparing ILMF/SLM Plan; 3) preparation of templates for analysing degradation type, their causes and effects; 4) preparation of template matrix for analysing gaps and constraints and identifying policies, programs and projects in addressing land degradation types, their impacts and major causes; 5) preparation of the menu of SLM practices and technologies; 6) formulation of performance monitoring and evaluation indicators for land degradation interventions; 7) preparation of template matrix for ILM/SLM plan; 8) adoption of modified tools for hazard exposure assessment and climate change vulnerability assessment of agriculture sector; and 9) adoption of tool for agriculture resource accounting.

Mainstreaming ILMF yield potentials benefits in that it will systematically integrate SLM into local development planning and program implementation processes, local budget support for SLM programs will be ensured thru its inclusion in the Local Development Investment Plan (LDIP), once mainstreamed in the Comprehensive Development Plan, integration of soil and land resources conservation strategies and innovative technologies into local agricultural development programs and extension work, capacitation of LGUs' City/Municipal Agriculture Offices (C/MAOs), City/Municipal Environment and Natural Resources Offices (C/MENROs) and City/Municipal Planning and Development Offices (C/MPDOs) through hands-on training on SLM planning, mainstreaming and project implementation, improvement and sustainability of the productivity of the soil and land resources and income of farmers through the adoption of appropriate SLM technologies and services, and effective monitoring and controlling of the conversion of land. The preparation of the ILMF Plan involves five (5) steps such as: 1) setting the objectives, scope and limitation of land resources management study; 2) assessing the status of land resources' use – land degradation their causes and effects; 3) defining land resources management issues and challenges; 4) preparing land resources development and management plan; and 5) monitoring and evaluation of performance of ILM programs and projects.

The LGUs of Malaybalay City, Bukidnon and Abuyog Municipality, Leyte underwent a 5-day training-workshop in the preparation of the ILMF Plan. The training-workshop involved senior planners from the offices of C/MAO, C/MENRO, C/MPDO and City/Municipality GIS staff. The training-workshop aimed at equipping the planners from the two pilot LGUs with the knowledge and skills needed in the preparation of the ILMF plan and SLM-enhanced CLUP. It also served as an opportunity for the planners from the different LGU offices to work together and share their knowledge, skills and data in ILMF planning and mainstreaming SLM in the CLUP. Through the training-workshop conducted, the following outcomes and outputs were realized: 1) knowledge and skills gained by LGU participants on ILMF plan preparation; 2) initial contents of ILMF plan produced; 3) action plan to

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complete ILMF plan at a target date produced; 4) evaluation report on the ILMF planning tool conducted; and 5) evaluation of the ILMF planning process and the training-workshop was conducted and report prepared.

The full evaluation of the ILMF planning process and results was done in three ways: 1) analysis of the ILMF reports submitted by the pilot LGUs; 2) analysis of the evaluation survey results conducted and submitted by the pilot LGUs; 3) overall analysis of the ILMF training-workshop conducted and submitted by the pilot LGUs. The results of ILMF planning by the pilot LGUs were used to further improve the planning process and procedures. The capacity development needs of LGU planners from Malaybalay City and Abuyog Municipality were identified based on the findings of the assessment made by the consultant of their submitted ILMF plan report and their self-evaluation report. The specific capacity building needs of the LGU planners from the two pilot LGUs include the following: 1) technical assistance by BSWM on the assessment and mapping of land degradation and land suitability; 2) training on agriculture hazard exposure mapping; and land suitability mapping using GIS; 3) training, mentoring and technical assistance in the preparation of ENRA-ARA accounts and their uses and more intensive training on environmental cost and benefit analysis and valuation; 4) training and hands-on establishment of SLM performance monitoring and evaluation indicators and system; 5) user-friendly manual for planning tools to include: detailed ILMF planning; Climate Change Vulnerability Assessment (CCVA) and Disaster Risk Assessment (DRA); ENRA-ARA; land degradation monitoring and evaluation; crop suitability assessment; and SLM performance monitoring and evaluation.

To ensure the replicability of the tools and technologies developed in the project, this planning tool has been pilot tested for mainstreaming to the strategic development plans of DA's AFMP and DENR-FMB's PMPCRFD. Entry points for mainstreaming in the PDPFPs of NEDA and CDP of DILG were also identified.

The piloting for mainstreaming SLM in DA and DENR-FMB's strategic development plans aimed to provide decision makers on the identification of the needed investments for mitigating land degradation and its impacts through the promotion, demonstration and eventual adoption of adaptive SLM farming practices and technologies across the country thru the facilitation of City and Municipal Agricultural Offices of LGUs.

Output 1.2 Approved guidelines on SLM mainstreaming into national and local land use plans and investment programs (field tested under Outcome 2)

Description of indicator: Enhanced CLUP guidelines to mainstream SLM

Baseline level: No existing procedural guidelines on mainstreaming SLM in land use, agricultural and forestry development plans

End of project target level: Guidelines on mainstreaming have been applied in to pilot municipalities and further enhanced based on experience and findings of the testing exercise

End of project achievement/accomplishment: The Supplemental Guidelines for Mainstreaming SLM in the Comprehensive Land Use Plans (CLUPs) was approved by the HLURB Board thru HLURB Board Resolution no. 991 series of 2019 Approving the Supplemental Guidelines for Mainstreaming Sustainable Land Management (SLM) to the Comprehensive Land Use Plan.

The Guidelines has been pilot tested in Abuyog Municipality and Malaybalay City through a training-workshop conducted side by side with the preparation of the ILMF Plan for the two LGUs. The two

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pilot LGUs adopted the Supplemental Guidelines for Mainstreaming SLM in the CLUPs, and will integrate SLM during the updating of their CLUPs in 2022.

The Guidelines is a simplified set of instructions that LGUs could follow and apply in integrating land resources management as part of their policy and planning processes. The mainstreaming process rationalizes the necessary adjustments and corrections in the spatial and agriculture development plans at the city/municipality level. Specifically, the mainstreaming process aims to: determine the impacts of land degradation and climate change on agricultural production and on the socio-economic welfare of farming communities; rationalize and institutionalize SLM in the CLUP of LGUs; and provide budget support needed for the SLM by the LGUs.

The Guidelines is primarily intended for the use of the C/MPDO in collaboration with the C/MAO and the C/MENRO. The guidelines also serve as a guidebook for the planning officers from HLURB who assist the LGUs in the preparation of their CLUPs and for the technical staff from BSWM who would assist the LGUs in the preparation of the ILMF Plan (as mentioned in Output 1.1), which needs statistical information and preparation of maps. In addition to the technical assistance that are needed to be provided by HLURB and BSWM, LGUs also need hands-on-training on Agricultural Resource Accounting from a technical expert.

The Supplemental Guidelines for Mainstreaming SLM in the CLUP was officially adopted by the HLURB Board of Commissioners thru:

HLURB Board Resolution No. 991 series of 2019 Approving the Supplemental Guidelines for Mainstreaming Sustainable Land Management (SLM) to the Comprehensive Land Use Plan

The Department of Agriculture with its journey of achieving *Masaganang Ani at Mataas na Kita* supported this Resolution thru the issuance of:

Memorandum Order on the Adoption and Operationalization of the Supplemental Guidelines for Mainstreaming Sustainable Land Management in the Comprehensive Land Use Plan

This memorandum order shall be adopted by all the DA Staff Offices, Regional Field Offices (RFOs), and its attached agencies, bureaus, corporations thru a coordination with the BSWM for technical assistance on the operationalization of the Supplemental Guidelines for Mainstreaming SLM in the CLUP.

Meanwhile, the Malaybalay City mainstreamed SLM in their Local Agriculture and Fisheries Modernization Plan and the launching of an SLM upscaling project using funds from the 5% DRRMF. On the other hand, Abuyog Municipality mainstreamed SLM in their Comprehensive Development Plan.

Description of indicator: Relevant policy issuance for the mainstreaming of SLM in local land use including forest land use and development planning processes

Baseline level: Pledge of commitment signed by DA, DAR, DENR in support to the implementation of the National Action Plan to Combat Desertification, Land Degradation and Drought (NAP-DLDD 2010-2020)

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End of project target level: Issuance of Joint Memorandum Circular or special order on SLM mainstreaming by DA, DENR and DAR; Issuance of memorandum order or administrative order on SLM mainstreaming by DILG to priority LGUs

End of project achievement/accomplishment: A Joint Memorandum Circular (JMC) for the Adoption of the ILMF Planning Tool for Sustainable Agriculture and Agroforestry Development drafted.

The draft JMC between DA and DENR once approved will facilitate the funding of SLM-related programs, projects and activities in the regions. The draft JMC highlights the Policy context for ILMF Planning, the Objectives and Scope of the ILMF Plan, the ILMF Planning Process, and Implementation Mechanism for ILMFP Preparation and Mainstreaming. Presently, the draft JMC is in the process of review by the Policy Review Groups of both Departments. To date, the following are the milestones in the review of the draft JMC:

- From the DA, the following offices had reviewed and cleared the draft: The DA Legal Service issued a memorandum stating that the draft document was found to be legally in order. This has been endorsed by the Planning and Monitoring Service. Likewise, this has also been reviewed by the Chief-of-Staff of the Secretary and ongoing review by the other offices is being completed for endorsement to the Office of the Secretary.
- From the DENR-FMB, the FMB Policy Formulation Group is currently reviewing it for endorsement to the FMB Policy Review Committee and will then be endorsed to the DENR Central Office Policy Technical Working Group for the approval of the Secretary.

Output 1.3 Information management system to support SLM integration into LGUs' development plans and improving informed land use allocation decisions

Description of indicator: Data base and decision support information system operational and accessible to LGUs

Baseline level: Existing LADA web portal with maps at national and regional scales

End of project target level: Developed a GIS-based LADA maps incorporating SLM practices and technologies with information/maps accessible and relevant to CLUP preparation of LGUs

End of project achievement/accomplishment: The GIS-based LADA maps incorporating SLM practices and technologies with information/maps accessible and relevant to CLUP preparation of LGUs have been prepared. Information on how to prepare these maps and the database of information are contained in the Guidebooks on the Composite Land Degradation Index Mapping and City/Municipal Level agro-Environmental Data Model.

The Project pioneered the development of the Composite Land Degradation Index (CLDI) which is further discussed in Output 2.2. The CLDI is an aggregation of the type, extent and degree of land degradation. For better visualization, the CLDI for the two pilot sites were mapped. These are decision maps in helping planners and policy makers in the determination of the priority areas in their locality with which SLM Programs, Project and Activities should be targeted into. These maps were made available to Abuyog Municipality and Malaybalay City LGUs for integration to their SLM-enhanced CLUP.

The development of the CLDI was documented by the Geomatics and Soil Information Technology Division (GSITD) of the BSWM. This documentation is contained in the two Guidebooks developed by the team with support from the Project. These are as follows:

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- Guidebook on Composite Land Degradation Index Mapping
- Guidebook on SLM Geodatabase: City/Municipal Level Agro-Environmental Data Model

These Guidebooks were developed to complement with the Implementation of Supplemental Guidelines for Mainstreaming SLM in the CLUP.

In the development of the guidebooks, a training on Capability Enhancement on Managing Spatial Data for SLM was conducted. This training was participated in by GIS Specialists and Practitioners from the two pilot sites. The following topics were discussed: Introduction to GIS, Geographic phenomena and spatial data types, database management systems, spatial data inputs, spatial referencing and map projections, introduction to ArcGIS, using ArcMap, ArcToolbox and Geoprocessing, how to download GIS data from open sources in the internet, building the geodatabase, and labels, symbology in ArcMap. After the discussions the participants were tasked to complete the workshops for them to have hands-on experience in the use and management of the database as well as the computation and mapping of the CLDI using ArcGIS.

Further to this, focused group discussions with the data holders (MAO, MENRO, MPDO) from the two pilot sites were also conducted. The FGD highlighted the gathering of the following data to produce the City/Municipal Agro-Environmental Data Model Guidebook. This Guidebook is a documentation of the geodatabase and the LGU Agro-Environmental dataset which was designed to aid data managers at the LGU level in administering the spatial data in a logical and organized manner. This implements the rule-based checks to maintain the integrity of the data.

The SLM Geodatabase contains the following feature datasets: administrative component (annotations, boundaries, institutional buildings, domains, and administrative features typology); hydrography (annotations, hydrography features, and domain); Hypsography (annotation, hypsography features, domains, contour typology, and rasters); infrastructure (annotations, transport facilities, and domain); environmental (land cover, land classification, protected areas, domains, climate classification, fault lines, and air and water quality); DRRM and CA (rainfall, temperature, climate projections, and hazard maps); Economic sector focusing on Agriculture (agro-edaphic factors, Land Management, Agricultural Support Infrastructure, other agricultural activities, agro-climatic factors, and agro-socio-economic profile).

While the CLDI Mapping Guidebook provides the users a step-by-step process on the calculation of the CLDI and mapping it using the ArcGIS tools in the determination of CLDI for single and multiple sources of land degradation, data sources, data preparation, and other considerations. This guidebook demonstrates the use of soil loss as proxy for soil erosion as land degradation source which was estimated using the Universal Soil Loss Equation (USLE) (Wischmeier and Smith, 1960).

This Guidebook is officially adopted thru the Department of Agriculture's issuance of:

Memorandum Circular on the Adoption of the Guidebook on Composite Land Degradation Index Mapping

This Guidebook is for the use of local governments and planners in their decision-making process to identify the priority areas that need to be addressed as well as the DA Regional Field Offices in their planning and programming of activities specially on the identification and quantification of the types,

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extent and degree of land degradation. This Guidebook will also be used in the conduct of capacity building activities for GIS practitioners of the DA, BSWM, DENR-FMB, HLURB and LGUs. This Memorandum Circular captures the adoption of the City/Municipal Agro-Environmental Data Model Guidebook that was developed.

Output 1.4 Training-of-trainers from BSWM, DA Regional Offices, DENR and DAR and the PAOs and MAOs/CAOs capacitated in training extension officers from the LGU's in promotion of SLM practices and technologies

Description of indicator: Competency development program for LGUs on SLM technology application and mainstreaming developed and implemented

Baseline level: New and young scientist from BSWM, DA Regional Offices, DENR and DAR lacked hands-on training on SLM

End of project target level: List of training modules on SLM technology application and mainstreaming for LGUs developed; Potential trainers from DA-BSWM, DENR and HLURB are identified and trained on various SLM management and physical technologies on SLM

End of project achievement/accomplishment: Sustainable Land Management Training Manual and Manual on the Preparation of the ILMF Plan and Mainstreaming SLM in the CLUPs developed. Trainers from DA-BSWM, DENR and HLURB identified and trained on various SLM management and physical technologies on SLM.

The Capacity Development and Training Specialist assessed the competency gaps of community and agency stakeholders. The competency gap assessment report aimed to: 1) review current stakeholder competencies in SLM technology and assess these given new capacity development needs; 2) determine competency gaps in the delivery of the modules based on new capacity development needs and the frameworks adopted by the project; and 3) develop a competency development program based on the new frameworks.

The report's findings summarized that SLM2 and the Composite Land Degradation Index Monitoring System (CLDIMS) are to be implemented by project partner agencies and farmer beneficiaries. In the case of SLM2, in general, and CLDIMS, in particular, both the community (Inclusive of farmer leaders, farmers and farm family members) and partner stakeholder agencies (LGU, BSWM, ATI, FMB, etc.) should serve as trainees. However, their competencies differ and so will their training curricula.

The following are considered competency gaps on the part of the community stakeholders: 1) Measuring Climate Based Seasonal Farmland Degradation particularly on computing for gain/loss of nutrients, humus, top soil, biological components; 2) Rendering, Analyzing and Interpreting Picture-based, Climate Event Farm Land Degradation Assessment Maps; 3) Rendering, analysis & interpretation of Soil Erosion Map, SAFGDZ, Land Degradation Maps and Crop-Climate Maps; and 4) Gathering of historical data and 10-year trends of farm family income, yields, etc.

Afterwhich, a Competency Development Program Guide was developed. The Competency Development Program Guide rationale is that revisiting sustainable land management technology in degraded and drought vulnerable areas in the Philippines would lead to an updated revitalized SLM framework. Apart from conventional SLM science, the new SLM framework would incorporate other considerations such as climate change adaptation; the economic realities faced by the farm family that determine its relationship with the land; and recognition of the farmer's traditional and local knowledge. These additional elements constitute what is tentatively being referred to as Adaptive

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Land Management or ALM. The new framework is an integration of ALM into conventional SLM. Along with the Integrated Land Management Framework or ILMF, they represent a more holistic and inclusive approach to land productivity that requires a new set of competencies that are presented in this document.

After the completion of the Competency Development Program Guide, the SLM Training Manual and the Manual on Adopting the ILMF and Mainstreaming SLM in CLUP were developed.

The SLM Training Manual has four (4) modules namely:

Module 1: Soil Erosion and Degradation with seven lessons

Module 2: Soil Carbon, Backbone of Soil Health and Fertility with two lessons

Module 3: Land Degradation and Composite Land Degradation Index Monitoring System Guideline with 12 lessons

Module 4: Photo-Visual Mapping, Recording and Assessment for the Establishment of Composite Land Degradation Index Monitoring System with three lessons

The Manual on Adopting the ILMF and Mainstreaming SLM in CLUP contains four (4) modules as well namely:

Module 1: Integrated Land Management Framework with four lessons

Module 2: ILMF Plan Preparation with six lessons

Module 3: Why Mainstreaming with two lessons

Module 4: Components of SLM Mainstreaming with ten lessons

Relatively, the Report on the Conduct of Training of Potential Trainors from DILG and HLURB on Various SLM Management and Physical Technologies for Mainstreaming SLM into the CLUP and Report on the Conduct of Training of Trainors (ToT) for LGUs, ATI, DA-BSWM and DENR were submitted. The Reports are documentation of the following trainings conducted: Training-Workshop on the Preparation of the ILMF Plan and Mainstreaming SLM in the CLUP, Planners' Forum Integrating SLM in the CLUP and Conduct of Training of Trainors on the two pilot sites.

The Training of Trainors was conducted for the two pilot sites: Malaybalay City, Bukidnon participated by representatives from BSWM Laboratory Services Division, GSITD, Dalwangan Research Station, Provincial Information and Communications Office, Bukidnon Environment and Natural Resources Office, Provincial Planning and Development Office, CAO, CENRO, DENR-PENRO, City Agriculture Office, Silae United Agrarian Reform Cooperative, DA, City Planning and Development Office, DA Regional Field Office 8 and City Agriculture Office; and Abuyog Municipality, Leyte with participants composed of representatives from the Provincial Agriculture Office, Provincial Planning and Development Office, Dalwangan Research Station, DA Regional Field Office 8, DA Agricultural Training Institute, Municipal Planning and Development Office, MAOs of Abuyog and Sta. Fe, MENRO, Farmers from Abuyog and Sta. Fe, Leyte.

The training focused on the following: participatory photo-visual farm land degradation assessment under the CLDI monitoring system and GIS-based mapping of land degradation. It was participated by agricultural technicians and extension workers from line agencies and local government units and farmers from different barangays from the pilot municipalities.

The produced farmer-trainers for these training trained their fellow-farmers thru sharing of experiences. A formal training for 20 farmers in the province of Leyte was also conducted. The main trainer was the Regional Gawad Saka Awardee, an SLM adopter.

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The Manuals developed were officially adopted thru the Department of Agriculture's issuance of:

Memorandum Circular on the Adoption of the Sustainable Land Management Training Manual for Trainors

This manual will be used by all the DA Staff Offices, Regional Field Offices (RFOs), and its attached agencies, bureaus, corporations, as well as the DENR and DILG who shall adopt and coordinate with the Bureau of Soils and Water Management for the adoption and application of the Sustainable Land Management Training Manual for Trainors.

Memorandum Circular on the Adoption of the Manual on the Preparation of the Integrated Land Management Framework Plan and Mainstreaming Sustainable Land Management in the Comprehensive Land Use Plan

This manual will be used by all the DA Staff Offices, Regional Field Offices (RFOs), and its attached agencies, bureaus, corporations as well as the DENR-FMB and HLURB who shall coordinate with the Bureau of Soils and Water Management for the technical assistance on the application of the Manual for the Preparation of the ILMF Plan in support to the Mainstreaming of SLM in the CLUP.

Description of indicator: Increase scores of indicators of the following capacity results in the Capacity Development Scorecards of DA-BSWM, DENR-FMB and HLURB from the start-up of Project up to end of Project: a. Capacity for engagement (CR1); b. Capacity to generate access, and use information and knowledge (CR2); c. Capacity for strategy, policy, and legislation development (CR3); d. Capacity for management and implementation (CR4); e. Capacity to monitor and evaluate (CR5)

Baseline level: Average capacity scores for **DA-BSWM:** CR1 – 2 (Inds. 1-3); CR2 – 2 (Inds. 4-8); CR3 – 2 (Inds. 9-11); CR4 – 2 (Inds. 12-13); CR5 – 2 (Inds. 14-15); **DENR-FMB:** CR1 – 1.67 (Inds.1-3); CR2– 2 (Inds. 4-8); CR3– 2 (Inds. 9-11); CR4– 2.5 (Inds.12-13); CR5– 1 (Inds. 14-15); **HLURB:** CR1– 1 (Inds. 1-3); CR2– 2 (Inds. 4-8); CR3– 2 (Inds. 9-11); CR4– 2.5 (Inds.12-13); CR5– 1 (Inds. 14-15)

End of project target level: At least an average increase in 5 capacity results (CR1-CR5) by 0.33 to 1 for BSWM with a high score of 3 in the following indicators: Indicator 3, 4, 5, 7 and 13; At least an average increase in 5 capacity results by 0.5 to 0.8 for DENR-FMB with a high score of 2 to 3 in the following indicators: Indicators 3, 4, 5, 8, 10 and 12; At least an average increase in 5 capacity results by 0.2 to 1.33 for HLURB with a high score of 2 to 3 in the following indicators: Indicator 1, 10, 11, 12 and 14

End of project achievement/accomplishment: See Annex C for the Complete Capacity Development Monitoring Scorecards

DA-BSWM	DENR-FMB	HLURB
CR1 – 2.33 (Inds. 1-3)	CR1 – 2.33 (Inds.1-3)	CR1– 1.66 (Inds. 1-3)
CR2 – 3 (Inds. 4-8)	CR2– 2.6 (Inds. 4-8)	CR2– 2.6 (Inds. 4-8)
CR3 – 2.66 (Inds. 9-11)	CR3– 3 (Inds. 9-11)	CR3– 2.66 (Inds. 9-11)
CR4 – 3 (Inds. 12-13)	CR4– 3 (Inds.12-13)	CR4– 3 (Inds.12-13)
CR5 – 2.5 (Inds. 14-15)	CR5– 2.5 (Inds. 14-15)	CR5– 1.5 (Inds. 14-15)

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For BSWM, an increase in the scores of indicators 3, 4, 5, 7, and 13 from 2 to 3 with an average increase to 1 was achieved.

This can be attributed to the establishment of the IATC for the implementation of the SLM project and their participation in consultation-workshops and review of the project outputs; establishment of the TDF at the project level and sustained existing soil conservation guided farm and SWIP; conduct of regular trainings and seminars as built-in component of SLM Package; Development of the municipal level geodatabase schema for the mapping of land degradation and composite land degradation index; setting up of the SLM Facebook page and Instagram accounts accessible to the public; maintenance of the PhilCAT SLM that showcases documented SLM practices for sharing to land users and planners, the website features were presented during the project workshops as “basket of SLM options”; Establishment of the TDF in the two pilot sites; and Conducted Training . Policy issuance on the following research strategies and programs: Adaptive Balanced Fertilization Management, Composite Land Degradation Index Monitoring System, Integrated Land Management Framework, Supplemental Guidelines, Muyong Agro-forestry Ridge Stabilization System; Use of bio-indicators like presence of weeds, insects, and leaf color; Practice of Soil Carbon Trashline Technology by the farmer; and BSWM has strengthened the engagement of key stakeholders (i.e. farmer co-operators, LGUs etc.) in the areas of soil and water conservation thru the: regular conduct of SWISA Congress; Techno Demo Establishment and hands-on Capacity Building on Soil Conservation; Turnover of Fertility and Fertilizer Guide Maps; Recognize as focal for coffee, cacao and other major commodities on land suitability and organic agriculture; Development of the SLM Training Manual and integration to FFS of module 4; and farmer-to-farmer trainings and mentoring activities conducted.

For DENR-FMB an increase in the scores of indicators 3, 4, 5, 8, 10 and 12 with a high score of 2 or 3 with an average increase of 0.8 was achieved.

This can be attributed to the following: FLUP of Malaybalay City is targeted for formulation this 2019; while the FLUP of Abuyog was formulated in 2016 but is not yet approved; Conducted awareness raising activity: Training on IEC materials preparation cum tree planting activity in Malaybalay City, Bukidnon; FLUP is integrated in the Comprehensive Land Use Plan and the Training-Workshop on the Preparation of the Integrated Land Management Framework Plan and Supplemental Guidelines on Mainstreaming SLM in the CLUP was participated in by Malaybalay City; Introduced the Muyong Agro-Forestry Ridge Stabilization System and the Use of Soil Carbon Trash-line Technology and bio-indicators in the pilot site in the Bgy Silae, Malaybalay, Bukidnon; Continuing support for Malaybalay City for their formulation of the FLUP thru provision of technical assistance and trainings. Also, there is an allocation of PhP450,000.00 budget for FLUP formulation and adoption. However, only 118 municipalities have adopted FLUP (in our case, it is only Abuyog which have adopted FLUP); Formulation is not under DENR’s control. It is the LGU who should initiate the process and send letter of intent for the formulation of the FLUP.

DILG Circular 1997 Requiring LGUs to formulate FLUP entitled: 1) DENR-DILG Joint Memorandum Circular No. 1998-01 “Manual of Procedures for DENR-DILG-LGU Partnership on Devolved and Other Forest Management Functions”; 2) DENR-DILG Joint Memorandum Circular No. 2003-01; and 3) “Strengthening and Institutionalizing the DENR-DILG-LGU Partnership on Devolved and other Forest Management Functions”. Also, given the new requirement of the HLURB to integrate FLUP in CLUP, the LGUs are now obliged to consider within their budget the preparation of FLUP worth 184.95

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Million (53.1 Million for 2019, 112.5 Million for 2020 and 19.35 Million). FMB continuously allocate resources for the formulation of FLUP with the target of 411 Municipalities (118 Municipalities for 2019, 250 Municipalities for 2020 and 43 for 2021.)

For HLURB, an increase in the scores of indicators 1, 10, 11, 12, and 14 from 2 to 3 with an average increase of 1 and a high score of 3 was achieved.

This can be attributed to the following: In the conduct of the National Planners' Forum the ILMF was clearly cascaded to all regional planners; field visits to the techno demo farm in Brgy. Silae, Malaybalay City, Bukidnon also helped in the appreciation of the planners in the formulated ILMF and Supplemental Guidelines on Mainstreaming SLM in the CLUP thru a hands-on experience; The creation of the monitoring and evaluation division within the Department of Human Settlements and Urban Development will strengthen the monitoring of LGU compliance as well as thru the Regional Offices via the system-based Land Use and Zoning Information System (LUZIS) (on-going development) which will be used. Other activities conducted to support the increase in the scores are the following: the data on forest cover was updated c/o of BSWM-GSITD, ILMF provided systematic means to utilize the data, fund for the Supplemental Guidelines is already for approval, Development of the Supplemental Guidelines on Mainstreaming SLM in the CLUP, Conduct of the Planners Forum and the Development of the Training Manual for the integration of SLM in CLUP.

Outcome 2: Long-term capacities and incentives in place for local communities and LGUs to uptake SLM practices in two (2) targeted municipalities in the Philippines.

Output 2.1 Comprehensive land use plans (CLUPs) updated/revised for targeted city and municipality with serious LD issues.

Description of indicator: Plant/soil cover in the agricultural land area covering 2,866 ha and forest cover in Barangay Silae

Baseline level: Plant/soil cover to be established during project implementation in the first year 721.65 ha of forest land area

End of project target level: Increase in plant/soil cover ratio from the baseline; No net loss of forest cover in Barangay Silae

End of project achievement/accomplishment: There is an increase in the plant/soil cover ratio from the baseline of 721.65 hectares to 1,056 hectares of forest cover in Brgy. Silae based on the Agri-mapping data in 2017 generated by the Office of the City Planning and Development of Malaybalay City, Bukidnon.

The Project targeted the increase in plant/soil cover ratio under the premise that there will be a large area of influence after the adoption of the Supplemental Guidelines for Mainstreaming SLM in the CLUP wherein LGUs are mandated to update their CLUPs and integrate SLM. With this, SLM Programs, Projects and Activities will be included in the regular budget of the LGU. In addition, this target is in line with one of the outcome indicators in the Philippine Development Plan which is the increased in forest cover and the following are the sub outcome indicators: area of denuded and degraded forestland rehabilitated (in ha); area of forest land under effective management (in ha); and production and protection forests delineated.

As the main agency concerned in forestry and agro-forestry, one of the programs of the DENR which is the Expanded National Greening Program (ENGP) was seen as a great opportunity to integrate

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SLM. The ENGP covers all remaining unproductive, denuded, and degraded forestlands to be managed for production and protection purposes. This included establishment of new plantations and sustainable management of developed plantations as well as protection of existing forests. In addition, the FMB is in the process of enhancing the FMB Technical Bulletin No. 2: “Forest Land Use Planning” to mainstream the SLM Approach.

Further to achieve the end of project target, the Project in collaboration with the City ENRO of Malaybalay City, conduct two batches of tree planting activities to increase the plant/soil cover in Malaybalay City. These tree planting activities are to be replicated in other barangays identified by the City Government.

Recognizing the extent of the problem on soil erosion in the City, the Project packaged an SLM Technology – The Muyong Agro-forestry Ridge Stabilization System or MARSS. MARSS is a policy-based transitional land management strategy for the reversion of corn cultivation to agro-forestry system in water and forest resources protection areas. In the formulation of this technology, two cores issues were identified in the pilot site. First, is the misuse of classified public or protected forest land. These lands were planted with round-up ready (RR) corn, a primary ingredient for livestock feed formulation. However, the approved CLUP of Malaybalay City showed that these lands are classified under Cluster 3 and are in violation of both the LGU and the DENR policies on Forest Hydrology and Watershed Management and Conservation. Second, farmers who have occupied the Protection Zone are burning their farm wastes and is in direct violation of the City Ordinance which prohibits burning of solid wastes.

Having identified these issues, the Project saw this as an opportunity. What the farmer-co-operator do is that every harvest, corn stovers (*dagami*) are cut and piled up along the contours and are burned in place. This practice facilitated corn waste disposal, pest and disease control and management and as a cheap source of organic carbon materials for the improvement of soil fertility. The integration of this practice to the adaptive MARSS is a special community-based action for integrating local knowledge for soil health restoration with the science of integrated landscape management. Its achievement will be a clear step for the interest of the crop-farming community to transforming environmental risks in this case burning, into opportunities of transforming all occupied Protected Watershed Areas into major carbon sink in the Highland Ecosystems of Mindanao. In addition, the establishment of the soil carbon trashline technology is a potential interceptor of nutrient rich run off thereby increasing the overall resilience and sustainability of MARSS and ecosystem services in the general ridge to reef approach. MARSS as described is landscape-based with three distinct agro-forest farming systems: 1) the ridge slope devoted to a mixture of forest trees or woodlot (“*Muyong*”) representing the *environmental function*, the mid-slope for mixed fruit trees identified and selected by the farmer representing the *economic function* and the foot slope for corn-intercropped with various fruit trees representing the *transitional function*. This is a strong integration of climate change adaptation with sustained co-benefits to mitigation of climate change. This technology has two phases until the whole watershed is reverted into its natural land use such as:

Phase 1: Transitional Adoption of landscape-based corn production technologies and practices for soil health restoration/improvement to sustain transitional corn production until the land is finally used for sustainable long-term “*Muyong*” Agro-forestry establishment and renewed ecosystem services.

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Phase 2: Policy-based reversion of corn cultivation in support of the implementation of CLUP Zoning plan for Water and Forest Resources Protection Watershed.

Output 2.2 SLM best practices implementation in target City and Municipality

Description of indicator: Dry Matter (DM) and Organic Matter (OM) Content from 5 sample sites randomly selected from the agricultural land area (151 ha) and forest (12.61 ha) land area of Barangay Tadoc

Baseline level: Sample sites and baseline Dry Matter and Organic Matter to be determined during Year 1 of implementation; 12.61 ha of forest land area. Baseline DM and OM of soils in 5 sample sites of the 151 ha agricultural land obtained

End of project target level: Average increase from the baseline DM and OM of soils in 5 sample sites representing soil fertility of the 151 ha agricultural land area; No net loss of forest cover in Brgy. Tadoc

End of project achievement/accomplishment:

BASELINE LEVEL	END OF PROJECT ACCOMPLISHMENT
2017 OM Content @1-8% adequate value on the average 0-20 cm: 1.49% 20-40cm: 0.83%	2019 OM Content @1-8% adequate value on the average 0-20 cm: 2.75% 20-40 cm: 1.15%
2018 DM Content Arandia's Farm - 3,175.2kg/ha Quemado's Farm - 3,529.41 kg/ha Caca's Farm - 4,000.00 kg/ha	2019 DM Content Arandia's Farm - 5,865.6 kg/ha Quemado's Farm - 6,088.23 kg/ha kg/ha Caca's Farm - 8,608.9 kg/ha

The abovementioned values at the end of the project in 2019 are explained as follows:

Results of laboratory soil analysis showed that all pilot farms (Melchor Quemado's Farm, Lorenzo Caca's Farm and Antonietta Arandia's Farm) in Sta. Fe and Abuyog, Leyte as well as in Brgy. Silae, Malaybalay City, Bukidnon have values of soil pH that are within the range of adequate value of 5.5-8.5 using Potentiometric Method at 25°C.

The data on the organic matter (OM) content of the soils in the pilot sites were tested using the Walkley and Black/Colorimetric Method, UV-Vis (OC x 1.72). In 2017, the OM content of the soil at topsoil at 0-20 cm soil depth showed that there is a higher OM content therefore higher Organic Carbon Content than that of the subsoil at 20-40 cm soil depth with values lower than the adequate value of 1-8%. These data clearly showed that there is a decline in soil fertility as you go deeper down into the soil layers.

While data in 2019 showed that the OM content of the soil at different soil depths are in the range of 1-8% OM content, thus it can be concluded that improvements in farm management practices were made by farmers from the pilot sites.

As for the Dry Matter Content of the soil which can be determined by an increase in yield, data showed that there is an increase in yield from the first harvest season in 2018 to the 3rd harvest season in

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2019. During the first harvest, there is a yield of 3,175.2kg/ha for Arandia’s Farm, 3,529.41 kg/ha for Quemado’s Farm and 4,000.00 kg/ha for Caca’s Farm. While for the third harvest, Arandia’s farm yielded 5,865.6 kg/ha, Quemado’s Farm yielded 6,088.23 kg/ha and Caca’s Farm yielded 8,608.9 kg/ha of palay.

To further address the declining soil fertility of lowland rice areas due to excessive fertilization, the Project packaged an Adaptive SLM Technology – The Adaptive Balanced Fertilization Management System of ABFM. ABFM is the Building of SLM knowledge and capacity thru farmer-to-farmer, Big to Small Brother co-learning of ABFM practices against soil nutrient mining for sustaining soil health and food security. The identified pilot site is a community of small farm holders who are primarily dependent on rice production with limited knowledge and financial resources for adopting rice production technologies from DA. The local farming communities have a Gawad Saka Awardee and former local chief executive who have been taking the social role and responsibilities as the Big Brother to Small Brothers in farming for undertaking the “Bayanihan Way” of coaching, mentoring and sharing their “modern” farming facilities for adaptive and cooperative way of farming to reduce soil fertility depletion and climate change-induced land degradation.

In general, ABFM is a climate-smart agriculture for restoring degraded lands that are suffering from nutrient depletion. It showcases the integrated, balanced organic-based and inorganic fertilization to harmonizing and building soil health and sequestering carbon for the gradual reversal of the effects of climate change for restoring and building resilience and improving the overall adaptive capacity of small farm holders for sustainable intensive farming. This technology focuses on the on-farm incorporation of rice straw and their conversion into compost as base organic ameliorants that improve the use and uptake of inorganic fertilizers, minimize the problem of soil nutrient mining and contribute to the attainment of balanced fertilization and management. It also considered the use of combined mechanical harvester which facilitates automatic distribution, chopping and incorporation of rice straw for more efficient decomposition into compost, thereby improving soil carbon sequestration and minimal greenhouse gas emission into the atmosphere. It also reduces the exposure of harvested rice crops to potential losses and brought about by variability in climate. The ABFM is best implemented with Farmer Scientists and Gawad Saka Awardees as the best on-site local experts who can act as one of the Farmer Mentors or Big Brothers to Small Farmers.

To facilitate the transfer of technology, the Project has developed the Ladderized Approach on ABFM wherein the exchange and promotion of practical information on ABFM to improve the judicious and balanced use of organic farm wastes and chemical fertilizers is on a farmer-to-farmer level. The farming communities in each of the selected pilot sites have their respective farmer leaders who have assumed the role of Big Brothers. Two SLM Partner-Farmers were identified:

SLM Partner 1, Pilot Site 1, Cabangcalan, Sta Fe, Leyte

Farmer 1, Best Farmer, Mentor, Gawad Saka Awardee for Irrigated Rice Production Category of the Gawad Saka Program of DA who applied Balanced Fertilization Strategy of DA-BSWM and acquired a Combined Mechanical Harvester

Farmer 2, Good adaptor, Mentee, former Mayor who has several farmers who considered him as their political leader

SLM Partner 2, Pilot Site 2, Can-Marating, Abuyog, Leyte

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Farmer 3, Fair Adaptor, Mentor, a self-help farmer who invested on rice dryer as his adaptation to rainfall uncertainty who consults with Farmers 1 & 2

Farmer 4, Poor, Non-adaptor, Mentee, Cash-poor farmer, relatively in the category of “old rice farmer”

This Technology is officially adopted thru the Department of Agriculture’s issuance of:

Memorandum Circular on the Adoption of the Adaptive Balanced Fertilization Management for Enhanced Crop Production and Increased Income for Rice Farmers

The adoption of the ABFM has the following components: Soil Component – combination of organic and inorganic fertilizers; Cropping System Component – promotion crop diversification such as next to rice, leguminous crops will be planted; and Big to Small Brother Ladderized Approach – consultation of best and traditional farmers. In relation to this, the BSWM developed the Soil Health Card and Crop Performance Monitoring to evaluate success in the adoption of the Adaptive Balanced Fertilization Strategy for Responsible Farming.

This technology shall be adopted by all the DA Staff Offices, Regional Field Offices (RFOs), and its attached agencies, bureaus, corporations shall coordinate with the BSWM.

Description of indicator: Composite Land Degradation Index Monitoring System for monitoring land degradation is developed and in place for Malabalay City and Abuyog Municipality

Baseline level: No LDI monitoring system in use

End of project target level: Stable or improved composite LDI monitoring system across 20,000 ha in the two municipalities

Agriculture: 3,038 ha

Forestry: 734.26 ha

Mixed System – 16,227.74 ha

End of project achievement/accomplishment: Established the Composite Land Degradation Index Monitoring System which was part of the Published SLM Training Manual

The French Scientific Committee on The Project supported the development and piloting of the CLDI Monitoring System (CLDIMS). The development of the CLDIMS was premised under the conduct of the Land Degradation Assessment (LADA) developed by the French Scientific Committee on Desertification which was designed for arid and semi-arid countries in Africa. This method provided a comprehensive list of land degradation and well documented science-based criteria for classifying and mapping land degradation and for the establishment of the Composite Land Degradation Index for monitoring and evaluating land degradation that serves as a basis for formulating land degradation specific programs and projects for assisting vulnerable farmers for reducing, preventing and avoiding future land degradation and therefore building their capacity for self-management of their farm resources ensuring food supply, increased income and livelihood availability.

The process of mapping and documentation and the criteria for the identification and mapping of the type, degree and extent of land degradation and the formulation of the CLDI was followed to ensure the acceptability of the results of the field assessment of land degradation in the pilot sites. The CLDIMS is central to the method of Adaptive LADA which introduced the use of innovative practical tools for field assessments of land degradation ensuring the participation of farmers in the recording,

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assessment and monitoring of land degradation. This development ensured easy understanding and appreciation of the mixture of science and farmers knowledge towards land degradation as they happened in the past and their future implications.

Further, the CLDIMS developed under the project considers the assessment of season land degradation. With this, the farmer's tracking and mental-recording of the changes in the condition of their farms and crop production has the following major advantages, to wit: the field tracking is realistic, since field tracking is based on their own daily experiences in monitoring actual changes at the field level; the field tracking is linked to the integrated view of the farm, the environment and concern for survival; and the results provided the practical view which provided the element of acceptability of the types of intervention built within the farmers' capacity and understanding to combat land degradation.

The innovations of the CLDIMS are the following:

- Seasonal land degradation, which takes into consideration the Type I to Type IV Climate in Philippines, mapping of visible and inviable land degradation
- Picture-based Mapping and Monitoring for Effective Ownership by Farmers/End Users of the Farm Level land degradation CLDIMS using a simple handheld camera to capture "picture of historical events" and translate these into indicators of ecological changes in the farm and as basis in changing their farm management practices
- The Farmer's Biological Indicators of Land Degradation

The CLDIMS has been applied in the two pilot LGUs – Malaybalay City, Bukidnon and Abuyog and Sta. Fe, Leyte. This tool shall be enhanced for transfer to DA-ATI for the development of modules for Farmers Field School (FFS) mechanism of technology transfer. This will then be a basis for the expansion of the CLDIMS including the CLDI mapping at the LGU level and eventually national level. The CLDIMS forms part of the SLM Training Manual under Modules 3 and 4.

Output 2.3 National and LGU extension services capacitated to incorporate SLM to LDI and drought-risk areas and deliver targeted support to targeted City and Municipality and farmers with similar agricultural threats

Description of indicator: Increased in % of SLM guidance delivered by extension services

Baseline level: Lack of SLM modules on the existing Farmer's Field School (FFS)

End of project target level: 100% SLM guidance delivered by extension services through integration of complete SLM modules in the season-long FFS; 350 farmers trained in SLM technology through the FFS

End of project achievement/accomplishment: 50% of SLM guidance delivered by extension services through the integration of complete SLM modules in the season-long FFS

Through the implementation of the project in the pilot sites, the agricultural extension workers and technicians were capacitated in the SLM technologies applicable in addressing soil erosion and soil fertility decline in the areas.

Specifically, the Project implemented the SLM Module on Photo-Visual Recording, Assessment and Monitoring of Farm Land Degradation. The approach for the two pilot sites with different crops and different land degradation challenge being monitored utilized the same strategy – use of photos taken by mobile phones with built in camera to take picture of healthy (reference) and stressed (deviant)

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plants as well as soil profile. These photos were used to record and quantify important phenological stages in agricultural crops that are critical and increase chances of getting attacked by pests and diseases.

This methodology was found to be a very simple method for integrating local farm knowledge and observation with the basic science of soil erosion and related land degradation since color of plants and exposed soil surfaces can be easily understood and remembered by the farmer. One of the key takeaway is the observation of the green color in the plant for it represents the state of the health of the plant. Too green or light green may reflect the unhealthy/stressed state of the plants representing nutrient deficiency or nutrient excessiveness.

Farmers were trained and coached on the field identification and monitoring of land degradation, with focus on soil fertility depletion, soil erosion and flooding using the photo-visual approach.

This methodology as well as the two SLM packaged technologies were presented to rice and corn farmers in an orientation-briefing for Leyte Farmers and for North, Central and South Bukidnon. The orientation-briefing also served as a venue for the farmer-cooperators from both pilot sites to share their experiences, learnings as well as best practices from rice and corn farming with adaptive SLM technologies and practices.

The incorporation of the SLM modules to the FFS is part of the sustainability plan of the DA-Agricultural Training Institute, as this would involve a rigorous amount of time and effort that would outlive the project.

Description of indicator: Farming households adopt sustainable agricultural practices and integrated SFM/SLM

Baseline level: There are total 2,924 farming households in the 2 target sites (3 Brgys. out of 46 Brgys. in Malaybalay City and 13 Brgys. out of 63 Brgys. in Abuyog)

End of project target level: At least 585 of the farming households in 2 targeted municipalities (3 Brgys. out of 46 Brgys. in Malaybalay City and 13 Brgys. in Abuyog) adopt sustainable agriculture practices and integrated SFM/SLM practices

End of project achievement/accomplishment: 381 farming households from the Malaybalay City and Abuyog Municipality expressed their willingness to adopt sustainable agricultural practices and integrated SFM/SLM practices.

The Project in collaboration with the Agricultural Land Management and Evaluation Division (ALMED) of DA-BSWM formulated a structured questionnaire: Survey on Farmer's Willingness to Adopt the SLM Packaged Technologies and Best Practices for both pilot sites. During the conduct of the orientation-briefing of rice and corn farmers in Leyte and Bukidnon, last part of the program was the rendering of the survey questionnaire.

The questionnaire gathered data on the following: farmer's willingness to adopt MARSS and/or ABFM, profile of farmer (name of the respondent, residence address, status of tenure, educational attainment, years in farming, and source of farming information), profile of the farm (farm size, farm location, dominant vegetation in the surrounding area, crops planted, farm management practices), observed changes in the farm and household (HH size, no. of farm laborers, house type, crop type, variety, crop diversification, cropping pattern, incidence of pests and diseases, weed problems, occurrence of soil erosion, landslide incidence, difficulty in tillage, occurrence of flooding, soil surface

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dryness, soil fertility decline, and observance of weed or vegetation not native to the area), use of Monsanto, changes in amount of rainfall, other soil management practices such as use of fertilizers, minimum tillage residue incorporation, trash line, and terracing.

Findings of the Project showed that it is important to have Local Champions (like the Gawad Saka Awardees – who are farmer scientists) that could coach and mentor their fellow-farmers. These local champions will ensure the dissemination and replication of their learnings from the project.

Ensuring the adoption of the farming households of the SLM practices and technologies in neighboring cities/municipalities and provinces would entail institutionalization thru a policy issuance of the SLM, CLDI Mapping, Assessment and Monitoring thru Photo-Visual pieces of evidence and capacity building of national and local stakeholders.

Output 2.4 Secure additional finances for SLM investments and align existing financial contributions in the forestry and agricultural sectors to support SLM practices in at least two selected municipalities

This output captures the policy issuances discussed above which would facilitate additional finances for SLM investment and aligning existing financial contributions in the forestry and agricultural sectors to support SLM practices in the two pilot sites and will be expanded to other agriculture-dependent localities. Further to this, the Project collaborated with the DA Agricultural Credit Policy Council to provide farmers from the two pilot sites additional venue on accessing financial assistance through the Production Loan Easy Access (PLEA) Program. The PLEA is a loan facility designed to address the financial needs of the marginal and small farmers and fisherfolk by providing them easy to access loans. This is done by ACPC wherein they tap lending conduits in extending loans to marginal and small farmers and fisherfolk. The lending conduits must have a lending system in place. These lending conduits select, evaluate, approve and collect loans from borrowers under agreed guidelines with the ACPC. To integrate SLM, the collaboration agreed that one of the requirements will be a farm plan made by the farmer. With this, the Project provided a Training on Farm Planning to the pilot sites.

3. LESSONS LEARNED

Key Successes of the Project

- **Development of Innovative Adaptive Methodologies and Technologies.** The Project piloted in the country the development of replicable adaptive methodologies and technologies to wit:
 - Integrated Land Management Framework which facilitates the mainstreaming of SLM in the national and local strategic development and management plans;
 - Supplemental Guidelines for Mainstreaming SLM in the CLUP which ensures the incorporation of SLM to regular programs and projects of local governments;
 - Development of the CLDI which is an aggregation of the type, extent and degree (linked to the soil classification and profile) of land degradation
 - Development of adaptive methodologies like the CLDIMS considering ad adaptive land degradation assessment, occurrence of seasonal land degradation, direct involvement of farmers in the assessment, recording and monitoring of farm level land degradation.

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- Development of Adaptive SLM packaged Technologies for the upland to address soil erosion and lowland areas to address soil fertility decline. These technologies can be replicated to any areas in the Philippines who are agriculture dependent and with same landscape.

- **Mainstreaming SLM in the CDP.** The Abuyog municipality took the initiative to mainstream SLM in their CDP. This will pave the way for the funding through the Local Development Investment Program of LGUs of SLM Programs and Projects.

Facilitating and Hindering Factors to the Success of the Project

- **Identification of LGU local champions.** The partner LGUs have identified very well their representation in the Local Technical Working Groups as counterpart of the National IATC. The Local LTWGs facilitated the implementation of the Project at the Ground Level. It is also good to emphasize that the initiative and participation of Women Leaders from the National Level – National Project Director National Focal Person, and Project Manager, and from the Local Level – Assistant Provincial Agriculturist in Leyte, Farmer Leader of the Silae United Agrarian Reform Cooperative, City Agriculturist and City Environment and Natural Resources Officer. The involvement of the Municipal Planning and Development Coordinator of Abuyog, Leyte is an additional factor too.
- **Lack of involvement of the DA Regional Offices.** The role of the DA (and DENR) regional offices is crucial for project implementation, especially that this Project is led by the Bureau wherein it only has a national office and no regional counterparts. The involvement of the DA would have helped in the communication and transfer of technologies in the ground level.

Recommendations for Future Similar Projects

- **Project Duration.** For future similar projects, it should be noted that the first year of project implementation is usually lost on administrative related work preparations and issues and concerns. Thus, will greatly affect the real implementation of what was in the work plan of the project. Given the short duration of the project, outputs should not have been anchored on the completion of one output. In the project's case the completion of the Sustainable Land Management aspect of the Project was a pre-requisite for the development of the Manuals under Capacity Building. Though this is really the ideal set up for this kind of Project. The no-cost extension of the Project proved that the 3 year period of project implementation is not enough to meet the end of project targets set in the project document.
- **Knowledge Management.** An effective knowledge management plan should have been developed at the start of the Project to effectively communicate through IEC materials the progress of the Project. A Communications Officer must be part of the forming of the Project Management Office.
- **Target on the number of households adopting the technologies.** The large number of households targeted at the start of the project was not achieved due to the lack of active involvement of ATI to facilitate the effective transfer of technologies while things are being formulated. Regional ATI offices should have been involved since project start and not just be invited in peer reviews and training proper.

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- **Utilization of existing committees.** Instead of forming new committee to handle the projects concern it is recommended that existing committees which handle same concerns as that of the project be tapped since they are already institutionalized.

4. PARTNERSHIP STRATEGIES

At the core of the project implementation is the multi-level and multi-stakeholders partnership arrangement of the national and local government agencies, and the civil society and academe to address land degradation problems specifically soil erosion in upland areas with steep to rolling hills and soil fertility decline in the lowland areas in the country. An Inter-Agency Technical Committee (IATC) was set-up early on where the Department of Agriculture (DA), Department of Environment and Natural Resources – Forest Management Bureau (DENR-FMB), Department of Interior and Local Government (DILG), Department of Agrarian Reform (DAR), National Economic and Development Authority (NEDA), Housing and Land Use Regulatory Board (HLURB), DA Regional Offices XIII and X, Local governments of Leyte and Malaybalay City, Bukidnon, United Nations Development Programme (UNDP), as well as academic institutions with expertise in agriculture and environmental management such as the University of the Philippines – Los Banos, Visayas State University and Central Mindanao University were represented. The main responsibility of the IATC was to ensure the technical aptness of the deliverable of the Local Consultants of the Project as Specialists on SLM, CLUP, GIS, and Capacity Development and Training. The IATC was also established to harmonize the initiatives of all government agencies involved in addressing issues on food security and ecological integrity in the country. In addition, institutionalization of the IATC is an important next step to sustain the efforts started by the project.

At the two pilot sites, local technical working groups (LTWG) were also established where local counterparts of the national government agencies are represented; Municipal/City Planning and Development Office (M/CDPO), Municipal/City Agriculture Office (M/CAO), Municipal/City Environment and Natural Resource Office (M/CENRO). Academes and civil society organizations were also represented in the LTWG. The setting up of the LTWG is part of the localization and capacity development mechanisms to support LGUs in their development of more responsive development and strategic plans where SLM technologies and practices are mainstreamed and integrated.

The involvement of academic institutions in both bodies is also part of the sustainability efforts to maintain that technologies being adapted are continuously being tested, observed, and studied. With the emphasis on “**adaption**” than “**adoption**”, SLM practices should undergo continuous observation to ensure that adaptive technologies and practices being popularized and mainstreamed on the ground are suitable and responsive to the ever-changing condition of the lands. Possibly in the future years to come, for a more integrative and collaborative efforts, partnership with private institutions should be established say fertilizer distributors to highlight the importance of the production and marketing of single element fertilizers that could address the nutrient specificity requirement of crops i.e. rice in the lowlands to address the diminishing amounts of nutrients in the soil.

Below are the specific roles of the abovementioned established partnerships throughout the project lifetime:

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Name of Partner	Type	Description of partnership and how it has contributed to project results or sustainability
<i>Department of Agriculture</i>	National Government Agency	The DA is responsible for the development by providing the policy framework, public investments, and support services needed for domestic and export-oriented business enterprises. For the SLM Project, the DA is mainstreaming SLM to the Agricultural and Fisheries modernization and investment Plan and is finalizing the Joint Memorandum Circular with the DENR FMB for the Adoption of the Integrated Land Management Framework Planning for Sustainable Agriculture and Agro-forestry Development. The Undersecretary for Field Operations chairs the Project Board.
<i>Department of Agriculture – Bureau of Soil and Water Management</i>	National Government Agency	The BSWM is the lead agency in SLM. It develops, tests, and widely disseminates SLM practices and technology packages. For the SLM project, it undertakes project planning, implementation and management including coordination, monitoring, evaluation and project reporting. It also developed knowledge management system and lead capacity building program; and established SLM demonstration sites on soil conservation, erosion control, organic farming, nutrient balance management and other technology packages. It is a member of the Project Board (PB) and chairs the Inter-Agency Technical Committee of the Project.
<i>Department of Agriculture – Special Projects Coordination and Management Assistance Division (DA-SPCMAD)</i>	National Government Agency	DA-SPCMAD as the mandated unit of DA in the provision of M&E support to the project, conducts performance and financial review in accordance with the requirements of the donor agencies and the DA. It is a member of the Inter-Agency Technical Committee of the Project.
<i>Department of Environment and Natural Resources – Forest Management Bureau (DENR-FMB)</i>	National Government Agency	The FMB is the agency responsible for planning and implementing forest conservation policies and programs. For the SLM project, it mainstreamed SLM in DENR Philippine Master Plan for Climate-Resilient Forestry Development (PMPCRFD). A Joint Memorandum Circular with the Department of Agriculture and Bureau of Soils and Water

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		Management has been prepared and review is ongoing for both mother agencies. It is a member of the Project Board (PB) and co-chairs the Inter-Agency Technical Committee of the Project.
<i>Department of Agrarian Reform (DAR)</i>	National Government Agency	The DAR implements the country-wide program on land distribution and corresponding support services to agrarian reform beneficiaries. For the SLM project it conducts project planning and implementation of SLM covering agrarian reform beneficiaries. It is a member of the Project Board (PB) and the Inter-Agency Technical Committee of the Project.
<i>Department of Interior and Local Government (DILG)</i>	National Government Agency	The DILG is responsible for supervising LGUs, issuing policies, and monitoring and evaluating their progress and development, among other functions. For the SLM project, it will provide inputs in project planning and implementation. It will also issue policy directives to LGUs in mainstreaming SLM in their CDPs and allocating funds thereof; and participate in the formulation and development of financial instruments for SLM. It is a member of the Project Board (PB) and the Inter-Agency Technical Committee of the Project.
<i>Housing and Land Use Regulatory Board (HLURB)</i>	National Government Agency	The HLURB is responsible for issuing guidelines for the preparation of CLUP by cities and reviewing the quality of their plans aside from their legal and program development functions. For the SLM project, it provided inputs in the preparation of guidelines for mainstreaming SLM in CLUP of LGUs. It was also tapped in the conduct of capability building program on SLM. It is a member of the Project Board (PB) and co-chairs the Inter-Agency Technical Committee of the Project.
<i>National Economic and Development Authority</i>	National Government Agency	The NEDA provides policy directions and ensure the alignment of the Project to the national development plans and the mandate of the administration. It is a co-chair of the Project Board and a member of the Inter-Agency Technical Committee of the Project.
<i>Provincial and Municipal LGUs</i>	Local Government Unit	The LGUs of Malaybalay City, Province of Bukidnon, Abuyog and Sta. Fe Municipalities, Province of Leyte to wit: Provincial/Municipal/City Agriculture Offices,

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		<p>Planning and Development Offices, Environment and Natural Resources Offices are responsible for preparing and implementing agriculture sector development plans and programs aside from providing extension services to farmers. For the SLM project, they will mainstream SLM in their CLUPs to allot budget thereof. They were also the major participants in capability building programs for SLM. They also provided inputs in SLM project monitoring and performance evaluation. The PAOs of the two Provinces are members of the Inter-Agency Technical Committee, while their local counterparts are part of the Local Technical Working Groups of Malaybalay City and Abuyog Municipality.</p>
<i>League of the Municipalities of the Philippines</i>	Organization	<p>The LMP as an umbrella organization of the 1,488 municipalities in the Philippines is a partner of the national government in the implementation of projects at the local level. The LMP is a member of the Project Board and the Inter-Agency Technical Committee of the Project.</p>
<i>Farmers organizations: Silae United Agrarian Reform Cooperative and Tadoc Farmers</i>	Peoples Organization	<p>The farmers' organizations in priority LGUs are the downstream beneficiaries of the project. They will participate in SLM project implementation as technology receiving constituents. They will also participate in SLM training and technology adoption; and provide feedback on the benefits and performance of SLM technology adopted.</p>
<i>NGOs and academic and research institutions: University of the Philippines Los Banos, Visayas State University, Central Mindanao University; International Institute for Rural Reconstruction</i>		<p>The NGOs and academic and research institutions tapped by the SLM project served as resource persons in SLM training and documentation of best practices. They also provided advocacy support in SLM technology adoption; and participate in SLM monitoring and performance evaluation. They are members of the Inter-Agency Technical Committee. UPLB and IIRR are members to the Project Board.</p>
<i>UNDP Manila</i>		<p>The UNDP is the implementing agency of the GEF and is responsible in facilitating the development, review and submission of projects for GEF financing. It co-chairs the Project Board and a member of the Inter Agency Technical Committee.</p>



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5. GENDER AND DEVELOPMENT MAINSTREAMING

In Governance Mechanisms

- (2016) The UNDP GEF5 SLM project board has shown a significant representation of Women. Among 12 participants in the first PB Meeting, 7 of these were women, Equal opportunity is given to both genders in the project.
- (2017) Women are represented in the governance mechanisms of the project. At the level of the Project Management Office the SLM Project is equally staffed by women and men are given equal opportunity during the hiring process. Leadership and management roles are equally shared, regardless of gender.
- Representatives from the different NGAs involved in the SLM Project already recipients of GAD programs in their respective offices.
- The Project board and its sub-committee such as the Inter-Agency Technical Committee and the two (2) Local technical Working groups in Bukidnon and Leyte are equally represented by men and Women.
- (2018) Women are represented in the in the governance mechanisms of the Project. At the project Management office, the SLM Project is equally staffed by women and men. Both men and women are given equal during the hiring process. Leadership and management roles equally shared, regardless of the gender.
- Representative from the different NGAs involved in the SLM Project are management roles of GAD Program in their respective offices.

The Project Board and its sub-committees such as the inter-agency Technical Committee and the two (2) Local technical Working groups in Bukidnon and Leyte are equally represented by men and women.

In Capacity Building and Policy, Planning and Programming

- (2016) Women were also represented well during the conduct of the Inception Meeting and the Program Planning workshop. There was a balance of participation of participants in the programming activities of the project. Equal distribution of staff from the BSWM that will serve as support for the project, also show a balance between male and females.
- (2017) this project does not specifically target women as direct beneficiaries but there are farmer-members of the target Farmer's Associations in the area (e.g. the Silae United Agrarian Reform Cooperative of Malaybalay City, Bukidnon) who are actively involved in the project activities. Under the project, equal opportunities are given to women to participate in meetings, workshop and trainings Activities planned do not discriminate or target a specific gender group and aim to be as inclusive as possible.

Women's Empowerment Key Results

- (2017) At this juncture, concrete women empowerment result are not yet visible but the participation of women in the capacity building activities so far serves as open learning opportunities for them which are applicable and useful in other areas of their household and community life. In the context of techno-demonstration, women farmer-cooperators take lead in the execution of plans and activities specifically on-site. They are the ones directly involve in the implementation of the farm level land degradation monitoring system.

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6. REPORT ON OTHER CROSS-CUTTING ISSUES

The Implementation of SLM Practices to Address Land Degradation and Mitigate Effects of Drought addresses cross-sectoral issues covering Social, Environmental, Economic and Institutional concerns.

Land degradation is a global problem that is both aggravated by the changing climate and unregulated human activities. The Philippines is highly susceptible to this given the country's natural hilly and mountainous landscape which makes it vulnerable to natural disasters and climate change. With limited flat lands suitable for intensive agricultural activities, growing population in the country and increasing demand for urbanization pushes small and landless farmers to cultivate less desirable lands resulting to progressive deterioration. Traditional farming practices such as slash and burn and widespread tree cutting contribute immensely to the continuous depletion of nutrients and soil erosion that leads to the crippling of the country's agricultural land productivity. If land degradation remains unmitigated and addressed, not only will it affect the overall balance of supply and demand of food commodity in the country, but it will also affect the stability of income of small farmers and their chances to wiggle out of poverty.

Land degradation then is both an environmental and a socio-economic concern. Though the main strategy is to address land degradation through systemic and institutional mechanisms --where the focus is on policy and structural improvements and enhancement of technical supports of the national to the local level--involvement of local farmers and local experts were also seen as an important component in responding to the problem of land degradation. Capacitating the local executives through institutional and technical supports in the development of their local strategic plans was an approach used by the project to arrest the problem of land degradation at the municipal and regional level as the management and regulation of lands and land uses are under the jurisdiction of the local governments.

However, behavioral changes among the local farmers is also as important. The project recognizes the knowledge-gap between scientists and researchers, and farmers in the understanding of land degradation. Often, farmers measure productivity of the land solely through the amount of yield they produce and adapt their farming practices through that lens. Nevertheless, there are elements in traditional farming practices that are often overlooked by scientists. Hence, the project tried to address that gap through scientifically enhancing traditional and already existing agricultural practices and educating farmers of more sustainable and adaptive land management practices to properly address the unique problems they encounter in their own farmlands.

As in the case of Malaybalay City, protected forest lands have already given way to intensive corn farming. The current agriculture use of elevated forest lands is in direct violation of existing local regulations. This is a perfect case of balancing the lens of environmental soundness and socio-economic responsiveness of the project intervention. The project's focus on "adaption" rather than "adoption" sees the reality of livelihood dependence of majority of farmers in to corn farming. Instead of totally banning intensive corn farming in elevated forest lands and taking away the main source of livelihood of these farmers, the project introduced agro-forestry as an intervention mechanism which intend to slowly change the farming practices and decrease the dependence of farmers to corn farming.

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7. KNOWLEDGE PRODUCT AND DISSEMINATION PLAN

Objectives

1. Share best practices and lessons learned from Bukidnon and Leyte.
2. Provide beneficial guidelines the project partners can use in the future especially in the effort of mainstreaming SLM practices in their agencies.
3. Make available and accessible materials on Sustainable Land Management practices.
4. That the publication of these resources will encourage SLM practice in the country.
5. That by simply making these resources available to anyone who will benefit from the practice/application of SLM will be another success story for the Project.

Target Audiences

1. Partner agencies
2. Agriculture technicians
3. Development professionals
4. Experts with common interest
5. Researchers
6. Teachers
7. Students
8. Farmers
9. Public (local and international)

Knowledge Products

Title of Knowledge Product	Users	Publication Date
Supplemental Guidelines for Mainstreaming Sustainable Land Management in the Comprehensive Land Use Plan	Local Government Units <ul style="list-style-type: none"> • C/M Agriculture Office • C/M Planning and Development Office • C/M Environment and Natural Resources Office HLURB Planning Staff BSWM Technical Staff	March 2020
Integrated Land Management Framework with Entry Points for Mainstreaming in the PDPFP and CDP	Department of Agriculture <ul style="list-style-type: none"> • Regional Field Offices • Attached Agencies • Bureaus • Corporations Department of Environment and Natural Resources <ul style="list-style-type: none"> • Regional Offices • Bureaus Department of Interior and Local Government National Economic and Development Authority	May 2020
Adaptive Balanced Fertilization Strategy for Responsible Farming	Department of Agriculture <ul style="list-style-type: none"> • Regional Field Offices • Attached Agencies • Bureaus • Corporations Department of Environment and Natural Resources	May 2020

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	<ul style="list-style-type: none"> • Regional Offices • Bureaus 	
Muyong Agro-Forestry Ridge Stabilization System	Department of Agriculture <ul style="list-style-type: none"> • Regional Field Offices • Attached Agencies • Bureaus • Corporations Department of Environment and Natural Resources <ul style="list-style-type: none"> • Regional Offices • Bureaus 	May 2020
Composite Land Degradation Index Mapping Guidebook	Department of Agriculture <ul style="list-style-type: none"> • Regional Field Offices • Attached Agencies • Bureaus • Corporations Local Government Units	May 2020
Municipal/City Level Agro-Environmental Data Model Guidebook	Department of Agriculture <ul style="list-style-type: none"> • Regional Field Offices • Attached Agencies • Bureaus • Corporations Local Government Units	May 2020
Sustainable Land Management Training Manual	Department of Agriculture <ul style="list-style-type: none"> • Regional Field Offices • Attached Agencies • Bureaus • Corporations Department of Environment and Natural Resources <ul style="list-style-type: none"> • Regional Offices • Bureaus Department of Interior and Local Government	May 2020
Manual on the Preparation of the Integrated Land Management Framework Plan and Mainstreaming Sustainable Land Management	Department of Agriculture <ul style="list-style-type: none"> • Regional Field Offices • Attached Agencies • Bureaus • Corporations Department of Environment and Natural Resources <ul style="list-style-type: none"> • Regional Offices • Bureaus Department of Interior and Local Government Housing on Land Use and Regulatory Board	May 2020

METHODS		
Printing	Manual or book form	<ul style="list-style-type: none"> • Printing costs • Delivery to target locations • Catalog number application if to be placed in libraries

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Electronic copy	Epub file PDF copy	<ul style="list-style-type: none"> ● Portable ● Downloadable ● Easy viewing ● No printing cost ● Availability of internet provider in particular areas ● Availability of file reader
Storytelling	Two or three-minute videos of farmer-co-operators on their experience with the SLM Project	<ul style="list-style-type: none"> ● Evidence based with photos and interviews of the farmers ● Shows impact of the project ● Availability of internet provider in particular areas

COST TO CONSIDER

- Initial printing will depend on the print specifications
- Reprints
- Delivery and distribution to target locations
- Frequency of delivery
- Replenishment of copies where e-copies are not available
- Website fee if applicable

EVALUATION

- Number of printed materials distributed at a specific activity
- Record of physical location where the material was accessed (shows reach of the publication)
- Downloads and views counter
- Demand or requests for printed copies
- Citations on research and studies

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8. SUSTAINABILITY OF RESULTS

The Project's Executing Agency as well as the major players in the topic of land degradation formulated a Sustainability Plan before the operational closure of the project. As a follow-up to the formed sustainability plan below are the updates on the current initiatives being undertaken by some of the agencies.

DA BSWM. The BSWM will be launching the knowledge products in a National Stakeholder Forum and officially turnover these to the concerned agencies. Further the BSWM plans to expand the coverage of the SLM Geodatabase with collaboration with the other data holders like DENR and DAR. They will also provide technical assistance to the HLURB in the implementation of the Supplemental Guidelines and to the local governments especially on the mapping of the CLDI. Currently, the BSWM is planning to launch the National Soil Health Program (NSHP), wherein the Adaptive Balanced Fertilization Management System will be adopted. Recommendations from this packaged technology will applied to the pilot sites of the NSHP.

HLURB. The training syllabus on the mainstreaming of SLM in the CLUP has been started by the Project being the Manual on the Preparation of the ILMF Plan and Mainstreaming SLM in the CLUP. This manual will form part of the HTPAP Training Manual. This will aid them in providing technical assistance to the local governments in integrating SLM in their CLUPs.

FMB. The FMB is planning to hold a training of trainers (FMB) staff on the SLM technologies to aid them in providing technical assistance to local governments. Topics on the mainstreaming of SLM to the PMPCRFD, mapping of CLDI and monitoring thru CLDIMS are to be discussed during the TOT.

Malaybalay City, Bukidnon. The Local government of Malaybalay is on the process of having their proposal to be approved by their current city Mayor. This proposal is to facilitate their request of technical assistance and conduct of capacity building activities from the BSWM.

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The stakeholders of the project formulated a sustainability plan for the period of 2019 to 2021 for implementation. The sustainability plan of each agency and LGU was aligned to the outputs of the project. Below is a table summarizing the planned activities of the sustainability plan.

OUTCOME/OUTPUT	ACTUAL OUTPUT PRODUCED	ACTIVITIES	SUB-ACTIVITIES	201
Outcome 1. Effective cross-sectoral enabling environment at the national and local level in place to promote inte				
Output 1.1 Multi-sectoral stakeholders committee strengthened at national level to oversee and give technical advice on the integration of SLM into LGU's development plans.	Establishment of the Inter-Agency Technical Committee Establishment of the Local Technical Working Group A National Integrated Land Management Framework Planning Tool for mainstreaming SLM in development and land use plans	Conduct formal turnover to partner agencies such as: ILMF to HLURB and DILG SLM Training Manual to DA ATI Guidelines on Mainstreaming SLM into the CLUPs to HLURB		
		Institutionalize Local Technical Working Groups by the LGUs i.e. in the case of Leyte led by OPA		
Output 1.2 Approved guidelines on SLM mainstreaming into national and local land use plans and investment programs	Supplemental Guidelines for Mainstreaming SLM in the CLUP – for adoption of HLURB Board of Commissioners on July 31, 2019	Form partnerships with concerned agencies and groups	Form Institutional collaborations with concerned agencies and groups as resource person/s and technical advisers	
		Develop training syllabus on SLM mainstreaming as part of the HTPAP Training Manual		
		Promote advocacy of the Supplemental Guidelines on Mainstreaming SLM into the CLUP	Conduct orientation seminars for LGUs conducted in 3 venue (one for each island of Luzon, Visayas and Mindanao)	
		Provide technical planning assistance		
		Identify the entry points on mainstreaming SLM to the Strategic Plan of DAR		

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		Mainstream SLM in the Comprehensive Development Plan	Organize orientation-briefing with the BLG director to facilitate the issuance of Memorandum Circular on mainstreaming SLM to the CDP	
		Facilitate inclusion of the SLM component (indicator) to the Seal of Good and Local Governance Qualification Criteria		
		Replication	Engage DILG/HLURB thru policy issuance on the CLDI Mapping	
			Policy issuance on the adoption of ILMF, CLDIMs and CLDI Maps	
Output 1.3 Information management system to support SLM integration into LGU's development plans and improving informed land use allocation decisions	Database for the two pilot sites with SLM integration	Updating of the Geodatabase	Continuously update the GDB Schema	
	Composite Land Degradation Index Maps	Develop BSWM Tools and Template for he Conduct of online training on CLDI mapping	Option 1: Training module on CLDI using GIS Option 2: establish a web-based training on CLDI	
Output 1.4 Training-of-trainers from BSWM, DA Regional Offices, DENR and DAR and the PAOs and MAOs/CAOs capacitated in training extension officers from the LGUs in promotion of SLM practices and technologies.	SLM Training Manual	Conduct Trainers' Training for FMB personnel on SLM mainstreaming		
		Conduct Trainers' Training on SLM mainstreaming to all DENR Field Offices (3 Clusters for Luzon, Visayas and Mindanao)		
		Conduct ToTs for ARBs on SLM (4th and 5th level ARCS)		
		Capability Enhancement Activities	Conduct Coaching, Mentoring and writeshop on SLM mainstreaming to CLUP	
			Presentation of Final Outputs	

Outcome 2: Long term capacities and incentives in place for local communities and LGUs to uptake SLM practice in the Philippines.

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Output 2.1: Comprehensive land use plans (CLUPs) updated/ revised for targeted city and municipality with serious LD issues.	ILMF developed for the integration of SLM in the CLUP. Municipal planners and LGU representatives are responsive and attended special training on Agriculture and Environment and Natural Resource accounting, Cost Benefit Analysis, and Preparation of the ILMF Plan and Guidelines on Mainstreaming SLM were conducted to capacitate LGU planning, MAO and MENRO in the updating of CLUP.	Conduct Tree Planting Activities	
		Monitor changes in plant/soil cover ration	
		Monitor net loss of forest cover in Brgy. Silae	
Output 2.2 SLM best practices implementation in target City and Municipality	SLM Packaged Technologies LDI Implementing Guideline Photo-Visual Assessment, Recording and Monitoring of Farm Level Land Degradation	Conduct CLDI Mapping and Monitoring	Conduct of CLDI on rice monitoring activities on stages of crop
Output 2.3 National and LGU extension services capacitated to incorporate SLM to LD and drought risk areas and deliver targeted support to targeted City and Municipality and farmers with similar agricultural threats	Module on Photo-Visual Assessment, Recording and Monitoring of Farm Level Land Degradation ready for integration to FFS	Develop an SLM-based Rice and Corn (R&C) FFS	Identify national and local experts on SLM
			Caucus among national and local SLM practitioners
			Conduct writeshop on the development of SLM-based R&C FFS
			Conduct Pre-testing of the Integrated SLM modules in the 3 zonal areas of the country
			Edit and Package the SLM R&C FFS
			Issue an Administrative Order for mainstreaming SLM-based FFS to the plans and programs of the national and local governments
	Update SLM Training modules		

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		Develop a qualification criteria on the readiness on the adoption of methodologies		
Output 2.4 Secure additional finances for SLM investments and align existing financial contributions in the forestry and agricultural sectors to support SLM practices in at least two selected municipalities	Sustainability plans of FMB, Leyte Province, HLURB, ATI, BSWM in place	Prepared costing for Mapping and Monitoring of CLDI and conduct of Trainings		
		Prepare a Proposal for the Training on CLDI Mapping, Monitoring and Updating of GDB Schema (GAA)		
		Best SLM practices linked to possible project funding (i.e. Jackfruit Production and Trading Enterprise under the I-REAP PRDP).		
		Aggressive advocacy of best SLM practices for adoption by the LGUs, NGOs and SUCs.		

Note: This Sustainability Plan is subject to change dependent on the agency involved as can be affected by external factors in the whole implementation process and in the ecosystem.

D. FINANCIAL ACCOMPLISHMENTS

1. EXPENDITURE REPORT as of April 30, 2020

GEF Outcome/Atlas Activity	Atlas Budgetary Account Code	ATLAS Budget Description	Budget Prod (Dollar)
Outcome 1: Effective national enabling environment to promote	64397	Services to Projects - Co Staff	0.00
	64398	Direct Project Cost-Staff	0.00
	71300	Local Consultants	30,780.00
	71400	Service Contracts	61,500.00



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integrated landscape management	71600	Travel	31,500.00
	72200	Furniture	0.00
	72400	Communications	7,000.00
	72500	Supplies	3,000.00
	72800	Inform Technology	43,376.00
	73400	Rental & Maintenance of Other Equipment	8,000.00
	74200	Audio Visual and Print Production Cost	6,500.00
	74500	Miscellaneous	0.00
	74596	Service to Projects -GOE	0.00
	74598	Direct Project Costs-GOE	0.00
	75700	Learning Costs	84,989.00
	76100	Realized Gain/Loss	0.00
		TOTAL OUTCOME 1	276,645.00
Outcome 2: Long term capacities and incentives in place for local communities and LGUs to uptake of SLM in two targeted municipalities in the Philippines	64397	Services to Projects - Co Staff	0.00
	64398	Direct Project Cost-Staff	0.00
	71200	International Consultants	19,500.00
	71300	Local Consultants	42,120.00
	71400	Service Contracts	24,000.00
	71600	Travel	0.00
	72100	Svc Co-trade & Business Service	0.00
	72200	Furniture	0.00
	72300	Materials & Goods	180,000.00
	72400	Communications	0.00
	72500	Supplies	6,000.00
	72800	Inform Technology	32,000.00
	73400	Rental & Maintenance of Other Equipment	40,998.00
	74100	Professional Services	15,000.00
	74200	Audio Visual and Print Production Cost	18,000.00
	74500	Miscellaneous	8,000.00
	74596	Service to Projects -GOE	0.00
	74598	Direct Project Costs-GOE	0.00
	74725	Other L.T.S.H	0.00
	75700	Learning Costs	129,464.00
76100	Realized Gain/Loss	0.00	
	TOTAL OUTCOME 2	515,082.00	
	64397	Services to Projects-GOE	0.00



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Project Management	71300	Local Consultants	0.00
	71400	Service Contracts	68,256.00
	71600	Travel	0.00
	72100	Svc Co-trade & Business Service	0.00
	72400	Communications	0.00
	72500	Supplies	3,000.00
	72800	Inform Technology	0.00
	73120	Utilities	0.00
	74500	Miscellaneous	0.00
	74596	Services to Projects-GOE	0.00
	74598	Direct Project Costs-GOE	0.00
	75700	Learning Costs	7,917.00
	76100	Realized Gain/Loss	0.00
		TOTAL PMO	79,173.00
	76100	Unrealized Loss/Gain	
GRAND TOTAL			870,900.00
UTILIZATION RATE			

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2. SUMMARY OF AUDIT FINDINGS AND ACTIONS TAKEN

Obs. No.	Observation	Recommendation	Action(s) Planned	Status
2019-03	Project disbursements for traveling expenses amounting to PhP49,864.00 (USD1,060.64) for 2016 were not properly documented to establish their validity contrary to the provisions of the NIM Guidelines and Procedures.	Require the concerned officers to submit the lacking supporting documents to establish the validity of the transactions.	PMO to submit the other supporting documents.	<p>In Progress: All other supporting documents submitted. Abraham E. Team Lead</p> <p>The manager requested boarding pass from Philippine Airlines on Feb.14, 2020.</p> <p>Likewise, request was made on Feb. 14, 2020 for a copy of the boarding pass to be issued to the concerned claimant. The certificate from the Airlines to enhance quarantine cannot be issued.</p> <p>Please be sure that all supporting documents be secured during lockdown.</p>
2019-04	There were two equipment that were not properly tagged by PMO as project assets.	Ensure that all assets recorded under the SAE are properly tagged with UNDP stickers having the details provided under the NIM Guide.	Properly tag with UNDP Stickers	Implement All properties under the SAE were properly tagged with UNDP stickers.
2019-05	Cash advances amounting to PhP146,792 which were already due and demandable remain outstanding for more than one (1) to two (2) years after the purpose had been served.	a) Establish a thorough monitoring of cash advances granted to different Accountable Officers by making a schedule when	Looking for the Liquidation Report	Implement BSWM Accountable Officer provided a photocopy of liquidation report.

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		<p>these CAs are due for liquidation and issue demand letters if needed; and</p> <p>b) Strictly comply with COA Circular 2012-001 on the prohibition of granting additional cash advance unless the previous grant is already liquidated</p>		<p>the PMO.</p> <p>Schedule o is duly pre monitor tin of cash adv preclude tl additional with pendi</p>
2019-07	<p>The Implementing Partner's (IP) acquisition of plane tickets with an aggregate amount of Php2,957,643.00 (USD56,953.22) did not undergo the required process of competitive bidding and/or other modes of procurement as required by the Government Procurement Act, Republic Act (R.A.) No. 9184, thus, did not embody the procurement principles of best value for money and effective competition stated in the NIM Guide</p>	<p>We recommend that the IP properly plan its travel activities in the implementation of the project in order to have a latitude lead time allotted for the procurement activity and not skipping the mandatory requirements/process enunciated in the provisions of R.A. 9184.</p> <p>Further, so as to personify the guiding principles of best value for money, impartiality, integrity and transparency, and effective competition provided by the NIM guide in procuring goods and services.</p>	<p>We will comply with the recommendation</p>	<p>Implement Purchase c amounting PhP290,87 (USD5,569 2019 trave the-procur of Small Va Procurement least three obtaining t calculated bidder, in c Sec. 53.9 o and its Rev</p>
2020-01	<p>Of the 12 project output indicators/activities targeted for the year, 2 predominant key project outcomes were not completed as of 31 December 2019 mainly due to the non-approval of the Joint Memorandum Circular as of audit date. In effect, the institutionalization of land resources management in the strategic and investment plans of DA and DENR-FMB and the provision of regular budget support for the SLM programs and projects embedded in the agency's implementation plans were not realized. In addition, accomplishment of three target</p>	<p>a) coordinate with the focal persons of DA and DENR and provide definite timeline for the finalization, approval and issuance of the Joint Memorandum Circular to provide bases in the preparation of investment plans for sustainable management of land resources, better yield/production and increase in income; and</p>	<p>a.) BSWM in collaboration with FMB shall facilitate the approval of the draft Joint Memorandum Circular for the Adoption of the Integrated Land Management Framework Planning for Sustainable Agriculture and Agro-forestry Development to</p>	<p>In Progress: a.) The BSW letter requ comments the Secreta Offices of t Undersecr Operations Fisheries M and Under Policy and March 31, emailed la: IP follow u April 13 ar email follo</p>



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	<p>outputs cannot be assessed due to lacking verifiable criteria that could aid in measuring the extent of reported accomplishments. Meanwhile, out of the total budget of USD152,293.22 per CY 2019 AWP, USD146,196.35 or 96 percent were utilized at year-end.</p>	<p>b) for future similar projects:</p> <ul style="list-style-type: none"> • ensure that targets are specific and measurable to support proper planning, management and monitoring of development activities gearing towards the desired project outcome; and <p>c.) closely monitor the implementation of the activities in the AWP to ensure that expenditures are within the budget.</p>	<p>their respective Departments.</p> <p>b.& c.) This recommendation would be noted and implemented for future similar projects.</p>	<p>15, 2020 for</p> <p>For DENR-letter dated 2020 was (April 3, 20 up (mobile 13,14, 15, and email April 20, 20</p> <p>JMC to be s Launching Products o (hopefully lockdown)</p>
2020-03	<p>The reported Government Expenses and UNDP Direct Payments in the CDR for CY 2019 were misstated due to the recognition of CYs 2017 and 2018 expenses amounting to PhP538,763.82 (USD10,954.29) and PhP564,179.83 (USD10,563.05), respectively, or a total of PhP1,102,943.65 (USD21,517.34) in CY 2019, of which PhP128,520.00 (USD2,398.56) were not fully documented.</p>	<p>a) process all expenses relating to a certain period during the period it pertains and accordingly reflect in the FACE and CDR to ensure that the CDR would be reflective of the expenditures and obligations of the project for the period;</p>	<p>a.) We know that the expenses for CY2017 and CY2018 were reflected in CY 2019 CDR, but as indicated in our action plan for the audit last FY 2018, it will be implemented by March 29, 2019. Further, based on our transactions, the said documents were processed during the Audit on FY 2018.</p> <p>In view of this, may we request that we start the status of not implemented on April 1, 2019 (although the transactions were also processed</p>	<p>Implement</p> <p>a.) This r would be r implement similar pro</p>



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			<p>before the Audit on FY 2018 but only paid on April, 2019) which is not covered by the actual planned implementation date (March 29, 2020).</p> <p>The incomplete supporting documents were also processed in Jan. 2019 before Audit on FY 2018. May we also request these items to be removed and we will submit the other supporting documents which are available in the office after lockdown.</p>	
		<p>b) impose deadline for submission of claims and monitor submission of claims for reimbursements of all expenses due for a certain period; and</p> <p>c.) process only claims duly documented.</p>	<p>b.) IP will issue another memorandum for the deadline for the submission of all claims for CY 2020.</p> <p>c.) To submit supporting documents</p>	<p>b.) Implem Issued and memorand</p> <p>In Progress: c.) This rec would be r implement similar prc</p>
2020-04	The CY 2019 CDR was not accurately presented due to errors in recording the Output Number for expenses amounting to USD982.59.	<p>a) constantly review the CDR generated by UNDP to facilitate the proper posting of expenses in the correct Output Numbers in the CDR; and</p>	<p>a.) The IP and UNDP will take the necessary actions to adhere with the recommendation for future similar projects</p>	<p>In Progress: a.) The IP a take the ne to adhere v recommen future simi</p>

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		b.) coordinate and request UNDP to adjust the CDR to ensure that all transactions are reported accurately and completely based on the FACE reports.	b.) IP and UNDP to adjust the erroneous recording of Output Number.	b.) Emailed Faeldan (U Action Uni 2020 for th the errone Output Nu According the reques to UNDP Fi adjustmen
2020 -06	The SAE of SLM Project with total assets valued at PhP7,183,944.60 (USD139,834.59) as at 31 December 2019 is overstated by PhP50,878.88 (USD1,080.21) due to the inclusion of external drive in the possession of previous consultant and unserviceable laptop subject for disposal. Moreover, out of the USD123,542.43 insurable project assets in the SAE, only the CNHS Analyzer valued at USD75,550.85 was duly covered with GSIS insurance.	a) require the previous consultant to return the external drive; thereafter, ensure that all asset and equipment assigned to project-hired individual consultants and contractors are properly documented and duly accounted for prior to the release of their final claim; b) facilitate the disposal of the unserviceable laptop and dropping thereof from the SAE; and c.) insure the properties amounting to USD47,991.58 with the GSIS so that the government would be indemnified in case of damage or loss.	a.) IP requested the consultant to return the external drive b.) IP will request BSWM for the disposal of the unserviceable laptop and dropping from the SAE. c.) IP will request BSWM to include the identified un insured assets and equipment	In Progress: a.) A Letter 2020 was e March 12, consultant of external emailed fo 20, 2020. T followed u Consultant b.) The dis dropping f will be ma transfer of assets and the Bureau c.) Emaile - Property March 6, 2 letter date and emaile Director's 17, 2020. E the identifi assets and their appli insurance.
2020 -07	The significant gap of 66 days from PO date to the date of acceptance by supplier and another 57 days from the date of delivery per PO to date of inspection/ acceptance of two units	We recommended and the IP agreed to include in the AWP and APP only activities essential in the attainment of targets for that period in	This recommendation would be noted and implemented	Implement This recor would be r implement similar prc

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	<p>Auger set amounting to PhP400,000.00 (USD7,589.70) does not justify the use of SVP as a mode of procurement due to urgency. Moreover, the IP did not impose liquidated damages amounting to PhP22,800.00 (USD432.61) for delayed delivery of the items pursuant to Annex D of RA No. 9184 Revised IRR.</p>	<p>order to increase financial delivery rates corresponding to the project output indicator.</p> <p>Likewise, we recommended and the IP agreed to strictly adhere to the provisions of RA No. 9184 Revised IRR and resort to alternative mode of procurement only when the circumstances warrant the use of alternative modes.</p>	<p>for future similar projects.</p>	
2020-08	<p>Claims for transportation expenses exceeded the ceiling prescribed under Administrative Order No. 2 of the Department of Agriculture by PhP1,588.00 (USD31.22).</p>	<p>We recommended that IP request for the return of the amount erroneously received by the concerned project personnel.</p>	<p>The Management is requesting approval from the UNDP if the New Harmonized UN Rates for the transportation expenses can be used by the Project.</p>	<p>Implement The manag requested zoom meet 2020 and € up on Apri According Mr. Paul Cl of UNDP la 2020, as lo Framewor project, the brochure c</p>

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Prepared by:

MARIELL A. EVASCO

Project Manager
UNDP GEF5 SLM Project

Noted by:

GINA P. NILO, PhD

Chief, Laboratory Services Division
National Focal Person, UNDP GEF5 SLM Project

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ANNEXES

Annex A Inventory of Assets and Equipment

PROPERTY NUMBER	ACQUISITION DATE	ITEM DESCRIPTION (make and model)	CONDITION	RESPONSIBLE PERSON/ ENTITY	ITEM LOCATION	MANUFACTURER
UNDP-16-023	1/7/2016	Photocopying Machine	Serviceable	Gina Nilo	BSWM - Laboratory	Fuji
UNDP-16-026	9/14/2017	Laptop : Dell	Serviceable	Andrew Flores	BSWM - Geomatics	Dell
UNDP-17-033	3/14/2017	Microfine Soil Grinder	Serviceable	Florina Sanchez	BSWM - Laboratory	Dakila Trading Corporation
UNDP-17-034	4/27/2017	CNHS Analyzer	Serviceable	Madonna Go Lim Tai	BSWM - Laboratory	Dakila Trading Corporation
UNDP-18-022	10/23/2018	Laptop (Dell XPS 13)	Serviceable	Pablo Montalla	BSWM - Geomatics	Dell
UNDP-18-023	10/23/2018	Laptop (Dell XPS 13)	Serviceable	Bernardo Pascua	BSWM - Geomatics	Dell
UNDP-18-024	10/30/2018	Laptop (Dell XPS 15)	Serviceable	Irvin Samalca	BSWM - Geomatics	Dell
UNDP-19-001	4/10/2018	Auger Set	Serviceable	Gina Nilo	BSWM - SLMP-PMO	Eijkelkamp
UNDP-19-002	4/10/2018	Auger Set	Serviceable	Gina Nilo	BSWM - SLMP-PMO	Eijkelkamp
UNDP-16-001	3/28/2016	Ink Advantage Printer	Good/working	Lucilda Songcuya	BSWM - Dir. Ofc.	HP
UNDP-16-002	3/28/2016	Ink Advantage Printer	Good/working	Mariell Evasco	BSWM - SLM -PMO	HP
UNDP-16-003	3/28/2016	Ink Advantage Printer	Good/working	Mariell Evasco	BSWM - SLM -PMO	HP
UNDP-16-004	3/29/2016	Laptop: MacBook Air	Good/working	Gina Nilo	BSWM - SLM -PMO	Apple
UNDP-16-005	3/29/2016	Laptop: MacBook Air	Good/working	Mariell Evasco	BSWM - SLM -PMO	Apple
UNDP-16-006	3/29/2016	Laptop: MacBook Air	Good/working	Gina Nilo	BSWM - Laboratory	Apple
UNDP-16-007	3/29/2016	Laptop: MacBook Air	Good/working	Mariell Evasco	BSWM - SLM -PMO	Apple
UNDP-16-008	3/29/2016	Laptop: MacBook Air	for dispossal	Mariell Evasco	BSWM - SLM -PMO	Apple
UNDP-16-009	7/4/2016	Projector: Acer	Good/working	Gina Nilo	BSWM - SLM -PMO	Acer
UNDP-16-010	7/4/2016	Camera: Nikon D7100	Good/working	Gina Nilo	BSWM - SLM -PMO	Nikon
UNDP-16-011	4/13/2017	Conference Round Table	Good/working	Gina Nilo	BSWM - Laboratory	Qken Enterprise:



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UNDP-16-011-A	4/13/2017	Conference Chair	Good/working	Gina Nilo	BSWM - Laboratory	Qken Enterprise:
UNDP-16-011-B	4/13/2017	Conference Chair	Good/working	Gina Nilo	BSWM - Laboratory	Qken Enterprise:
UNDP-16-011-C	4/13/2017	Conference Chair	Good/working	Gina Nilo	BSWM - Laboratory	Qken Enterprise:
UNDP-16-011-D	4/13/2017	Conference Chair	Good/working	Gina Nilo	BSWM - Laboratory	Qken Enterprise:
UNDP-16-012	4/13/2016	Office Cabinet	Good/working	Gina Nilo	BSWM - SLM -PMO	Qken Enterprise:
UNDP-16-013	4/13/2016	Office Cabinet	Good/working	Gina Nilo	BSWM - SLM -PMO	Qken Enterprise:
UNDP-16-014	4/13/2016	Office Cabinet	Good/working	Gina Nilo	BSWM - SLM -PMO	Qken Enterprise:
UNDP-16-015	4/13/2016	Lateral Filing Cabinet	Good/working	Gina Nilo	BSWM - Laboratory	Qken Enterprise:
UNDP-16-016	4/13/2016	Office Table	Good/working	M. Oamil	BSWM - SLM -PMO	Qken Enterprise:
UNDP-16-017	4/13/2016	Office Table	Good/working	Gina Nilo	BSWM - SLM -PMO	Qken Enterprise:
UNDP-16-018	4/13/2016	Office Table	Good/working	Mariell Evasco	BSWM - SLM -PMO	Qken Enterprise:
UNDP-16-019	4/13/2016	Office Chair	Good/working	Mariell Evasco	BSWM - SLM -PMO	Qken Enterprise:
UNDP-16-020	4/13/2016	Office Chair	Good/working	Marietta Oamil	BSWM - SLM -PMO	Qken Enterprise:
UNDP-16-021	4/13/2016	Office Chair	Good/working	Gina Nilo	BSWM - SLM -PMO	Qken Enterprise:
UNDP-16-022-A	4/13/2016	Sofa (2 Seater)	Good/working	Gina Nilo	BSWM - Laboratory	Qken Enterprise:
UNDP-16-022-B	4/13/2016	Sofa (1 Seater)	Good/working	Gina Nilo	BSWM - SLM -PMO	Qken Enterprise:
UNDP-16-022-C	4/13/2016	Sofa (1 Seater)	Good/working	Gina Nilo	BSWM - SLM -PMO	Qken Enterprise:
UNDP-16-022-D	4/13/2016	Center Table	Good/working	Gina Nilo	BSWM - SLM -PMO	Qken Enterprise:
UNDP-16-024-A	9/14/2017	Desktop Computer	Good/working	Grace Sheila Jalani	BSWM - Laboratory	Acer
UNDP-16-024-B	9/14/2017	Desktop Monitor	Good/working	Grace Sheila Jalani	BSWM - Laboratory	Acer
UNDP-16-024-C	9/14/2017	Keyboard	Good/working	Grace Sheila Jalani	BSWM - Laboratory	Acer
UNDP-16-025-A	9/14/2017	Desktop Computer	Good/working	Marietta Oamil	BSWM - SLM - PMO	Acer
UNDP-16-025-B	9/14/2017	Desktop Monitor	Good/working	Marietta Oamil	BSWM - SLM - PMO	Acer
UNDP-16-025-C	9/14/2017	Keyboard	Good/working	Marietta Oamil	BSWM - SLM - PMO	Acer
UNDP-16-027	9/30/2016	Split-Type Inverter Airconditioner	Good/working	Gina Nilo	BSWM - 3F Dormitory	Vission
UNDP-16-027-A	9/30/2016	Split-Type Inverter Airconditioner	Good/working	Gina Nilo	BSWM - 3F Dormitory	Vission
UNDP-16-028	4/4/2016	Paper Cutter	Good/working	Marietta Oamil	BSWM - SLM -PMO	Ban Bee Commerc Co. Inc.



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UNDP-17-001	01/17/2017	Digital Voice Recorder	Good/working	Marietta Oamil	BSWM - SLMP-PMO	Sony
UNDP-17-002	01/17/2017	Digital Voice Recorder	Good/working	Marietta Oamil	BSWM - SLMP-PMO	Sony
UNDP-17-003	01/18/2017	5-in-1 Printer	Good/working	Marietta Oamil	BSWM - SLMP-PMO	Brother
UNDP-17-006	08/18/2017	External Drive	Good/working	Gina Nilo	BSWM - SLMP-PMO	Toshiba
UNDP-17-007	08/18/2017	External Drive	Good/working	Gina Nilo	BSWM - SLMP-PMO	Toshiba
UNDP-17-008	08/18/2017	External Drive	Good/working	Marietta Oamil	BSWM - SLMP-PMO	Toshiba
UNDP-17-009	08/18/2017	External Drive	Good/working	Vince Albert Ching	BSWM - Laboratory	Toshiba
UNDP-17-010	08/18/2017	External Drive	Good/working	Mariell Evasco	BSWM - SLMP-PMO	Toshiba
UNDP-17-011	08/18/2017	External Drive	Good/working	Arvie Loberiano	BSWM - SLMP-PMO	Toshiba
UNDP-17-012	4/10/2017	Office Table	Good/working	Gina Nilo/Arvie Loberiano	BSWM - SLMP-PMO	Gamma Line Enterprises
UNDP-17-013	4/10/2017	Office Table	Good/working	Gina Nilo	BSWM - SLMP-PMO	Gamma Line Enterprises
UNDP-17-014	10/13/2017	Power Supply	Good/working	Gina Nilo	BSWM - Laboratory	BayanPC Technologies Inc
UNDP-17-014	10/20/2017	Casing	Good/working	Gina Nilo	BSWM - Laboratory	Maitilink Systems,
UNDP-17-015	10/25/2017	Vertical Filling Cabinet	Good/working	Gina Nilo	BSWM - SLMP-PMO	See Manufacturer Contractor
UNDP-17-016	10/25/2017	Mobile Pedestal	Good/working	Gina Nilo	BSWM - SLMP-PMO	See Manufacturer Contractor
UNDP-17-017	10/25/2017	Mobile Pedestal	Good/working	Gina Nilo/Arvie Loberiano	BSWM - SLMP-PMO	See Manufacturer Contractor
UNDP-17-018	10/25/2017	Office Chair	Good/working	Gina Nilo/Arvie Loberiano	BSWM - SLMP-PMO	See Manufacturer Contractor
UNDP-17-019	10/25/2017	Office Chair	Good/working	Gina Nilo	BSWM - SLMP-PMO	See Manufacturer Contractor
UNDP-17-014	11/17/2017	Intel core i7-7700	Good/working	Gina Nilo	BSWM - Laboratory	Epartners Solutio
UNDP-17-014	11/17/2017	Asus H110M-D Motherboard	Good/working	Gina Nilo	BSWM - Laboratory	Asus
UNDP-17-014	11/17/2017	Palit Geforce GT730	Good/working	Gina Nilo	BSWM - Laboratory	Epartners Solutio
UNDP-17-014	11/17/2017	Seagate ST1000DM010	Good/working	Gina Nilo	BSWM - Laboratory	Seagate
UNDP-17-014	11/17/2017	Samsung V-nand 850 Evo 500GB	Good/working	Gina Nilo	BSWM - Laboratory	Samsung
UNDP-17-014	11/17/2017	Asus Optical drvice	Good/working	Gina Nilo	BSWM - Laboratory	Asus



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UNDP-17-014	11/17/2017	A4Tech KRS-8572 USB	Good/working	Gina Nilo	BSWM - Laboratory	A4Tech
UNDP-17-014	11/17/2017	Microsoft Win Pro	Good/working	Gina Nilo	BSWM - Laboratory	Epartners Solutio
UNDP-17-014 -A	11/17/2017	Samsung SF350 Monitor	Good/working	Gina Nilo	BSWM - Laboratory	Samsung
UNDP-17-014 -B	11/17/2017	Phoenix ML720VA (UPS)	Good/working	Gina Nilo	BSWM - Laboratory	Phoenix
UNDP-18-001	11/22/2017	Camera	Good/working	Gina Nilo	BSWM - SLMP-PMO	Sony
UNDP-18-002	11/22/2017	Camera	Good/working	Gina Nilo	BSWM - SLMP-PMO	Sony
UNDP-18-009	11/29/2017	Projector: Acer	Good/working	Gina Nilo	BSWM - SLMP-PMO	Acer
UNDP-18-010	11/29/2017	Projector: Acer	Good/working	Gina Nilo	BSWM - SLMP-PMO	Acer
UNDP-18-012	7/24/2018	Water Dispenser	Good/working	Gina Nilo	BSWM - Laboratory	Hanabishi
UNDP-18-013	7/24/2018	Cabinet Sterilizer	Good/working	Gina Nilo	BSWM - Laboratory	LOCN Trading
UNDP-18-014	7/24/2018	Coffee Maker	Good/working	Gina Nilo	BSWM - Laboratory	LOCN Trading
UNDP-18-015	7/24/2018	Electric Airpot	Good/working	Gina Nilo	BSWM - Laboratory	LOCN Trading
UNDP-18-016	8/23/2018	Sofa	repaired/working	Gina Nilo	BSWM - Laboratory	Moianjo Enterpris
UNDP-18-016-A	8/23/2018	Sofa	repaired/working	Gina Nilo	BSWM - Laboratory	Moianjo Enterpris
UNDP-18-017	9/14/2018	Printer (HP)	Good/working	Marietta Oamil	BSWM - SLMP-PMO	HP
UNDP-18-018	6/9/2018	Laptop (Acer)	Good/working	Arvie Loberiano	BSWM - SLMP-PMO	Acer
UNDP-18-019	6/9/2018	Laptop (Acer)	Good/working	Marietta Oamil	BSWM - SLMP-PMO	Acer
UNDP-18-020	6/9/2018	Laptop (Acer)	Good/working	Vince Albert Ching	BSWM - Laboratory	Acer
UNDP-18-025	4/10/2018	Laptop (HP)	Good/working	Ericson Faeldan	BSWM - SLMP-PMO	HP
UNDP-18-003	11-28-17	Extension Cord	Good/working	Mariell Evasco	BSWM - SLM-PMO	OMNI
UNDP-18-004	11-28-17	Extension Cord	Good/working	Marietta Oamil	BSWM - SLM-PMO	OMNI
UNDP-18-005	11-28-17	Extension Cord	Good/working	Gina Nilo	BSWM - SLM-PMO	OMNI
UNDP-18-006	11-28-17	Extension Cord	Good/working	Gina Nilo	BSWM - SLM-PMO	OMNI
UNDP-18-007	11-28-17	Extension Cord	Good/working	Gina Nilo	BSWM - SLM-PMO	OMNI



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UNDP-18-011	6-29-18	Cup & Saucer	Good/working	Gina Nilo	BSWM - Laboratory	FJ Sales Center
UNDP-18-011	6-29-18	Drinking Glass	Good/working	Gina Nilo	BSWM - Laboratory	FJ Sales Center
UNDP-18-011	6-29-18	Plates	Good/working	Gina Nilo	BSWM - Laboratory	FJ Sales Center
UNDP-18-011	6-29-18	Spoon	Good/working	Gina Nilo	BSWM - Laboratory	FJ Sales Center
UNDP-18-011	6-29-18	Fork	Good/working	Gina Nilo	BSWM - Laboratory	FJ Sales Center
UNDP-17-004	01/18/2017	5-in-1 Printer	Serviceable	Alson Quimba	PAO - Bukidnon	Brother
UNDP-18-008	9/27/2017	Split-Type Inverter Airconditioner	Serviceable	Alson Quimba	PAO - Bukidnon	Koppel
UNDP-18-008-A	9/27/2017	Split-Type Inverter Airconditioner	Serviceable	Alson Quimba	PAO - Bukidnon	Koppel
UNDP-17-035	10/11/2017	Grass Cutter	Serviceable	Leonides Valida	Brgy. Tadoc, Leyte	Vis Marketing
UNDP-17-036	10/11/2017	Grass Cutter	Serviceable	Antonio Valenzona	Brgy. Tadoc, Leyte	Vis Marketing
UNDP-17-037	10/11/2017	Grass Cutter	Serviceable	Julio Cain	Brgy. Tadoc, Leyte	Vis Marketing
Grand Total						

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Annex B List of Final Output/Technical Reports

Outcome/Output Description	Title of the Final Output/Technical Report
Outcome 1: Effective cross-sectoral enabling environment at the national and local level in place to promote integrated landscape management	
Output 1.1 Multi-sectoral stakeholder committee established at national level to oversee and give technical advice on the integration of SLM into LGU's development;	
1.1.1 An Integrated Land Management Framework incorporating SLM practices and technologies	<ul style="list-style-type: none"> Integrated Land Management Framework Plan and Entry Points for Mainstreaming in the Provincial Development and Physical Framework Plan and Comprehensive Development Plan Mainstreaming Sustainable Land Management in Selected Strategic Development Plans of the Department of Agriculture and Department of Environment and Natural Resources
Output 1.2 Approved guidelines on SLM mainstreaming into national and local land use plans and investment programs (to be field tested under Outcome 2);	
1.2.1 Enhanced CLUP guidelines to mainstream SLM	<ul style="list-style-type: none"> Supplemental Guidelines for Mainstreaming Sustainable Land Management in the Comprehensive Land Use Plan Housing and Land Use Regulatory Board Resolution no. 991 series of 2019 Approving the Supplemental Guidelines for Mainstreaming SLM in the Comprehensive Land Use Plan
1.2.2 Relevant policy issuance for the mainstreaming of SLM in local land use including forest land use and development planning processes	<ul style="list-style-type: none"> Draft Joint Memorandum Circular between the Department of Agriculture (Bureau of Soils and Water Management) and the Department of Environment and Natural Resources (Forest Management Bureau)
Output 1.3 Information management system to support SLM integration into LGUs development plans and improving informed land use allocation decisions (set up as a national system but only populated with the targeted municipality data to be selected under Outcome 2)	
1.3.1 Data base and decision support information system operational and accessible to LGUs	<ul style="list-style-type: none"> Guidebook on the City/Municipal Level Agro-Environmental Data Model Guidebook on the Composite Land Degradation Index Mapping
Output 1.4 Training-of-trainers from BSWM, DA Regional Offices, DENR, DAR and the PAOs and MAOs/CAOs capacitated in training, extension officers from the LGUs in promotion of SLM practices	
1.4.1 Competency development program for LGUs on SLM technology application and mainstreaming developed and implemented	<ul style="list-style-type: none"> Competency Gap Assessment Report Competency Development Programme Guide Sustainable Land Management Training Manual Manual on the Preparation of the Integrated Land Management Framework Plan and Mainstreaming Sustainable Land Management in the Comprehensive Land Use Plan Report on the Conduct of Training of Potential Trainors from DILG and HLURB On Various SLM Management and Physical Technologies for Mainstreaming SLM into the CLUP Report on the Conduct of Training-of-Trainors (TOT) for LGUs, ATI, DA-BSWM and DENR Certified Trainors on SLM Various SLM Management and Physical Technologies for Mainstreaming SLM into the CLUP

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<p>1.4.2 Increase scores of indicators of the following capacity results in the Capacity Development Scorecards of DA-BSWM, DENR-FMB and HLURB from the start-up of Project up to end of Project</p> <p>a) Capacity for engagement (CR1); b) Capacity to generate access, and use information and knowledge (CR2); c) Capacity for strategy, policy, and legislation development (CR3); d) Capacity for management and implementation (CR4); e) Capacity to monitor and evaluate (CR5)</p>	<ul style="list-style-type: none"> Capacity Development Monitoring Scorecard of the Bureau of Soils and Water Management Capacity Development Monitoring Scorecard of the Housing and Land Use Regulatory Board Capacity Development Monitoring Scorecard of the Forest Management Bureau
Outcome 2: Long term capacities and incentives in place for local communities and LGUs to uptake SLM practices in two (2) targeted municipalities in the Philippines	
Output 2.1 Comprehensive Land Use Plans (CLUPs) updated/revised for targeted City and Municipality with serious LD issues	
<p>2.1.1 Plant/soil cover in the agricultural land area covering 2,866 ha and forest cover in Barangay Silae</p>	<ul style="list-style-type: none"> SLM Packaged Technology - Muyong Agro-Forestry Ridge Stabilization System, The Malaybalay Case, Land Degradation Challenge: Addressing Soil Erosion
Output 2.2 SLM best practices implemented in targeted City and Municipality	
<p>2.2.1 Dry Matter (DM) and Organic Matter (OM) Content from 5 sample sites randomly selected from the agricultural land area (151 ha) and forest (12.61 ha) land area of Barangay Tadoc</p>	<ul style="list-style-type: none"> SLM Packaged Technology - Adaptive Balanced Fertilization Management, The Abuyog and Sta. Fe, Leyte Case: Addressing Soil Fertility Decline
<p>2.2.2 Composite Land Degradation Index (LDI) monitoring system for monitoring LD is developed and in place for City of Malaybalay and Abuyog Municipality</p>	<ul style="list-style-type: none"> Land Degradation Index and The Composite Land Degradation Index Monitoring System
Output 2.3 National and LGU extension services capacitated to incorporate SLM to LDI and drought risk areas and deliver targeted support to targeted City and Municipality and farmers with similar agricultural threats	
<p>2.3.1 Increased in % of SLM guidance delivered by extension services</p>	<ul style="list-style-type: none"> Sustainable Land Management Training Manual – refer to Modules 3 and 4 Land Degradation Index and The Composite Land Degradation Index Monitoring System - refer to Chapters 9 to 11
<p>2.3.2 Farming households adopt sustainable agricultural practices and integrated SFM/SLM</p>	<ul style="list-style-type: none"> Refer to the Project Terminal Evaluation Report
Output 2.4 Secure additional finances for SLM investments and align existing financial contributions in the forestry and agricultural sectors to support SLM practices in at least two selected municipalities	

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No indicator	<ul style="list-style-type: none"> • Report on the Conduct of the Training on Farm Planning • Report on the Conduct of the Orientation on the Production Loan Easy Access Program • Sustainability Plans of Partner Agencies
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Annex C Photo Documentation



Photo: Cover photo of the Technology Manual on Muyong Agro-forestry Ridge Stabilization System

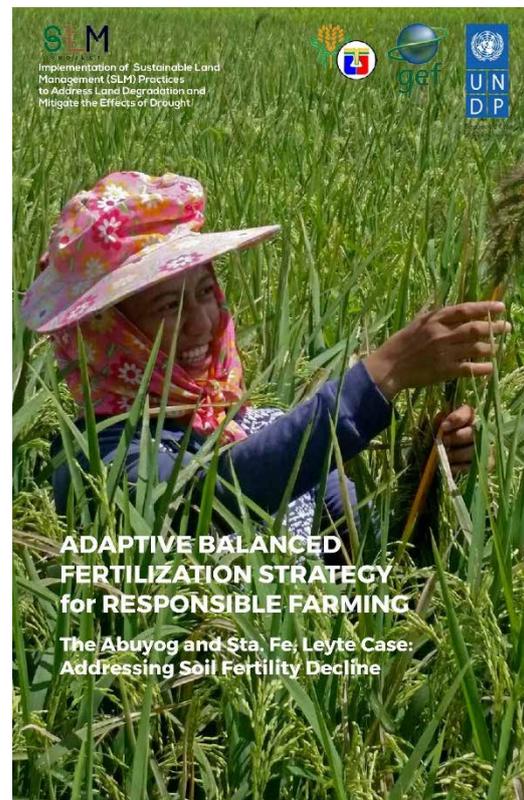
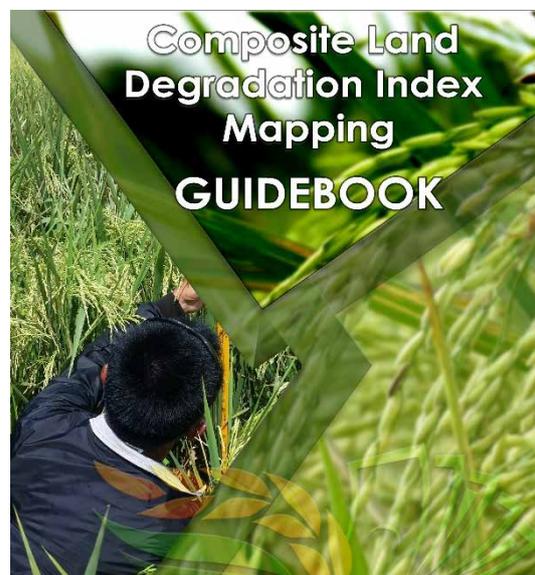


Photo: Cover page of the Technology Manual on Adaptive Balanced Fertilization Management System (in photo: Ms. Nizandel Rupa of Sta. Fe Leyte – Municipal Agricultural Office)



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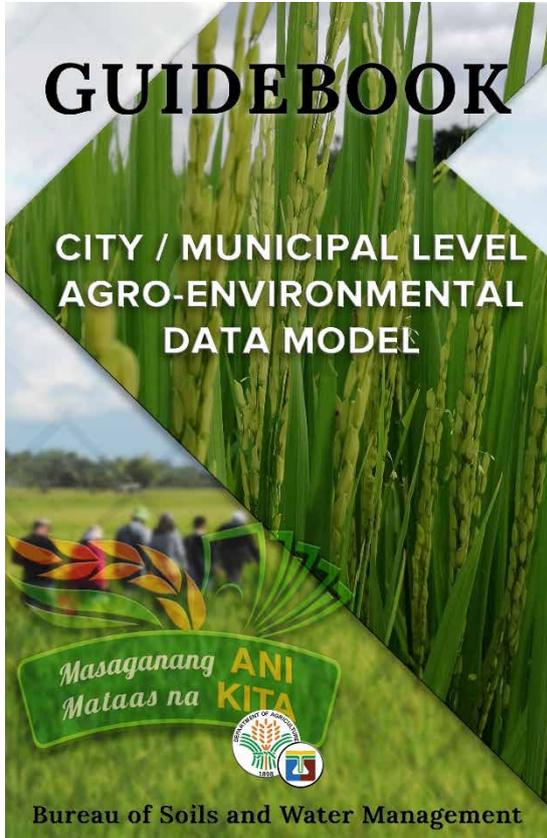


Photo: Cover Photo of the Guidebook on City/Municipal Agro-Environmental Data Model Guidebook

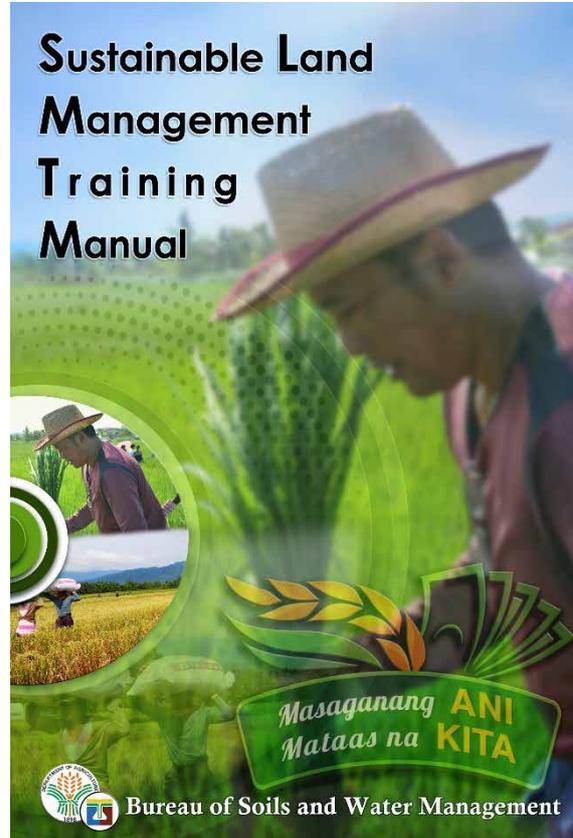


Photo: Cover photo of the Sustainable Land management Training Manual



Photo: Cover photo of the Sustainable Land management Training Manual



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RESOLUTION NO. 991
Series of 2019

APPROVING THE SUPPLEMENTAL GUIDELINES FOR MAINSTREAMING SUSTAINABLE LAND MANAGEMENT IN THE COMPREHENSIVE LAND USE PLANS

WHEREAS, it is a national policy to promote and implement an integrated program of land use control that aims to foster growth and renewal of our urban and rural communities in an integrative manner that promotes optimum utilization of our land resource, the integration of our critical resources in the upland, coastal, ancestral domain, biodiversity and heritage areas;

WHEREAS, the HLURB has adopted the ridge-to-reef approach in land use planning in recognition of the need to have an all-inclusive physical plan that will optimize the use of our land resource based on, among others, land suitability and capability;

WHEREAS, there is a need to address the growing and serious land degradation problem that affects agricultural productivity that hinders the attainment of our country's goal for food security;

WHEREAS, there is a need for our local government units to be aware of and understand the adverse impacts of land degradation in social and economic condition of our farming and rural population;

WHEREAS, the Comprehensive Land Use Plans and Zoning Ordinances provides policies, major local legislative actions and technology packages to address land degradation and provide support to enhance local agriculture and agro-forestry production;

WHEREFORE, be it **RESOLVED** as it is hereby **RESOLVED** that the **SUPPLEMENTAL GUIDELINES FOR MAINSTREAMING SUSTAINABLE LAND MANAGEMENT IN THE COMPREHENSIVE LAND USE PLAN** be **APPROVED** is hereby **APPROVED**.

Page 8
HLURB Board Resolution No. 991 of 2019
Approving the Supplemental Guidelines for Mainstreaming Sustainable Land Management in the Comprehensive Land Use Plans

BE IT FURTHER RESOLVED that a **TRAINING MODULE** be developed based on the supplemental guidelines to be used in training or capability building for local government units' planners, city or municipal agriculture officers, leaders of farmers associations and other relevant stakeholders.

APPROVED, 21st day of October 2019, Quezon City.

[Signature]
EDUARDO DAMECO DEL ROSARIO
Chairman, HUDCC

MARIVEL C. SACENDONCILLO
Underscretary, DILG

[Signature]
MELZAR P. OKLICIA
Officer-in-Charge and Commissioner

[Signature]
SERGIO E. YAP II
Assistant Secretary, DOJ

[Signature]
RIA CORAZON A. GOLEZ-CARRERA
Commissioner

[Signature]
EDUARDO S. RAMOS, JR.
Assistant Secretary, DPWH

[Signature]
MARYLIN M. PINTOR
Commissioner

[Signature]
DANILO D. BARRAMEDA
Director IV, NEDA

[Signature]
CHARITO B. LANSANG
Board Secretary

Photo: HLURB Board Resolution No. 991 Series of 2019- Approving the Supplemental Guidelines for Mainstreaming SLM in the CLUP



Photo: HLURB Annual Planners' Forum: Planners' Forum on SLM Mainstreaming into the Development Planning Process



Photo: Showing the difference in nutrient content of the soil in the drought prone and flood prone area of the farm thru the leaf colors of the crops



Photo: SIM Project's Techno Demo Farm in Raranaay Silae Malaybalay City



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Photos: Taken from The 5-DAY GEOGRAPHIC INFORMATION SYSTEM COURSE FOR LGU GIS SPECIALISTS Held Last NOVEMBER 19-23, 2018 at CEBU CITY

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Photo: Conduct of the training on the participatory approach on Photo-Visual Assessment and Monitoring of Farm Land degradation held last March 26-27, 2019 at Sta. Fe, Leyte



Photo: Dr. Rogelio N. Concepcion, SLM Specialist of the Project discussing the use of bio-indicators in monitoring farm level land degradation during the Conduct of Training on soil and Nutrient Management Strategies for Improving Lowland Rice Production



Photo: Conduct of the Orientation Briefing of Farmers on the Photo-Visual Mapping, Assessment and Monitoring of Farm Land Degradation and SLM Packaged Technologies held at Leyte, Academic Center, Palo, Leyte last May 20, 2019

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Annex D Capacity Development Monitoring Scorecards

Project Name: Implementation of SLM Practices to Address Land Degradation and Mitigate Effects of Drought

Institution: DA-BSWM

Project Cycle Phase: All Project Phases, Start Up and End of Project

Date: May 2015

Date Updated: April 4, 2019

Target: 0.33 to 1 Indicators 3,4,5,7 and 13

Capacity Result/Indicator	Staged Indicators	Score Selection	Baseline Score	Comments	Next Steps	Projected End of Project Score	Actual End of Project Score	Comments	Outcomes
CR 1: Capacities for Engagement									
Indicator 1: Degree of legitimacy/mandate of lead environmental organizations	Authority and legitimacy of all lead organizations responsible for environmental management recognized by stakeholder	3	3	BSWM, as focal agency on soil and water resources management, undertakes various programs at the national level such as the sloping agricultural land, organic agriculture, SWIP, laboratory analysis, and solid waste management among others. <i>Note: Stakeholders referred to are farmers and LGUs</i>	Capacitate local counterparts and LGUs on soil and water conservation and management, and application of SLM practices	3	3	BSWM has strengthened the engagement of key stakeholders (i.e. farmer co-operators, LGUs etc.) in the areas of soil and water conservation through: regular conduct of SWISA Congress; techno Demo Establishment and hands-on Capacity Building on Soil Conservation; Turnover of Fertility and Fertilizer Guide Maps; Recognize as focal for coffee, cacao and other major commodities on land suitability and organic agriculture	Outcomes
Indicator 2: Existence of operational co-management mechanism	Some co-management mechanisms are in place and operational	1	1	Co-management mechanism with private institutions are in place such as in SWIP establishment, organic fertilizer/vermicompost production; with seed company in the conduct of trainings, research consortia	Integrate PPP modality in the SLM practice	1	1	Initiatives are initially pursued on the adoption of PPP and strengthening the engagement of private sector in future GEF projects	Outcomes
Indicator 3: Existence of cooperation with stakeholder groups	Stakeholders are identified, and regular consultations mechanisms are established	2	2	Established SWISA at the regional level; Soil Conservation Guided Farm; SAFDZ integration to CLUP	To enhance regular consultation Establishment of multi-sectoral stakeholders' committee	3	3	The establishment of the Inter-Agency Technical Committee for the implementation of the SLM Project and their participation in consultation-workshops	Outcomes

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Capacity Result/Indicator	Staged Indicators	Score Selection	Baseline Score	Comments	Next Steps	Projected End of Project Score	Actual End of Project Score	Comments	Outcomes
								and review of the project outputs. An inter-agency local technical working group was also established	
<i>CR 2: Capacities to Generate, Access and Use Information and Knowledge</i>									
Indicator 4: Degree of environmental awareness of stakeholders	Stakeholders are aware of global environmental issues and the possible solutions, but do not know how to participate	2	2	Awareness raising on land degradation issues such as soil erosion and soil fertility decline	Demonstration and conduct of trainings and seminars to introduce SLM as relevant solution to land degradation	3	3	Establishment of TDF at the project level and sustained existing soil conservation guided farm and SWIP. Conduct of regular trainings and seminars as built-in component of SLM Package	Outcomes
Indicator 5: Access and sharing of environmental information by stakeholders	The environmental information is partially available and shared among stakeholders, but is not covering all focal areas and/or the information management infrastructure is limited	2	2	Existing land degradation maps (soil fertility, soil erosion) are in regional and provincial scale	Enhancement of existing database and maps for application at municipal level	3	3	The project has developed the municipal level of Geodatabase Scheme for the mapping of Land Degradation and Composite Land Degradation Index Setup of SLM Facebook Page and Instagram Accounts (social media presence) accessible to the public Maintenance of the Philippine SLM Website (PhilCAT SLM) that showcases documented SLM practices for sharing to land users and planners. The website features were presented during project workshops as as "basket of SLM options"	Outcomes

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Capacity Result/Indicator	Staged Indicators	Score Selection	Baseline Score	Comments	Next Steps	Projected End of Project Score	Actual End of Project Score	Comments	Outcomes
Indicator 6: Existence of environmental education programmes	No environmental education programmes are in place	0	0	<p>There is no formal education program on SLM.</p> <p>Videos and printouts materials on soil conservation and management technologies are available and disseminated</p>	Integrate SLM modules in the FFS to formalize in the training program	1	3	<p>Developed the Competency Development Programme Guide and SLM Training Manual: Module 4 – Photo-Visual Mapping Assessment and Monitoring of Land Degradation integrated in the Rice and Corn FFS</p> <p>Developed module on Soil Conservation which was shared to DA-ATI</p> <p>Conduct regular information campaign about soils</p>	Outcomes
Indicator 7: Extent of the linkage between environmental research/ science and policy development	Relevant research strategies and programmes for environmental policy development exist, but the research information is not responding fully to the policy research needs	2	2	Soil and water conservation act; SAFDZ are backed up with research but lacks site specific application of impacts	<p>Demonstration of SLM practices to assess impact at local level</p> <p>Development of local ordinance</p>	3	3	<p>Establishment of the TDF in the two pilot sites; and Conducted Training</p> <p>Policy issuance on the following research strategies and programs:</p> <ul style="list-style-type: none"> - Adaptive Balanced Fertilization Management - Composite Land Degradation Index Monitoring System - Integrated Land Management Framework - Supplemental Guidelines - Muyong Agro-forestry Ridge Stabilization System 	Outcomes

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Capacity Result/Indicator	Staged Indicators	Score Selection	Baseline Score	Comments	Next Steps	Projected End of Project Score	Actual End of Project Score	Comments	Outcomes
Indicator 8: Extent of inclusion/use of traditional knowledge in environmental decision-making	Traditional knowledge is collected, but is not used systematically into relevant participative decision-making processes	2	2	Compilation of local knowledge on land degradation and soil and water conservation is available but needs updating	Identify, assess, and provide science-based principles on local knowledge	2	3	Use of bio-indicators like presence of weeds, insects, and leaf color Practice of Soil Carbon Trashline Technology by the farmer	Outcomes
CR 3: Capacities for Strategy, Policy and Legislation Development									
Indicator 9: Extent of the environmental planning and strategy development process	Adequate environmental plans and strategies are produced, but are only partially implemented because of funding constraints and/or other problems	2	2	Aligned Philippine National Action to Combat Desertification, Land Degradation and Drought (NAP-DLDD_ (2014-2024) is in place but funding sources need to be mobilized	Mainstream SLM in the regular budget	2		Preparation of the Integrated Land Management Framework (ILMF) mainstreamed in the selected Strategic Plans of DA and DENR-FMB and entry points identified for DILG and NEDA Developed the Supplemental Guidelines on Mainstreaming SLM in the CLUP Completion of Land Degradation Neutrality Target Setting Program (LDN-TSP) which is now the basis for the preparation of the proposal for the GEF7 Project to secure funding support for SLM Project outputs are potential inputs to the on-going development of a National Soil Conservation Roadmap Project outputs (i.e. ILMF, Guidelines on Mainstreaming SLM in	Outcomes

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Capacity Result/Indicator	Staged Indicators	Score Selection	Baseline Score	Comments	Next Steps	Projected End of Project Score	Actual End of Project Score	Comments	Outcomes
								<p>CLUP) were considered as components of the Decision Support framework on SLM</p> <p>As part of sustainability plan, project outputs, particularly the Guidelines on SLM Mainstreaming in CLUP will be utilized in the implementation of related GEF 6 project (i.e. SLM Component of the Biodiversity Corridor project)</p>	
Indicator 10: Existence of adequate environmental policies and laws exist, but few are implemented and enforced regulatory framework	Some relevant environmental policies and laws exist, but few are implemented and enforced	1	1	<p>AFMA (RA 8435) and Organic Agriculture Act (RA 10068) needs to be localized</p> <p>Needs to comply with the provision to create local technical committees</p>	Needs to mobilized technical committee in the enhancement of CLUP guidelines	2	3	<p>Inter-agency coordination strengthened for the enhancement of CLUP</p> <p>Establishment of the National IATC and Local Technical Working Group</p> <p>Conduct of Workshop on the Planning Workshop on Mainstreaming of The Sustainable Land Management (SLM) Practices to the Malaybalay City Agriculture & Fisheries Modernization Plan (CAFMP) For 2018 - 2023</p>	Outcomes
Indicator 11: Adequacy of the environmental	Relevant environmental information is made available to environmental	2	2	Soil erosion, landuse, land degradation and SAFDZ data are available but not updated	Updating of soils, land use and land degradation data at municipal level at least	2	3	NPAAAD updated for the two pilot sites	Outcomes

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Capacity Result/Indicator	Staged Indicators	Score Selection	Baseline Score	Comments	Next Steps	Projected End of Project Score	Actual End of Project Score	Comments	Outcomes
information available for decision-making	decision-makers, but the process for updating this information is not functioning properly				for the two sites				
<i>CR 4: Capacities for Management and Implementation</i>									
Indicator 12: existence and mobilization of resources	The funding sources for these resource requirements are partially identified, and the resource requirements are partially addressed	2	2	Soil and water conservation and management projects are heavily dependent on foreign funding	Needs to mainstream SLM in the regular activities/budget Issuance of Joint Memo Circular by DA, DENR, DAR	2	3	ILMF and Supplemental Guidelines on Mainstreaming SLM in the CLUP developed; Policy issuance on the mainstreaming of SLM in DA, DENR-FMB; and entry points for mainstreaming SLM in NEDA and DILG were identified	Outcomes
Indicator 13: availability of required technical skills and technology transfer	The required skills and technologies are obtained, but their access depends on foreign sources	2	2	Foreign assisted project and/or project based trainings are available	Develop mechanism for capacity building of agency and partners	3	3	BSWM has strengthened the engagement of key stakeholders (i.e. farmer co-operators, LGUs etc.) in the areas of soil and water conservation thru the: regular conduct of SWISA Congress; techno Demo Establishment and hands-on Capacity Building on Soil Conservation; Turnover of Fertility and Fertilizer Guide Maps; Recognize as focal for coffee, cacao and other major commodities on land suitability and organic agriculture Development of the SLM Training Manual and integration to FFS of module 4 Farmer-to-farmer	Outcomes

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Capacity Result/Indicator	Staged Indicators	Score Selection	Baseline Score	Comments	Next Steps	Projected End of Project Score	Actual End of Project Score	Comments	Outcomes
								training conducted	
CR 5: Capacities to Monitor and Evaluate									
Indicator 14: Adequacy of the project/programme monitoring process	Regular participative monitoring of results is being conducted, but this information is only partially used by the project/programme implementation team	2	2	Regular monitoring through field validations/consultation meetings is in place. No LDI monitoring is in place.	Enhance usability of monitoring data by making available in database Adopt composite LDI for monitoring	3	3	Developed the Composite Land Degradation Index Monitoring System Toolkit adopted by the LGUs	Outcomes
Indicator 15: Adequacy of the project/programme evaluation process	An adequate evaluation plan is in place, but evaluation activities are irregularly conducted	1	1	Project evaluation framework is (are) not uniform and dependent on funding/donor agencies	Utilize learnings from this project on adequate evaluation Develop appropriate evaluation framework	2	2	Learning from the terminal evaluation of the project will be applied	Outcomes

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Project Name: Implementation of SLM Practices to Address Land Degradation and Mitigate Effects of Drought
Institution: DENR-FMB
Project Cycle Phase: All Project Phases, Start Up and End of Project
Date: May 2015
Date Updated: 2018

Capacity Result/Indicator	Staged Indicators	Score Selection	Baseline Score	Comments	Next Steps	Projected End of Project Score	Actual End of Project Score	Comments	Contr to v out
<i>CR 1: Capacities for Engagement</i>									
Indicator 1: Degree of legitimacy/ mandate of lead environmental organizations	Authority and legitimacy of all lead organizations responsible for environmental management recognized by stakeholder	3	3	Core function of FMB is in forestry management		3	3	Indicated in the mandate of FMB: Contributed to the ILMF and SLM Mainstreaming Guidelines, trainings conducted and policy issuances	Outco
Indicator 2: Existence of operational co-management mechanism	No co-management mechanisms are in place	0	0	Draft guideline on PPP submitted to the Department	Approval by the DENR of at least one guideline on PPP Pilot test guidelines in Malaybalay and Abuyog	1	2	Participation in the Project Board, and IATC at the national level and LTWG at the local level; Active participation of the CENRO in the greening program thru the forestry planting activities. Approval of the ENGP Guidelines which involves the private sector Nationwide implementation (at municipal level monitoring)	Outco
Indicator 3: Existence of cooperation with stakeholder groups	Stakeholders are identified, and regular consultations mechanisms are established	2	2	Immediate stakeholders referred to are LGUs and regional offices. For three years of implementation, only 30% of FLUP have been legitimized. <i>Note: to verify whether Malaybalay and Abuyog adopted FLUP</i>	It the two (2) sites have not yet adopted FLUP, will work on legitimization which cost Php 50,000.00/FLUP If, FLUP is adopted on the demo sites, next step is to monitor implementation. If the sites are covered by the Ancestral Domain there is no need for FLUP. This will be covered by Ancestral Domain Sustainability Management Plan. (ADSMP) under the mandate of NCIP.	3	2	FLUP of Malaybalay City is targeted for formulation this 2019; while the FLUP of Abuyog was formulated in 2016 but is not yet approved	Outco



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Capacity Result/Indicator	Staged Indicators	Score Selection	Baseline Score	Comments	Next Steps	Projected End of Project Score	Actual End of Project Score	Comments	Contr to v out
CR 2: Capacities to Generate, Access and Use Information and Knowledge									
Indicator 4: Degree of environmental awareness of stakeholders	Stakeholders are aware of global environmental issues and the possible solutions, but do not know how to participate	2	2	Stakeholders think that only DENR is responsible in the on issue on land degradation and deforestation. <i>Note: Stakeholders referred to are LGUs and regional offices</i>	Awareness raising/action required to emphasize stakeholders' responsibilities to mitigate or control deforestation	3	3	Conducted awareness raising activity: Training on IEC materials preparation cum tree planting activity in Malaybalay City, Bukidnon	Outco
Indicator 5: Access and sharing of environmental information by stakeholders	The environmental information is partially available and shared among stakeholders, but is not covering all focal areas and/or the information management infrastructure is limited	2	2	Existing information are available at DENR-FMB but are limited to the central office due to agency's mandate as a staff bureau. There is limitation to disseminate information in the regions.	Conduct trainings of FLUP with the participations of LGUs through its TWG/Municipal Planning Team	3	3	FLUP is integrated in the Comprehensive Land Use Plan and the Training-Workshop on the Preparation of the Integrated Land Management Framework Plan and Supplemental Guidelines on Mainstreaming SLM in the CLUP was participated in by Malaybalay City and	Outco
Indicator 6: Existence of environmental education programmes	No environmental education programmes are In place	0	0	No established education program with LGUs.	Provide technical assistance to LGUs on the development of education programs	1	2	Module on the Photo-Visual Mapping, Assessment and Monitoring of Land Degradation was incorporated in the CLDI the SLM Training Manual developed	Outco
Indicator 7: Extent of the linkage between environmental research/ science and policy development	Relevant research strategies and programmes for environmental policy development exist, but the research information is not responding fully to the policy research needs	2	2	FLUP is a product of EcoGov project funded by USAID which considered research.		2	2	Enhanced technical bulletin on FLUP incorporating ecosystem services	Outco
Indicator 8: Extent of inclusion/use of traditional knowledge in environmental decision-making	Traditional knowledge is collected, but is not used systematically into relevant participative decision-making processes	2	2	Traditional knowledge is already considered in the planning and identification of strategies.	Emphasize the participation of IPs in the development of Community FLUP process.	3	3	Introduced the Muyong Agro-Forestry Ridge Stabilization System and the Use of Soil Carbon Trash-line Technology and bio-indicators in the pilot site in the Bgy Silae, Malaybalay, Bukidnon	Outco
CR 3: Capacities for Strategy, Policy and Legislation Development									
Indicator 9: Extent of the environmental	Adequate environmental plans and strategies are	2	2	There are other problems due to agency's status as a staff	Continuous support of FMB to DENR regional offices in the preparation of FLUP	2	3	FMB provided technical support to the LGUs in the formulation of their FLUP (direct assistance in	Outco

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Capacity Result/Indicator	Staged Indicators	Score Selection	Baseline Score	Comments	Next Steps	Projected End of Project Score	Actual End of Project Score	Comments	Outcomes
planning and strategy development process	produced, but are only partially implemented because of funding constraints and/or other problems			bureau, where there is no direct linkage with LGUs. Forestry represents a part of overall environmental plan, and there are other ecosystems to consider.	through increase in budgetary allocation in the planning process. Support ECLUP through HLURB.			all regions in the country – target is 16 municipalities/1 municipality per region per year) HLURB Board Resolution to integrate FLUP in CLUP Year 2014 Guide Book.	
Indicator 10: Existence of adequate environmental policies and regulatory framework	Adequate environmental policy and legislation frameworks exist, but there are problems in implementing and enforcing them	2	2	LGUs give low priority to FLUP implementation. Budgetary constraints with LGU in FLUP preparation and implementation exist.	To support LGUs to comply with the requirements of ECLUP <i>Note: In FLUP preparation and legitimization, there is a required counterpart financing from LGUs. DENR budget allocation is estimated at Php 550,000.00</i>	3	3	Continuing support for Malaybalay City for their formulation of the FLUP thru provision of technical assistance and trainings There is an allocation of Php450,000.00 budget for FLUP formulation and adoption (there is a reduction of budget from 550K to 450K)	Outcomes
Indicator 11: Adequacy of the environmental information available for decision-making	Some environmental information exists, but it is not sufficient to support environmental decision-making processes	1	1	Available information is at the provincial and regional scale.	Require updating/ localization of data e.g. climate rainfall, etc.	2	3	Availability of Enhanced Forestry Information System (EFIS), accessible within DENR-Central down to regional/local offices (CENRO)	Outcomes
CR 4: Capacities for Management and Implementation									
Indicator 12: existence and mobilization of resources by the relevant organizations	The funding sources for these resource requirements are partially identified, and the resource requirements are partially addressed	2	2	LGUs have no definite budget allocation for FLUP.	Secure financing through the issuance of EO by LGUs to allocate funds for FLUP process and implementation	3	3	Only 118 municipalities have adopted FLUP (in our case, it is only Abuyog which have adopted FLUP); Formulation is not under DENR's control. It is the LGU who should initiate the process and send letter of intent for the formulation of the FLUP. DILG Circular 1997 Requiring LGUs to formulate FLUP entitled: 1. DENR-DILG Joint Memorandum Circular No. 1998-01 "Manual of Procedures for DENR-DILG-LGU Partnership on Devolved and	Outcomes

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Capacity Result/Indicator	Staged Indicators	Score Selection	Baseline Score	Comments	Next Steps	Projected End of Project Score	Actual End of Project Score	Cor
								<p>Other Forc Functions”</p> <p>2. DENR Memo No. 20 “Strengthe Institution: DILG-LGI Devolved a Manageme</p> <p>Given the new r HLURB to inte; CLUP, the LGU to consider with preparation of 1 184.95 Million (2019, 112.5 Mill 19.35 Million)</p> <p>FMB continuou resources for th FLUP with the Municipalities (for 2019, 250 M 2020 and 43 for</p> <p>FMB with conti national greeni and upgrading</p>
Indicator 13: availability of required technical skills and technology transfer	The required skills and technologies are available, and there is a national-based mechanism for updating the required skills and upgrading the technologies	3	3	FLUP preparation has definite fund under GAA.	Generate resources to support other LGUs	3	3	
CR 5: Capacities to Monitor and Evaluate								
Indicator 14: adequacy of the project/programme monitoring process	Regular participative monitoring of results is being conducted, but this information is only partially used by the project/ programme implementation team	2	2	Regular monitoring of FLUP preparation is being done but not on FLUP implementation. FLUP preparation started in 2012.	Mobilize/facilitate FLUP preparation	2	3	<p>All regions were monitored (16 n of the 1400 mur targeted every)</p> <p>National Target FLUP formulat municipalities b</p>

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Capacity Result/Indicator	Staged Indicators	Score Selection	Baseline Score	Comments	Next Steps	Projected End of Project Score	Actual End of Project Score	Cor
Indicator 15: adequacy of the project/programme evaluation process	No or ineffective evaluations are being conducted, with no adequate evaluation plan or the necessary resources	0	0	<p>FLUP is not yet implemented.</p> <p>FLUP preparation takes 4 years</p>	<p>Development of evaluation tool on FLUP implementation</p>	1	2	<p>Other existing t socio-economic baselining (SEE CARP Project i impact assessm monitored ever; project impact</p> <p>The monitoring and is continuo every year for p in 2007 and yea</p> <p>The Communit Management Pr evaluated on its implementation resulted in the r Implementing F Regulations in 2 evaluation was the results and are being used updating of the and guidelines</p> <p>LGU Abuyog -On November FMB conducted validation of FI implementation however, the LG recommended l as LGU to be m validated for FI implementation</p> <p>LGU Malaybal -Malaybalay, B targeted for FL this CY 2019</p> <p>-The FLUP forr initiated by the Bukidnon and I provide Technic</p>

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Capacity Result/Indicator	Staged Indicators	Score Selection	Baseline Score	Comments	Next Steps	Projected End of Project Score	Actual End of Project Score	Cor
								No evaluation to for FLUP

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Project Name: Implementation of SLM Practices to Address Land Degradation and Mitigate Effects of Drought
Institution: HLURB
Project Cycle Phase: All Project Phases, Start Up and End of Project
Date: May 2015
Date Updated: April 3, 2019

Capacity Result/Indicator	Staged Indicators	Score Selection	Baseline Score	Comments	Next Steps	Projected End of Project Score	Actual End of Project Score	Comments
CR 1: Capacities for Engagement								
Indicator 1: Degree of legitimacy/mandate of lead environmental organizations	Authority and legitimacy of all lead organizations responsible for environmental management are partially recognized by stakeholders	2	2	Integrated Ecosystem Management (Climate change, biodiversity, forestry, and coastal) are mainstreamed in CLUP	Updating of CLUP starts in 2015, in all municipalities through regular activity of HLURB	3	3	In the conduct of the National Planners' Forum, clearly cascade plans to field level through demo farm in Malaybalay City. HLURB helped in the appointment of planners in the area and Supplemental Mainstreaming thru a hands-on approach.
Indicator 2: Existence of operational co-management mechanism	No co-management mechanisms are in place	0	0	HLURB is a regulatory agency and much of the activities/programs cannot be delegated to private partners		0	0	HLURB is a regulatory agency and much of the activities/programs cannot be delegated to private partners
Indicator 3: Existence of cooperation with stakeholder groups	Stakeholders are identified, but their participation in decision-making is limited	1	1	Activities in the updating of CLUP are too technical to motivate the stakeholders	Regular mechanisms such as public hearing and public consultation will be established	2	2	From the very beginning, public consultation at various levels of the planning process is established. Integration of the national planner in the updating of CLUP mainstreaming/SLM in CLUP (relevant lecture and scientific information delivered on SLM).
CR 2: Capacities to Generate, Access and Use Information and Knowledge								
Indicator 4: Degree of environmental awareness of stakeholders	Stakeholders are aware of global environmental issues, and are actively participating in the	3	3	Stakeholders referred to are the LGUs. ECLUP is in place that integrate CC and biodiversity.		3	3	Approval of the Guidelines in the resolution of SLM in the CLUP.

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Capacity Result/Indicator	Staged Indicators	Score Selection	Baseline Score	Comments	Next Steps	Projected End of Project Score	Actual End of Project Score	Comments
	implementation of relevant solution							
Indicator 5: Access and sharing of environmental information by stakeholders	The environmental information needs are identified, but the information management infrastructure is inadequate	1	1	Date requirements and sources were identified. However, HLURB websites only contains guidelines on how to collect and analyse the data.	Reiteration on the compliance of the requirements through forums/workshops	1	2	The LGUs (pilot) served as partner in the updating of trainings on Applicable CLUP and Mainstreaming CLUP and preparation of Land Degradation Assessment (LDA) for the use of HLURB
Indicator 6: Existence of environmental education programmes	No environmental education programmes are in place	0	0	Workshop and forum are conducted but not on a regular basis and not considered as a formal education	Development of modules in the planning process	1	2	The training modules developed and conducted for the use of HLURB
Indicator 7: Extent of the linkage between environmental research/ science and policy development	Relevant research results are available for Environmental policy development	3	3	Utilize existing agency policies such as NIPAS, AFMA, and IFRA Law in the preparation of CLUP <i>Evidence: Enhanced CLUP-CC and biodiversity are integrated</i>	Integrate SLM into CLUP guidelines	3	3	Ever since, HLURB the research materials prepared for CLUP preparation of CLUP Integrated Land Use Framework and Supplemental Guidelines Mainstreaming CLUP with the Environment and Resource Accounting and prepared and in updated/ revised pilot LGUs
Indicator 8: Extent of inclusion/use of traditional knowledge in environmental decision-making processes	Traditional knowledge is collected, used, and shared for effective participative decision making processes	3	3	Ancestral domain, traditional land uses, and practices were considered in the CLUP as well as local knowledge on vulnerable areas to CC were considered in the vulnerability assessment	Review of SLM guidelines in accordance with HLURB principles on the value of traditional knowledge	3	3	Supplemental Guidelines produced for the HLURB Board thru a Board Resolution
CR 3: Capacities for Strategy, Policy and Legislation Development								
Indicator 9: Extent of the	The environmental planning and strategy	1	1		Monitor compliance by LGUs to ECLUP on CC and biodiversity aspects	2	2	A separate unit under the Department of Settlements and

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Capacity Result/Indicator	Staged Indicators	Score Selection	Baseline Score	Comments	Next Steps	Projected End of Project Score	Actual End of Project Score	Comments
environmental planning and strategy development process	development process does produce adequate environmental plans and strategies, but they are not implemented or used				Integrate SLM in the guidelines			Development (D monitor complia Supplemental G mainstreaming ! was developed
Indicator 10: Existence of adequate environmental policies and regulatory framework	Adequate environmental policy and legislation frameworks exist, but there are problems in implementing and enforcing them	2	2		Development of policies and regulatory frameworks through the orientation of LGUs. Development of control guidelines	3	3	The creation of and evaluation (DHSUD will str monitoring of L Also, thru the R via the system-b and Zoning Info LUZIS (on-goin which will be us
Indicator 11: Adequacy of the environmental information available for decision-making	Relevant environmental information is made available to environmental decision-makers, but the process for updating this information is not functioning properly	2	2	Forest cover data that are available to LGUs are not updated. Still make use of the data from 2010. There is also a need to update SAFDZ.	Updating of forest cover data SAFDZ updating should be done in the two municipalities (Malaybalay & Abuyog)	3 <i>(at least for the 2 sites)</i>	3	The data on for updated c/o of B ILMF provided to utilize the dat
CR 4: Capacities for Management and Implementation								
Indicator 12: existence and mobilization of resources	The funding sources for these resource requirements are partially identified, and the resource requirements are partially addressed	2	2	Funding support is heavily dependent with DBM-GAA	To institutionalize funding sources and support the integration of SLM through this project since this is outside the mandate of HLURB.	3	3	Fund for the Su Guidelines is alr approval
Indicator 13: availability of required technical skills and technology transfer	The required skills and technologies are available, and there is a national-based mechanism for updating the required skills and upgrading the technologies	3	3	Updating of CLUP and related skills development is a core function of HLURB.	To integrate SLM in the enhancement of CLUP guidelines To update skills on SLM	3	3	Development of Guidelines on M SLM in the CLU the Planners Fo Development of Manual for the i SLM in CLUP
CR 5: Capacities to Monitor and Evaluate								



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Annex D Capacity Development Monitoring Scorecards (Arvie please input)