

YEAREND ASSESSMENT AND PLANNING WORKSHOP

*UNDP-GEF Supported DA-BSWM Project on the Implementation
of Sustainable Land Management (SLM) Practices to Address
Land Degradation and Mitigate the Effects of Drought*

BUREAU OF SOILS AND WATER MANAGEMENT

December 8 to 9, 2016
Azzuro Hotel, Angeles, Pampanga

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Brief Description of the SLM Project

Land degradation in the Philippines is largely caused by the susceptibility of its soils 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.

To address the problem on land degradation in the country, it is necessary to build a conducive environment for sustainable land management consisting of a comprehensive decision-making and monitoring compliance system at national and local levels and mobilizing the baseline programme to engineer a paradigm shift from unsustainable to sustainable land use while improving the livelihoods of farming communities. This project is focusing principally at the systemic and institutional levels, and hence strengthening of the enabling regulatory, institutional and financial framework that governs efforts to address land degradation in the Philippines. It aims to mainstream Sustainable Land Management (SLM) policies and programs into the development plans of local government units (LGUs) through the guidance of government agencies such as the 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 will be avoided and/or reduced. The SLM Project is expected to improve the land productivity and socioeconomic well-being of small farmers. To achieve this, the project follows a participatory cross-sectoral approach involving all key stakeholders in project design and implementation. The promotion of SLM measures and technologies for adoption by vulnerable farming communities is the primary focus of the field investments of the project. Through the establishment of SLM demonstration sites, farmers will be able to learn and adopt various methods of soil conservation farming and water resources conservation that will improve their crop production and income.

Overview of the 2016 Yearend Project Assessment and Planning Workshop

The SLM Project supports the strengthening of SLM frameworks to address land degradation processes and mitigate the effects of drought to contribute in enhancing integrated natural resource management in the country. Toward the attainment of this goal, mobilization activities were undertaken since project inception in December 2015, consisting of consultations, partnership meetings, orientation sessions, trainings, demonstration site preparation and engagement of national specialists. To sustain collective ownership of project results by the key stakeholders, a yearend assessment and planning workshop was conducted on 8-9 December 2016 in Angeles, Pampanga, fostering a common understanding and deeper appreciation of the project's specific outputs and strategies among national and local partners. The workshop likewise assessed progress of the project to date; served as a venue for sharing tools, methods, approaches and experiences in promoting SLM; and discussed the constraints/gaps experienced in its first year of implementation, including measures to address them. Please see **Annex A for the final workshop programme**.

The assessment and planning workshop was participated in by 35 participants, representing project cooperators from national government agencies ¹(DA, DA-BSWM, DA Regional Offices, DAR, DENR), Provincial and City/Municipal LGUs of the two demonstration sites in Bukidnon and Leyte and the United Nations Development Programme (UNDP) Country Office serving as the Implementing Agency (IA) of the Global Environment Facility (GEF). Please see **Annex B for the complete list of participants**. Specifically, at the end of the two-day assessment and planning workshop the participants were expected to:

1. Be re-oriented about the project outcomes and respective outputs, including the indicators, baseline data and end-of-project targets
2. Be clarified about the duties and responsibilities of each project partner vis-à-vis the achievement of the project outcomes and outputs
3. Strengthen inter-sectoral coordination among partners at the national and local levels, including the setting up of the inter-agency project technical committee to ensure the technical aptness of the outputs of the Project
4. Have reviewed the project's accomplishments for 2016 and drafted the annual progress report
5. Have prepared the 2017 work and financial plan, ensuring alignment with project outcomes and outputs and addressing gaps/constraints identified thus far
6. Have agreed on a catch-up plan to ensure the smooth implementation of the project

The workshop adopted a participatory and interactive methodology through a combination of plenary presentations, small and large group sessions, and synthesis of discussions, allowing for constructive discourses and immediate feedback processes, which contributed to the sustained high level of engagement from the participants.

The BSWM through the leadership of Dr. Silvino Tejada as the National Project Director, Ms. Sonia Salguero, OIC-Director and Ms. Gina Nilo, SLM Project Focal Person, with the assistance of the Project Management Office (PMO), organized the workshop, while Ms. Tracy Gail Sabaldo, Bukidnon Field Coordinator of the SLM Project, served as the master of ceremonies. Mr. Rey Gerona, a project development specialist and M&E practitioner, ably facilitated the two-day workshop.

¹ Key project partners from DILG, HLURB, and DENR-FMB were unable to participate in this workshop due to prior commitments

Workshop Proceedings

I. Day 1: 8 December 2016

1. Preliminaries

Ms. Feriola Serrano of BSWM led the invocation, which was followed by the singing of the Philippine National Anthem. After the introduction of participants, Dr. Silvino Tejada, National Project Director of the SLM Project, delivered his opening message. In his remarks, Dr. Tejada expressed BSWM's appreciation to all partners, especially from the project demonstration sites, for ensuring their presence despite their busy schedules to participate in the SLM Project's assessment and planning workshop. In addition, he also expressed gratitude to the UNDP Country Office for their continuing support and assistance in their role as the lead Implementing Agency for this GEF Project. According to Dr. Tejada, this workshop hoped to give further guidance in furtherance of improving project implementation and encouraged everyone to explore areas of complementation and expand networks as well as carefully assess activities and targets in fulfillment of the project's objectives. He underscored the need to stay focused on the project's yearly and end-of-project targets in order to produce the following workshop outputs: the 2016 progress report, 2017 annual work and financial plan and catch-up plan, which would be presented to the Project Board at its January 2017 meeting.

Dr. Tejada likewise signified the importance of documenting the experiences of the two project sites in Bukidnon and Leyte to inform future programming based on the lessons learned from the demonstration. He further shared the request of project site focals for an office space to facilitate coordination at the local level. Dr. Tejada also expressed hope to formalize the establishment of the project inter-agency technical committee to provide the necessary technical guidance and assist in harmonization of efforts among key government agencies. In closing, he reminded everyone to think about how the project's interventions would help increase the level of happiness of the beneficiaries of the project as a measure of the success of the project and of the institutions involved toward improving the lives of the farmer communities in the country.

On the part of UNDP, Ms. Grace Tena, Programme Associate of the Inclusive and Sustainable Development (ISD) Unit, also welcomed the participants. In her remarks, she clarified the role of UNDP as an IA of the GEF, serving in its capacity as a development partner to help mobilize resources for development programs from both bilateral and multilateral fund streams. Ms. Tena emphasized that the primary objective of the workshop is to assess the progress of the project on its first year of implementation, to determine how far the project is from achieving the end targets, what the facilitating and hindering factors are in the pursuit of its objectives, and to cull out the lessons in order to better strategize the implementation plan over the remaining period of the project. She also echoed the need to complete the 2017 AWP in a timely fashion. As the basis for the release of the funds in the coming year, the early approval of the AWP by the Project Board would help avert delays in the implementation schedule. Ms. Tena further explained that the SLM project was not being treated as a one-off initiative decoupled from other development efforts, but rather forming part of a more holistic sustainable development approach to address the bigger goal of reducing poverty in the country.

Lastly, Ms. Tena shared the ongoing development of a new SLM proposal even though this current project is still in progress. Multi-focal in nature, the new proposal aims to address both land degradation and sustainable forest management, recognizing the interconnected issues of land degradation and biodiversity loss. The approval of the concept note is expected by yearend.

Please see **Annex C for the full presentation of the Workshop Rationale.**

3. Overview of the Project

Taking off from the expressed need to be refreshed about the project's intended outcomes and targets and capitalize on opportunities for new revelation and insights, Dr. Gina Nilo of BSWM serving as the National Focal Person of the SLM Project, presented an overview of the three-year SLM Project.

Dr. Nilo explained the project's adherence to the framework of the United Nations Convention to Combat Desertification (UNCCD) and alignment with the GEF focal area objectives on land degradation, emphasizing the importance of strengthening SLM frameworks in the Philippines to help reduce pressures on natural resources from competing land uses in a wider landscape. She mentioned that this is the first ever grant received from the GEF for a national program on SLM so there is an expectation for the Philippines to give its best for this project, especially in light of the new project proposal in the pipeline.

It was noted that the SLM technologies have long been available but were not being applied at the local level, highlighting the need to have a harmonized institutional framework to facilitate coordination and wide adoption of SLM in relevant areas. In addition, Dr. Nilo added that SLM needs to be explicitly considered and integrated in the land use and development plans to ensure that proper SLM practices are enforced in order to maintain the country's rich agricultural resources.² Furthermore, the SLM Project will provide investments in SLM demonstration through techno-demo farm sites to showcase viability and potential for scale up to other moderately to severely eroded arable lands in the country. It is hoped that through these interventions, national and local governments would be able to allocate sufficient and regular funding for the long-term adoption of SLM practices.

In pursuit of the above, specific outcomes and outputs as enshrined in the Project Document were shown, noting a total of thirteen (13) key deliverables being expected from the Project.

Participants were also apprised of the key project stakeholders, the project organizational structure, implementation arrangements and overall budget. The SLM Project would also be engaging national specialists on SLM and soil and water conservation, CLUPs, database development and geographic information systems and capacity development for optimum results. Please see **Annex D for the full presentation of the Overview of the Project.**

Dr. Nilo likewise presented the three-year work plan, with annual targets to guide the participants on the direction of the project. From this standpoint, she reminded partners not to get distracted by the processes but to stay focused on the intended results, keeping in line as well with the agreed project timeframe due to stricter GEF policies on conditions of project extension.

On the project's financial accomplishment, the SLM Project is expected to achieve 92% delivery rating for 2016, which includes outstanding payables remaining for the month of December. This is partially attributable to the frontloading of procurement of major equipment³ to 2016.

²supplemental discussion on the misconception of application of chemical fertilizers. BSWM and the project are promoting a combination of inorganic and organic fertilizer application, particularly to address nutrient-deficient agricultural lands. Phosphorus for instance is difficult to fix and would need to be applied to improve soil nutrition for seriously phosphorus-deficient lands. Organic fertilizers are good soil conditioners.

³ CHNS analyzer and soil grinder (~PhP 6M), which are required in the implementation of activities leading to the establishment of the Land Degradation Index and monitoring system

4. Assessment of 2016 Accomplishments

A. Malaybalay, Bukidnon Project Site

Engr. Richard Leono, Supervisor of the City Agriculture Office presented a background of the project site, the activities that were conducted and the initial accomplishments of the Project Team in Malaybalay, Bukidnon Province. These included liaising with city and municipal officers in May 2016, collecting baseline information in June 2016 followed by site validation, conducting participatory rapid appraisal (PRA) in October 2016 and training the farmer beneficiaries on SLM in November 2016. The PRA in particular, validated the entry points for DA's assistance, including the need for forage cover and livestock as a component of the techno-demonstration farm plan. Based on the experience from a JICA supported initiative, hedgerows were cut because no livestock were feeding on them and the plants were instead being eaten by rats.

The farmer group, Silae United Agrarian Reform Cooperative (SUARC), an agrarian reform cooperative was selected as a partner, and farmer-cooperator Ms. Rosita Adalim has agreed to the use of 3.5 hectares of her farmland in Purok 5, Brgy. Silae, as the techno-demonstration farm of the project. Representatives of the DA regional office and LGU agricultural office provided advisory services to the farmer on which of the preferred crops would thrive (including proper distancing between plants) and what SLM practices would help address the soil erosion in the area. Based on these consultations, contouring based on elevation was completed, with the farmer deciding on the crops to raise in the selected techno-demo farm site, using mixed fruit and forest trees on the ridge combined with abaca, and various high value crops in other contour lines. The initial farm plan proposed a budget of 251,000 pesos to cover the cost of the seedlings, forage, garden tools, vermicomposting set up and labor in establishing the techno-demo site. However, the primary crop of corn and the use of inorganic fertilizers necessary to address nutrient deficiencies in the soil were not yet included in the budget.

The team also reported the following bottlenecks:

- Funding for farm materials were not released delaying the establishment of the techno-demo site
- Establishment of the techno-demo farm requires additional cost to the farmer-cooperator (e.g. provision of draft animals and farmhands for labor)
- Roles and functions of barangay LGU in the project were not clearly defined
- Absence of module for the techno-demo farm
- Change in management/leadership as a result of the national elections in May 2016, both at the local and national levels

and likewise shared the following lessons and recommendations on the way forward for implementation:

- The PRA and the SLM training for barangay officials and the SUARC community enabled the project to touch base with key partner agencies working in the area, thus opening windows for partnership and ensuring complementation of efforts on the ground. For example, close collaboration with the Central Mindanao University, DAR, and DA-ATI Region 10 would help in the development of the Farmers' Field Schools SLM Modules and strengthen the provision of extension services of all partners.
- The project was also instrumental in giving a forage project to Barangay Silae, helping them to realize that a forage nursery is also a viable option.
- Linking with DA-ATI Region 10 Director Quirog enable the visit of SUARC members to a simple SLM model farm
- Recommendations cited were the need to revisit the work and financial plan; undertake the topo mapping survey immediately, briefing of the barangay LGU on the project and their role in the implementation; formalize the partnership arrangements with the LGUs to facilitate the release of funds, and with the other key DA agencies and DAR in the formulation of a training module for the techno-demonstration on SLM; maintain project's presence on the ground by holding regular activities to sustain the interest of the

stakeholders (e.g. project briefings, values orientation and team building, meetings with academic and research institutions, etc.)

Please see **Annex E for the full presentation of the Bukidnon Project Team.**

During the open forum, Project Director Tejada commented that 2017 is the period of full operation of the SLM Project and the participation of DA agencies such as the ATI is crucial, especially in the provision of extension services. Dr. Tejada also asked if there is a potential conflict with other farmers who are not being serviced by the project and how the project can help motivate other farmers in the area to undertake SLM in the future. He also inquired about the target number of hectares for the techno-demo farms, noting that the project may be assisting one farmer but risk losing the rest/other farmers. The Bukidnon Project Team shared Dr. Tejada's views and further added the need to involve the other members of SUARC and the barangay to sustain their interest in the project and encourage their active participation in future activities to ensure the adoption of SLM by the surrounding farmer communities. In response, Dr. Gina also replied that the project will revisit its budget and timeline to see if other nearby farms could also be accommodated to cover different elevations as well, taking into account microwatershed coverage. In this regard, she requested the Project Team to help provide cost estimates for review.

On the SLM module development, Dr. Nilo further added that the ICRAF work in Misamis Oriental may also be revisited as a potential resource, along with the initial efforts of the LandCare Program and the enhanced climate smart Farmers' Field School manual for rice and corn produced under the WB-GEF supported PhilCCAP project. On the topo mapping survey, Dr. Nilo advised the team to write to BSWM to request the conduct of the survey to ensure that the work is scheduled in early 2017.

B. Abuyog, Leyte Project Site

Ms. Nenita Sultan, Provincial LGU Rice Program Coordinator, presented a background of the project site, the activities that were conducted and the initial accomplishments of the Project Team in Abuyog, Leyte Province.

In her presentation, she highlighted the following initiatives:

- The Tadoc Farmers' Association (TaFA) was selected as the partner farmer group cooperator of the Project in Barangay Tadoc, Abuyog, Leyte. To jumpstart the activities with TaFA, the Provincial LGU of Leyte initiated a small scale composting facility in coordination with the DA under a Memorandum of Agreement (MOA) signed in March 2016. An orientation about the Project was provided by the Provincial and Municipal LGUs during the TaFA General Assembly Meeting, while the BSWM conducted soil sampling and site validation in June 2016. These initial efforts made the Project Team realize that farmers' groups were moving on their own, with little or no awareness of the programs of the LGUs.
- Even as the departure of the Project Field Coordinator, Mr. Sofio Lim, left the Leyte team momentarily detached from the SLM Project, they continued extending technical assistance and facilitating exchange of information on the ground. This enabled the TaFA members to establish the barangay nursery and started producing vermicompost for their farmlands. The farmers also began planting lakatan and other crops, which were availed from the High Value Crop Program of the DA. The Provincial and Municipal LGUs likewise provided onsite lectures and hands-on training for TaFA farmer members of targeted barangays. This approach to engage the whole farmer group was seen as an effective strategy in ensuring that farmer members who have no lands of their own also benefited from the technical assistance and were not left behind. Said training likewise enabled one TaFA member to establish a 1 hectare jackfruit demonstration farm in coordination with the DA Region 8 Office.
- The Leyte Project Team was also able to identify the Tadoc demo farm site and assisted the farmer-members, Mr. Valenzona and Mr. Julio Cain, in developing the farm plan. The project demo farm site is characterized by flooding and low productivity with zinc-deficient soil. The team noted that the water used

for the farm may also need to be tested. The farmers have selected a variety of crops for the different contour lines, including raising eggplants, which was reported as expensive in the area.

Ms. Sultan also reported the following observations:

- There was unstable commitment from the farmer members, who took an ambivalent stance due to the slow implementation of the project on the ground. Local project implementers and farmers felt hopeless in the absence of updates on the status of the Project. This could have been addressed by better information dissemination and smooth project implementation through the regular presence of personnel and officers in charge of the Project (both at the national and local level)
- Similar to the Bukidnon Project Site experience, the change in management/leadership as a result of the national elections in May 2016 was an external factor that affected the pace of implementation of the project
- The selection of Abuyog as the Project site was also a surprise for some of the local stakeholders. The LGUs opined that they would have recommended other municipalities in District 3 with worse soil fertility decline (in a state similar to chemotherapy effects), which they felt had greater need for support from the project compared to those municipalities in District 5.
- Since project activities were delayed, the Team strategized to limit the information to be shared with the farmers regarding project commitments based on the submitted AWP, which helped to manage expectations
- There is a critical need for a pool of experts, especially for organic vegetable production particularly at the municipal level, to help the farmers

For the way forward, Ms. Sultan made the following recommendations:

- Provide a re-orientation of the Project to Leyte stakeholders
- Ensure that the whole farmers' group benefits from the project even as just one farmer-member's land is being used as the demonstration site
- Complete the contouring (placing of guide sticks) at the demo farm, submit the farm plan to the SLM PMO
- Help disseminate the vacancy for Leyte Field Coordinator through UNDP
- Facilitate timely procurement of demo farm inputs and early conduct of topo mapping
- Provide values orientation and team building activities to farmers, and formulate and implement the FFS SLM module during the first quarter of 2017

Please see **Annex F for the full presentation of the Leyte Project Team.**

During the open forum, Ms. Tena stated the need to keep in mind the promised targets especially in crafting the 2017 annual workplan to readily see whether the project is progressing or regressing based on the commitments enshrined in the Project Document. Ms. Tena also reminded everyone about the purpose of setting up the demo sites, i.e. to demonstrate the feasibility of a mix of SLM technologies to address land degradation in order to showcase to other LGUs that these SLM technologies were viable and necessary. In the farm plans presented by the two sites, it was not clear what SLM technologies would be applied to address the specific LD issues of each site.

Dr. Nilo expressed appreciation for the comments raised and took note of the inclusion of the essential information on SLM technologies in the farm plans of the demonstration sites in Bukidnon and Leyte.

C. Results of the Farmers' Profiling

Ms. Feriola Serrano presented the socio-economic profile of farmers. Please see **Annex G for the full presentation of the Farmers' Profiles in the Project Sites.**

It was noted that this information would help in the identification of project interventions appropriate to the needs and specific circumstances of the target farmer-households, as reflected in the following observations, among others:

- Most of the farmers are owners of the farmlands they till – this means that the farmers can make the decision on which technologies to be applied and what crops to be planted
- 21 years and above of farming experience – these farmers may be difficult to convince requiring a different strategy or approach to encourage them to adopt SLM practices
- Household size data – has an impact on the availability of labor
- Source of farming capital – important to consider for sustainability of initiatives

Dr. Tejada inquired about the farmers’ level of knowledge on soil erosion and what indigenous practices were being employed by the farmers to address this, noting that the two sites were mostly doing monocropping (corn) all year round, so the soil is bombarded with fertilizers. Dr. Nilo agreed that there is a need to document indigenous practices. She added that for those farmers who did not want to let go of corn, pineapples were recommended for the hedgerows as well as the combined application of both inorganic and organic fertilizers.

D. Results of the Soil Sampling

Ms. Bella Noceda of BSWM briefly presented the results of soil sampling done in the two project sites. Abuyog, Leyte was noted to have the following soil series: Bantog (fully drained), San Manuel (moderately well drained) and Tacloban series (well drained with moderate erosion). Bukidnon, on the other hand, has the La Castellana Series, which is well drained but with severe erosion. Please see **Annex H for the full presentation of the Soil Sampling Results.**

Ms. Tena asked for clarification on the soil series in relation to the farm plans presented, if these series were reflected in the farm plans. Mr. Florentino Agustin responded that the report on soil series was important for transferability of information, where such series can be found in other locations. The soil samples were taken from the techno demonstration sites so differences in soil series should not really matter.

Dr. Nilo then presented the general guidelines for fertility rating of soils based on accepted international standards in order to show the healthy range of values for various soil fertility factors which the project will use as benchmark. This was followed by the results of the soil analyses of the two sites. In addition to soil, the general sufficiency or optimal range of nutrients present in plant tissues, indicated if the subject nutrients found in the soil were effectively absorbed by the plants. Tadoc soil in Abuyog, Leyte was found to be highly acidic, with iron toxicity, nitrogen and phosphorus deficiency and manganese toxicity. Similarly, the Silae soil in Malaybalay, Bukidnon was found to be below acceptable values as well. Please see **Annex I for the full presentation of the Soil Fertility Rating Standards and Results of the Soil Analyses of the Project Sites.**

Dr. Nilo further explained that there are different levels of land degradation and some of these levels are no longer economically feasible to restore for agricultural purposes. Priority should be given to those levels that can still be rehabilitated, which will need to be supported to improve agricultural production. In response to Ms. Sultan’s observation earlier, this accounted for the selection of Abuyog over other municipalities in the Province of Leyte.

5. End of Day 1: Synthesis

At the end of Day 1 of the Workshop, Mr. Gerona provided the synthesis. He thanked the participants for their active engagement and high level of interest in the discussions, noting the good insights shared by project stakeholders about the project’s progress and manner of implementation. For Day 1, participants received a refresher course on what the project is all about, what has been produced and achieved, how much was delivered and what the team did collectively. The insights that came out also provided answers on what were missed out on, the pains experienced by the project teams, what were gained through the Project and the lessons learned over the past five months.

He explained that the next stage of the workshop will seek to answer whether all these project initiatives were still connected, aligned and consistent with the output, outcome and project objective indicators. The project results framework serves as the basis for evaluation of the project's success. During today's discussions, some of the project's activities may seem to be outside of the initial project frame of design, but the clarifications provided also gave the opportunity to re-connect and align efforts to the project's ultimate objectives. In the course of reviewing the project results framework, project activities can be re-directed and the necessary adjustments made to effectively measure progress and ensure that the project is really addressing its primary result targets. Participants were encouraged to review the presentation materials of earlier speakers in preparation for the activities of Day 2.

II. Day 2: 9 December 2016

1. Recap of Day 1

Ms. Nenita Sultan led the invocation while Mr. Gerona provided the recap of Day 1 as follows:

- Main purpose of coming to the workshop is three-fold: to assess the project's performance in 2016 (and come up with the 2016 progress report), plan for 2017 (and produce the 2017 annual work and financial plan as well as outline of the catch-up plan), and identify the members of the inter-agency technical committee or IATC (and complete the project implementation structure)
- Day 1 enabled project stakeholders to review the project's objectives and the full 3-year work plan, and to assess the accomplishments and implementation issues encountered at the national and local levels.
 - o Highlights of the Project Refresher include:
 - Soils and water management of upland farmers
 - Outcome 1 on Institutional interventions for SLM – develop the SLM framework, issuance of policies on SLM through a Joint Memorandum Circular among DA, DAR, DENR and HLURB and Department Order by DILG
 - Outcome 2 on SLM application – baseline and benchmarking, testing of the framework; establishment of the techno-demo sites in Tadoc (to showcase SLM technologies addressing soil fertility) and Silae (to showcase SLM technologies addressing soil erosion); technology dissemination and replication on sustainable practices of soils and water management; provision of technical assistance (not capital assistance);
 - Project timeline from August 2016 to Dec 2018; potential for further funding from other development partners (JICA); new proposal on SLM for GEF 6 funding in the pipeline
 - Project Board approval of the 2016 Annual Progress Report and 2017 AWP required (January 2017)
 - o Highlights of the Assessment of Accomplishments and Implementation Issues include:
 - PMO only has 4 staff (early departure of Project Manager, Finance Assistant, Field Coordinator) but Leyte and Bukidnon Project Site Teams appear solid;
 - Profiles of farmers and analyses of soils already available;
 - Establishment of demo sites initiated (completion of contouring, farm plans drafted) but farmer cooperator-oriented instead of organizational (farmers' association/cooperative)

Mr. Gerona proceeded to provide the agenda for Day 2: revisiting the project results framework, continuing the assessment of accomplishments of other components of the project, discussing the draft work and financial plan for 2017, then further detailing the 2017 AWP and catch-up plan in the afternoon, followed by the identification of the members of the IATC.

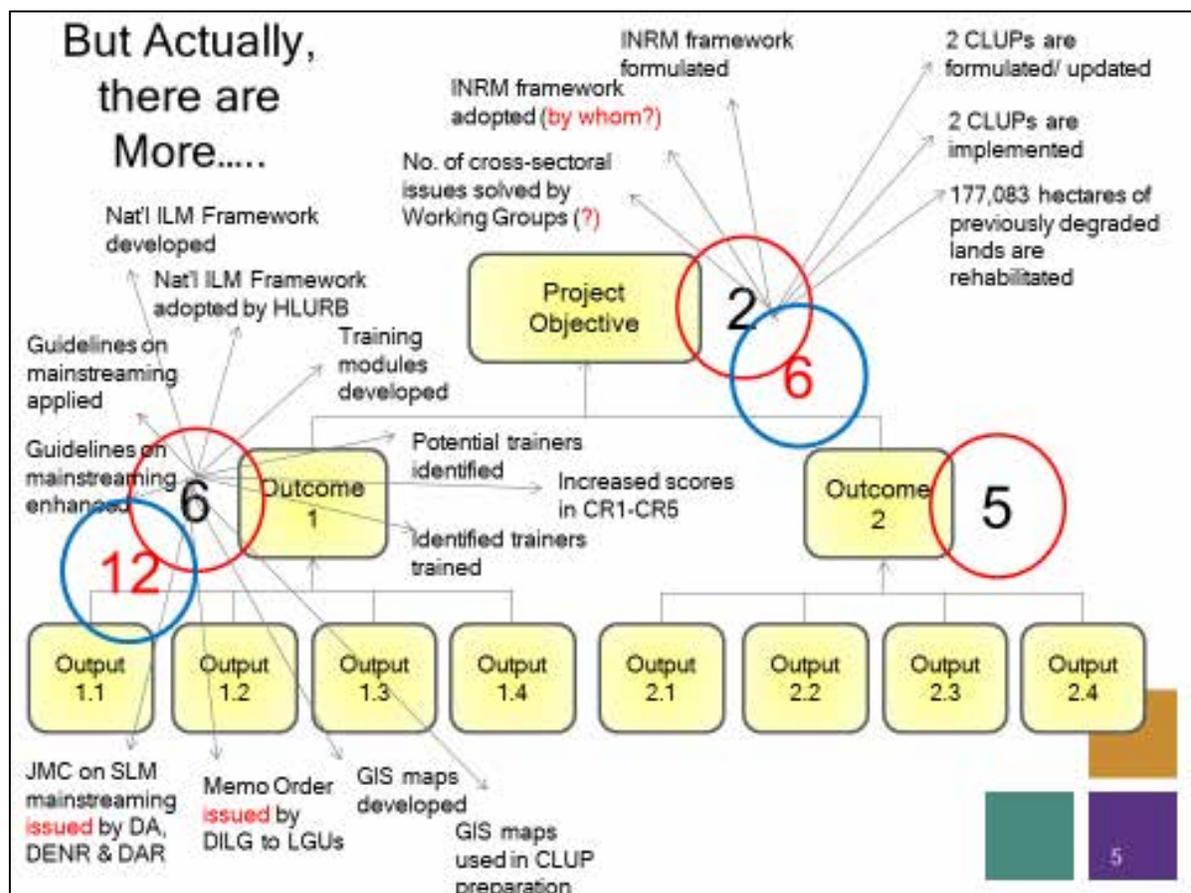
- Vis-a-vis 2016 targets, status of outcomes and outputs to be examined (fully achieved, not yet achieved – ongoing/not yet started), mindful of the 92% delivery rating reported (covering actual expenditures and planned obligations / payables until the end of the 2016) against 2016 approved budget.

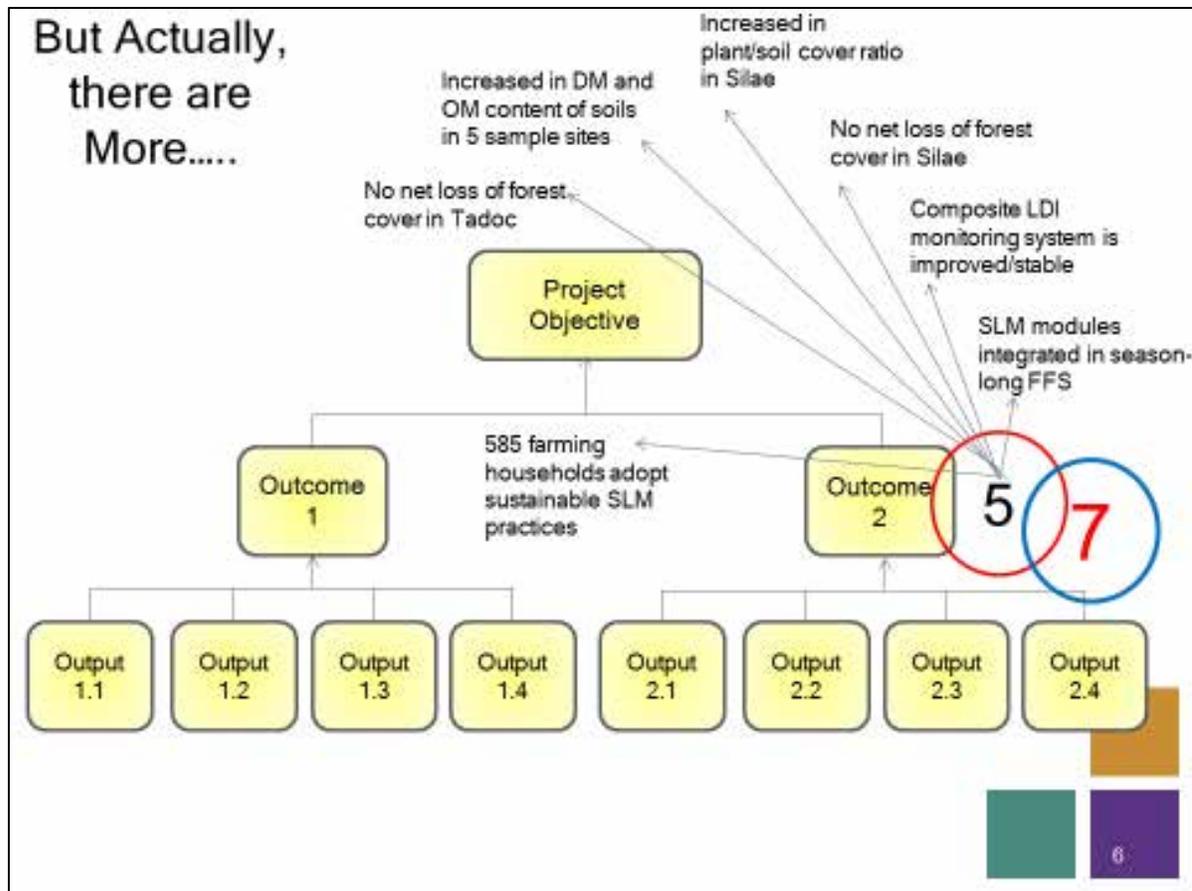
Please see **Annex J for the full presentation of the Facilitator’s Recap of Day 1.**

2. Revisiting the Project Results Framework

Mr. Gerona explained that the next task of revisiting the project results framework seeks to establish a common understanding of the project’s targets or promises, as well as to understand the relationship between targets and the project’s implementation structure, emphasizing the need to match the intended results with the expected results deliverers.

The results frame provides importance to the quality of inputs and activities to produce the planned outputs. At a glance, the SLM Project promised to deliver 13 targets over a 3-year period based on the agreed Project Document. In reality, there are more, with 19 targets at the outcome level and 6 targets at the objective level. Please see figures below:





The results frame also provided information on the risks. The risks identified at the Project Objective level were as follows:

- Implementation of CLUP with SLM provisions not prioritized
- INRM applied at demonstration sites not replicated in nearby barangays

The risks identified at the Project Outcome level were the following:

- Outcome 1:
 - o Target crop yield not realized due to pests and typhoons
 - o Guidelines on SLM mainstreaming not operationalized by LGUs
 - o Issuance of Memorandum Circular/Special Order on SLM mainstreaming delayed
 - o BSWM funds for upgrading major equipment for database and GIS not available
 - o NGAs do not send qualified trainees (mismatched skills and mandates), leading to lack of motivation
 - o Budget for implementing competency programs for LGUs not available
 - o Trained staff of NGAs assigned to different jobs or other areas of work
- Outcome 2:
 - o Projected vegetative cover might not be realized due to natural occurrences like typhoons and forest fires, etc. and other activities like slash and burn and land use conversions
 - o Changes in the soil erosion rate might not be realized due to natural occurrences like typhoons and forest fires, etc. and other activities
 - o Difficulty in influencing the farmers in nearby farms to adopt the SLM technology showcased at the two (2) demonstration sites

Noting that these external factors take a toll on the budget, preventive action is necessary in order to influence these in favor of the project's targets. These risks need to be monitored, especially on the ground and as such, engaging a Project Monitoring and Evaluation (M&E) Officer is crucial to the success of the Project.

Indicator statements are monitored from the results framework to the M&E Plan, to the AWP, and to the Quarterly and Annual Progress Reports. The Project's results framework, which was agreed at the beginning of the Project, serves as the main reference of the principal stakeholders for the performance assessment and evaluation of the Project. Should there be a need to change the indicators or other aspects of the results framework, approval or concurrence of the Project Board is required to properly amend the reference framework. The PMO Team may need to be provided with project management-related training and regular assessment and planning workshops may have to be conducted in order to maintain the focus and direction among all project partners. This would imply that appropriate budget allocations for such core activities need to be included in future programming.

Please see **Annex K for the full presentation of the Project Results Framework**.

But prior to the actual results alignment and validation exercise, the national specialists were invited to present their ongoing efforts to implement the other components of the Project, specifically under Outcome 1.

3. Assessment of 2016 Accomplishments (continuation)

E. Integrated Land Resources Management (ILRM) Framework for SLM

Dr Candido Cabrido, the Project's specialist on Comprehensive Land Use Planning, illustrated how SLM is planned to be mainstreamed into the CLUP. It was noted that an updated CLUP is necessary in order to integrate SLM. Land use maps, both for existing and proposed land uses, must be updated and reflected in the CLUP. However, in the absence of updated CLUPs, SLM will be integrated into the Comprehensive Development Plan or CDP of target cities or municipalities, which is more sectoral in approach. Dr. Cabrido also explained that not all cities and municipalities need to consider SLM in their CLUPs since SLM is most important for those cities and municipalities that are agricultural-based.

The draft ILRM Framework for SLM is expected to be shared with the project stakeholders for validation at the end of 2016, after a series of technical meetings with the other specialists of the Project. The initial construct of the framework follows these steps: setting objectives, determining scope and limitations of land resources management, assessing the status of land resource use; defining land resources management issues and challenges, preparing the land resources development and management plan, developing the mainstreaming plan into the CLUP, and monitoring and evaluating performance of ILRM programs and projects. Entry points for mainstreaming the ILRM Framework into the DA, DENR and DAR development plans will also be identified and enabling policy instruments drafted for issuance.

This framework will then be translated into the mainstreaming guidelines (cookbook/simplified type of guidelines so that LGUs can follow it easily). In the process of developing the guidelines, coaching and mentoring will be provided to LGUs of the demonstration sites – this pilot-testing phase will assess difficulties in the application of the guidelines and will help determine what works best for LGUs. Potential investment and incentives for local adoption of SLM will also be ascertained. Modifications will then be incorporated prior to finalization and adoption by the HLURB.

Dr. Cabrido also highlighted the following:

- Role of LGUs in land resources management becomes pivotal and strategic with the localization of the national government agencies' functions. Responsibilities are growing and capacity building is essential to respond to the needs of agricultural communities
- There is stiff competition between agricultural and urban development. Several studies have projected that urban areas will grow 60-70% in the next decade, which will potentially eat up agricultural and forest lands.

In the Philippine setting, as an agricultural economy, urban areas are growing by 30-40% which is a threat to agricultural lands. Most rural areas are agriculture-driven, therefore maintaining support for agricultural production, including through balanced allocation of land across various uses, is crucial. SLM technologies need to be custom-tailored to a specific area's needs as there is substantial difference between existing and potential crops that can be planted in terms of production values.

- Gaps and barriers cited include weak coordination in program implementation on land resources management among national government agencies such as BSWM, FMB and DAR; limited knowledge of LGUs on SLM best practices and technology packages appropriate to given environmental and socio-economic conditions at the local level; lack of demonstration projects to showcase various types of effective soil and water conservation technologies in sloping farmlands (actual site demonstrations are critical to show viability and functionality of guidelines and manuals); data gaps exist for proper assessment and mapping of land degradation across the landscape; absence of national and local level frameworks for SLM mainstreaming; agricultural and forestry sector development plans and programs of many LGUs deficient on SLM measures.
- Information on slope, soil type, forest cover and others will help determine erosion rate using a model and based on different erosion classes, suitable types of crops and farming methods to use can be recommended
- The objective of SLM mainstreaming is to internalize and institutionalize land resources management for sustainable agricultural development in the CLUPs of LGUs, as part of their standard operating procedures. At present, CLUPs do not have specific land resources management measures. Mainstreaming will enable LGUs to allocate budget support for SLM programs, projects and activities. Capacity building of agricultural technicians and extension workers from LGUs is a necessary step of the mainstreaming process to equip them with planning tools and technical knowledge and skills to effectively upscale SLM at the local level. IEC activities on SLM, particularly for the smallholder farmers will likewise have to be carried out.
- At the national level, individual agency plans also need to be coordinated in managing the same land resources. Prime agricultural land maps in particular need to be updated. Providing an integrated land management framework for DA, DENR and DAR will help enable the adoption of SLM into the agencies' development and management plans. Integration of SLM in the plans and programs of NGAs fosters harmonization of efforts and widens government support and funding assistance, avoiding duplication in the process. For instance, the National Greening Program should be linked/connected to the soil nutrient program of BSWM.
- Land degradation is irreversible – formation of soil, depending on the parent material, takes a long time – one inch of topsoil takes a hundred years. Parent material ages and breaks down to form subsoil which further breaks down to form the topsoil. How to conserve topsoil is essential.

Please see **Annex L for the full presentation of the ILRM Framework.**

F. GIS Support to SLM

Dr. Dennis Muzones, the Project's GIS Specialist, is assigned to help develop the Composite Land Degradation Index (CLDI) maps for the project areas and produce the necessary SLM-related and other maps required for the integration of SLM initiatives and practices into the CLUPs. Among the CLUP required maps include analytical maps on erosion, flooding, land capability, land suitability, development constraints and others like land management units, ecological profile/biodiversity and disaster risks to complete the regular set of spatial data for CLUP development.

According to Dr. Muzones, the CLDI follows the guidelines set forth by the French Scientific Committee on Desertification and is calculated according to 3 main indicators: degradation type, extent of degradation per type and degree of degradation. He likewise presented the process flow to determine the extent of various degradation types, taking into consideration size of the area of land to be surveyed; whether the indicator of the type of degradation is visible or invisible; and if there is a relationship with the type of soil, exploitation strategy or type of land use as well as landscape pattern.

Dr. Muzones mentioned the two (2) methods to ascertain the degree of degradation: identification of soil properties that are markers of degree of degradation and that could have negative impacts on crop yields (which should be easily discernible in the field); and an assumption that a reduction in yield or in the level of land suitability of a given type of use indicates a degraded land (this is more subjective and relies heavily on statistical assumption).

To derive the CLDI, three (3) phases comprise the derivative process: database exploitation and structuring (analyzing remote-sensing images, thematic maps, topographical maps, other documents); field observations and indicator determination (type, degree and extent of degradation); and determination of the composite degradation status index. For phase 1, different “physiographic units” need to be delineated in the study areas. The formation of these units from reliable baseline data is the basis of all land assessment procedures. Unfortunately, there is no LREP spatial dataset available for the entire Leyte province at the BSWM central and regional offices and only 9 out of 27 are available at BSWM for the Bukidnon province (none on land management). The sets of thematic maps produced from the LREP varied from province to province.

Next steps for the GIS support include discussing the result of the BSWM data holding inquiry with the other specialists; reproducing and updating the physiographic basemap required by the project for the study areas; collecting, completing and understanding all spatial and non-spatial data requirements of the project; and provision of logistical support in the collection and /or derivation of required information to develop the index and maps. Dr. Muzones then shared a tool developed by Dr. Heimans, formerly of IRRI, using 30x30 SRTM maps covering climate variables (rainfall, mean temperature, etc) by quarter (coldest quarter, warmest quarter, wettest, etc) in the Philippines. This tool aims to help decision makers and planners in identifying priority areas for intervention.

Please see **Annex M for the full presentation of the GIS Support to the SLM Project.**

G. Land Degradation Index Development

Dr. Rogelio Concepcion is the Project’s specialist on SLM and is assisting in the development of the land degradation index (LDI), which is an important tool in land conversion. Degradation will determine the economic value and if the economic value is lost, an agricultural land can be converted.

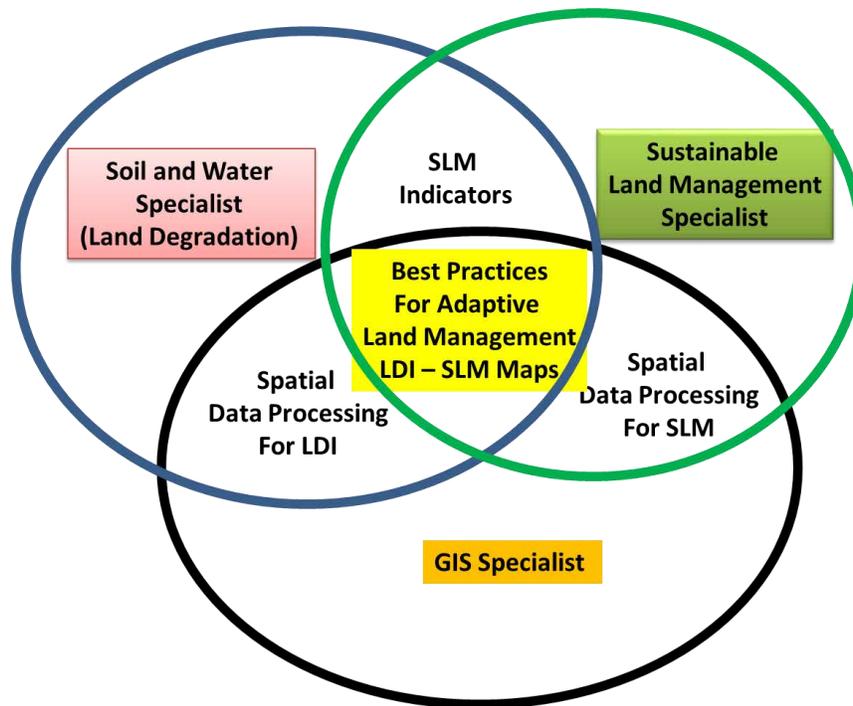
Highlights of his presentation were the following:

- There is no existing working model for LDI - yet; data must be purposive
- There is a need for champion academic institutions – national and local governments cannot do this by themselves, academic institutions can sustain the effort
- Inter-local cooperation is required – action of one should not harm others in the locality
- LDI is a measure of mal-adaptation, showing net losses in ecosystem-wide management
- Showcase the good practices of BSWM scientists – there’s a lot of expertise in the bureau, do not have to reinvent the wheel and a lot of tools developed can already be mainstreamed
- Nexus approach for LDI – ridge to reef approach – data and information exchange is necessary (needs comparison against a common baseline)
- Periodic roundtable discussions to highlight key findings – to have a common understanding of the technical information
- Natural degradation versus environmental degradation of soils – natural degradation of soil refers to genetic soil degradation
- Measures to address land degradation must consider climate change – climate extremes exacerbate land degradation. Hot season leads to soil crusting, which erodes during rainfall events. Effect of changes in temperature depends on the elevation. Uplands will become conducive to more crops. For instance, durian and mangosteen can be planted in addition to Arabica. However, the risk of pests and diseases also rises.

Temperature change at lower elevations is detrimental. Micronutrient deficiency in plants occurs during hot temperatures. Transposition of crop selection over time is already an indication of degradation. Soils also sequester carbon.

- Physical framework for SLM based on water flow – river basin to where water flows, and watershed from where water falls
- Erosion or soil loss from upstream (cut and detach) and soil gain in downstream (catch and accumulate/deposition) are nature’s way of stabilizing the angle of repose/elevation. Upstream requires deep rooted crops because of the deep level of fertility, while downstream is conducive to shallow rooted crops
- Minimum criteria for data selection for LDI based on predictors of change include: related to many key variables, predictable, easily collectible, visually recognizable in the field with potential bio-indicators, independent variable, availability of facilities, ease of access, least expensive, and stable. Initial data inputs for the LDI formulation are temperature, wind, rainfall, pedo-zones, soil, water/moisture, plants/vegetation, land use/farm management practices and carbon sequestration
- The LDI eventually can be transformed into a Resilience Index
- Awareness and understanding of the problem are both crucial in determining the training requirements for capacity development

Dr. Concepcion also presented the convergence areas of the project specialists, as shown below:



Please see **Annex N for the full presentation of the Land Degradation Index Development.**

After completing all presentations on project progress to date, the following questions and comments were raised:

Question or Comment	Response
1. Elaborate further on the physiographic units or maps; not only physiographic units but also land management and soil units must be considered	Physiographic units, which are the basis of the CLDI, allow differentiation across data points for a specific landscape, showing which side for example, of a mountain is relatively un-degraded versus other parts

	<p>of the same mountain that are highly degraded (Dr. Muzones)</p> <p>Physiography – full range of processes and patterns in the natural environment– whereas a unit of it translates this range based on changes in repose/elevation, with uniformity of characteristics to form a unit (Dr. Concepcion)</p>
<p>2. On the ILRM Framework, two weeks ago sometime in November, the agrarian reform policy council met and is looking at the conversion of agricultural lands to other uses. What are the specific requirements from DAR as regards the CLUP and what is envisioned as its responsibility as part of the TWG or inter-agency work under the Project</p>	<p>First, we need to know what the plans of DAR are as regards developing agricultural lands, because this needs to be synchronized with other plans like the CLUP, we need to review the agrarian reform land conversion policies and how SLM can be integrated into the agrarian reform extension services (e.g. for irrigation and farming systems) (Dr. Cabrido)</p>
<p>3. BSWM also prepares CLUPs based on the request of LGUs</p>	<p>We need to see what BSWM does as far as CLUPs are concerned, to review how you are integrating SLM at the moment (Dr. Cabrido)</p> <p>This is to clarify that it is not our mandate to do CLUPs, we can only assist in terms of integrating SLM into CLUPs to sustain the plans for the strategic areas specific to agriculture (Dr. Nilo)</p> <p>For some municipalities, the CDP will be the preferred platform for integrating SLM. At present, lower level municipalities (4th to 6th class) will not have the interest to develop CLUP since it is basically urban-oriented planning. These municipalities are more interested in improving rural development and how to access natural resources of their area, which they consider as free resources (Dr. Concepcion)</p>
<p>4. For the GIS support, what is the area of concern – barangay or municipality?</p> <p>If that is the case, there should be a team to profile the barangays, this is timely because we also need to update barangay level data</p>	<p>Ideally, at the municipal level but without discounting the political boundaries of barangays, which would have implications on the socio-economic data requirements (Dr. Muzones)</p>

4. Completing the 2016 Accomplishment Matrix

Mr. Gerona guided the plenary discussion to complete the following simplified accomplishment matrix for 2016:

2016 Target	Status		Activities of:				Remarks
	Achieved	Not yet	PMO	Consultant	Abuyog	Malaybalay	

2016 Target	Status		Activities of:				Remarks
	Achieved	Not yet	PMO	Consultant	Abuyog	Malaybalay	
Outcome 1							
1.1 Draft key elements of ILRM Framework				Dr. Cabrido – first draft prepared in Dec 2016			Report to be submitted after consultations with stakeholders
1.2 Entry points for mainstreaming SLM in CLUP identified					Updated CLUP with general elements of SLM is still in the process of approval	Updated CLUP with general elements of SLM approved by Sangguniang Panlalawigan	Note that mainstreaming of SLM means that SLM forms part of the PPA (Dr. Concepcion)
1.3							
1.4 Gaps on existing database identified				Consultant engaged (Dr. Muzones), identification of gaps initiated but still for validation by stakeholders			
1.5a Competency gaps identified			Ongoing procurement of services of a consultant				
1.5b Competency Development Guide developed							
1.6							
Outcome 2							
2.1 Plant/soil cover established					Mobilization phase: farm site identified and agreement with farmer cooperator secured, contouring and placing of sticks completed, farm inputs identified and budgeted	Mobilization phase: farm site identified and agreement with farmer cooperator secured, contouring and placing of sticks completed, farm inputs identified and budgeted	
2.2 Baseline of DM and OM of soils in 5 sample sites (151 ha) obtained			Sample soils collected, analyzed and interpreted				
2.3a LDI of 2 project sites determined				Consultant engaged (Dr. Concepcion); Process framework			

2016 Target	Status		Activities of:				Remarks
	Achieved	Not yet	PMO	Consultant	Abuyog	Malaybalay	
				available; desk review conducted			
2.3b LDI monitoring system developed				desk review to assess availability of data initiated (Dr. Muzones)			
2.4a SLM training modules updated					Initiated coordination/linking with potential partners like academic institutions and ATI, socio-economic profiling of farmers in the two project sites completed in preparation for module development	Initiated coordination/linking with potential partners like academic institutions and ATI, socio-economic profiling of farmers in the two project sites completed in preparation for module development	
2.4b SLM training modules produced							
2.4c SLM training modules integrated in the ATI FFS							
2.5a 50 Households adopting SLM							
2.5b 2 techno demo farms established					Mobilization phase: farm site identified and agreement with farmer cooperator secured, contouring and placing of sticks completed, farm inputs identified and budgeted	Mobilization phase: farm site identified and agreement with farmer cooperator secured, contouring and placing of sticks completed, farm inputs identified and budgeted	Need to formalize partnership through a MOA with the farmer groups, conduct technical briefings, and commence planting coinciding with the start of implementation of the FFS on SLM

*Green – completed; Yellow – initiated/ongoing; Red – Not yet started

5. Drafting the 2017 Annual Work and Financial Plan

Participants were grouped into two, delineated between the two demonstration sites. This session was devoted to the drafting of the 2017 AWP. Mr. Gerona emphasized that the activities to be planned for 2017 must lead to the achievement of the promised targets in the project results framework, including those activities that were not implemented in 2016 and will be carried over to 2017.

Below are the completed matrices:

A. Leyte Project Team

Main Activity/Sub Activity	Time Line		Related Result by Completing the Activity	Target Outcomes Indicator		Resources Required
	Start	Finish		2016 Carry Over	2017	
2016						
2.4 SLM Training modules reviewed				SLM training module reviewed	110 farmers trained in SLM technology	Travelling expenses
Conduct team review workshop on SLM training module	1st wk April	1st wk April	WS Reports, budget for TEV and WS			Food and accommodation during meetings Training supplies and materials
1.1 Develop WS design			WS design			
2017						
Conduct SLM Trainings	Jan	Dec.				
1.1 Identify training pax, RP			Training reports, Budget for trainings			
1.2 Organize training venue/accom						
1.3 Prepare training materials						
1.4 Make proposal for funds downloading	Jan.	March				
2.5 25 HH adopt SFM/SLM practices	May	Dec		25 HH adopt sustainable agri practices and integrated SFM/SLM	150 HH adopt sustainable agri practices and integrated SFM/SLM	
2017						
2 demo farm (2 cooperators) and 1 communal site for TaFA			Budget for demo sites establishment			Travelling expenses
1. Facilitate conclusion of MOA for 2 identified farmer cooperators and TaFA			Signed and approved MOA			Demo establishment funds
			Demo site establishment reports			
- conduct regular team meeting						
2. Conduct orientation/briefing to FCs and TaFA			Purchase request (PR) prepared			
3. Facilitate procurement of material inputs for 3 Demo						
4. Provide on-site coaching to FCs and TaFA						Supplies and materials
- facilitate devt, prodn and distribution of IEC materials			IEC materials reproduced, translated and distributed			Travelling expenses Food and accommodation during meetings
- conduct farmers cross visits bet. demos to demos			learning's acquired reports			Training supplies and materials
- soil and plant nutrient monitoring			soil nutrient status reports			Food and accommodation during meetings
- make presentation on monitoring results to TaFA, Mun SB			Inclusion in SB agenda and TaFA reg meetings			
			showcase/presentation of results			
- conduct of FFS			budget for Travelling expenses			

- weekly project visitation and monitoring			monitoring reports			
5. Conduct Project Team Building Activities			TB reports			

B. Bukidnon Project Team

Output/Major Activity/Sub activities		Timeline		Related Result by completing the Activity	Target Outcome Indicator		Resources Required
		Start	Finish		2016 Carry Over	2017	
2.1	Plant/ soil cover in the agricultural land area covering 2,866 ha and forest cover in Barangay Silae				Plant/ soil cover established		
2.1.1	<i>Facilitate pertinent documents needed to download of funds to MLGU</i>	3 rd wk Jan 2017	2 nd wk Jan 2017	Approved letter and TOR			-
-	Draft a Terms of Reference (TOR) and letter to download the fund	2 nd wk Jan 2017	2 nd wk Jan 2017				-
-	Draft and submit letter to address to the NFP and UNDP	2 nd wk Jan 2017	2 nd wk Jan 2017				-
2.1.2	<i>Distribute planting materials to SUARC members and to locals of Bgry. Silae</i>			Distribution report			600,000.00
-	Validate the eligible sites and co-operator	4 th wk Jan 2017	4 th wk Jan 2017				12,000.00
-	Identify the planting materials and quantity to be distributed	3 rd wk Jan 2017	3 rd wk Jan 2				
-	Submit the shortlist/report to PMO for procurement	3 rd wk Jan 2017	3 rd wk Jan 2017				
-	Distribute plating materials	2 nd wk of Mar 2017	2 nd wk of Mar 2017				
2.3	Composite Land Degradation Index (LDI) monitoring system for monitoring LD is developed and in place for City of Malaybalay and Abuyog Municipality				Land Degradation Index determined for 2 project sites and LDI monitoring system developed	LDI monitoring system applied and improved in the target LGUs	
2.3.1	Conduct penological monitoring of the crops at the site	Mar 2017	Dec 2017	LDI Monitoring report			42,000.00
	- Formulate a monitoring system on LDI						
	- Submit the draft monitoring system to PMO & NFP						
	- Approved and adopted monitoring system on LDI						
2.3.2	Conduct visual observation of the changes of vegetations of various crops at	Mar 2017	Dec 2017	LDI Monitoring report			42,000.00

	the site						
2.4	Increased in % of SLM guidance delivered by extension services				Training modules compiled, reviewed, updated and produced	300 farmers training in SLM Technology through FFS	
2.4.1	<i>Conduct Team Review of the Workshop on draft training modules</i>			Minutes of the meetings conducted			
-	Conduct meeting to collate training materials/ designs from PAO, CAO, City ENRO, ATI & CMU related to SLM Project			Minutes of the meetings conducted			10,000.00
-	Conduct series of meetings to formulate workshop designs and finalization of the shortlist of trainings for FFS on SLM	2 nd wk of Jan	2 nd wk of Jan	Minutes of the meetings conducted			30,000.00
-	Conduct workshop to develop the FFS on SLM Module	4 th wk of Feb	4 th wk of Feb	Draft SLM Module			350,000.00
2.4.2	Conduct Team Building amongst SUARC Members	3 rd wk of Feb	3 rd wk of Feb	Training reports			250,000.00
-	Prepare activity proposal to be submitted at the SLM PMO for approval	2 nd wk of Jan	3 rd wk of Feb	Signed activity proposal			
-	Ocular visit on the potential service providers during the workshop	4 th wk of Jan	4 th wk of Jan				
2.4.3	<i>Farmer Field School on SLM</i>			Packaged FFS on SLM			
-	Finalization of the FFS on SLM module	4 th wk of Jan 2017	2 nd wk of Feb 2017	Finalized module			10,000.00
-	Submit and package FFS SLM Module to PMO to produce	2 nd wk of Feb 2017	3 rd wk of Feb 2017				
2.4.4	<i>Conduct FFS on SLM</i>	4 th wk of Mar 2017	December 2017	Training reports			944,000.00
-	Draft activity proposal for the trainings	3 rd wk of Feb 2017	3 rd wk of Feb 2017				
-	Submit activity proposal to PMO and CAO for approval	4 th wk of Feb 2017	4 th wk of Feb 2017				
2.4.5	<i>Inclusion of Central Mindanao University (CMU) to the project</i>			Signed MOA bet BSWM & CMU			
-	Conduct a meeting with CMU faculty and present the project	2 nd wk of Jan 2017	2 nd wk of Jan 2017				5,000.00
-	Draft MOA between BSWM & CMU	3 rd wk of Jan 2017	3 rd wk of Jan 2017				-
-	Facilitate signing of the MOA	4 th wk of Dec 2017	4 th wk of Dec 2017				-
2.4.3	<i>Procurement of the materials & office equipments to be utilized during the training and other administrative support</i>	2 nd wk of Mar 2017	2 nd wk of Mar 2017				369,950.00 393,950.00

-	Shortlist of materials and equipments needed	1 st wk of Mar 2017	1 st wk of Mar 2017				
-	Submit proposal to SLM PMO and NFP for approval	2 nd wk of Mar 2017	2 nd wk of Mar 2017				-
2.5	Farming households adopt sustainable agricultural practices and integrated SFM/ SLM				At least 50 households adopt sustainable agriculture practices and integrated SFM/ SLM Practices	At least 300 households adopt sustainable agriculture practices and integrated SFM/ SLM Practices	
2.5.1	<i>Memorandum of Agreement (MOA)</i>			Signed MOA			
-	Draft MOA between the DA-10, CAO, PAO, and SUARC	2 nd wk of Jan 2017	2 nd wk of Jan 2017				-
-	Facilitate signature of the MOA	3 rd wk of Jan 2017	1 st week of Mar 2017				-
2.5.2	<i>Unveiling of the SLM Project Techno Demonstration Site at Bgry. Silae</i>	3 rd wk of Mar 2017	3 rd wk of Mar 2017	Launched Demo site			50,000.00
-	Draft activity proposal for unveiling activity	1 st wk Feb 2017	1 st wk Feb 2017				-
-	Write letters for the invites during the activity (Gov., Mayor, CAO, PAO, DENR, DA 10, ATI and SUARC)	2 nd wk of Feb 2017	2 nd wk of Feb 2017				-
-	Distribution of the Farm Inputs and Planting materials	3 rd wk Mar 2017	3 rd wk Mar 2017				250,000.00
-	Design a signage for the site and SLM office (3 signage)	1 st of Feb	1 st of Feb				
-	Procurement of the materials for the signage	1 st of Feb	1 st of Feb				30,000.00
2.5.3	<i>Conduct Orientation of the SLM to nearby Barangays</i>	June 2017	November	Orientation activity reports			150,000.00
-	Design a program for the SLM Orientation (Barangay level)						-
-	Coordinate Mayor and Barangay officials to call for an assembly	June 2017	November				-
-	Determine a farm for the actual planting demonstration	June 2017	November				-
-	Distribute planting materials	June 2017	November	IEC on SLM developed and produced			-
2.5.4	<i>Develop IEC materials on SLM for distribution (brochures, flyers and articles)</i>						150,000.00
-	Lay out designs for the IEC Materials	1 st wk of April	1 st wk of April				-
-	Submit to PLGU, MLGUI and PMO for approval and procurement	2 nd wk of April 2017	2 nd wk of April 2017				-

-	Reproduce IEC Materials	2 nd May 2017	2 nd May 2017				-
-	Make a generic presentation about soil erosion and SLM technologies to nearby Barangays and Municipalities	2 nd wk of April 2017	2 nd wk of April 2017				-
2.5.5	<i>Conduct Monitoring on the changes related to Soil Erosion</i>	April 2017	December 2017	Monitoring on Soil Erosion reports			42,000.00
2.5.6	<i>Conduct Learning Expedition & knowledge sharing activity between the demo site groups and between Bukidnon pilot sites and other non pilot sites</i>	June 2017	August 2017	Learning expedition reports			
-	Learning Expedition of the Bukidnon Project Team and selected members of SUARC to Abuyog Leyte	July 2017	July 2017				416,000.00
	<ul style="list-style-type: none"> Draft and submit proposal to PMO and CAO for approval 	June 2017	June 2017				
	<ul style="list-style-type: none"> Coordinate Leyte Project Team for the activity 	June 2017	June 2017				
2.5.8	<i>Learning Expedition of the farmers to successful learning sites in Bukidnon Province</i>	August 2017	August 2017				112,500.00
-	Identify a learning sites in Bukidnon to be visited	July 2017	July 2017				
-	Draft and submit proposal to PMO and CAO for approval	July 2017	July 2017				
	TOTAL						3,889,450.00

Dr. Concepcion also reminded the Project to diligently monitor transfer of technology on the ground, including accounting what part of the technology is acceptable. If this automatically becomes part of the exercise, operations become smooth and results will be sustained.

Ms. Jacqueline Julia Lagamon of the Provincial Office of Bukidnon felt that the Team did not accomplish anything substantial for 2016 due to reasons beyond their control. For 2017, the support of the DA and project management must be strengthened to ensure that the project is progressing as planned and activities on site are carried out. Factors leading to inability of project sites to immediately start must be addressed. This include the unavailability of funds for project teams. FAO for instance did downloading of funds to local partners. The Leyte Team agreed and also proposed downloading of funds to the municipal LGU of Abuyog. A trust fund can be established, and the partnership sealed with a Memorandum of Agreement between DA-BSWM and the Mayor.

Dr. Nilo replied that the external factors (such as changes in leadership) were also applicable to DA and project management team and expressed hope that these will normalize in 2017. She also proposed that the Project Teams draft the TOR and MOA.

Mr. Gerona rejoined to explain that the weaknesses of one, even the strengths of one, are also the weaknesses and strengths of all. To mitigate, mechanisms like frequent meetings should be instituted. Local project teams have clear team leaders and members are likewise clear on their respective roles. Team building activities will further enhance collaborative work and promote effective communication.

The matrices and comments gathered from this session will be consolidated by the BSWM PMO, together with the inputs of the specialists, into the final 2017 AWP, for the approval of the Project Board in January 2017 and subsequent submission to UNDP. Please see **Annex O for the final draft of the 2017 AWP**.

6. Establishment of the Inter-Agency Technical Committee (IATC)

Mr. Gerona facilitated the plenary discussion to identify the member-institutions of the IATC, as follows:

- A. IATC members for Outcome 1
 - Housing and Land Use Regulatory Board
 - Department of Agrarian Reform
 - National Commission on Indigenous Peoples
 - NEDA Agriculture Staff

- B. IATC members for Outcome 2
 - Visayas State University
 - Central Mindanao University
 - Northern Mindanao Agricultural Crops and Livestock Research Complex – Region 10
 - Northern Mindanao Integrated Agricultural Research Center
 - Eastern Visayas Integrated Agricultural Research Center – Region 8
 - BSWM Research Center
 - Department of Agrarian Reform
 - DA – Agricultural Training Institute
 - Provincial Agricultural Office

The IIRR, PRRM, UPLB, FMB and BSWM will continue to serve as members of the Project Board.

Dr. Concepcion added that the meetings should also jive with capacitation work – new data comes in, new training provided, new discussions opened for continuity of effort. This will be a prime opportunity for coaching sessions. The sensitivities of offices at the local level, especially of the local chief executives, should also be recognized and respected in instituting any arrangements related to the project.

Dr. Nilo will present the above proposed membership and terms of reference of the IATC to the Project Board, for approval. BSWM will then formally communicate and send follow-up letters to the designated member-agencies to provide their permanent and alternate representatives to the IATC. Benefits accruing to the participating agencies from this inter-agency partnership will also be raised during the Project Board Meeting (e.g. access to information, database system infrastructure lodged with academe, transportation allocation, etc). It is also envisioned that the IATC will evolve into an SLM Task Force with regular annual budget allocation from the Department of Agriculture.

7. Culmination of the Workshop

Dr. Cabrido noted that the project is now moving forward, which poses a challenge to the specialists to work at a faster pace, hoping that the deliverables can be submitted by early next year.

Dr. Muzones commended the entire group and expressed gladness that things have become clearer for 2017. He joins everyone in praying for good health and energy to surpass next year's challenges.

Dr. Concepcion said he was very encouraged by the active participation and is looking forward to working closely with everyone.

The Leyte Team requested transparency to retain the respect for each other.

The Bukidnon Team conveyed that they were not expecting long hours of work during the workshop but nevertheless appreciated the information and lessons shared and considered it a valuable activity worth the long travel from Mindanao. The team is also anticipating that these assessment and planning workshops will become a regular activity of the Project.

Dr. Nilo thanked the participants on behalf of the principals, expressing joy at seeing how the project has progressed since the Inception. She expressed her appreciation for the commitments made by the stakeholders as articulated through feedbacks received during the discussions, proving that the Project is indeed one family. Dr. Nilo also thanked the NGAs and the consultants who are also the mentors of SLM practitioners in the country and conveyed her hope for the Project to be able to maximize their presence and engagement. Dr. Nilo likewise acknowledged the BSWM family and the partners on the ground who serve as local champions. Recognizing the high volume of tasks ahead, she enjoined other BSWM divisions to help facilitate the smooth implementation of the Project. She also gave recognition to the PMO, especially to Mayette Oamil and Tracey Subaldo for being ever reliable and for multi-tasking to deliver the requirements. Dr. Nilo equally showed gratitude to Mr. Gerona for agreeing to facilitate the workshop on such a short notice and to Ms. Feliciano for providing documentation services. She concluded the workshop with a prayer for guidance and strength to face the challenges of the coming year.

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Annex A: Workshop Programme



Republic of the Philippines
 DEPARTMENT OF AGRICULTURE
 Bureau of Soils and
Water Management
 Soils Research and Development Center Building
 Elliptical Road corner Visayas Avenue
Diliman, Quezon City



INDICATIVE PROGRAM
Year End Assessment and Planning Workshop
AZZURRO HOTEL, Angeles Pampanga
December 8-9, 2016

TIME	ACTIVITY	RESPONSIBLE PERSON/S
DAY 1 (December 8, 2016)		
8:00-9:00	Assemble at BSWM Ground	ALL
9:00-11:00	Depart for Clark	ALL
11:00 -12:00	Registration	ALL
12:00- 1:00	Lunch	ALL
1:00-2:00	Opening Program - Invocation - National Anthem - Messages Photo Opportunity	Video Silvino Q. Tejada National Project Director Floradema C. Eleazar Team Leader, ISD All
2:00- 5:00	Technical Presentation 1.) Overview of the Project Rationale of the Activity Three Year Project Work Plan 2.) Accomplishment Report and Issues and Challenges in the Implementation Outcome 1: Effective cross- sectoral national and local enabling environment to promote integrated landscape management 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 3.) Work and Financial Plan 2016 4.) Revisit the Project Result Framework and Discussion	Dr. Gina P. Nilo Focal Person, UNDP GEFS HULRB LGU of <u>Malaybalay</u> LGU of <u>Abuyog</u> BSWM Tracy Subaldo Field Coordinator Rey Gerona Facilitator
END OF DAY 1		



Republic of the Philippines
 DEPARTMENT OF AGRICULTURE
**Bureau of Soils and
 Water Management**
 Soils Research and Development Center Building
 Elliptical Road corner Visayas Avenue
 Diliman, Quezon City



DAY 2 (December 9, 2016)		
8:30-9:00	Recap of Day 1	Rey Gerona Facilitator
9:00-10:30	Update and Deliverables <ul style="list-style-type: none"> - Comprehensive Land Use Plan Specialist - Database Development and GIS Specialist - Sustainable Land and Water Management Specialist 	Consultants
10:30-12:00	Work and Financial Plan 2017 (draft for discussion)	Rey Gerona Facilitator
12:00-1:00	LUNCH	

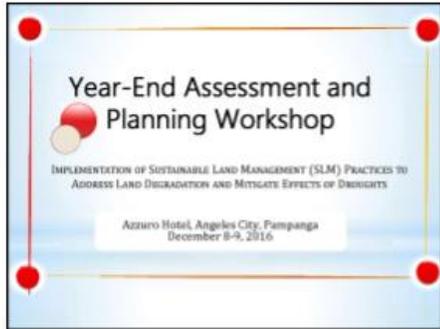
1:00- 3:30	Workshop <ul style="list-style-type: none"> - Work and Financial Plan 2017 - Catch up Plan 	
3:30 – 5:00	Presentation of Workshop Output	
5:00-5:30	Closing Program <ul style="list-style-type: none"> - Impression - Closing Message - Thanksgiving Prayer 	Participants Grace Tena Programme Associate Dr. Gina P. Nilo Focal Person UNDP GEFS

Annex B: List of Participants

#	NAME	OFFICE	DESIGNATION
1	Dr. Silvino Tejada	BSWM	Project Director
2	Ms. Grace Tena	UNDP – ISD Unit	Programme Associate
3	Dr. Gina Nilo	BSWM	SLM Project Focal Person
4	Ms. Adamar Estrada	DA SPCMAD	
5	Ms. Angelita Martir	DA SPCMAD	
6	Ms. Evelyn Valeriano	DA SPCMAD	
7	Ms. Josefina Venturanza	DA SPCMAD	
8	Mr. Joey Sumatra	DAR – Bureau of Land Tenure	Assistant Director
9	Ms. Lucell Pancho Carpentero	Malaybalay - CAO	Agricultural Technician
10	Ms. Jacqueline Julia Lagamon	Malaybalay – CAO	Assistant Provincial Agriculturist
11	Ms. Roxanne O. Gamo	Malaybalay - CENRO	
12	Mr. Richard Leono	Malaybalay - CAO	Supervisor – Planning Division
13	Mr. Virgilio Ocona Soria, Jr.	Leyte – MENRO	
14	Ms. Dina Pitao	Leyte – PAO	Agriculture Focal Person
15	Ms. Nenita Sultan	Leyte – PAO	Chief, Provincial Rice Program Coordinator
16	Ms. Evangeline Garing	Leyte – PAO	
17	Ms. Antonieta Casamis Arandia	Leyte – MAO	
18	Mr. Florentino C. Agustin	BSWM – Dalwangan	Supervising Science Research Specialist
19	Mr. Henry A. Apolinares	BSWM – Dalwangan	Center Chief, Bukidnon
20	Mr. Alberto A. Salaum	BSWM – Dalwangan	Supervising Operations Division
21	Mr. Kirby Mallari	BSWM – Soil Conservation	
22	Ms. Feriola Serrano	BSWM - ALMED	
23	Ms. Bella Noceda	BSWM – Soil Survey	
24	Ms. Amy Yambot	Soil and Water Research	
25	Ms. Luz Arvizo	BSWM – Admin and Finance	Accounting Section
26	Ms. Amelia Cabrera	BSWM – Admin and Finance	Accounting Section
27	Mr. Bernardo Pascua	BSWM - Geomatics	
28	Ms. Tracey Subaldo	SLM Project Management Office	Field Coordinator - Malaybalay
29	Ms. Marietta Oamil	SLM Project Management Office	Admin and Finance Assistant
30	Dr. Rogelio N. Concepcion	SLM PMO Consultant	SLM Specialist

#	NAME	OFFICE	DESIGNATION
31	Dr. Candido Cabrido, Jr.	SLM PMO Consultant	CLUP Specialist
32	Dr. Dennis Muzones	SLM PMO Consultant	Database GIS Specialist

Annex C: Workshop Rationale



Why This Workshop?

Chapter VI. M&E Plan and Budget (page 78 of the Project Document)

- Annual Project Review requirement
- Contents of Annual Project Review/Project Implementation Reports
- Progress made toward Project Objective & Outcomes (Indicators)
- Project Outputs
- Lessons learned, good practices
- M&E & expenditure reports
- Tools
- ATLAS QPR

We want to be refreshed

- Where are we going
- Where are we Now?

We want to be reminded

We want to be warned

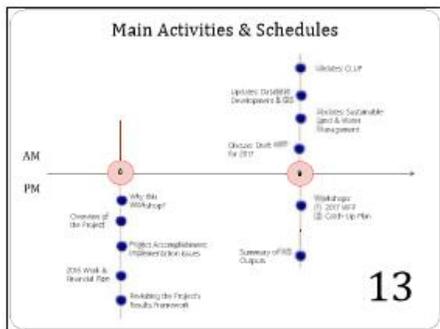
We want to be reminded

We want this project to succeed



Method

Ask



Annex D: Overview of the Project

 <p>Implementation of Sustainable Land Management (SLM) Practices to Address Land Degradation and Mitigate Effects of Drought</p>	<p>GEF Focal Area Objectives:</p> <p>LD1 Maintain or improve flows of agro-ecosystems services to sustain livelihoods of local communities</p> <p>LD3 Reduce pressures on natural resources from competing land uses in the wider landscape</p>
<p>The Project</p> <p>Objective</p> <p>To strengthen SLM frameworks to address land degradation processes and mitigate the effects of drought in the Philippines</p> 	<p>Project Duration 3 years (2015-2018)</p> <p>Project Sites</p> <ul style="list-style-type: none"> ×Barangay Silae, Malaybalay City, Bukidnon (<i>Demo site for soil erosion</i>) ×Barangay Tadoc, Abuyog, Leyte (<i>Demo site for soil fertility decline</i>)
<p><small>Implementing Agency: United Nations Development Programme</small></p> <p><small>Responsible Entity: Bureau of Soils and Water Management</small></p> <p>Responsible Partners</p> <ul style="list-style-type: none"> • DA/SPCMAD • DENR/FMB • DAR • DILG • HLURB • Malaybalay, Bukidnon • Abuyog, Leyte 	<p>Key Outcomes and Outputs</p> <p>1. Effective national enabling environment to promote integrated landscape management</p> <p>Outputs</p> <ul style="list-style-type: none"> 1.1 Institutional capacities in place for promoting sustainable forest and land management in the Philippines, evidenced in the UNDP-GEF Capacity Development Scorecard (focused on institutional collaboration) 1.2 Approved guidelines on SLM mainstreaming into national and local land use plans and investment programs (to be field tested under Outcome 2).

Key Outcomes and Outputs

1. Effective national enabling environment to promote integrated landscape management

Outputs

- 1.3 Information management system to support SLM integration into LGU's development plans and improving informed land use allocation decisions
- 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

Key Outcomes and Outputs

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

Outputs

- 2.1 Comprehensive Land Use Plans (CLUPs) updated/revised for targeted City and Municipality with serious LD issues
- 2.2 SLM best practices implemented in target City and Municipality

Key Outcomes of the Project

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

Outputs

- 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
- 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.

Key Stakeholders

- × **Farmers organizations** – downstream beneficiaries of the project
- × **BSWM** – lead agency for the SLM project
- × **DA-SPCMAD** - the mandated unit of DA in the provision of M&E support to the project, will conduct performance and financial review in accordance with the requirements of the donor agencies and the DA.
- × **DENR-FMB** - planning and implementing forest conservation policies and programs

Key Stakeholders

- × **DAR** - implements the country-wide program on land distribution and corresponding support services to agrarian reform beneficiaries
- × **DILG** - supervising LGUs, issuing policies, and monitoring and evaluating their progress and development, among other functions
- × **HLURB** – issuing guidelines for the preparation of CLUP by cities and reviewing the quality of their plans aside from their legal and program development functions

Key Stakeholders

- × **PAOs & MAOs** - preparing and implementing agriculture sector development plans and programs aside from providing extension services to farmers
- × **NGOs and academic and research institutions** - resource persons in SLM training and documentation of best practices
- × **UNDP Manila** - implementing agency of the GEF and is responsible in facilitating the development, review and submission of projects for GEF financing

Key Outcomes and Outputs

1. Effective national enabling environment to promote integrated landscape management

Outputs

- 1.3 Information management system to support SLM integration into LGU's development plans and improving informed land use allocation decisions
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Co-financing/Budget

Government		
DA-BSWM		2,659,240.00
DENR		700,000.00
HLURB		374,575.00
MALAYBALAY, BUKIDNON		582,462.00
ABUYOG, LEYTE		986,875.00
Subtotal		5,303,152.00
UNDP		
		500,000.00
GEF		
		870,900.00
Subtotal		1,370,900.00
TOTAL BUDGET		6,674,052.00

RATIONALE

Objectives of this Activity

1. Evaluate the progress of the project per objective, outcome, and output
2. To prepare the 2017 Work and Financial Plan
3. To come up with the catch up plan (for activities that are not implemented according to target schedule)
4. To revisit and discuss the Project Results Framework

Objectives of this Activity

1. Evaluate the progress of the project per objective, outcome, and output
2. To prepare the 2017 Work and Financial Plan
3. To come up with the catch up plan (for activities that are not implemented according to target schedule)
4. To revisit and discuss the Project Results Framework

Three Year Project Work Plan

Project Outcome Indicators of Outcome 1	Baseline		2016 Target	End of Project
	Year	Quantity / Quality		
An Integrated Land Management framework incorporating SLM practices and technologies	2015	Presence of guidelines in mainstreaming CCA – DRR and biodiversity conservation in CLUP	Key Elements of the Integrated Land Management Framework identified	Integrated Land Management Framework completed and entry points to mainstream the Framework in DA, DENR, DILG, DAR and NEDA identified Draft policy issuance of the Integrated Land Management Framework

Three Year Project Work Plan

Project Outcome Indicators of Outcome 1	Baseline		2016 Target	End of Project
	Year	Quantity / Quality		
Enhanced CLUP guidelines to mainstream SLM	2015	No existing procedural guidelines on mainstreaming SLM in land use, agricultural and forestry development plans	Entry points in mainstreaming SLM in CLUP identified	Supplemental guidelines on mainstreaming have been applied in to pilot municipalities and further enhanced based on experience and findings of the testing exercise

Three Year Project Work Plan

Project Outcome Indicators of Outcome 1	Baseline		2016 Target	End of Project
	Year	Quantity / Quality		
Relevant policy issuance for the mainstreaming of SLM in local land use including forest land use and development planning processes	2015	Pledge of commitment signed by DA, DAR and DENR in support to the implementation of the National Action Plan to Combat Desertification, Land Degradation and Drought (NAP-OLDD 2010-2020)		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

Three Year Project Work Plan

Project Outcome Indicators of Outcome 1	Baseline		2016 Target	End of Project
	Year	Quantity / Quality		
Data base and decision support information system operational and accessible to LGUs	2015	Existing LADA web portal with maps at national and regional scales	Identified gaps on existing database and other relevant data sets determined	Developed a GIS-based LADA maps incorporating SLM practices and technologies with information/maps accessible and relevant to CLUP preparation of LGUs Developed a user guide for the upgraded database

Three Year Project Work Plan

Project Outcome Indicators of Outcome 1	Baseline		2016 Target	End of Project
	Year	Quantity / Quality		
Competency development program for LGUs on SLM technology application and mainstreaming developed and implemented	2015	New and young scientist from BSWM, DA Regional Offices, DENR and DAR lacked hands-on training on SLM	Competency gaps identified Competency development program guide developed	Training of SLM practitioners by the MACs, ATI extension workers, DA-BSWM and DENR on SLM technology applications conducted

Three Year Project Work Plan

Project Outcome Indicators of Outcome 1	Baseline		2016 Target	End of Project
	Year	Quantity / Quality		
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	2015	Average capacity scores for DA-BSWM DA-BSWM: 1.4 DA-BSWM: 1.8 DA-BSWM: 2.1 DA-BSWM: 1.9 DENR-FMB: 1.4 DENR-FMB: 1.8 DENR-FMB: 2.1 HLURB: 1.4 HLURB: 1.8 HLURB: 2.1		At least an average increase in 5 capacity results (DA-BSWM) 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 13 At least an average increase in 5 capacity results by 0.2 to 1.02 for HLURB with a high score of 2 to 3 in the following indicators: Indicator 1, 10, 11, 12 and 14 (1)

Physical Accomplishment 2016

Outcome 1: Effective national enabling environment to promote integrated landscape management			
Output/Activity	Completed	On-Going	Not Started/ Delayed
Output 1.1: Multi-sectoral stakeholder's committee strengthened at national level to oversee and give advice on the integration of SLM into LGU's development plans.			
1.1.1 Conduct of program planning and review with UNDP, LGUs, HLURB, DENR-FMB, and BSWM	Program planning & review conducted; prepared 2016 AWP		
1.1.2 Conduct of workshop to review first draft of the Integrated Land Management Framework		Consultant has started working on the ILMF	

Physical Accomplishment 2016

Outcome 1: Effective national enabling environment to promote integrated landscape management		
Output/Activity	Completed	On-Going
Output 1.2: Approved guidelines on SLM mainstreaming into national and local land use plans and investment programs (to be field tested in Outcome 2)		
1.2.1 Conduct an Orientation and Planning Workshop with HLURB, BSWM, FMB and LGUs of project sites regarding their roles in the development of the Supplemental Guidelines in the CLUP	Conducted in June 30, 2016	
1.2.2 Conduct of a workshop to review and accept the Draft Reference Guidelines		The consultant has submitted the draft inception report and now working on the draft reference guidelines

Physical Accomplishment 2016

Outcome 1: Effective national enabling environment to promote integrated landscape management	
Output/Activity	On-going
Output 1.3: Information management system to support SLM integration into LGU's development plans and improving informed land use allocation decisions.	
1.3.1 Conduct of workshop to review and accept the report on Competency Gaps Assessment in SLM technology application	
1.3.2 Conduct of workshop to review and accept the Competency Development Guide Program	

Physical Accomplishment 2016

Outcome 1: Effective national enabling environment to promote integrated landscape management		
Output/Activity	On-going	Not started/ Delayed
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		
1.4.1 Conduct of review of existing data base and other relevant data sets		The consultant has submitted the inception report and is working on the review of existing database and other relevant data sets.
1.4.2 Conduct of workshop to review the report on the gaps on existing data base and other relevant data sets submitted by the GIS and Database Specialist consultant		The workshop is dependent on the submission of the report on the gaps on existing database and other relevant data sets

Physical Accomplishment 2016

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/Activity	Completed	On-going	Not started/ Delayed
Output 2.1: Comprehensive land use plans (CLUPs) updated/revised for targeted city and municipality with serious LD issues			
Output 2.2: SLM best practices implemented in target city and municipality			
2.2.1 Site visits for collection of baseline information		Soil and plant samples were collected and now being analyzed at BSWM laboratory.	

Physical Accomplishment 2016

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/Activity	Completed	On-going	Not started/ Delayed
Output 2.2: SLM best practices implemented in target city and municipality			
2.2.2 Conduct of workshop to review and finalize the Land Degradation Index and LDI monitoring system			This activity will no longer be done due to limited speakers regarding LDI
2.2.3 Conduct of workshop to review and finalize the LDI and its monitoring system		The consultant is on-board and now preparing the inception report	

Physical Accomplishment 2016

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/Activity	Completed	On-going	Not started/ Delayed
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			
2.3.1 Conduct of inventory of existing SLM modules from the various agencies and to revise and update the modules			Hiring of CapDev and Training Specialist has been delayed due to differences in financial proposals. The hiring was re-opened in September 2016
2.3.2 Production of SLM modules that will be incorporated into the Farmers Field School (FFS)			

Physical Accomplishment 2016

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/Activity	On-going
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	
2.3.3 Conduct of meeting on DA regular programs support for farmers adopting SLM technologies in the 2 project sites	Meeting between DA-RFO and field coordinators was conducted. However, DA-RFO proposed to have a Rapid Assessment Activity to determine the needs of farmers.
2.3.4 Establishment of Techno-Demo Farms and Training on Farm Planning with SLM technologies in the 2 project sites	Soil samples are being processed at BSWM. Soil characterization is necessary for the development of the farm plan. The Techno-demo farms are already planted with regular crops by the farmers but its

Physical Accomplishment 2016

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/Activity	Not Started/Delayed
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	
2.3.5 Provision of Technical Assistance to attendees to the Training on Farm Planning in their farm SLM adoption and Monitoring of Techno Demo Farms	The Soil Conservation Division of BSWM will assess the techno-demo farm and develop the farm plan

Physical Accomplishment 2016

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/Activity	Not Started/Delayed
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.	

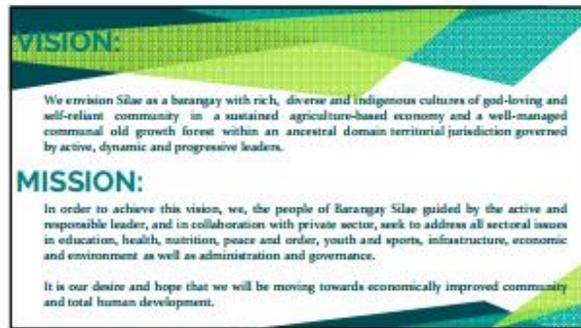
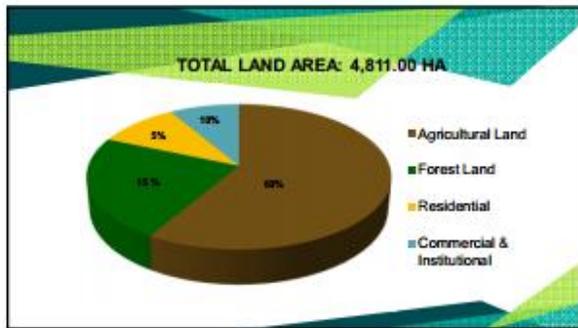
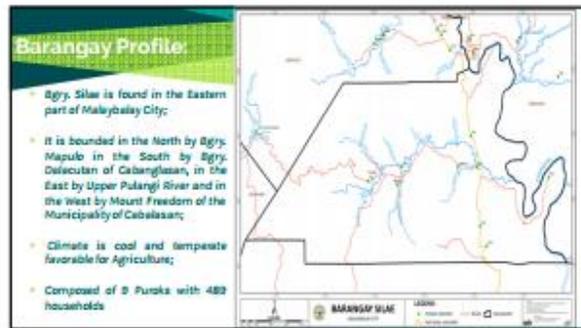
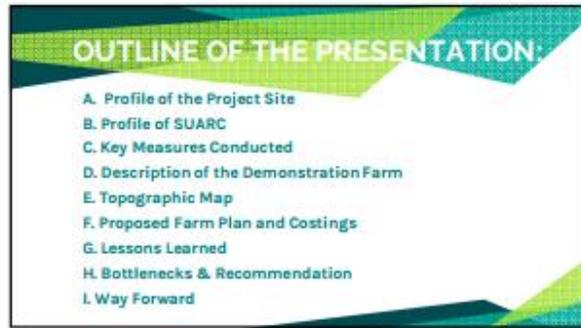
Financial Accomplishment 2016

OUTCOME/ OUTPUT	BUDGET USD	EXPENDITURES USD	PAYABLES USD	BALANCE @-@ USD
OUTCOME 1	40,381.19	34,432.72	8,162.96	17,785.51
1.1	8,263.90	7,575.31		687.99
1.2	22,380.51	9,376.11	3553.03	9,451.37
1.3	29,419.70	17,481.30	4609.93	7,327.97
1.4	318.18			318.18
OUTCOME 2	118,785.81	15,073.51	114,094.25	(10,381.95)
2.0				
2.2	72,023.18	10,931.94	111928.47	(50,837.23)
2.3	46,762.63	4,141.57	2165.78	40,455.28
PWD	25,333.00	12,352.01	3,208.37	9,772.62
GRAND TOTAL	204,500.00	61,858.34	125,465.58	11,176.18

Evidence of these accomplishments will be presented by:

- LGUs of Marikina & Abree
- BSWM (ALMED, Survey & Conservation)

Annex E: Presentation of the Bukidnon Project Team



GOALS		
Economic	Institutional	Infrastructure
<ul style="list-style-type: none"> • Increase agricultural production and family income • Farm to Market Roads • Provide livelihood projects 	<ul style="list-style-type: none"> • Intensify tax collection • Capability building for BDC members • Enact ordinance to regulate land conversion 	<ul style="list-style-type: none"> • Road rehabilitation • Increase productivity of farmers • Establishment/Development of possible potable water source • Construction of day care centers • Construction of BPSO outposts • Construction of MPDPs • Construction of RIC Office • Establishment of irrigation system • Establishment of rice and corn mill • Construction of additional classrooms



Project Recipient:

- ☐ Silae United Agrarian Reform Cooperative (SUARC)
- ☐ Date of Registration of the Cooperative Name: October 8, 2012
- ☐ Located at Purok 2, Silae, Malaybalay City
- ☐ Category: Primary
- ☐ An Agricultural Cooperative
- ☐ 41 Active Members

VISION:

- ☐ Financially Stable Cooperative

MISSION:

- ☐ To improve the socio - economic condition of the members by making available goods, services and facilities that will increase agricultural production

Silae United Agrarian Reform Cooperative (SUARC)

GOAL

- ☐ Through unity and self- reliant members in the cooperative can achieve an efficient future form generation to generation

Silae United Agrarian Reform Cooperative (SUARC)

OBJECTIVES:

- ☐ To encourage thrift and savings mobilization among the members for the cooperative;
- ☐ To provides goods and services and other requirements of the cooperative;
- ☐ To engage in the supply of production inputs to members, non - members and market their products;
- ☐ To engage in consumers and marketing services;
- ☐ To promote the cooperative as a way of life for improving the social and economic well – being of the people;
- ☐ To work with the cooperative movement, non – government and government organization/entities in the promotion and development of cooperatives and in carrying out policies.

Silae United Agrarian Reform Cooperative (SUARC)



Worksheet of Active SUARC Members with corresponding Land Area Cultivated

No.	Name	Area	No.	Name	Area
1	Theresa Cabanes	1.0	29	My Way	1.0
2	Liza Cabanes	1.0	30	Maricela Pabali	1.0
3	Aida Cabasao	1.0	31	Veronica Pabali	1.0
4	Rita Doyong	1.0	32	Maricela Pabali	1.0
5	Jan Guinobe	1.0	33	Benigno Tabora	1.0
6	Janet Guinobe	1.0	34	Maricela Pabali	1.0
7	Rosita Adalin	1.0	35	Janet Guinobe	1.0
8	Lulu Sando	1.0	36	Lulu Sando	1.0
9	Elizabeth O. Guinobe	1.0	37	Imogen Lopez	1.0
10	Maria Eleazar	1.0	38	Willyn Yara	1.0
11	Gerardo Pina	1.0	39	Elizabeth Guinobe	1.0
12	Edna Guinobe	1.0	40	Imogen Lopez	1.0
13	Melvin Guinobe	1.0	41	Lulu Sando	1.0
14	Edna Guinobe	1.0	42	Paula Cabanes	1.0
15	Aida Guinobe	1.0	43	Benigno Tabora	1.0
16	Edna Guinobe	1.0	44	Veronica Pabali	1.0
17	Imogen Lopez	1.0	45	Veronica Pabali	1.0
18	Imogen Lopez	1.0	46	Willyn Yara	1.0
19	Imogen Lopez	1.0	47	Janet Guinobe	1.0
20	Lulu Sando	1.0	48	Paula Cabanes	1.0
21	Imogen Lopez	1.0	49	Imogen Lopez	1.0
22	Lulu Sando	1.0	50	Paula Cabanes	1.0
23	Imogen Lopez	1.0	51	Imogen Lopez	1.0
24	Lulu Sando	1.0	52	Paula Cabanes	1.0
25	Imogen Lopez	1.0	53	Imogen Lopez	1.0
26	Lulu Sando	1.0	54	Paula Cabanes	1.0
27	Imogen Lopez	1.0	55	Imogen Lopez	1.0
28	Lulu Sando	1.0	56	Paula Cabanes	1.0

FARM MACHINERIES AND FACILITIES

Project	#	Year Acquired	Agency	Total Cost	Status
1. Biodegradable Shredder	1 unit	2015	DAR		Functional
2. Banana Chipper	1 unit	2015	DAR		Functional
3. Massey Tractor	1 unit	2015	DAR		Functional
4. Thriller	1 unit	2015	DA		Functional
5. Corn Sheller	1 unit	2015	DA		Functional
6. Rice Thresher	1 unit	2015	DA		Functional



IDENTIFIED SLM DEMONSTRATION SITE

- Total Area is 3.5 ha
- Located at Purok 5 (Kibalabag) Silae, Malaybalay City;
- Owned by Mrs. Rosita Adalim

Present Situation:

- Planted 1.0 hectare corn on October 2016;

ACCOMPLISHMENTS



ACCOMPLISHMENTS:

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

- ☐ Courtesy Call with:
 - ✓ Mr. Henry Apolinares, Chief of BSWM Dalwangan Research Center, Bukidnon
 - ✓ Engr. Alson G. Quimba, Provincial Agriculturist of Bukidnon
 - ✓ Ms. Remedios Sarzuelo, City Agriculturist of Malaybalay
 - ✓ Hon. Jose Maria R. Zubiri, Governor of Province of Bukidnon
- ☐ Courtesy Call with Dir. Constancio Maghanoy Jr. (RTD for Research & Regulations)

ACCOMPLISHMENTS:



Meeting with DA- NMACLR Staff and RTD Maghanoyon
May 22, 2016

ACCOMPLISHMENTS:

Baseline Information Collection on June 2016



ACCOMPLISHMENTS:

Baseline Information Collection on June 2016



ACCOMPLISHMENTS:

Baseline Information Collection on June 2016



ACCOMPLISHMENTS:
Baseline Information Collection on June 2016



ACCOMPLISHMENTS:

Site Validation on October 13, 2016 with BSWM Dalwangan Center and CA Office



ACCOMPLISHMENTS:

Site Validation on October 13, 2016 with BSWM Dalwangan Center and CA Office



RESULT OF THE SITE VALIDATION:

SITE VALIDATION REPORT	
1. BACKGROUND INFORMATION who joined in the validation: Rep. BSWM, BSWM and Project Staff, Farmer representative	
2. PROJECT'S RATIONALE AND OBJECTIVES: Physical observations of the area shows that several areas take place due to soil erosion As reported in comments in the first stage of the site.	
3. Project Profile:	
1. Name of project:	Implementation of Sustainable Land Management Practices to Address Land Degradation and Risks, Object of Project
2. Location:	Barangay Dalwangan, Bataan — Purok 2 (B210)
3. Coordinates:	Longitude: 120°48'40"E
4. Start of project:	2016
5. Period of report:	10th Strategic priority action
6. Output/Impacts/Products/Indicator:	14 mapping sets for mapping 1000 ha area
7. Cost:	20,000
8. Lead agency:	Agrib. B210
9. Other information: 1.0 The selected farmer representative is willing to adopt new technology 2.0 The Government resources implemented 3.0 Farmer can absorb the cost needed	
Date validated: October 13, 2016	
Validated by: Atienza & Salazar	
Signed by: Ranao, A. Apollonio	

ACCOMPLISHMENTS:
Participatory Rapid Appraisal (PRA) on October 24-26, 2016



ACCOMPLISHMENTS:
Participatory Rapid Appraisal (PRA) on October 24-26, 2016



ACCOMPLISHMENTS:

Participatory Rapid Appraisal (PRA) on October 24-26, 2016



ACCOMPLISHMENTS:

"Training on Sustainable Land Management (SLM) and Initial Establishment of the Techno Demonstration Site on November 7-11, 2016"



ACCOMPLISHMENTS:

"Training on Sustainable Land Management (SLM) and Initial Establishment of the Techno Demonstration Site on November 7-11, 2016"



TOPOGRAPHIC MAP



TOPOGRAPHIC MAP OF SLAE TECHNO-DEMO FARM
Sfaw, Malakbalay City, Bukidnon

PROPOSED FARM PLAN



PROPOSED BUDGET TO ESTABLISH THE DEMO FARM

Contour	Plant seedlings	Total number of plant seedlings per contour
1	Pineapple	20
	Pineapple	844
1.a	Pineapple	11
	Pineapple	500
1.b	Pineapple	14
	Pineapple	300
1.c	Pineapple	14
	Pineapple	350
1.d	Pineapple	8
	Pineapple	175
2	Kalamansi	100
	Pineapple	868
3	Pineapple	41
	Pineapple	843
4	Kalamansi	68
	Pineapple	880
5	Davao	23
	Pineapple	560
6	Lemon	11
7	Kambuan	10
8	Kambuan	4

PROPOSED BUDGET TO ESTABLISH THE DEMO FARM

Items	Units	Price	Total
Fruit Trees			
Banana	144	83	12,048.00
Pineapple	3,300	83	273,900.00
Coconut	100	83	8,300.00
Orange	100	100	10,000.00
Apple	10	83	830.00
Guava	10	83	830.00
Others	100	83	8,300.00
Mixed Forest Trees			
Maize	100	83	8,300.00
Wheat	100	83	8,300.00
Peas	100	83	8,300.00
Barley	100	83	8,300.00
Lucerne	100	83	8,300.00
Others	100	83	8,300.00
Forages			
Timothy	2,000	750	1,500,000.00
Guatemala	2,000	750	1,500,000.00
Others			
Shovel	5	500	2,500.00
Wax	2	500	1,000.00
Crab Net	4	400	1,600.00
Hand Truss	1	400	400.00
Lucerne Seed	1	250	250.00
Others			
Total Cost	49,000	250	12,245,000.00
Subtotal	20	250	5,000.00
TOTAL			17,245,000.00

SUMMARY:

- Fruit Trees = 102,860.00
- Mixed Forest Trees = 36,000.00
- Forages = 800.00
- Garden Tools = 9,150.00
- Others = 12,000.00

TOTAL = 250,810.00

ACCOMPLISHMENTS:

- Joined and presented the project at the Regular Meeting of the Municipal Agriculture Offices of Bukidnon Province;
- Participated in the Provincial Agriculture Office activities and promote the project;
- Done sticking for the initial establishment of contouring;

ACCOMPLISHMENTS:

- Published article regarding the SLM Farm Planning Activity to the Department of Agriculture newsletter "Aggies" and "Facebook" page.

Established Linkages with NMACLRC, ATI 10 & CMU

- Initial Orientation of the Forage Technology and field visit at the national artificial breeding center at Malaybalay Stock Farm. c/o Northern Mindanao Agricultural Crops and Livestock Research Complex (NMACLRC);
- To include Bgry. Silae as one of the Forage Technology Development and Techno Demonstration Establishment on 2017 under the project of (NMACLRC);

ACCOMPLISHMENTS:

- DAR commit cost sharing on the trainings/ meeting of the project to be conducted at the site
- Collaboration with Central Mindanao University (CMU) to the project on the formulation of the Farmer Field School Module, trainings and monitoring of the activities

LESSONS LEARNED

- Project implementation has been delayed as planned during the planning workshop last February 2016 at Angeles, Pampanga.
- Availability of funds from program management to conduct training, establish the demo farm, procure supplies and materials, etc
- Preparation of the field demo area
- Release of funds for the project to start as planned

BOTTLENECKS ENCOUNTERED

- Additional Cost for the cooperators to establish the demo farm (Draft Animals, Farm Labor)
- Planned schedule of activities were not followed
- Role and function of Barangay LGU was not defined
- Unavailable Module for the demo farm (FFS on SLM)

RECOMMENDATIONS

1. Revisit work and financial plan
2. The LGU implementer (Malaybalay City Project Team) will brief the BLGU on the project implementation
3. Link with the ATI and all other projects implementing SLM in the formulation of Training module for the demo farm.

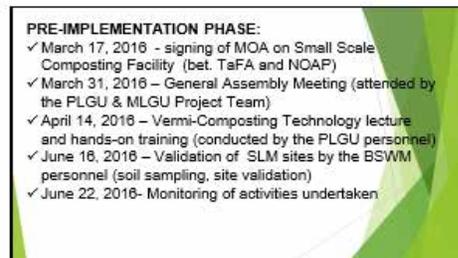
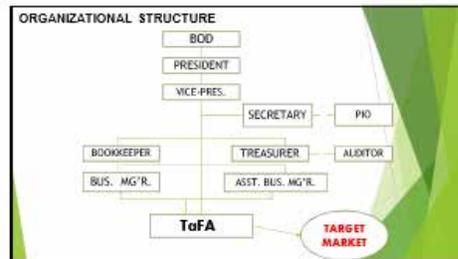
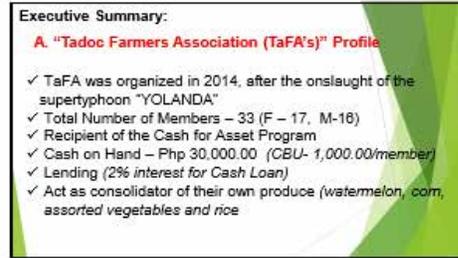
WAY FORWARD

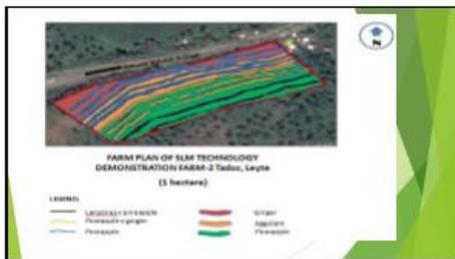
DATE	ACTIVITY	RESPONSIBLE PERSON/ GROUP
Dec. (2 nd wk) 2016	Project Briefing to the community	Malaybalay Project Team
Dec. (2 nd wk) 2016	Values Orientation and Team Building	ALL
Jan. (2 nd wk) 2017	Meeting with Central Mindanao University for collaboration in extension service	Malaybalay Project Team & PMO
Jan. (2 nd wk) 2017	Topographic Mapping Survey	BSWM Soil Con. Division
Jan. (4th wk) 2017	Formulation of Farmer's Field School (FFS) Module on SLM	Malaybalay Project Team (ATI, CMU, selected SUARC Members, NMACLRC, BSWM, UNDP)
March 2017	Implementation of the FFS-SLM Module	ALL



160+ Essential icons, see colorful images
 This means that program
 • Breaks down natural resource quality
 • Gives citizens more opportunity
 • Through the water, soil and air cycle
 with that result
 Innovation

Annex F: Presentation of the Leyte Project Team





PROPOSED LIST OF CROP TO ESTABLISH THE DEMO FARM

Sl. No.	Area/Zone	Crop to be established	Quantity	Notes
1	Zone A	Coconut	1000	
2	Zone B	Coconut	1000	
3	Zone C	Coconut	1000	
4	Zone D	Coconut	1000	
5	Zone E	Coconut	1000	
6	Zone F	Coconut	1000	
7	Zone G	Coconut	1000	
8	Zone H	Coconut	1000	
9	Zone I	Coconut	1000	
10	Zone J	Coconut	1000	
11	Zone K	Coconut	1000	
12	Zone L	Coconut	1000	
13	Zone M	Coconut	1000	
14	Zone N	Coconut	1000	
15	Zone O	Coconut	1000	
16	Zone P	Coconut	1000	
17	Zone Q	Coconut	1000	
18	Zone R	Coconut	1000	
19	Zone S	Coconut	1000	
20	Zone T	Coconut	1000	

LESSONS LEARNED

1. What went well? Provide examples of successes that happened during or because of the project.
 - ▶ TaFA members established brgy. Nursery and started producing vermi-compost
 - ▶ Started planting banana lakatan (planting materials availed from the HVCDP)
 - ▶ Produce watermelon, squash musk melon, cucurbits and assorted vegetables
 - ▶ Rice, corn cassava production
 - ◆ One member established 1-ha. jackfruit demo farm in coordination with DA-RFO 8
2. What didn't go well? Discuss unintended outcomes that happened during or because of the project
 - ▶ Unstable project commitment of the members

3. What might have been better handled if done differently?
 - ◆ Good info dissemination and smooth project implementation through the presence/site visitation of personnel from the project implementers (national and local)

4. What was beyond your control?
 - ◆ change of administration (election result)

5. What things surprised you on the project that were not planned?
 - ◆ Identification of the proponent

6. What things did you anticipate happening that did not happen?
 - ◆ Initial undertaking of the activities (establishment of demps and conduct of FFS)

7. What mistakes did you successfully avoid making?
 - ◆ Giving information on project commitments based on the AWP prepared that were not realized

8. What skills did you need that were missing on this project?
 - ◆ Pool of experts

BOTTLENECKS ENCOUNTERED

- ▶ Project implementers and farmers were waiting for the updates/status of the project
- ▶ FA members felt hopeless on the project realization

RECOMMENDATIONS

- ▶ Re-orientation of the project
- ▶ Realization of the targeted activities
- ▶ SLM Project Implementation in Brgy. Tadoc, Abuyog Leyte

WAY FORWARD

DATE	ACTIVITY	RESPONSIBLE PERSON
Dec 8-9, 2016	Project Evaluation	Leyte Project Team
Dec. 11, 2016	Continue contour of staking of the Demo Farm	TAFAS
Dec-12, 2016	Submission of Farm Plan to SLM Project Management Office (PMO)	Project Coordinator
Jan. (1 st wk)	Demo Farm Inputs Procurements	Leyte Project Team
Jan. (2 nd wk)	Project briefing to the community	Leyte Project Team
Jan. (3 rd wk)	Topographic Mapping	BSWM Soil Cos. Division
Jan. (4 th wk)	Values re-Orientation/ Team Building	Leyte Project Team
Feb 2017	FFS Module Formulation	Balibisan & Leyte Project Team (AT, CMS & VSS) selected Farmer Members, NMAC, RC, BSWM, LNDP)
March 2017	Start of SLM Farmer's Field School (FFS) Module Formulation	ALL

Annex G: Farmers' Profiles in the Project Sites

**Project Site Characterization
(Agro-socio Economic)**

Farmers' Profile, Silae, Malaybalay, Bukidnon, 2016

Age (Yrs)	No. of Respondents		Total	%
	Lowland	Hillyland		
20-40		3	3	9
41-60	9	11	20	63
60+	4	7	11	34
Total	13	19	32	100
Gender				
Male	1	1	2	6
Female	12	18	30	94
Total	13	19	32	100
Marital Status				
Married	12	19	31	97
Divorced				
Widowed	1		1	3
Total	13	19	32	100

Farmers' Profile, Silae, Malaybalay, Bukidnon, 2016 (Cont.)

Education	No. of Respondents		Total	%
	Lowland	Hillyland		
Some Elementary	2	3	5	16
Elementary	8	10	18	56
Some High School	4	4	8	25
High School		1	1	3
Vocational				
Some College				
College				
Total	14	18	32	100
Years in Farming				
1-10	1		1	3
11-20	2	5	7	22
21 and above	10	14	24	75
Total	13	19	32	100

Farmers' Profile, Silae, Malaybalay, Bukidnon, 2016 (Cont.)

Household Size	No. of Respondents		Total	%
	Lowland	Hillyland		
2	2	1	3	9
3	2	7	9	28
4	1	5	6	19
5	3	4	7	22
5+	6	1	7	22
Total	14	18	32	100

Farmers' Profile, Tadoc, Abuyog, Southern Leyte, 2016

Age (Yrs)	No. of Respondents		Total	%
	Lowland	Hillyland		
20-40	6		6	41
41-60	6		6	41
60+	4		4	18
Total	22		22	100
Marital Status				
Married	18		18	45
Divorced	11		11	50
Widowed	1		1	5
Total	22		22	100

Farmers' Profile, Tadoc, Abuyog, Southern Leyte, 2016 (Cont.)

Education	No. of Respondents		Total	%
	Lowland	Hillyland		
Some Elementary	5		5	23
Elementary				
Some High School	11		11	50
High School				
Vocational	1		1	5
Some College	4		4	18
College				
Total	22		22	100
Years in Farming				
1-10	4		4	18
11-20	4		4	18
21 and above	9		9	41
Total	22		22	100

Farming Community

	Olson, Minnesota, Redistrict	Fisher, Wisconsin, Southern Legate
Settling	170, 180 type	180, 190 type
Perennial accessibility	More 30% slope, steep hills and cliffs for steeper side and most of the areas are gently sloping, and undulating. No road encroaching and hilly. The farms are accessible mainly through the harrowed roads and trail or footpath that are easily reached by foot.	Relatively flat to gently rolling to rolling and low, wooded, and partly cultivated hills. The farms are accessible mainly through the harrowed roads and trail or footpath that are easily reached by foot.
Local food source	Harvest, various meats, poultry raising and livestock production	Raising on small occupations, off farm store and livestock production.
Reliance on Farm Labor	Family provides labor from planting to harvesting (annual)	Family and hired labor
Technical and Infra Support	CA technicians, loan institutions	CA technicians, loan institutions, trig facility and rice mill in the adjoining township
Source of Farming Capital	First money lending, farm traders and relatives and private financing	Fisher Farmers' Association

Existing Farm Management

	Olson, Minnesota, Redistrict	Fisher, Wisconsin, Southern Legate
Existing Farming Systems	Wheat cropping, corn-soybean crop, rice-corn, soybean-corn, corn-corn	Wheat cropping, multiple cropping and wheat-corn cropping (rice-corn, soy-corn, rice-corn, corn/soy)
Willingness of farmers to change existing systems	100% of farmers are willing to change existing patterns: wheat-corn, corn-soybean, soybean-corn, rice-corn, etc.	25% willing and 50% willing to change
Full use of available resources	2. The farmer practices 100% (wheat, agricultural technology)	Application of nitrogen fertilizer
Farm Problems	Full use and soil fertility problem, lack of post-harvest facilities and lack of farm to market road	Wages reduction, lack of capital, indifference to business compel the farmers to sell their produce at low price dictated by market
Existing Assets	Highly diversified farming	Full conservation, pest and disease management, water control, drainage management
Existing facilities	Water, electricity, road, telephone, and 3 big orchards	3 big orchards, 1 big rice and 1 big orchard
Existing facilities	Water, electricity, road, telephone, and 3 big orchards	3 big orchards, 1 big rice and 1 big orchard

THANK YOU

Annex H: Soil Sampling Results

SUMMARY OF SOIL SAMPLING SITE WITHIN TECHNO-DEMO

Abuyog Leyte

- Soil Series
 - Bantog Series (Alluvial Plain)
 - San Manuel Series (River Terrace)
 - Tacloban Series (Upland)

Malaybalay Bukidnon

La Castellana Series

Morphological Description of Lowland Soils in Tador, Abuyog, Leyte

Soil Series: Bantog
 Physiographic Position: Level to nearly level
 Parent Material: Alluvium
 Landuse: Rice/lowland forest
 Slope: 0 - 5%
 Drainage: Freely drained
 Erosion: None

HORIZON	DEPTH (cm)	DESCRIPTION
Ap	0-20	Dark grey (10Y 5/2) silty clay, few fine faint yellow light brownish grey (10Y 6/2) mottles, highly sticky, platy plastic, slightly firm, common fine roots
Bt1	20-40	Dark grey (10Y 5/2) mottled clay, few fine distinct clear yellow brown (10Y 6/4) mottles, sticky, plastic, firm, few fine roots
Bt2	40-60	Light grey to grey (10Y 6/2) mottled clay, few moderate distinct clear light olive brown (10Y 5/3) mottles, very sticky, very plastic, very firm, few fine roots
Bt3	60-80	Dark grey (10Y 4/2) mottled clay, few fine distinct clear brown (10Y 5/3) mottles, very sticky, very plastic, very firm, common fine to medium soil block emergence (concretion)
Bt4	80-100	Dark grey (10Y 5/2) mottled clay, no mottles, no mottles, very sticky, very plastic, very firm, few fine soil block emergence (concretion)

Morphological Description of Lowland Soils in Tador, Abuyog, Leyte

Soil Series: San Manuel
 Physiographic Position: Level to nearly level
 Parent Material: Alluvium
 Landuse: Non-forest, rice patch, rice marsh
 Slope: 0 - 5%
 Drainage: Freely drained
 Erosion: None

HORIZON	DEPTH (cm)	DESCRIPTION
Ah	0-20	Moist to dark brown (10YR 4/2) moist, silty clay loam, few fine faint yellow brown (10YR 5/2) mottles, highly sticky, slightly plastic, sticky common fine roots
Bt1	20-40	Moist to dark brown (10YR 4/2) moist, silty clay, no mottles, slightly sticky, slightly plastic, plastic, few fine roots
Bt2	40-50	Brown (10YR 5/3) moist, silty clay, few moderate distinct clear reddish brown (10YR 5/4) mottles, slightly sticky, slightly plastic, plastic, few fine roots
Bt3	50-70	Brown (10YR 5/3) moist, silty clay loam, few fine faint yellow light yellowish brown (10YR 6/3) mottles, highly sticky, slightly plastic, firm
Bt4	70-100	Reddish brown (10YR 5/4) moist, fine sand, no mottles, non-sticky, non-plastic, firm

Morphological Description of Upland Soils in Tador, Abuyog, Leyte

Soil Series: Tacloban
 Physiographic Position: Upland
 Parent Material: Volcanic
 Landuse: Corn, banana, shrub, grass
 Slope: 4 - 10%
 Drainage: Well drained
 Erosion: Moderate

HORIZON	DEPTH (cm)	DESCRIPTION
Ah	0-20	Yellowish brown (10YR 7/3) moist, clay loam, no mottles, sticky, plastic, plastic, common fine roots
B1	20-40	Dark yellowish brown (10YR 6/2) moist, clay, no mottles, sticky, plastic, firm, few fine roots
B2	40-60	Dark yellowish brown (10YR 6/2) moist, clay, no mottles, sticky, plastic, firm, very fine roots, very fine highly weathered rock fragments
B3	60-80	Yellowish brown (10YR 6/4) moist, clay, no mottles, sticky, plastic, firm, patchy and highly weathered rock fragments
B4	80-100	Brown brown (10YR 6/3) moist, clay, no mottles, sticky, plastic, firm, common patchy and highly weathered rock fragments (10YR 6/3) rock fragments
C	100-150	Dark brown to dark brown (10YR 5/2) and strong brown (10YR 5/3) moist, clay, sticky, plastic, firm, common highly weathered yellowish brown (10YR 6/3) rock fragments

Morphological Description of the Soils in Sitala, Malaybalay, Bukidnon

Soil Series: La Castellana
 Physiographic Position: Upland
 Parent Material: Volcanic
 Landuse: Corn
 Slope: 4 - 10%
 Drainage: Well drained
 Erosion: Severe

HORIZON	DEPTH (cm)	DESCRIPTION
Ah	0-20	Moist to dark brown (10YR 4/2) moist, clay loam, with fine subangular blocky structure, no mottles, slightly sticky, slightly plastic, slightly firm, common fine to very fine roots, clear waxy brownish grey S1
B1	20-40	Brown (10Y 5/3) moist, clay, moderate to medium angular blocky structure, no mottles, sticky, plastic, firm, four mottles in the subangular upper zones, few fine fine roots, very fine particles, and highly weathered rock fragments, surface smooth boundaries, pH 5.2
B2	40-60	Brown (10YR 5/3) moist, clay, moderate fine to medium angular to subangular blocky structure, no mottles, sticky, plastic, firm, few fine subangular rock zones, very fine very fine roots, fine particles, and highly weathered rock fragments, clear waxy boundaries, pH 5.0
B3	60-80	Yellowish brown (10YR 5/4) moist, clay, moderate fine to medium angular to subangular blocky structure, no mottles, sticky, plastic, firm, very fine to fine for upper zones, very fine fine roots, few particles and highly weathered rock fragments, clear waxy boundaries, pH 5.0
B4	80-100	Yellowish brown (10Y 5/4) moist, clay, moderate medium angular to subangular blocky structure, no mottles, sticky, plastic, firm, common angular and highly weathered rock fragments, surface smooth boundaries, pH 5.0
B5	100-120	Dark yellowish brown (10YR 5/5) moist, clay, moderate medium angular to subangular blocky structure, no mottles, sticky, plastic, firm, common angular and highly weathered rock fragments, clear waxy boundaries, pH 5.0
C	120-150	Partially and highly weathered reddish brown (10YR 5/3), dark yellowish brown (10YR 5/4) and light yellowish brown (10YR 6/3) rock fragments, pH 5.0

Project Site Characterization

Existing Farm Management

	Old, Malachuk, & Johnson	Old, Johnson, & Johnson
Existing Farming System	Wheat cropping (2000-2004) corn, Wheat-corn, Soybean (1000, 1000, 1000)	Wheat cropping, Multiple Cropping and Small Wheat cropping (1000, 1000, 1000)
Willingness of farmers to change existing system	100% of farmers are willing to change cropping system, Wheat-corn (1000, 1000, 1000), Soybean (1000, 1000, 1000)	100% willing and 1 not willing to change
Self conservation technology	3 New Farmers practice 50% (Shaping Agricultural Land Technology)	Application of Inorganic fertilizer
Farm Problems	Self resource and self ability problems, lack of post harvest facilities and lack of access to market road	Highly infertile, lack of capital, indifference to market demand, the farmers to sell their produce at any price dictated by market
Feeding Needs	Organic/chemical farming	Self Conservation, Post and disease management, water and disease management
Existing fertilizer technology	1 bag corn, 1 bag wheat and 1 bag potato 2 bags corn, 1 bag wheat and 1 bag potato 3 bags corn, 1 bag wheat, 1 bag potato and 1 bag potato	

Annex I: Soil Fertility Rating Standards and Results of the Soil Analyses of the Project Sites

General Guidelines for Fertility Rating of Soils

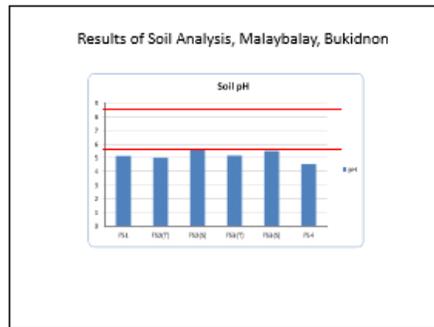
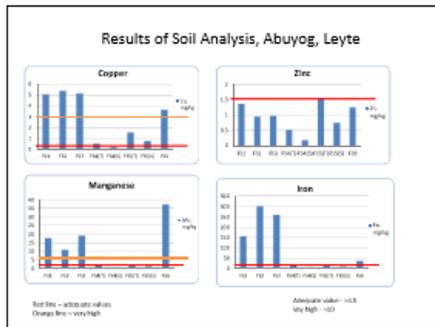
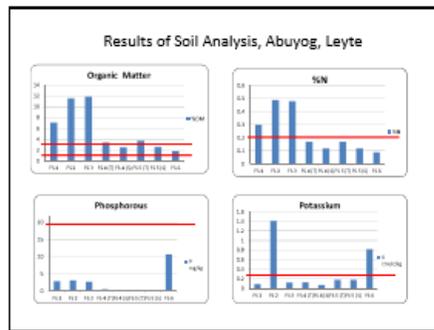
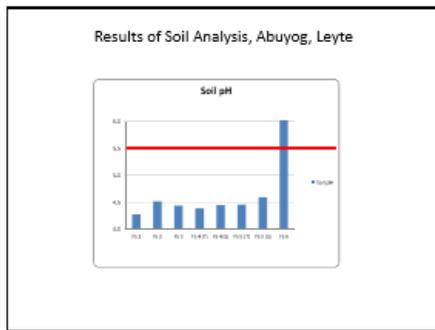
Soil Fertility Factor	Adequate Values	Very Low	Very High
Soil pH	5.5-6.5	<5.5	>6.5
Organic Matter, %	>1.8 >3.0	<1.8	
Total Nitrogen, %	0.2	<0.1	
Available Phosphorus, mg/kg (Olsen Method) Bray P1	>10 >20	<10 <10	>50 >50
Exchangeable Potassium, cmol/kg	>0.20	<0.1	>1.2
Exchangeable Calcium, cmol/kg	>2.0	<1.0	>20
Exchangeable Magnesium, cmol/kg	>0.5	<0.5	>7.0
Zinc, mg/kg	>1.5	<0.5	>5
Copper, mg/kg	>0.2	<0.1	>3
Iron, mg/kg	>4.5	<2	>10
Manganese, mg/kg	>1.0	<0.5	>4

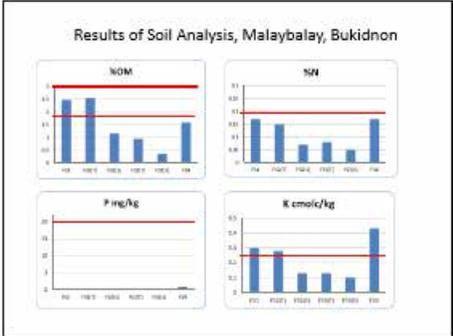
Source: Interpretation of Chemical and Physical Soil Data for the USDA Soil Taxonomy Laboratory
Publication Paper No. 1049/102, Washington
FAO Fertilizer and Plant Nutrition Bulletin 10, 2004
Soil In-fa Topics, London 1993.

General Sufficiency or Optimal Range of Nutrients in Plants

Nutrients	Sufficiency or Optimal Range
Macronutrients	%
Nitrogen	2.0 - 5.0
Phosphorus	0.2 - 0.5
Potassium	1.0 - 5.0
Calcium	0.1 - 1.0
Magnesium	0.1 - 0.4
Sulfur	0.1 - 1.5
Microelements	mg/kg
Zinc	20 - 100
Iron	50 - 200
Manganese	20 - 300
Copper	5 - 20
Molybdenum	0.1 - 0.5
Boron	10 - 100

Source: Guide to Laboratory Establishment for Plant Nutrition Analysis
FAO Fertilizer and Plant Nutrition Bulletin 10, 2004





- ### Soil and Plant Nutrient Monitoring
- Soil chemical properties
 - Initial soil samples will be analyzed for pH, organic carbon, cation exchange capacity, base saturation, total N, available P, exchangeable bases (K, Ca, Mg, Na), exchangeable Al, and micronutrients (Fe, Mn, Cu, Zn)
 - Vegetative stages – to determine the nutrient uptake
 - Final/harvest soils will be analyzed for pH, organic carbon, total N, available P, and exchangeable K only.
 - Soil physical properties
 - Particle Size Distribution- the percent sand, silt and clay will be determined by the Hydrometer method. (for initial soil samples only)

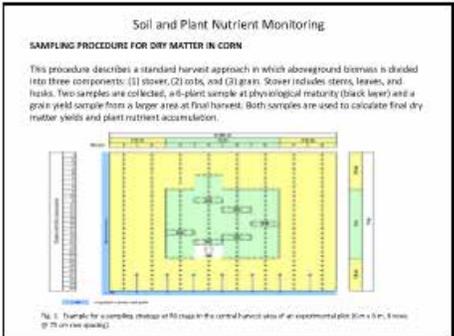
Soil and Plant Nutrient Monitoring

- Plant tissue –Total nutrient analysis (Corn)

Stage of Growth	Plant Parts to Sample	No. of Plants to Sample
Seeding stage (less than 32 inches)	All the above ground portion	20-25
Prior to tasseling	The entire leaf fully developed from top (1st leaf below whorl). Cut leaf at its base where it joins sheath.	10-25
Prior Tasseling and shooting to silks	Submit leaf below and opposite ear. Cut leaf at its base where it joins sheath.	10-25

Notes: Things to Watch When Collecting Plant Samples

1. Do not include plants that have been showing visible deficiency symptoms for more than 10 days.
2. Do not include plants that are under stress due to disease.
3. Do not include plants that are affected by excessively wet soil, herbicide drift, or insect damage, etc.



Soil and Plant Nutrient Monitoring

Essential steps are:

- Collect a 6-plant sample at R6 or physiological maturity (blacklayer) from within the harvest area to obtain the harvest index and nutrient concentrations in stover and grain.
- Harvest all remaining ears from the harvest area about 1-2 weeks after blacklayer and determine the whole fresh weight of all ears. Get a subsample of 6 ears, shell it and determine grain moisture content.
- Final grain yield and total aboveground dry matter are then calculated from (b) and (c), including adding back the grain of the six plants sampled at blacklayer stage.

R6: Physiological maturity or black layer stage, 45-55 days after silking. At least 90% of all kernels on the ear have lost their moisture dry matter accumulation, which is indicated by the presence of a clearly visible black layer. Husks and lower leaves on the plant are no longer green. The top leaves of the plant and the stalk are still green. Average kernel moisture content is about 80-85%.

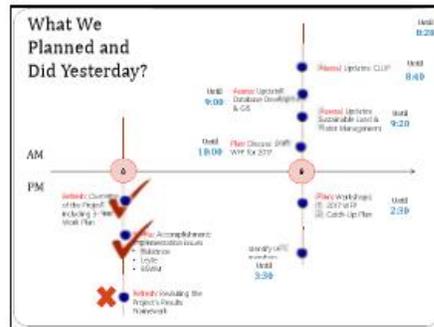
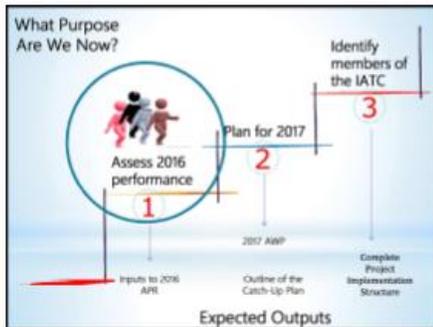
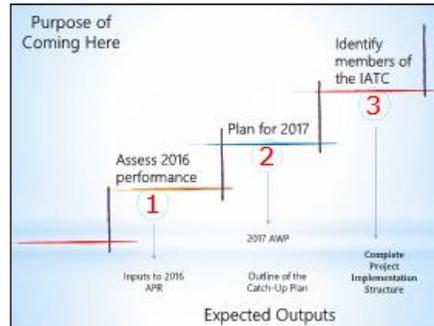
WORKPLAN

Activities	NOV						DEC					
	Nov 1	Nov 2	Nov 3	Nov 4	Nov 5	Nov 6	Dec 1	Dec 2	Dec 3	Dec 4	Dec 5	Dec 6
• Data survey data collection, soil sampling and fertilizer recommendation	[Progress bar]											
• Capacity building (Training, etc.)							[Progress bar]					
• Techno demo establishment and monitoring and data gathering							[Progress bar]					
• (Harvest report)							[Progress bar]					

References

- Plant Nutrient Analysis Sampling Guide, AQVISE Laboratories
- Manual Laboratory Procedures for Soil, Water, Plant Tissue and Fertiliser Analysis, Bureau of Soils and Water Management, 2002
- Interpretation of Chemical and Physical Soil Data for the USDA Soil Taxonomy Laboratory Information Paper No. 13 by F.D. Nachtergaele
- Guide to Laboratory Establishment for Plant Nutrient Analysis, FAO Fertiliser and Plant Nutrition Bulletin 19, 2008
- Soils in the Tropics, London 1991.
- Achim Dobermann, Procedure for Measuring Dry matter, Nutrient uptake, Yield and Components of Yield in Maize, Dept. of Agronomy and Horticulture, University of Nebraska-Lincoln (achdobermann2@unl.edu) date accessed 12/5/16

Annex J: Facilitator's Recap of Day 1



Refreshment Highlights

soils and water management of upland farmers

institutional interventions (Oct)

- SLM Framework
- IATC Insurance (DA, DAR, DENR -HLURB)
- DO issuance (DILG)

Application (Oct2)

- Baseline/Benchmarking
- Testing of PW
 - Tadoc Demo: soil fertility
 - Siteae Demo: soil erosion
- Tech dissemination & Replication (sustainable practices of soils and water management)

Assessment Highlights

- Technical assistance
 - August 2016 up to December 2016
 - Potentials for further funding (GEFR)
 - if this project fulfill its promises (indicators)
- Project board approves 2017 AWP on December 15
 - 2016 APR
 - 2017 AWP
- PMO so far is run by only 4 people but Layte and Rubicon Project Teams are SOI already available
- SOI evaluations results already available
- Topo map profiles of demo sites already available
- 2 demo sites are already established
 - But all individual farmer cooperations, and not organizational

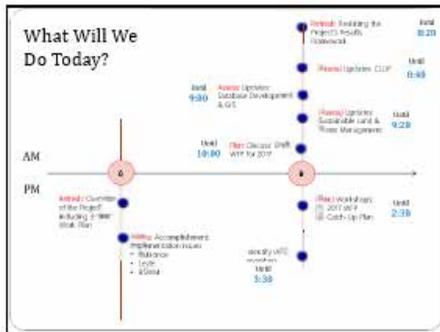
Assessment Highlights

2016 Target	Status					Remarks
	Initiated	Not Yet	PMO	Completed	Awaiting	
1. Out						
1.1 Draft key elements of SLM Framework				Drafted (DND)		
1.2 Draft plans in mainstreaming SLM in CLUP identified						
1.3						
1.4 gaps in existing database identified					identities on started, action for validation	
1.20 contingency gaps identified				On going processes on		
1.25 contingency development guide developed						

Assessment Highlights

2016 Budget	Status			Assessment of		
	Achieved	Not Yet	PSID	Conclusions	Alleviating	Stakeholder
1. On2						
2.1 planned server established						Transparency of form inputs on going
2.2 Review of DMI & DIO of work on 2 sample sites (121 ha) achieved	Yes					
2.3a L201 of 2 progress sites determined						Process documentation available; work evaluation conducted
2.3b L201 monitoring system developed						

Activities	Status	Assessment of		
		PSID	Conclusions	Alleviating
2.1a SOI training module updated		Yes	Some elements of forms in the 2 sites completed	
2.1b SOI training module produced				
2.1c SOI training module integrated in the ACT CT3		No	Some elements of forms in the 2 sites completed	
2.2a SOI M42 ongoing				
2.2b 2 water dams forms established		Yes		Identification of sites and Agreement with former manager

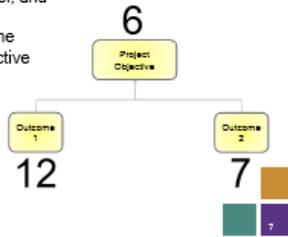


Team: _____ 2017 WP

State Learning Opportunity	Timeline		Related Dates to completing the activity	Target Outcome Indicator		Resources Required
	Start	Finish		2016	2017	
1.1						
1.1-1						
1.1-2						
1.1-3						
1.1-4						
1.1-5						
1.1-6						
1.1-7						
1.1-8						
1.1-9						
1.1-10						
1.1-11						
1.1-12						
1.1-13						
1.1-14						
1.1-15						
1.1-16						
1.1-17						
1.1-18						
1.1-19						
1.1-20						

So, there are actually:

- 19 targets at the Outcome level; and
- 6 targets at the Project Objective level



When Are These Promises Happening?

	2016	2017	2018	Total
1. Project Objective level				
1) No. of CLUPs formulated				2
2) No. of CLUPs implemented				2
3) No. of hectares of degraded lands rehabilitated				177,083
4) No. of INRM framework formulated				1
5) No. of INRM adopted (by LDC?)				
6) No. of cross-sectoral issues tackled by working groups				

When Are These Promises Happening?

	2016	2017	2018	Total
2. Outcome 1 level				
1) No. of NIM framework mainstreaming SLM developed				1
2) No. of NIM framework adopted by HLRB				1
3) No. of guidelines on mainstreaming applied in pilot sites				1
4) No. of guidelines enhanced				1
5) No. of JMC issued by DA, DENR and DAR				1
6) No. of Memo Order issued by DILG to priority LGUs				1

When Are These Promises Happening?

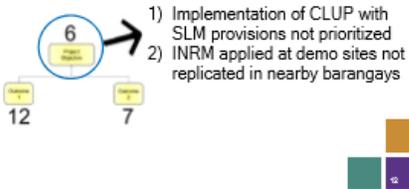
	2016	2017	2018	Total
2. Outcome 1 level, cont'd...				
7) No. of GIS-based LADA maps developed				
8) No. of training modules developed				
9) No. of potential trainers identified				
10) No. of potential trainers trained				
11) Average Increase in S capacity results				
12)				

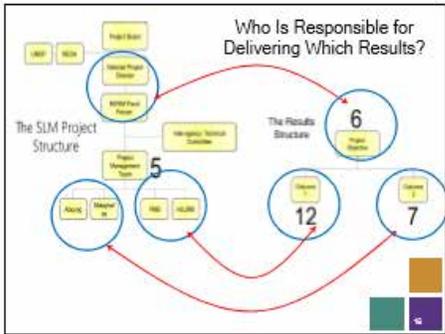
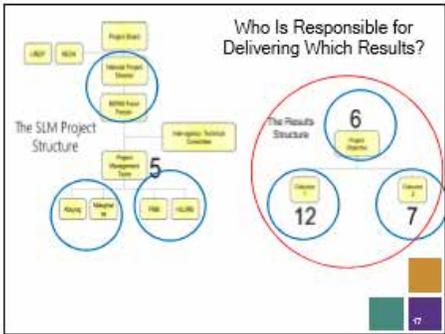
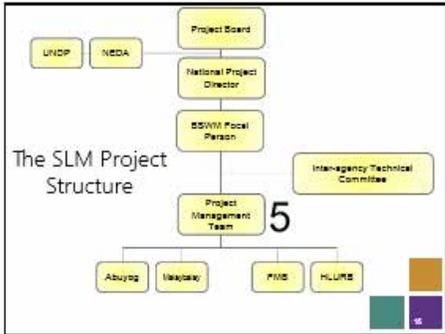
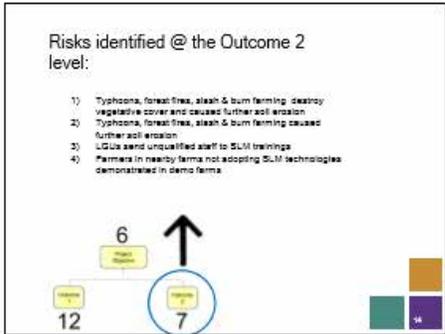
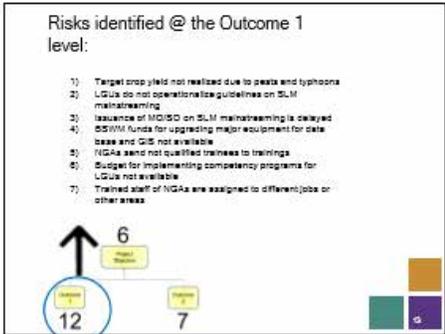
When Are These Promises Happening?

	2016	2017	2018	Total
2. Outcome 2 level				
1) Increase in plant/soil cover ratio				
2) Net loss of forest cover in Bilec				0
3) Average increase in DM and OM content of soils				
4) Net loss of forest cover in Tadoc				0
5) No. of improved monitoring systems				2
6) No. of SLM modules integrated in season-long FFS				
7) No. of trainings conducted by extension workers using SLM modules				
8) No. of farming households adopting SLM practices				585

What Happens to Identified Risks?

Risks identified @ the Project Objective level:





Discussion



Outsider's Impressions:

- Indicator statements are changed from Results Framework to M&E Plan to AWP to QPRs to Annual Report
 - What document has to be followed?
 - > Is it the Results Framework? (because this was the document being agreed upon by principal stakeholders: GEF, UNDP, NEDA, DA-BGAM and therefore the main reference for their performance assessment and evaluation)
 - > Is it not that Changes in the Indicators (or Results FW) have to be approved/consumed by the Project Board; and in such case the Results FW is properly amended
- Is the Results Framework (or hierarchy of expectations/promises) being appropriately matched by the Project's Implementation Structure?
 - Who should deliver what deliverable/results indicator/s?
 - Should the PMO team be provided with project management related trainings?





Integrated Land Resources Management Framework for Sustainable Land Management

Conrado A. Cabrera, Jr.
 Consultant on Comprehensive Land Use Planning
 Project on Sustainable Land Management (SLM) Practices to Address Land Degradation and Mitigate Effects of Climate Change



Project rationale

- DA agriculture extension services devolved to LGUs under LGC
- Provincial and Municipal/City Agricultural Offices (PAOs and MAOs/CAOs) - subsumed under the LGUs.
- Some forest management functions of DENR-FMB devolved to LGUs such as communal forestry and agroforestry.
- Municipal/City Environment and Natural Resources Offices (MENRO/CENRO) – takes responsibility for devolved environmental management functions
- Role of LGUs in land resources management becomes pivotal and strategic with localization of the national government agencies' functions



Project rationale

- Competing land uses – agriculture vs urban development
- LGUs – key players in land resources management.
- LGUs need capacity building on planning tools and appropriate farming technology to attain sustainable agriculture development
- LGUs play an important role in realizing the implementation of Sustainable Land Management (SLM) at the local level.
- Principal strategic instrument for integrating the multi-agency concerns on land resources management is the Comprehensive Land Use Plan (CLUP).



Gaps and Barriers to be Addressed by the Project

Gaps and barriers in the implementation of Sustainable Land Management (SLM) were identified as follows:

- Weak coordination in program implementation on land resources management among the national government agencies such as DA-B-SWM, DENR-FMB and DAR.
- Limited knowledge of LGUs on SLM best practices and technology packages appropriate for given environmental and socio-economic conditions at the local level.
- Lack of demonstration projects to showcase various types of effective soil and water conservation technologies in sloping farmlands.



Gaps and Barriers to be Addressed by the Project

- Data gaps for assessment and mapping of land degradation across the landscape.
- Absence of national and local level framework for SLM mainstreaming, i.e., controlling land degradation and upscaling SLM.
- Land use and agriculture and forestry sector development plans and programs of many LGUs are usually deficient on SLM measures.



Objectives of Mainstreaming

- To internalize and institutionalize land resources management for sustainable agricultural development in the comprehensive land use and development plan of LGUs.
- To provide budget support for sustainable land management by the LGUs
- To provide DA, DENR and DAR an integrated land management framework for adoption in their development and management plans

Scope of the mainstreaming study

- Formulation of Integrated Land Management Framework (ILMF)
- Preparation of guidelines for the Mainstreaming of ILMF/SLM in CLUP
- Pilot testing of Draft Supplemental Guidelines on SLM/ILMF Mainstreaming in the CLUP of two target municipalities
- Preparation of Final ILMF including the identification of entry points to mainstream it in DA, DENR, and DAR development plans
- Preparation of Final Supplementary guidelines in mainstreaming SLM in the CLUP and potential investment and incentives for local adoption of SLM

Expected Outcomes of Mainstreaming

- Mainstreaming of SLM in the CLUP/CDDP of LGUs is expected to produce the following outcomes:
 - SLM best practices and technology packages are automatically integrated and become part of the CLUP/CDDP.
 - SLM receives funding allocation from the LGUs and national government agencies with mandate on localizing SLM.
 - Agriculture technicians and extension workers from LGUs are equipped with planning tools and technical knowledge and skills for the dissemination of SLM technologies at the municipal level.
 - Integration of SLM in the plans and programs of national government agencies such as DA, DENR and DAR fosters harmonized efforts and widens government support and funding assistance.

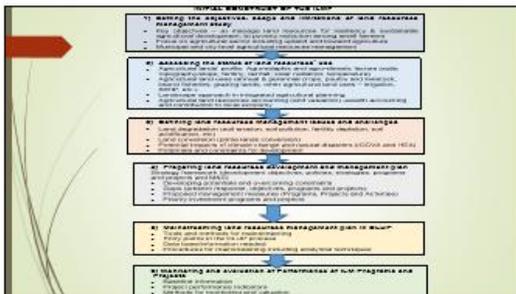
Definition and Components of SLM

Sustainable Land Management (SLM)

- SLM in its broadest context is defined as "the use of land resources including soils, water, animals and plants, for the production of goods to meet changing human needs, while simultaneously ensuring the long term productive potential of these resources and the maintenance of their environmental functions (UN Earth Summit, 1992).
- In operational terms, SLM involves the ways and means of maximizing the benefits and productivity in the use of land resources without causing adverse long-term impacts leading to various types of land degradation.
- Management in this case connotes the proper use and conservation of land resources with the end in view of sustaining food and wood production while maintaining ecosystem services through landscape approach of management.

SLM components in this study

- Study focus - addressing the two widespread land degradation problems common to agricultural and forest lands: **soil erosion** and **nutrient depletion**.
- Land conversion is also a serious concern in both sectors at the municipal level.
- **ILMF** – a logical construct establishing the **rationale planning process** for the management of land resources for sustainable agriculture development. The ILMF identifies the actions (PPAs) needed to attain SLM for agricultural development.



Strategic Action Programs and Projects at the LGU Level

• Food security and food self-sufficiency
• Land resource rehabilitation/reclamation
• Urban farming, community backyard gardening
• Climate change adaptation and natural disaster risk reduction and management
• Agricultural land use allocation and management zoning
• Soil conservation and soil erosion control
• Soil fertility management and organic farming
• Protection of prime agricultural lands
• Agricultural tourism development
• Preservation of traditional crop varieties and agro-biodiversity
• Preservation of agricultural heritage (e.g., rice terraces) and replication of indigenous farming technologies
• Water conservation and irrigation support facilities (small-scale irrigation and SWW)



Mechanisms for ILMF

- 1) Policy and enabling instruments
- 2) Information, education and communication of small farmers
- 3) Capacity building of city and municipal agricultural offices
- 4) Demonstration farms and replication of technology and management measures
- 5) Funding mobilization and/or generation
- 6) Monitoring and evaluation



End of Presentation

**GIS SUPPORT UNDER THE PROJECT
"IMPLEMENTATION OF SUSTAINABLE LAND
MANAGEMENT (SLM) PRACTICES TO ADDRESS
LAND DEGRADATION AND MITIGATE EFFECTS OF
DROUGHT"**

**OUTPUT 2: Report identifying gaps on the existing
database and determining other relevant datasets**

REQUIRED PROJECT OUTPUT

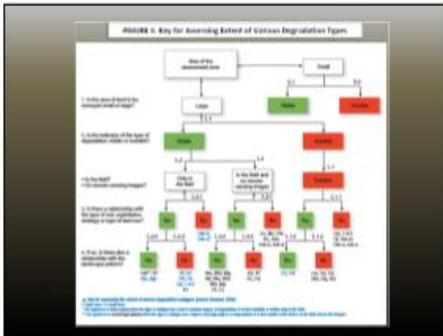
- Development of a Composite Land Degradation Index (CLDI) maps for the project areas
- Provide the necessary SLM-related and other maps that are input and/or requirements for the integration of SLM initiatives and practices into the CLUP

COMPOSITE LAND DEGRADATION INDEX

- Follows the guidelines as set forth by the French Scientific Committee on Desertification (CSFD)
- The index is calculated according to three (3) main indicators:
 - Degradation Type
 - Extent of Degradation per Type
 - Degree of Degradation

FIGURE 1. LAND DEGRADATION TYPES

Category	Type	Description
Water	Water Scarcity	... due to over-exploitation of aquifers, ...
	Water Pollution	... due to agricultural runoff, ...
	Waterlogging	... due to poor drainage, ...
Soil	Soil Erosion	... due to loss of topsoil, ...
	Soil Salinization	... due to irrigation water, ...
	Soil Fertilization	... due to loss of nutrients, ...
Vegetation	Vegetation Loss	... due to deforestation, ...
	Vegetation Degradation	... due to overgrazing, ...
	Vegetation Change	... due to land use change, ...
Other	Other Degradation	... due to various factors, ...
	Other Change	... due to various factors, ...
	Other Loss	... due to various factors, ...



Degree of Degradation

Two (2) methods of ascertaining degree

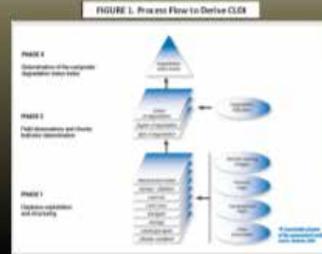
- Identification of soil properties that are markers of degree of degradation and that could have negative impacts on crop yields.
- An assumption that *a reduction in yield or in the level of land suitability for a given type of use indicates a degraded land.*

CLUP REQUIRED MAPS

Table 3. List of Spatial Data for the Development of a Comprehensive Land Use Plan (CLUP)

1. Administrative Boundaries
2. Natural Features
3. Man-made Features
4. Cultural Maps (Cadastral, Outline Map)
5. Demographic/Population
6. Housing
7. Health
8. Education
9. Protection/Security/Fence & Order
10. Wetland/Soil/Land Features
11. Climate/Weather
12. Trees
13. Soil
14. Land Cover/Use
15. Infrastructure
16. Land Values
17. Land Use
18. Analytical Maps (Noise, Flooding, Land Capability, Land Stability, Development Constraints)
19. Other Maps (Land Management/Plan, Ecological Profile/Biodiversity, Disaster Risk, etc.)

CLDI DERIVATION PROCESS



CLDI DERIVATION PHASE ONE



MAIN OPERATION:
 Derive the allward "physiographic units" present in the study areas. The formation of physiographic units from reliable baseline data is the basis of all land assessment procedures.

DATA SOURCES: Topographic maps, aerial and current records on climate conditions, geological maps, soil maps and water, and other all-land maps, information on rural population distribution and services, agricultural area or subsistence production, housing data and any other useful documents, looking for aerial images, and other photographs captured during the most suitable period of the seasons cycle is also a key activity in this operation.

BSWM DATASET STATUS & CONCERN

- *There is no LREP spatial dataset available for the entire Leyte province of Leyte at the BSWM central and regional offices.*
- *The sets of thematic maps produced from the LREP varied from province to province.*

MOVING FORWARD

- *Discuss the result of the BSWM data holding inquiry with fellow (SLM, CLUP and CapDev) consultants;*
- *Reproduce and update the physiographic basemap required by the project for the study areas of Abuyog, Leyte and Malaybalay, Bukidnon;*
- *Collect, Complete and Understand Spatial and Non-Spatial data for the project, and;*
- *Logistic support in the collection and/or derivation of the required information.*

Annex N: Land Degradation Index Development

Year - end Assessment SLM Project

Land Degradation Index

Azurro Hotel Clark Angeles, Pampanga.

Rogelio N. Concepcion, PhD
Land and Water Management Specialist

Key Words

- Land Degradation Index (LDI) and LDI Monitoring System
- Pilot Testing of LDI
- Integration of the LDI into the GIS Maps
- Packaging of LDI Technologies in the project sites and SLM good practices

Talking Points

- There is no existing working Model for Land Degradation Index --- yet
- Need for Champion Academic Institutions
- Inter-local cooperation
- SLM, LDI and mal-adaptation
- Showcase the Good Practices by BSWM scientists (mainstreaming?)
- Nexus Approach for LDI --- Ridge to Reef Approach
- Data and Information Exchange (common baseline?)
- Periodic round table discussions to highlight key findings

Six (6) Deliverables/ Outputs	Estimated Duration to Complete	Target Due Dates (May need adjustments)	Review and Approvals Required
Submission and acceptance of Inception Report	10 days	1 month after contract signing	BSWM
Submission and acceptance of the report on the conduct of Land Degradation Index (LDI) in the project sites and LDI monitoring system	40 days	4 months after contract signing	BSWM
Submission and acceptance of the report on LDI pilot testing in the project sites with LGU	40 days	9 months after signing of contract	BSWM
Submission and acceptance of the report on the integration of LDI into the GIS maps developed by the GIS specialist	20 days	11 months after signing of contract	BSWM
Submission and acceptance of Guidelines for implementing LDI	30 days	15 months after signing of contract	BSWM
Submission of documented and packaged SLM technologies in the project sites and SLM good practices	30 days	20 months after signing of contract	BSWM

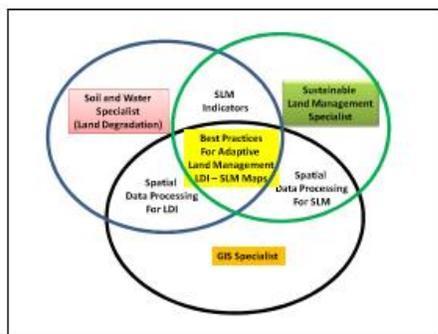
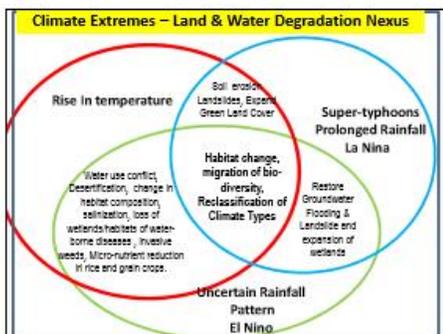
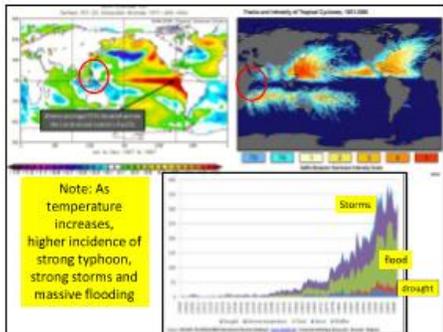
Land
– Solid part of the earth surface as distinct from seas, lake, river, etc..
– Economics, factor of production consisting of all natural resources

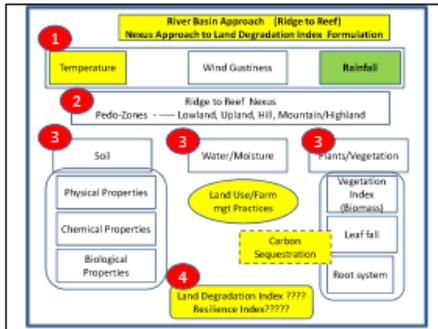
Degradation
– Process of changing into worse condition

Index
– An indicator or measure of something, and a statistical measure of change

Land Degradation

- Process of changing into worse condition
- Deterioration in the quality of land, its topsoil, vegetation, and/or water resources, caused usually by excessive or inappropriate exploitation.





- ### Data Selection for LDI
- Predictors of change
 - Related to many key variables
 - Predictable
 - Visually recognizable in the field with potential bio-indicators
 - Independent variable ---Collinearity principle
 - Availability of facilities,
 - Ease of access,
 - Least expensive,
 - Stable

THANK YOU



Annex O: Draft 2017 AWP of the SLM Project

(Insert consolidated 2017 AWP, care of BSWM PMO)

~ END ~