

**Final Report
Terminal Evaluation
UNDP/GEF MEDIUM SIZED PROJECT
ON
BUILDING CAPACITY FOR SUSTAINABLE LAND MANAGEMENT
IN THE SOLOMON ISLANDS
(CBSLM)
Final Report**



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2 Acronyms

ADB	Asian Development Bank
ALUPD	Agriculture Land Use and Planning Division
ARDD	Agriculture Research and Development Division
AusAID	Australian Agency for International Development
AWP	Annual Work Plan
CBSLM	Capacity Building for Sustainable Land Management
COLP	Code of Logging Practice
COP	Conference of Parties
DSAP	Development of Sustainable Agriculture in the Pacific
ECD	Environment Conservation Division
EIA	Environment Impact Assessment
EU	European Union
FAO	Food & Agriculture Organization
GEF	Global Environment Facility
IFS	Integrated Financing Strategy
JICA	Japanese International Cooperation Agency
LRD	Land Resource Division
MALD	Ministry of Agriculture & Livestock Development
MDG's	Millennium Development Goals
MEA's	Multi-lateral Environment Agreements
MECDM	Ministry of Environment, Climate Change & Disaster Management and Meteorology
MEHRD	Ministry of Education and Human Resources Development
MF	Ministry of Forestry
MMERE	Ministry of Mines, Energy & Rural Electrification
MHMS	Ministry of Health & Medical Services
MID	Ministry of Infrastructure Development

MDPAC	Ministry of Development Planning & Aid Coordination
MSP	Medium Sized Project
MTBC	Mana'abu Training Based Community
NAPs	National Action Plans
NARI	National Agriculture Research Institute
NCRA	National Coalition for Reform and Advancement
NDC	National Disaster Council
NEMS	National Environment Management Strategy
NGO	Non Government Organization
NRIDP	National Rural Integrated Development Programme
OJPT	Ontong Java Plateau Terrain
PACC	Pacific Adaptation to Climate Change
PB	Project Board
PICs	Pacific Island Countries
PICCAP	Pacific Islands Climate Change Assistance Programme
PIP	Project Implementation Plan
PMU	Project Management Unit
PM	Project Manager
RGDP	Real Gross Domestic Product
RWSS	Rural Water Supply & Sanitation
SICHE	Solomon Islands College of High Education
SIG	Solomon Islands Government
SIFMP	Solomon Islands Forest Management Project
SINAPs	Solomon Islands National Action Programmes
SLM	Sustainable Land Management
SMART	Specific, measurable, available, relevant & time-bound
SOLFRIS	Solomon Islands Forest Information System
SPC	Secretariat of the Pacific Community

UNCCD	United Nations Convention to Combat Desertification
UNDP	United Nations Development Programme
UNFCCC	United Nations Framework Convention on Climate Change

3 Executive Summary

Scope and Purpose of the Terminal Evaluation

This document is the terminal evaluation report of the “Capacity Building for Sustainable Land Management in Solomon Island Project”, a Medium Sized Project (MSP) funded by the Global Environment Facility (GEF) through the United Nations Development Programme (UNDP). The project, implemented directly by UNDP, commenced on 22 April 2008. The project completion was originally planned for December 2011 but was extended to 30 June 2012. However, the project suffered some staff turnover issues especially it saw a change of project managers with a six-month period in between. The overall period of the project headed by a project manager lasted only two years and nine months. The second and last project manager left six months before the end of the project.

The work for this evaluation consisting of field and desk work was carried out over a 25-day intervention between September and October 2012, by a team of two evaluators. (The Terms of Reference are outlined in Annex 1 and brief profiles of the evaluators are given in Annex 2.). This Terminal Evaluation is an independent review, as required by GEF and the Project Document which aims to determine progress made towards the relevance of the project, quality of project design, efficiency of implementation, effectiveness to date, partners’ perception of change and potential sustainability. It assesses the achievements of the project with respect to the relevance of its objectives and the attainability of its outcomes. It also assesses the project design including, to what extent the assumptions/risks outlined in the logical framework are valid and identifies external factors beyond the control of the project that affected it negatively or positively. Special emphasis is placed on the degree to which the project has succeeded in carrying out the activities outlined in the logical framework.

Goals and Objectives of the Project

The project’s goal is to build capacity to implement SLM into each level of decision-making: from remote farming communities, to provincial government administrations to the national level agencies responsible for rural land management and economic development. The aim is to provide a systems approach to maintain and improve ecosystem stability, integrity, functions and services – bearing in mind the need for sustainable livelihoods in very harsh and remote villages.

Project Concept and Design

The CBSLM project design made reference to the existing country needs and low technical capacity within the pertinent institutions of the target groups, the prevailing policy environment and lack of properly elaborated land policies and spatial data on land degradation. The project design is valid and responds to the most important social and environmental problems in the Solomon Islands. It is based on the economic, political, and environmental contexts. The activities are geared towards enhancing sustainable livelihoods through capacity building to implement sustainable land management into all levels of decision-making.

Logical Framework: The original logical framework of the project was never modified. The evaluators found the substance outlined within the objectives and outcomes relevant and appropriate to the project. It should contribute to maintain and improve ecosystem stability, functions and services, if the project is conducted successfully. Notwithstanding this observation, it is noted that the objectives to strengthen human, institutional capacity, systemic capacity for CBSLM to be realistic. There are direct and indirect relationships between the outcomes (capacity building at three levels of decision-making) and the intended impact, i.e. environmental benefits, though time and scale are an important factor.

Indicators: While the design shows internal consistency, the indicators used for the overall objective and specific objective, as depicted in the logical framework, cannot be considered as SMART (specific, measurable, available, relevant & time-bound) enough. They did not allow the evaluation team to easily measure the degree of attainment of objectives and the effects of the project. In addition, since they were not base-lined by the PMU so that internal monitoring could not be conducted by the project management. The review and base-lining of the indicators should have been effectuated in the Inception Workshop as stipulated in the project design document. (Please refer to annex 7.2 on the LogFrame key indicator analysis by the evaluation team)

The concept and design of the project has never been reviewed or redimensioned with respect to the development problems addressed, relevance to the beneficiaries’ needs, the indicators and the validity of the original goal and objectives.

Progress towards Results

This project was designed to develop different Result areas, namely: 1) increased knowledge and awareness of land degradation and the importance of sustainable land management; 2) systemic capacity building and

mainstreaming of CBSLM principles and objectives, 3) enhanced technical, individual and institutional capacities for SLM; 4) Enhanced technical support at the local, provincial and national levels to assist with mainstreaming and integrated decision-making. Unfortunately, the evaluation team failed to gather evidence of significant changes with respect to strengthening the human, institutional and systemic capacity for CBSLM.

Human/individual Capacity: The project produced minimal effect on integrating CBSLM into provincial and community planning. Weak community/project relationship was observed at the community level due to insufficient communication and coordination. The rural dwellers of the communities did not understand the objectives of the demonstration sites and considered the activities a top-down obligation.

Institutional Capacity: The GIS hardware and software system was purchased but not operational. It does not contain data of land degradation as expected according to the project design. No mapping data related to the project could be produced by the interviewees. Institutional capacity claimed very little improvement as a result of the project.

Systemic capacity: though the NAP has been reviewed and awaits endorsement, on the ground investment needs were not identified. Hence, no resource agency plans with budgets for SLM was achieved. While SLM is not mainstreamed into the MDG process, the evaluation team has reservations to be convinced whether there are significant changes brought about by the project in National Development Plans paying more attention to CBSLM.

Project Management (For more details please refer to Section 3.3)

The implementation of the CBSLM project exhibits substantial delays. Investigation of evidence has been conducted with respect to project management, the delivery of outputs, assumptions made and status of achievement of activities, project timing, budget and expenditures.

A number of weaknesses regarding project implementation were revealed by the following facts:

- *Poor AWP quality leading to disbursement delays* – The submission of AWPs (Annual Work Plans) is a prerequisite for fund disbursement. However, the project's AWPs produced were of poor quality so that the UNDP Solomon Islands Sub-office demanded the submission of PIP (Project Implementation Plan), which was belated. This has engendered huge delays on disbursement of project funding. (please refer to 3.3.1 for details)
- *Insufficiency in risk management* – Four risks were already well identified, (namely, financial risk, risk non-inclusive of stakeholder involvement, delay in the implementation of activities and the risk of availability of legal drafting capacity), in the logical framework as illustrated in the Project Document. It should have been the work of the project management team to properly manage these risks. However, these risks proved to have become threats of the project. Despite proposed measures shown in the project document, the PMU failed to follow accordingly (please refer to 3.2.5 for details).
- *Human resources difficulties* – The PMU failed to recruit experts, though required by the project design. Consequently, many planned activities were not effectuated. A number of consultants were to be recruited for mapping and appraisal and Landcare, review of legal, policy & administrative frameworks, review and enhancement, tools, guidelines and manuals development, information clear-housing and web-based knowledge management and M&E system. This hampers the performance and outcome of the project to a great extent.
- *Weak organizational capacity* – while complaining on the late fund transfers and awaiting disbursement, there were a huge number of pending activities which did not require disbursement but which were never explored.

Assumptions (For more details please refer to section 3.1.9) Most of these assumptions proved **not** to be valid for the duration of the project. An M & E expert was to be recruited (though budgeted) to set up an M & E system for the project. Disappointingly, no recruitment was being done. In addition, no investment plan was carried out. Stakeholders were not even invited to participate in the activities of the project, let alone the idea of partnership. There had been sound analysis of risks in the design. All identified risks were valid which needed to be managed however not to the desired level.

Monitoring & Management of Change (For more details please refer to section 3.2) Inefficient internal management tools – While the management team fails to show adapted tools for its everyday management, the LogFrame proves to be seriously under-used and the Project Document not sufficiently referred to and followed. Indicators were not reviewed or base-lined. The quarterly progress reports, did not allow managers to track project progress rendering monitoring difficult. Furthermore, the contents were poor with little information on the conducted activities with disorganised filenames. There was no evidence of any steering committee meetings for monitoring, issue addressing and follow-up actions.

Partnerships

MAL, the responsible partner at the national level, was active at the start of implementation but later during the process showed lesser motivation and commitment to activities. The other stakeholders were never invited for any project activities. Weak community/project relationship was observed at the community level due to insufficient communication and coordination. Project Ownership is vital to the success of any project of this nature. The wide participation during the Inception Workshop in 2009 showed a lot of enthusiasm and stakeholder support. The fact that the PM did not show any interest and utility in involving any stakeholders such as other line ministries and NGO impeded the dynamism generated to its minimum.

Project Efficiency

The project implementation has encountered considerable delays and exhibit enormous inefficiency. From 2008-2011, the overall financial utilization stands at 54% (274,200 USD) of the total project budget excluding in-kind contribution (508,000 USD) yielded an overall output achievement of 8%. The total cost of the project was high in relation to actual outputs generated. The overall efficiency of the project management was deemed highly unsatisfactory. A majority of the project activities were never carried out.

Component 1 is relatively more successful with some delivered output. Its rate of achievement is of 19% but the expenditure is 4.3 times over budget. Project component 1 has spent more than 77% of its overall component expenditure primarily on local travel logistics to deliver 2 outputs (out of 10 outputs) on awareness building, curricula development and demonstration site activities. Though such a large proportion of the budget was utilized about 80% of the activities in component 1 of the logical framework were untouched. The project only generated 3 partial outputs. All the 17 outputs of component 3 and all the 10 outputs of component 4 were undelivered. The rate of achievement for component 2 is 9% (1 delivery out of 11) but the expenditure is 1.3 times over budget. The rate of achievement for component 3 is 6% while the expenditure is 24% of the budget and component 4 yielded a mere 0% of achievement.

Impact

Little impact has been generated by this project due to its limited activities conducted and limited participation of stakeholders. Regarding capacity building enhancement to implement sustainable land management at different levels of decision-making, the three levels (Individual land owners, Institution, and policy making), are summarised as follows:

- For the capacity building of individual land owners and land users, none of the two demonstration sites contributed to the increase of SLM knowledge as awareness building workshops were judged ineffective both in frequency and in quality. No written training material was distributed as expected in the project design. Farmers were not convinced of the effectiveness of what they have been taught. The evaluators were alarmed to learn that fundamental SLM practices such as composting, mulching, fallow periods and terracing were not introduced or mentioned to the communities.
- Regarding Institutional capacity building, as no output was delivered in Component 3, the impact is negligible. GIS equipment (Map Info V.9) was purchased by the PMU. But no training or mapping was being done.
- Concerning systemic capacity building, though a comprehensive NAP is completed and is of high quality comprising of a list of priority activities and a wide stakeholder matrix on SLM, future funding is needed for the activities.

Though large impact was not produced, the project has brought the communities together to work on sustainable land management, which is regarded as relevant to their needs. Some workshops had been conducted and that the community members are now aware of the importance of aiming at soil improvements. The NAP has recognized the significance of finishing the pending activities in CBSLM

Sustainability (please refer to Section 3.5 for more details)

Information dissemination and public awareness towards the community pilot demonstration sites were insufficient in the project, which could have been a means towards sustainability. The project failed to successfully illustrate soil fertility improvements through demonstration farms. It also failed to demonstrate any improvement of livelihoods so it is unclear if rural stakeholders will take immediate action to replicate proper CBSLM practices. Though the project was expected to target all three levels of decision making, they were insufficient transmitting minimal CBSLM information. Though these workshops had, to some extent, raised the awareness of CBSLM of the targeted rural dwellers, limited catalytic effect is expected as a result of this project.

The NAP covers all the outstanding components of CBSLM. However, it is urgent to effectuate IFS to identify and mobilise funding resources. Together with the NAP, IFS will assist GEF and donors in the development of future programs to address SLM and thereby offer a useful function. But the potential to sustain and expand CBSLM project results will depend upon establishing a distinct and effective home for SLM advocacy, the necessary resources for programs within MAL, and the ability (including sharing resources) to work with other ministries, the communities and civil society to make progress on the unfinished activities in CBSLM. At the completion of the CBSLM project, it is uncertain whether sufficient momentum and commitment are in place along with required mechanisms and government staff incentives to sustain and utilize the CBSLM project outputs.

Conclusions, Recommendations and Lessons learnt *General Conclusions* (for detailed recommendation please refer to Section 4 Conclusions and lessons learnt)

None of the four Project Outcomes in the Logical Framework was completed and achieved at the closure of the project. This project could have been potentially very important for the Solomon Islands, from the prospective of environment, politics, and socio-economics. However, the implementation of CBSLM project exhibits substantial delays and the marginal activity interventions led to very low outputs owing to insufficient involvement of MAL and mostly deficient project management. Sound project management is considered to be the prerequisite of any project. For a project such as the CBSLM involving so many different areas of expertise and stakeholders, the PMU demonstrated its extreme deficiency. It is regrettable to see the time, effort and funding which had evaporated for so little results. Stakeholder partnerships were also missing, which should have assured the effectiveness and sustainability on SLM practices.

Design and towards Effective Implementation

The design document is very comprehensive and informative even though it had been outdated (2005-2006). It comprises of a step by step approach for the project management to follow. Some of the institution settings had changed, no doubt, but it is not uncommon in development projects. The inception workshop should have been there to revise the discrepancies accordingly, during which the LogFrame Matrix should be reviewed, assessed, analysed and base-lined to cater for the discrepancies.

A good project design requires good project implementation with adaptation management to yield a good project with fruitful outcomes.

- In particular, the quality of the project manager is vital. In the future, selection of consultant has to be very stringent for project management. It is better to base on recommendations and realistic past experience of similar successful projects, in addition to the required expertise. Agricultural background is helpful in the project but it is not an absolute necessity since SLM is too vast for one person to possess the expertise in agriculture, forestry, land management, land use planning, coastal management, GIS and knowledge management. The role of a good project manager is to manage different resources effectively. Sharing a common consultant database with other international donors and to exchange experience is a good practice. If no appropriate local experts are available, international consultant should be sought. Another alternative is to hire advisors to be mentors of the project. The advisor can orient the PM by identifying milestones and therefore subsequent interventions can be punctual. This way, capacity building will take place simultaneously and the in-country expert will be trained through time.
- "Monitor" closely on pending activities. In the case of this project, there had been a very low level of activities (3 deliveries out of 80). As a result, even lower level of outcomes was produced. M&E system was not set up in this project for monitoring purposes.
- A Mid term evaluation and financial audit could have helped identifying major issues on the advancement including timely appropriate reports indicating outstanding activities and questionable financial issues.

Monitoring and Evaluation

A close monitoring on activities is essential through an effective M&E system. A Mid-Term Evaluation can reveal important issues at the mid-term so that immediate actions can be taken. A (SWOT) analysis identifying the strengths, weaknesses, opportunities and threats can be developed by an independent consultant on the changes needed to scale-up the project. A financial audit can also identify questionable expenses in order to keep the expenditure of the project on the right track.

Commitments of the Principal Partner and line Ministries

A project of such a scale and importance to the nation demands much more commitments from the principal partner MAL, the involvement of other ministries and stakeholders. The evaluation team thought that sufficient consultation at MAL had been done during the design phase but the departure of a key researcher was most unfortunate which might have hampered the institutional ownership. MAL should have perhaps replaced the void with a high profile official, as it was done elsewhere in the world where successful CBSLM projects were demonstrated. (For instance, the principal partner of CBSLM in Mauritius appointed the Conservator of Forest as the National Project Director, the counter-part of the Project Manager, both being members of the effective PMU). Furthermore, a sustainable and effective monitoring mechanism is recommended to be created within MAL to monitor projects on a regular basis. This way, a more reliable information system is ensured for national, provincial and community use. This monitoring process can identify any shortfall at a given time to enable effective changes. Such a system can be re-usable for other projects. The principal partner should also identify similar activities, expertise and opportunities to allow the project to reuse developed skills within at least the same institution and preferably other institution. This avoids duplication of work and increases efficiency.

Stakeholders' participation

The participation of stakeholders such as the Ministry of Forestry (MF) was not evident in any of the activities though discussed during the Inception workshop (2009). The lack of participation of key line Ministries, such as Ministry of Lands and Ministry of Environment, Climate Change, Disaster Management and Meteorology (MECDM), and NGO such as Kastom Gaden, could partially be the factor affecting the low achievements. To this end, MAL, being the principal partner, should play an active role in involving all stakeholders including line Ministries and the NGOs. Experience shows that successful CBSLM projects in other parts of the world, such as in Mauritius and in Ghana, composed of active and wide stakeholders from the line Ministries, the NGOs and the private sector.

Stakeholders highlighted in the original Project Document should have been well informed of their roles during Inception and their engagement which must be monitored and evaluated at various stages during implementation. There is a need to recognize the partnership aspects of CBSLM that require full engagement of all stakeholders.

Community Ownership

Once the pilot sites are determined, the communities should have been involved right from the inception. Background analyses should be carried out to better understand the community needs and settings. Moreover, project objectives should be explained. Milestones and roles should be defined so that the communities can have a clear vision of the project.

The PMU should have organized more visits to the communities through the provincial administration, as detailed and expected by the Project Document. CBSLM guidelines and good practices should be established and disseminated with the help of stakeholders' (NGOs and line ministries). They should be written in Pidgin language and with pictures/illustrations for the communities.

Communication and coordination

Effective coordination and communication was seriously missing by PMU which must be closely monitored in future projects.

Participatory Rural Communication – Dialogue and communication among the rural people and the development workers should be conducted to reach mutual understanding and plan for action. Community backgrounds analyses should be carried out to better understand the actual needs of the communities, the environmental and socio-cultural context. Community members' perceptions of problems and solutions should not be overlooked, while their local information, experience and knowledge should not be neglected, as it was the case of the project. Otherwise, they would regard themselves as mere recipients, rather than

as the actual creators of change and progress. Demonstration sites need to conduct complete and accurate analysis of problems, and accurate identification of solutions. It is obvious that if inappropriate solutions are introduced, people would refuse to adopt because they are not perceived as relevant to their felt needs. Agricultural knowledge (from the Research Division in MAL), the farmers in the community and the institution should be linked together through projects to promote and enable mutual learning so as to enhance the sharing of agricultural-related technology, traditional knowledge, skills and information.

Way forward for sustainability

Owing to the large number of untouched and undelivered activities, MAL should provide clear direction for follow-up SLM implementation activities through cross-sectoral, inter-ministerial mechanisms that have the potential to provide greater impact on national SLM. This includes the task of IFS to establish a realistic mechanism of funding to move forward. MAL should establish, the earliest, a guideline on “SLM Best Practices for Solomon Islands” including suitable land use approaches and sustainable farming procedure. Synergies could be through collaboration with Kasdom Gaden and with SICHE, who have relevant experience. Given the cross-sector linkages between SLM and climate change adaptation and resilience, UNDP should facilitate the integration of the guideline on “SLM Best Practices in Solomon Islands” into the Climate Change Alliance and related activities.

Future GEF projects and the related project design and operational guidelines, should recognize the implementation difficulties of the CBSLM project and give particular attention to: (a) commitment and leadership from senior government officials, (b) a well-defined and accepted project inception strategy, (c) employing experienced international advisors, to guide implementation, (d) recruitment of qualified and experienced project management staff and (e) an adequate set of strategies to ensure government staff, stakeholders and community participation. Given the cross-sector linkages between CBSLM and climate change adaptation and resilience, UNDP should facilitate the integration of these CBSLM Best Practices into the Climate Change Alliance activities.

4 Introduction

4.1 Purpose of the Evaluation

The “Capacity Building for Sustainable Land Management in Solomon Island Project” is a Medium Sized Project (MSP) funded by the Global Environment Facility (GEF) through the United Nations Development Programme (UNDP). The project, implemented directly by UNDP, commenced on 22 April 2008. The project completion was originally planned for December 2011 but was extended to 30 June 2012. The project’s goal is to build capacity to implement SLM into each level of decision-making: from remote farming communities, to provincial government administrations to the national level agencies responsible for rural land management and economic development. The aim is to provide a systems approach to maintain and improve ecosystem stability, integrity, functions and services – bearing in mind the need for sustainable livelihoods in very harsh and remote villages.

This Terminal Evaluation (TE) is an independent review, as required by GEF and the Project Document that aims to determine progress made towards the achievement of outcomes; to identify the relevance, effectiveness, efficiency and timeliness of project implementation; to highlight issues requiring decisions and actions; and to present lessons learned about project design, implementation and management. Terminal evaluations are intended to review overall project design, assess progress towards the achievement of objectives, identify and document lessons learned (including lessons that might improve design and implementation of other UNDP/GEF projects). It is expected to serve as a means of validating or filling the gaps in the initial assessment of relevance, effectiveness and efficiency obtained from project monitoring. The TE provides the opportunity to evaluate overall project success or failure and to make recommendations for consideration in future projects.

Terminal evaluations have four complementary purposes:

- To promote accountability and transparency, and to assess and disclose levels of project accomplishments;
- To synthesize lessons that may help improve the selection, design and implementation of future GEF activities;
- To provide feedback on issues that are recurrent across the portfolio and need attention, and on improvements regarding previously identified issues; and,
- To contribute to the GEF Evaluation Office databases for aggregation, analysis and reporting on effectiveness of GEF operations in achieving global environmental benefits and on the quality of monitoring and evaluation across the GEF system.

The TE took stock of the project achievements over the four-year period from inception in April 2008 to 30 June, 2012. It reviewed activities and analyze the extent to which their outcomes are fulfilling planned targets.

4.2 Structure of the Report

This report has been prepared in accordance with the instructions in the Terms of Reference (ToR) (see Annex 1) of this project. It initially presents an Executive Summary of the evaluation, giving a brief background of the project and its design, a summary of the main findings related to the activities, management, and important aspects such as partnership and sustainability. This is followed by an Introduction outlining the main elements of the project and the evaluation, such as problems addressed by the project, overall progress and the methodology adopted. The Findings and Evaluation Outcomes section, which is the core of the report, is then presented under five subheadings related to project design and implementation. This is then followed by main conclusions and recommendations to improve the project and ultimately by annexes.

4.3 Key Issues addressed

Issues addressed were the soundness and appropriateness of methodologies for carrying out the activities related to Result 1, to determine how well the project had contributed to increasing knowledge and awareness of land degradation and the importance of sustainable land management. The other important issue concerned Result 2, was to assess how effectively the systemic capacity building and mainstreaming of SLM principles and objectives. The third issue, related to Result 3, was to determine how well the project had contributed towards “Enhanced technical, individual and institutional capacities for SLM”. The fourth issue related to Result 4 was to assess the contribution of “Enhanced technical support at the local, provincial and national levels and to assist with mainstreaming and integrated decision-making”.

4.4 Problems being addressed

Many Pacific Island people lack the opportunity to work and earn a steady income. They live below the National Basic Needs Poverty Line. This means they do not have sufficient funds to meet their own daily needs and the needs of their family. The 2005/6 Household Income and Expenditure Survey (HIES) estimated the population at 533,672 with 84% of the population living in rural areas. Livelihoods are based mostly on a mixture of subsistence and cash crop farming, gathering of forest products, and fishing. "Solomon Islands: Analysis of Poverty from 2005/2006" states that poverty and hardship in the Solomon Islands context means having to make choices on a daily or weekly basis between the competing demands for household expenditure and the limited availability of cash income to meet that expenditure. Their research data suggests that almost one-third of the population of Honiara and almost one-quarter of those in the rural areas struggle to meet even the basic needs for a decent family life. Fortunately few people appear to be going hungry but there are indications in the expenditure patterns of the poorest households that many may be getting inadequate nutrition.

Reduced capabilities and capacities for subsistence and cash agriculture pursuits have severely affected food security. The poor state of affairs has led to rampant forest clearing, the emergence of large-scale agriculture based developments for economic development and changes to farming practices – to the detriment of land, water and coastal resources. Often the problems of poverty, population and the environment are intertwined: earlier patterns of development and the pressure of rapidly expanding population mean that many of the poor live in areas of acute environmental degradation [World Bank (1990)].

The pressures on land resources and impacts of land degradation, in Solomon Islands, have been known and well documented for some time, notably by Hibbert and Schenk (1991), *State of the Environment Report* and corresponding NEMS, 1993 described these and nominated certain actions; AusAID Smallholder Agriculture Study, 2004; DSAP PRA consultations, 2004) and UNCCD Country Report; FAO Farming practices project 2004-2005), just to name a few.

Nevertheless, many of the actions remain unaddressed: serious erosion, siltation and declining soil quality; threatened terrestrial and marine biodiversity; logging and mining in the steep areas have impacts over catchments. The Solomon Islands' first national communication to the United Nations Convention to Combat Desertification (UNCCD), in 2002, identified the principal causes of land degradation as: industrial logging of an unsustainable style, scale and location; large scale agriculture developments and poor agricultural practices.

All these driving forces behind land degradation and its impacts seriously undermine the land's productive potential. Most of them are derived from compounding 'root cause' elements: increasing population; poor location of existing development; intensive agricultural practices resulting in massive land clearance, improper use of agricultural inputs, inappropriate farming practices; unsuited cropping types and patterns; improper water management; land shortage; insecure tenancy; overexploitation of resources, physical changes to catchments; expansion of physical infra-structure into rural areas; and encroachment of development into marginal forests and hill-slopes.

Solomon Islanders' livelihood is highly dependent on the environment, natural resources and climate variability, this The UNDP-GEF Portfolio project offers the SIG and communities an opportunity to address land degradation and pursue sustainable land management at the national policy level and at provincial and local community operational levels. Opportunities to address institutional, systemic and individual capacity development to assist with the mainstreaming of SLM and use of integrated land use planning should occur at each of these levels.

4.5 Project Goals, objectives and Expected Results

The Goal of this Medium Sized Project (MSP) under the UNDP-GEF Portfolio Approach is stated as follows:

"Contribute to maintaining and improving ecosystem stability, integrity, functions and services while enhancing sustainable livelihoods by building the capacity to implement sustainable land management into all levels of decision-making."

The project objective is to strengthen human, institutional capacity, systemic capacity for Sustainable Land Management (SLM).

The project was designed to deliver four key outcomes stated below:

Outcome 1: Increased knowledge and awareness of land degradation and the importance of sustainable land management. Expected output includes awareness building materials and social

marketing plan. Awareness raising activities are to be organized for local communities, the public, government agencies and schools.

Outcome 2: Systemic capacity building and mainstreaming of SLM principles and objectives

The NAP was to be elaborated and implemented through co-financing, on-the-ground investments in the medium to long term. SLM principles and NAP priorities integrated with national development plans, sector/thematic action plans &/or national sustainable development strategies to achieve the Millennium Development Goals. Medium-term Investment Plan was to be developed to secure long-term support. Land use planning system confirmed for medium-long term development was to be developed.

Outcome 3: Enhanced technical, individual and institutional capacities for SLM. Expected output includes a Geographic Information Systems (GIS) to enable the aggregation and characterization of information on terrestrial resource systems and to define the extent of land degradation; Local community mapping and appraisal of representative catchment/s; Local Community and provincial governance structures and functions enhanced to provide a framework for land and bio-physical information development and resource use planning; National institutional structures and functions enhanced to better address SLM; Training workshops, demonstrations, seminars and exchanges between provinces and for local and national stakeholders; Educational activities and curricula development for schools and education institutions.

Outcome 4: Enhanced technical support at the local, provincial and national levels to assist with mainstreaming and integrated decision-making. Expected output includes tools, guidelines and manuals for different approaches to capacity development, mainstreaming with policy platforms and integrated land use planning options. Local and national knowledge management networks, linked to existing networks; Effective monitoring and evaluation systems in place using the GIS, and Provincial reporting frameworks; Incorporation of local and traditional management approaches into community led integrated land use planning systems.

The total budget of the program amounts to 1,008,000 USD which consists of a GEF contribution of 475,000 USD and Co-financing of 500,000 USD which was a commitment undertaken by the Ministry of Agriculture and Livestock as in-kind contribution. (Please refer to Annex 6 item 1 - Co financing Arrangement)

4.6 Project Progress

The project started in April 2008 but suffered significant delays with respect to all result areas due to difficulties in recruitment of project manager and his subsequent resignation. Substantial effort needed to be made to accelerate and conduct planned activities for all result areas 1, 2, 3 and 4 but it was not eventuated. The project CBSLM is far from achieving its objectives. One significant progress that deserves mention is related to the curriculum development which is part of output 1.1 of outcome 1. Workshops related to SLM awareness building have taken place among the two selected remote rural pilot sites in Lady Lever and Mana'abu. (Note: The demonstration site in Dovah in Guadalcanal, was reportedly left neglected and eventually replanted with yam as an evidence of dissatisfaction of the local community owing to various reasons - communication problems and diminishing community cooperation due to lack of trust etc.).

Component 2 witnessed only the completion of NAP which awaits endorsement. Again, it is also a part of output 2.1 of outcome 2. Component 3 and 4 were almost untouched resulting in no concrete outcomes.

4.7 Methodology of Evaluation

The methodology included the development of an evaluation matrix to guide the entire data gathering and analysis process. The findings were triangulated with the use of multiple sources of information when possible. The evaluation report is structured around the GEF five evaluation criteria (please refer to Annex 3): Relevance, Effectiveness, Efficiency, Results/Impacts and Sustainability.

GEF terminal evaluations strive to be evidence-based, transparent and participatory. They are to comply with the GEF Monitoring and Evaluation Policy, the UNDP Evaluation Policy, and the Guidelines for GEF Agencies in Conducting Terminal Evaluations. The new Evaluation Policy of UNDP (2011) also states that project evaluations are to assess the efficiency and effectiveness of a project in achieving its intended results, as well as the relevance and sustainability of outputs as contributions to medium-term and longer-term outcomes.

• Type of Evaluation

The evaluation was in general both formative and summative in nature. Formative evaluation provided information about how the project operated and how to improve it. The typical audiences for formative evaluation are project staff and managers. The summative evaluation focussing on results, provided information on the overall effectiveness, impact and outcomes of the project. Typical audiences for summative evaluations are partners, and/or organizational leaders.

• Sources of Information and Data Collection Methods

Three types of data collection methods were used to allow for triangulation of the data. More specifically, data was collected through the review of documents, interviews (focus group, face-to face), and by observation during the field visits at the demonstration sites

• Interviews

Information was collected from key persons associated with this project. This was in the form of semi-structured interviews/discussions using prepared questions, which covered the range of information needed for each of the five aspects covered under “scope of assessment” based on the GEF Terminal Evaluation Guidelines, namely, project results, assessment of sustainability of project outcomes, catalytic role, monitoring and evaluation systems and processes that affected attainment of project results. The interviews sought to obtain factual information as well as the perceptions and experiences of the various individuals interviewed.

• Focus group discussions/ workshop during field visits

Two focus group discussions were held with the local project beneficiaries during the field visit in the Western Province and in Malaita two of the sites where project support was provided for SLM field interventions. The third pilot site, situated in Dovah in Guadalcanal, was not visited partly due to a lack of time, and partly because the demonstration farm was discontinued by the local community. Structured questionnaires were designed beforehand and the consultation meeting and discussion were conducted through the prepared questionnaires.

a) Western Province: Lady Lever Community composing of 6 different villages (Vanikuva, Vanikoro, Vovohe, Hillview, Ilitona and Raivai) situated on Kolombangara Island. The attendants were divided in 6 groups accordingly to their respective 6 villages and each question was discussed amongst village members. Collective group answers were written on the questionnaires by the group leader. Both consultants assisted where questions rose. To some key players within the community, individual questions were asked. This discussion was attended by 23 local community members, including 12 local women, and focused on the project benefits, key constraints, lessons learnt, and future plans to sustain the project benefits.

b) Malaita Province: Mana’abu Community is a coastal community situated in the Northern region of Malaita Province. With a population of about 200 people, this community relies entirely on their land and marine resources for their daily subsistence needs. The Mana’abu community has a Rural Training Centre (RTC) that caters for training programmes in the region. The discussion, attended by 28 local community members including 13 local women, focused on project benefits, key constraints, lessons learnt, and future plans to sustain the project benefits. The names of the local community members present for the focus group discussion are provided in Annex 6.

• Demonstration farm visit

A tour of the demonstration farm in Hillview, where SLM interventions (Mucuna legumes plants) took place, was undertaken before the focus group discussion held in Lady Lever with the local project beneficiaries. On-site discussions were held with the accompanying local villagers from Ilitona on the demonstration farm.

• Document Reviews

Substantial information regarding project design, monthly progress reports and management were obtained from plenty of documents outlined below, which included the following (for details please refer to Annex 6).

:

- Project identification document, including the logical framework
- Project feasibility study
- Project financing agreement and co-financing agreement
- Project Inception Workshop report
- Project’s Annual Work Plans
- Project’s quarterly progress reports
- Trailing tour reports
- Field trip reports
- 2 TPR reports Tripartite Review Report

However, we have to point out that many quarterly progress reports are missing which we do not have the evidence of their existence. In addition, the Annual Review Reports were not written in the GEF format's *National MSP Annual Project Review Form*, which requires a set of compulsory and optional indicators (for monitoring purposes – please refer to Annex 6 Literature n° 33 *Resources Kit – Monitoring Evaluation & Reporting for Sustainable Land Management in LDC & SIDS Countries*) measuring performance, impact, sustainability, project's contribution to gender, linkages with MDG, UNFCCC and UNCBD etc. However; there was no evidence of such useful indicators in the Annual Reports of the project.

Observations

During all phases of the data collection process, i.e., interviews, field & office visits and discussions, the evaluators made observations in order to formulate objective views. Special attention was paid to cases such as the quality of the work carried out, management aspects of the project, financial aspects as it relates to project output, and operations of the project. In cases where doubts did exist, the evaluators cross checked by requesting clarifications from other informants and/or with other supporting work documents.

Data Analysis

Data analysis was carried by the evaluators individually. Sorting of the responses under categories of interest were done, to respond to the main concerns raised in the ToR. In analyzing the data, the evaluators kept in mind the specific areas, which would need clear responses in the evaluation report, to determine how well Outputs are being attained.

Location of Field Visits

The evaluators visited two project pilot areas, shown in Annex 4, Lady Lever in the Western Province and Mana'abu in Malaita. The list of persons met is shown in Annex 6. Telephone calls and skype calls were also conducted during the field visit.

4.8 Data analysis

Data analysis was carried by the evaluators. Sorting of the responses under categories of interest were done at the end of each day, to respond to the main concerns raised in the ToR. In analyzing the data, the evaluators kept in mind the 7 criteria, which would need clear responses in the evaluation report, to determine how well the objectives are being attained.

4.9 Location of the field visits

The evaluators visited the UNDP Sub-Office in Honiara, Solomon Islands and two of the three demonstration farms as shown in Annex 5, Map of the project areas. In addition, visits were made in MAL for various face-to-face interviews. Summary of visits made to the various sites is presented in Annex 6 where lists of persons met are shown. Many interviewees came to the UNDP Sub-office in Honiara for different interviews. Table 1 below summarises the field visits made by the evaluators.

Table 1: Summary of Field Visits by Evaluators

Project related institutions	Location	Evaluators (CP=Cindy Pubellier, SM= Seno Mauli)
UNDP Sub-office	Honiara	CP, SM
MAL	Honiara	CP, SM
Lady Lever Demonstration Farm - workshop	Lady Lever, Ringgi Western Province	CP, SM
Mana'abu Demonstration Farm - workshop	Mana'abu, Malaita	CP, SM

4.10 Debriefing Meeting

The evaluators worked after the site visits to analyze all the information and identify the main findings of the evaluation study. These preliminary assessments of CBSLM were presented at the UNDP Sub-Office in Honiara by the team leader on Wednesday 10th October 2012. The corresponding PowerPoint presentation is shown in Annex 8. The UNDP sub-office staff were in general pleased with the preliminary findings and looked forward to reading this full report.

4.11 Limits and Constraints

Although the evaluation was carried out under generally good conditions and with good support from all parties concerned, the evaluators met with some constraints, which are highlighted below:

- There was not enough time to test and validate the evaluation tools. It was however done by the team leader and shared with the other evaluators.
- In terms of evaluating the indicators, the fact that baseline data was not obtained by the project after did not allow the team to make objective assessments of the evolution of the various indicator parameters.
- Internal monitoring documents (insufficient quarterly progress reports, absence of steering committee reports,) were not complete so that much time was demanded in retrieval of information
- The limited activities carried out by the project makes the evaluation perceived by the project actors as “finding-the-guilty-one” so that defensive behaviour is abundant among the interviewees. Some of them turn on the “it-is-not-my-fault-mode” trying not to shoulder the responsibility. This might offset the impartiality of the data collected.
- There were some difficulties in accessing key informants such as Jean Galo – who played a key role within MAL on the SLM Project. She had left the Ministry years ago and currently residing overseas. Though a questionnaire was sent to her at short notice, there was still no feedback from her to date.

5 Answered Questions/Findings

5.1 Relevance- Problems and needs

3.1.1 Identified problems and social needs – Solomon Islands' Poverty and Land Degradation

The Solomon Islands has limited capacity at all levels, community, provincial and national to effectively address land degradation and promote sustainable land management. The country was emerging from a decade of internal conflict that has brought many of its communities to the territory of absolute poverty. Reduced capabilities and capacities for subsistence and cash agriculture pursuits had severely affected food security. Uncontrolled land and forest clearing through logging, intensive large-scale agriculture and to a lesser extent the expansion of subsistence farming as a result of increasing population, all place intense pressures on the land and soil resources. Most of the accessible soils have fertility and/or micronutrient deficiencies and increased exposure results in soil leaching and erosion. There are little if any reliable data on soil erosion rate, extent and severity of land degradation decline in soil fertility and sustainability of current cropping and land use systems in Solomon Islands.

In addition, lack of integrated land and resource use policy and legal platforms; limited use of land use planning systems; poor environmental and resource capacity information; lack of national policy direction; lack of resources and capacity (institutional, technical and human) are concrete barriers for implementation of sustainable land management measures.

3.1.2 Conceptual Relevance of CBSLM within Global Environmental Management Context

UNCCD

The Solomon Islands became a party to the United Nations Convention to Combat Desertification (UNCCD) and ratified in April 1999. By acceding to the Convention, the country commits to implement a wide range of national actions to address desertification and land degradation. The project supports The Solomon Islands to address the following UNCCD requirements:

- Adoption of an integrated approach addressing the physical, biological and socioeconomic aspects of the processes of land degradation;
- Establishment of institutional mechanisms to combat land degradation and its effects;
- Establishment of strategies and priorities to combat land degradation and mitigate its effects within the framework of national sustainable development plans and/or policies;
- Awareness building and facilitation of the participation of local communities;

- Development and implementation of a national action program to combat land degradation and mitigate its effects, and its enhancement through a continuing participatory process on the basis of lessons learned from field action and results from research.

Moreover, as shown in table 2 below, the project corresponds to all the strategic objectives and contributes to six of the seven expected impacts outlined in the UNCCD Ten-Year Strategy (2008-2018):

Strategic Objective/ Expected Impacts	Relevance
Strategic Objective 1: To improve the living conditions of affected populations	Yes
Expected impact 1.1. People living in areas affected by desertification/land degradation and drought to have an improved and more diversified livelihood base and to benefit from income generated from sustainable land management.	Yes
Expected impact 1.2. Affected populations' socio-economic and environmental vulnerability to climate change, climate variability and drought is reduced.	Yes
Strategic objective 2: To improve the condition of affected ecosystems	Yes
Expected impact 2.1. Land productivity and other ecosystem goods and services in affected areas are enhanced in a sustainable manner contributing to improved livelihoods.	Yes
Expected impact 2.2. The vulnerability of affected ecosystems to climate change, climate variability and drought is reduced.	Yes
Strategic objective 3: To generate global benefits through effective implementation of the UNCCD	Yes
Expected impact 3.1. Sustainable land management and combating desertification/ land degradation contribute to the conservation and sustainable use of biodiversity and the mitigation of climate change.	Yes
Strategic objective 4: To mobilize resources to support implementation of the Convention through building effective partnerships between national and international actors	Partially
Expected impact 4.1. Increased financial, technical and technological resources are made available to affected developing country parties to implement the Convention.	Yes
Expected impact 4.2. Enabling policy environments are improved for UNCCD implementation at all levels.	Partially

Table 2: expected impacts outlined in the UNCCD Ten-Year Strategy (2008-2018)

UNDP/GEF Framework

Targeted Portfolio Approach for SLM in LDC and SIDS

The project was a part of the UNDP/GEF Targeted Portfolio Approach for Capacity Development and Mainstreaming of Sustainable Land Management in Least Developed Countries (LDC) and Small Island Developing States (SIDS). It is designed to develop capacity for mainstreaming sustainable land management at various planning and implementation levels in Solomon Islands. It addresses all the three outcomes under Operational Principle (OP) -15 of the umbrella project:

- Cost-effective and timely delivery of GEF resources to target countries;
- Individual and institutional capacity development for SLM;
- Systemic capacity development for mainstreaming SLM principles in national policies, plans and programs.

Land Degradation Focal Area Strategy and Strategic Programming for GEF-4

The Land Degradation Focal Area Strategy and Strategic Programming for GEF-4 (2007- 2010) contains two strategic objectives:

- (a) To develop an enabling environment that will place SLM in the mainstream of development policy and practice at regional, national, and local levels; and
- (b) To upscale SLM investments that generates mutual benefits for the global environment and local livelihoods.

The designed project outcomes correspond to both the objectives.

GEF Operational Program on Sustainable Land Management (OP 15)

The project corresponds to the GEF Operational Program 15 which pertains to sustainable land management and contains the following expected outcomes:

- Institutional and human resource capacity is strengthened to improve sustainable land management planning and implementation to achieve global environment benefits within the context of sustainable development;
- The policy, regulatory, and economic incentive framework is strengthened to facilitate wider adoption of sustainable land management practices across sectors as a country addresses multiple demands on land resources for economic activities, preservation of the structure and functional integrity of ecosystems, and other activities;
- Improvement in the economic productivity of land under sustainable management and the preservation or restoration of the structure and functional integrity of ecosystems.

Outcome 1: addresses the first and third expected outcomes of OP 15.

Outcome 2: (NAP) and the investment plan address the first and second expected outcomes of OP 15.

Outcome 3 and Outcome 4: partially addresses the second expected outcome of OP 15.

The project was designed to cover the two of the three types of interventions outlined in OP 15 for GEF support. These were capacity building and on-the-ground investment. The first was pursued through training and awareness building workshops, policy development (NAP), assessment of legislative frameworks and information development (various consulting studies) and the latter through promotion of physical SLM interventions at the local community level (focal remote villages with multi-year support).

3.1.3 Country Drivenness

The evaluators are of the view that the project's relevance identified during its formulation remains valid. In addition, the National Coalition for Reform and Advancement (NCRA) approach to addressing a number of root causes of land degradation, namely poverty of opportunities and low rural income is reflected in its Policy Translation Document (Revised) (2011). A range of closely related elements in the document have links to the UNCCD NAP. For instance, the policy goal of the Ministry of Agriculture & Livestock is: *"To provide extension, education, regulatory, research and associated activities to improve the Agriculture sector's contribution towards increased food production, food security and standards, and economic recovery and development"*. This policy goal has expected outcomes like, food security and food production to prevent hunger and malnutrition. To realize increased food production and prevent hunger, underlying issues like soil fertility as a degradation issue has to be addressed. The same applies to commercial plantation.

Apart from the ruling government's policy, Ministry of Agriculture & Livestock also has a Corporate Plan with a mission *"to promote, improve and lead agriculture development in Solomon Islands to a profitable and environmentally sustainable future....."* (Ministry of Agriculture & Livestock 2008), which is also link to UNCCD's NAP. Furthermore, in the Agriculture Research Work Program are sustainable land management activities like soil fertility improvement which are also linked to UNCCD NAP.

The policy statement of the NCRA Government for other related sectors like forestry, environment and conservation also links closely to UNCCD through planned development of a strong legislative and regulatory framework for sustainability of forest harvesting and promoting protected areas as well as adapting to climate change, halting deterioration of ecosystems and restoration of damaged ecosystems (National Coalition for Advancement Government 2010). The Ministry of Forests, in its Corporate Plan 2008 – 2010 identified sustainability and environmentally friendly forest harvesting as priority areas that requires addressing.

The stated overall objective of CBSLM is *"Contribute to maintaining and improving ecosystem stability, integrity, functions and services while enhancing sustainable livelihoods by building the capacity to implement sustainable land management into all levels of decision-making."*

The project CBSLM was designed to address poverty through capacity building to implement sustainable land management, influencing policy development, building capacity, introducing best practices through consultancies and workshops and for a generating experience and knowledge in the country, raising awareness of decision-makers and land-users through maintaining and ecosystem stability, integrity functions and services to improve the quality of life of Solomon Islanders. This is highly relevant work though there is room for improvement in its efficiency, effectiveness and sustainability. The evaluation team recognises the need and challenge to make these improvements to the extent possible.

3.1.4 Assessment of absorption and implementation capacity

The Land Use Planning Division of MAL based in Honiara, the principal partner for the project, set up a Project Management Unit (PMU) directly responsible for day-day management of the project and the timely delivery of inputs, outputs and activities as well as the coordination and collaboration with the provincial offices and other stakeholders. The Land Use Planning Division and the Research Division possess the technical capacity to assist in implementing activities of SLM.

It was claimed by the first Project Managers that the focal persons in MAL assigned to the project were not experienced enough. Indeed, one of the two focal persons was a college leaver when she picked up the position of Assistant Research Officer and representative of MAL for the project CBSLM, followed by the resignation of a very experienced predecessor. The absorption and implementation capacity of MAL could have been hampered by this change though the institution exhibited sufficiency during the Design Phase. While more involvement should have been put from the side of MAL, the evaluation team does not view this as the mere determining cause of the low performance of the project.

3.1.5 Assessment of coordination capacity

The following arrangements were foreseen by the Project Design document:

“The project board (PB) shall be headed by the Permanent Secretary for the Ministry of Agriculture and Livestock included the Permanent Secretary of MAL and MFEC (currently Ministry of Forests) as well as the representatives of UNDP and NGOs”.

“This NCSA TWG will act as the technical advisory group (TAG) for technical support to the project committee was to be set up. It will be composed of individuals from MFEC, MAL, Department of Planning (currently Division of Planning), Department of Provincial Affairs (currently Extension Division), NGO representatives and provincial representatives – as they are available. The timing will enable joint meetings, and respects the difficulties in time management given present tensions and the remoteness of some of the meeting members. The TWG/TAG will also be charged with coordinating technical links between national and province based stakeholders”.

“The Project Management Unit (PMU) will be established with the Planning Division, headed by the Project Manager. The PMU will include 2 team leaders and a Project Assistant”.

Had there been an effective PMU and TWG, coordination could have been done with broad multi-stakeholder participation. However, in practice, there had been important issues in the recruitment of Project Manager. The first PM assumed duty five months after the commencement of the project but only stayed for a brief six months. The project was without a PM for a period of six months until the assumption of duty of the second PM, who worked for two years and three months in the CBSLM project. The Project Assistant was the longest served officer of the project, stayed two and a half years. The project Manager and the Project Assistant constituted the PMU. Throughout the lifespan of the project, no landcare team leader was recruited as members of the PMU as designed in the project document.

To our deep regret, neither of the two Project Managers played the role to coordinate stakeholders such as other Ministries and NGOs, as stated clearly in the project document. They both claimed in the interviews that they only worked with MAL and never did they initiate or attend any stakeholder meetings. This, among other points, is strikingly disappointing to the evaluation team as it was solidly written in the project identification document on the importance of stakeholder involvement. Hence, the coordination capacity of the project is **extremely low**.

The components of the project had been structured to address the capacity needs. In terms of capacity building for SLM, the interviewed stakeholders felt that it was important to determine suitable entry point/s, given the numerous embryonic initiatives targeting rural development. The challenge was to find a way for this Medium Sized Project (MSP) to meld with these other endeavours, address identified critical capacity gaps, and to assist in providing a positive way forward without adding to the profusion of efforts. To our dismay, there was no evidence of this attempt or outcome. A further challenge was to find an approach that could balance the much needed national capacity development (e.g. Ministry of Agriculture and Livestock) with that of provincial administrations and the local communities. It is often these last two groups of stakeholders who receive cursory involvement in many resource management projects. In this case, the evaluation team found that coordination with the provincial counterpart was largely insufficient.

National and Provincial administrations Coordination : The Project Manager should have delegated a number of tasks to the provincial counterparts and made use of their expertise in agriculture and local knowledge as highlighted in the project identification documents. The interviewees from the Malaita Agriculture Extension Office were disappointed not to have received delegation directives from the PM. They expected more involvement in the project. It is critical to have a strong national agency to lead SLM mainstreaming and integration in governance.

Coordination with Stakeholders (NGOs and other Ministries): The IW (Inception workshop) was held during the period without any Project Manager (March 2009). It should have provided an opportunity for all parties to understand their roles, functions, and responsibilities within the project's decision-making structures, including reporting and communication lines, and conflict resolution mechanisms. The Terms of Reference for project staff, clearly defined in the project document, and decision-making structures should have been discussed so as to clarify for all, each party's responsibilities during the project's implementation phase. However, the report of IW did not reflect that the roles were thoroughly discussed. (This was also expressed by some of the interviewed stakeholders.) There was no evidence on the confirmation, during the Inception workshop, of the institutional roles, responsibilities, coordinating actions and feedback mechanisms of project related partners illustrated clearly in the project document. This might be due to the absence of a Project Manager. Nevertheless, a TWG was formed with large stakeholder involvements in different components. Conversely, all the interviewed stakeholders were deeply disappointed who had expected a better coordination and involvement. The TWG only bore its name without having any meeting after the inception workshop meeting. They were not kept informed of the progress and any activities of the project.

Coordination with the local communities (Demonstration farms): The beneficiaries of both Lady Lever and Mana'abu communities claimed not to have received sufficient information from the project. They did not clearly understand the objective of the project and their roles. Therefore some expressed that the project was viewed as a top-down endeavour as their community needs were never assessed. Furthermore, they also expected to be visited more frequently especially in crucial periods such as the harvest. In one of the two communities, the project officials arrived too late and that no weighing of produce was conducted. When the project personnel took samples of the soil, no feedback was given. As a result, the demonstration plot in Hillview was left unattended ever since (see figure 1 below). As for the other community, in Malaita, there was no visit effectuated during the harvest time.



Figure 1. Demo Plot in Hillview, Lady Lever Community, Kolombangara, Western Province
- picture taken by Cindy Pubellier, Team Leader Evaluator

3.1.6 Degree of flexibility and adaptability

The Project Manager repeatedly complained about the delays of disbursement from UNDP due to bureaucracy. However, in retrospect he admitted that, he did lack the knowledge and experience in UN disbursement regulations. He nevertheless attended a procurement training workshop in early 2011 in Fiji, well over one year after his assumption of duty. However late it was, a sign of adaptability was observed. This training had been done, yet no convincing acceleration in activity performance was observed thereafter.

During the evaluation interview, the Project Manager also highlighted that the project was understaffed. However, when asked if he tried any replacement after the resignation of the Project Assistant, he could not give any convincing argument as to why he failed to fill the post. In addition, not only did the Project Manager

never delegate professional tasks on agriculture to his provincial stakeholders, we did not find any evidence of attempt in recruiting any specialists/consultant in soil sciences, project M&E, policy development, investment plan, land use planning, community mapping and appraisal, provincial governance review, for guideline and manual development, which were well defined in the logFrame and the had all been budgeted for. In short, apart from the revision of NAP, we could not find any proofs of other consultant's recruitment. In such a far reaching project as this, the CBSLM comprising of a lot of disciplines, hence, it is unthinkable that a PMU with limited number of members ca, accomplish all the activities listed in the project document. Had the PM consulted the project identification document, he would have noticed the necessity of engaging different international and local experts to cover the wide range of required expertise.

The Project Manager should have informed the UNDP Solomon Islands Sub-Office of any delays or difficulties faced during implementation so that adaptive management could be applied through appropriate support and/or corrective measures in a timely and remedial fashion and that the progress of the project is not hindered by unnecessary delays. To the best of the knowledge of the evaluators, no such actions were taken.

Steering committee meetings could have brought the issue of disbursement to light. However, the evaluation team could not find any trace of Steering committee meeting or any meeting minute.

There were a number of activities which did not require disbursement which were never explored by the PMU.

For example, as suggested by the stakeholders during the Inception Workshop,

- MAL has an Information Centre that can assist in the facilitation of information dissemination. The centre also runs a radio programme for which awareness on SLM could have been broadcasted;
- Ministry of Rural Development (currently Ministry of Rural Development and Indigenous) hosts workshops for its Community Development Officers. SLM awareness building could have been integrated in these workshops;
- Other stakeholders such as Kastom Gaden and Live & Learn host workshops at their respective work sites. SLM knowledge and experience could have been made use of.

However, the evaluation team could not find any evidence of these events. This showed not only that the Project Management lacked flexibility, but he did not follow closely crucial documents such as the Project Document and the IW reports.

3.1.7 Quality of the identification of institutional capacity

According to the former (in 2005) Director of Research of MAL, who was very much involved in the designed phase, institution capacity analysis did take place. The Appendix 7 of the Project Document also showed a detail stakeholder matrix confirming this analysis. The Planning Division of MAL was identified as the implementing office for UNCCD. It is also where the Project Management Unit was based. Its *Mandate is on rural land use and planning; agriculture research and extension services* (wider Department). As a resource use agency, it is responsible for matters relating to sustainable development of land and land-based resources. It has ministerial connections with the Department of Lands in the management of the use of colonial plantation and government lands in the rural areas. It carries out projects for Development of Sustainable Agriculture in the Pacific (DSAP), Food and Agriculture Organization (FAO) and European Union (EU) through the Research and Extension Division which could have been integrated within pilot catchments.

In the CBSLM project, MAL was supposed to play the role of principle project management of the SLM, to prepare the NAP and to mainstream advocacy and research. The Planning Division should be responsible for the liaison and communications with team members, engagement of consultants to conduct the project activities, supervision of the M&E processes and reporting to donors. It was supposed to house the UNCCD focal point.

The background setting of MAL seemed appropriate for the project. Nevertheless, after the departure of an experienced agricultural researcher in the beginning of the project, the project appeared to have hampered a good deal. Indeed a young college leaver was to be the successor taking up the backstopping and representing MAL in this ambitious project. Both Project Managers did not take this as a strong commitment from MAL. A representative of higher profile was expected.

A GIS system hardware and software were said to have been purchased and installed for the project. However, the evaluation team could not sight the physical system at the Research Division (where the GIS system was said to have been installed) as the person in charge of the GIS was on leave for weeks. Interviews were made with other project actors such as the Land Use Planner who was involved in

catchments area mapping of the project. Yet the evaluators failed to obtain any trace of mapping data (result/outcome), not even sketches on paper support, let alone any possible integration into the GIS. Nevertheless another GIS specialist of the Planning Division, who worked on another project, did confirm that the GIS system of the CBSLM project was never operational. This shows that capacity can be found within the institution. However the project implementation failed to render the GIS effective and operational by making use of technical synergy within MAL.

3.1.8 Participation in design and management/implementation MAL ownership

Consultation in Design phase

Many interviewees of MAL have participated in the design phase of the project indicating that early consultation took place during the period between 2005 and 2006. Some representatives of the communities were consulted in the design phase of the project who had expected active involvements. The evaluation team thought that additional communities consultations should have been done at the inception phase of the project given that pilot sites were confirmed during project implementation. Community background and needs should have been identified at the early implementation stage to secure ownership. In addition, it is obvious that community members should have been explained very clearly the objectives of the demonstration farms and the roles of all parties involved. However, these did not take place. Consequently, the community members regarded the pilot sites as a top-down undertaking. This drawback in ownership not only showed that rural people's perceptions of problems and solutions were overlooked, but local information, needs and experience were neglected.

The project inception workshop took place in March 2009, one year after the project commencement and six months before the second PM assumed duty. According to the Inception Report, a wide stakeholder participation was observed, namely, MAL Agricultural Research Unit, Mana'abu Training based community, RWSS, Live n Learn, Kastom Gaden, MECDM, SNR – School of Natural Resources of the Solomon Islands College of Higher Education (SICHE), Curriculum Development Unit, MAL National Rice Project, APHEDA, Ministry of Rural Development (currently Ministry of Rural Development and Indigenous Affairs), Conservation Groups, Oxfam, World Vision, Rural Training Centre representative, MLY&S, Forestry Association, MF, MEMRE, Statistic Division, etc.

In addition, it was pointed out that "SLM Best Practices" were already available in Kastom Gaden which could have been employed to disseminate information and that awareness building programs at the community level could have been carried out.

Extremely poor stakeholder involvement in implementation

The evaluators failed to identify any stakeholder participations throughout project implementation except at the pilot areas and the development of the school curriculum. Stakeholder interviews also revealed that no invitation had been sent and no information about the project has been received.

The Curriculum Development Division of MEHRD, one of the only stakeholders who worked in the project implementation, had nevertheless expected more exchanges with other ministries for the enrichment of curriculum development in the perspective of Agriculture, Lands and Environment. They also had expected to visit the community demonstration farms so as to illustrate in the books. However, it had never happened.

MAL as the implementing Office

MAL is regarded by the evaluators as an appropriate implementation office for UNCCD and the CBSLM project since its mandate is on rural land use and planning, agriculture research and extension services. MAL is also responsible for matters relating to sustainable development of land and land-base resources. In addition, it possesses the know-how of good SLM practices with provincial administration in Malaita and in Kolombangara to assist and oversee the demonstration farms in very remote rural areas. If managed well by making full use of the resources of stakeholders, the project could have been successful with very tangible outcomes. There might have been insufficient availability, capacity and experience of the staff from MAL that could have required improvement, but the evaluators did not regard this as the determining factor for the poor performance of the project. Poor project management should be the root cause of the overall project failure.

3.1.9 Analysis of assumptions and risks

The Project Document identified the key assumptions underpinning the design of this project as follows:

- National and provincial agencies and institutions are willing to collaborate on integrated approaches for sustainable land management;
- Governments will remain committed to mainstreaming SLM in government development plans, legislations, sector and cross-cutting policy;

- National and provincial agencies and institutions are willing to allow access to geographic and other land resource and information systems;
- Agencies and Institutions will assist with the medium term investment plan to ensure resources continue to be committed beyond the life of the project,
- That efforts in monitoring and evaluation (systems) are amalgamated or adapted to assist with measuring land degradation and the implementation of SLM;
- That all stakeholders maintain a team approach for a strategic approach to SLM and not be guided by short term project or donor biases.

To ensure risks and assumptions are regularly monitored and addressed, a Risk Management Strategy should be developed through the Inception phase of the project.

Many of these assumptions proved **not** to be valid for the duration of the project. An M & E expert was to be recruited (though budgeted) to set up an M & E system for the project. Disappointingly, no M&E expert was recruited to implement a system to measure land degradation and the implementation of SLM. In addition, no investment plan was carried out to ensure resources beyond the life of the project. Stakeholders were not even invited to participate in the activities of the project, let alone the idea of teamwork to share resources and experience.

The project's design had taken into account risk exposure which would have negatively affected the project's outputs and had provided detailed mitigating plans. They are summarised in table 3 below. The project design had identified four major risks which were well analysed as they were found to be real threats during implementation. However the project implementation did not manage the identified risks as foreseen in the Project Document (please refer to paragraph 3.2.5 Management of risks).

Identified Risks in Design Phase	Mitigating plans suggested in the project document
Financial risk i.e., delay in disbursement of project funds	<ul style="list-style-type: none"> • financial monitoring • financial training • discussion with government finance • no review of business processes
non-inclusive of stakeholder involvement	<ul style="list-style-type: none"> • Clear guidelines to stakeholders describing their roles • monitoring of stakeholder involvement & engagement
Risk of Delay in the implementation of activities,	<ul style="list-style-type: none"> • review of pending activities as part of the APR reporting
availability of Legal drafting capacity	<ul style="list-style-type: none"> • allocating sufficient budget for the recruitment of an expert • regular communication with media regarding importance of project activities and importance of the issues; • briefings to Lands Steering Committee

Table 3: identified risks and mitigating plans foreseen in the Project Document

These assumptions and risks were identified in achieving the project's Outcomes. Rationales were developed which have helped determine the activities and outputs. The evaluation team thinks that assumption and risks have been well analysed, logical and robust with mitigation plans well prepared during the design phase.

3.1.10 Monitoring and evaluation arrangement have been appropriately designed

According to the project design document, *"Project monitoring and evaluation will be conducted consistent with established UNDP and GEF procedures and guided by the Monitoring and Evaluation Tool Kit provided by the Global Support Unit (GSU). Reporting in the first instance will be provided by the National Project Committee (NPC) with support from the UNDP Country Office (UNDPCO) and the UNDP/GEF Global Support Unit. The PM will have lead responsibility for reporting requirements to UNDP.*

The APR Form will outline project identifiers, monitoring impact and performance, including monitoring project processes, adaptive management and lessons learnt. The project identifiers cover the basic background data of the project. Questions in this section have to be completed by the Project Manager."

The Monitoring Impact and Performance section will report on whether the impacts and performance of the project so far have resulted in an increased or strengthen capacity for sustainable land management. The project impact will report on the progress of achieving the national MSP project objective while the project performance measures the progress towards achieving the four (4) MSP outcomes. Furthermore, this section will elaborate on how the project activities are meeting GEF requirements and principles."

Day to day monitoring of implementation progress should be the responsibility of the Project Manager based on the project's Annual Work Plan and its indicators.

In addition, the project design foresaw a schedule of key monitoring and coordination events, namely, tentative time frames for Tripartite Reviews, TWG/Technical Advisory Group, (TAG) meetings; and project related Monitoring and Evaluation activities; all to be discussed and validated during the Inception Workshop.

Annual Monitoring by the highest level of parties directly involved in project implementation should occur through the **Tripartite Review (TPR)** to be held at least once every year.

An independent mid-term evaluation was to be carried out by an independent evaluator and to be paid for by the project.

One set back of the logical framework in the project design is that it did not provide appropriate SMART indicators. Very few of the indicators were SMART. The project design had perhaps underestimated the difficulties of Monitoring & Evaluation based on the provided indicators. The PMU was supposed to replace them with appropriate indicators and to establish baselines to ensure accurate monitoring and evaluation of the programme. To our dismay, the indicators in the logical framework were never reviewed and no baseline was done. These hampered effective evaluation.

Despite the non-smart indicators, the evaluation team still found that these arrangements should have been appropriate had adequate and good quality reports (e.g. appropriate APR forms) been submitted in a timely manner and evaluation & monitoring events been held accordingly.

3.1.11 Quality of design

CBSLM is an important project and intervention consisting of a lot of actors, target groups and multiple expected effects. It is large in geographic extent reaching very remote villages, in terms of technology notably in GIS and web-communication. The stated objectives are considered to be consistent internally and the project strategy to be appropriate though there was no evidence of recruitment of "south-south Landcare expert from the Philippines" as suggested by the project document. The evaluation team could not confirm this practicality.

While the design shows internal consistency, the indicators used in the Logical Framework for the Goals and Project Objectives are not all measurable easily. This resulted in difficulties in monitoring and evaluation. The indicators also suffer from some lack of clarity and specificity so that they can not be considered as SMART. Some indicators are duplicated such as the NDP paying attention to SLM – (in component 1 & 2). These hinder the evaluation team to give efficient judgements to the degree of relevance of the project. (Annex 5.7.2 discusses the "non-smartness" of the key indicators of the logFrame).

Financial input is felt to be realistic had management been efficient with ample human and administrative capacity and resources, both from the PMU and the stakeholders.

5.2 Effectiveness - Achievement of Purpose

3.2.1 The Programme's Purpose

The Project Goal of CBSLM was *"Contribute to maintaining and improving ecosystem stability, integrity, functions and services while enhancing sustainable livelihoods by building the capacity to implement sustainable land management into all levels of decision-making."*

The project had not resulted in significant changes respect to improving ecosystem stability, integrity, functions and services and enhancing sustainable livelihoods. Moreover, no base-line data has been obtained by the project.

The Project Objectives was to *"strengthen human, institutional capacity, systemic capacity for Sustainable Land Management (SLM)"*.

Likewise, the project had not result in significant changes to strengthen human, institutional capacity, systemic capacity for Sustainable Land Management"

The status of output illustrated in Annex 3 summarises the progress achieved by the project as per indicators. Since they are not SMART indicators, quantitative measurement could not be evaluated. However, it is clear that very little progress had been achieved by the project.

3.2.2 Measurement of changes

The evaluation team failed to gather evidence in significant change with respect to strengthening the human, institutional and systemic capacity for SLM.

Systemic capacity: though the NAP has been reviewed and awaits endorsement, on the ground investment needs were not identified through Integrated Financing Strategy (IFS) which was not conducted. Hence, no resource plan with budgets resulted in continue SLM activities beyond the project. Thus, we have difficulties to be convinced whether there are significant changes brought about by the project in National Development Plans paying more attention to SLM.

Institutional Capacity: The evaluation team was told that the GIS hardware and software system was set up yet not operational. No mapping data could be produced by the interviewees. Thus the GIS system can not contain data of Land Degradation as expected according to the project document.

Human Capacity:

- **Community Level**: The community members who participated in both demonstration plots were confused with the objectives of the pilot farm. They were not convinced of the effectiveness of the SLM technique introduced (SLM narrowed to merely planting legumes seeds) as the harvests did not show consecutive soil improvements. Being taught verbally with no physical handouts or guidelines, farmers were unable to reproduce the technique taught in other areas. They also expected feedback from the PMU and realistic awareness building workshops.
- One of the only tangible outcomes is the development of school curricula on SLM (please refer to Annex 7.3 – the SLM Learners' Book). However, the curriculum developers also had expected to have worked with stakeholders such as Ministry of Agriculture, Lands and Environment and other NGOs, as well as participating in other project activities, in order to strengthen their own capacity.
- The Rural Training Centre of Mana'abu had expected more awareness building workshops, feedback and participation to contribute their local knowledge to SLM and of project activities. They had submitted several letters in the form of reports to the PMU but no feedback was received. The evaluation team read through the said reports, during the pilot site visit, which were more informative and of better quality than the reports produced by the Project Manager himself. In short, the RTC did not observe capacity improvements contributed by the project.

3.2.3 Performance

The project envisaged to realizing achievements in four result areas during the project period. These include:

Component 1: Increased knowledge and awareness of land degradation and the importance of sustainable land management. The expected output includes: Awareness raising materials and social marketing plan. Awareness raising activities are to be organized for local communities, the public, government agencies and schools.

Progress towards results in component 1 is summarised as follows:

Progress towards results – Component 1 – low outputs	
Project performance indicators	Project output Status
Efficient and effective knowledge management systems in place	Not delivered: <ul style="list-style-type: none">• No awareness materials on LD and SLM found with a lot of difficulties at National and provincial Govt. levels• Awareness materials on LD not found at community levels• Social marketing plan not developed
Information on SLM is developed and utilized for land use planning	Information material on SLM was not delivered to the communities, the public and other government agencies but only to some targeted schools

Component 2: Systemic capacity building and mainstreaming of SLM principles and objectives - The NAP was to be elaborated and implemented through co-financing, on-the-ground investments in the medium to long term on the NAP. SLM principles and NAP priorities were to be integrated with national development plans, sector/thematic action plans &/or national sustainable development strategies to achieve the

Millennium Development Goals. Medium-term Investment Plan was to be developed to secure long-term support. Operational Land use planning system should be in place for medium-long term development.

However, little progress was observed as illustrated as follows:

Progress towards results – Component 2 - little progress towards results	
Project performance indicators	Project output status
NAP formulated and approved	Accomplished but awaiting endorsement by the Government
Relevant policies should contain specific sections on and follow principles of SLM	Not enough evidence
SLM is already mainstreamed into Millennium Development Goals processes	Not done by the project
National development plans pay adequate attention to SLM	SLM strategy under Climate change & Environmental protection in NDS (2011-20)
Mid term investment plan is developed and necessary resources are mobilized	No

Component 3: Enhanced technical, individual and institutional capacities for SLM. The expected output includes a Geographic Information Systems (GIS) to enable the aggregation and characterization of information on terrestrial resource systems and to define the extent of land degradation; local community mapping and appraisal of representative catchments/s; local Community and provincial governance structures and functions enhanced to provide a framework for land and bio-physical information development and resource use planning; National institutional structures and functions enhanced to better address SLM; some GIS bases useful for land resource mapping; base laws in place; some training centres exist for GIS bases and land resource mapping.

However, very little progress was observed in component 3 as illustrated here below.

Progress towards Component 3 – very little	
Project performance indicators	Project output Status
Staff of Dept of Forests, environment and conservation, dept of lands, have the capacity to implement SLM practices and train others in SLM	No. The stakeholders were not involved in the project
Technical information & skills on SLM are to be implemented	Not on GIS which is not operational Not on land use planning using GIS Not on land degradation mapping using GIS
Community based capacities are enhanced through a SLM pilot that are established in key site in Solomons	Very little – communities consider SLM as techniques in planting Mucuna seeds for soil improvement
Best practices in environmental economics for policy assessment, land use approaches and sustainable farming guidelines are established by MAL	Not delivered by the project No farming guidelines found
SLM networks established at national and local levels	No, only during inception workshop but never effective during implementation, SLM network not set at local levels

Component 4: Enhanced technical support at the local, provincial and national levels to assist with mainstreaming and integrated decision-making. The expected output includes tools, guidelines and manuals for different approaches to capacity development, mainstreaming with policy platforms and integrated land use planning options; local and national knowledge management networks, linked to existing networks; Effective monitoring and evaluation systems in place using the GIS, and Provincial reporting frameworks and Incorporation of local and traditional management approaches into community led integrated land use planning systems.

Progress towards Component 4 – No	
Project performance indicators	Project output Status

50% of land users and gov't staff are satisfied with available technical support	No, all interviewees included MAL staff, stakeholders and communities were not satisfied. UNDP backstopping not satisfied
Innovative tools for SLM such as options for community based planning, traditional farming practices, ecosystem approaches to development, resource economics and its use in decision making EIA, GIS and GPS manuals adapted to local and national needs and are functional in places	No, not from the project No community based planning No manual available to the communities some manuals exist (sighted by evaluators) in MAL but not utilised in the project

None of the above outcomes were delivered completely. Outcomes 1, 2 and 3 are delivered only very marginally while Outcome 4 was not delivered at all.

The inability to complete many of the planned outputs, the limited scale of capacity building and mainstreaming, and the high cost/low efficiency in delivering the end results indicated significant performance deficiencies. About 8 % of the output (see section 3.3) targets were achieved and the same proportion partially achieved, while over 90% were unachieved. The effort to generate a high quality NAP and the curriculum development constitute the major successful achievements of the project.

The overall output justified a **highly unsatisfactory rating** on project results.

The project performance was deemed **highly unsatisfactory**. The project implementation was characterized by many organizational, personnel and operational difficulties and inefficiencies. The slow start-up of the project due to difficulties in recruitment of the PM and the resignation of the same after a short presence, weak direction in the early stages and the general lack of clarity about the SLM concept and the means of cross-sectoral promotion imposed major barriers to progress. There were not enough qualified staff and quality assurance measures to effectively implement the project and difficulties to engage experienced and qualified local project management experts. Some of the project staff were either under-qualified in project management or not sufficiently experienced in conducting a project of such scale to achieve the expected results. The Project Board and UNDP could have made subsequent changes in project management, recruited new staff and part-time advisors and involved GM for the preparation and investment strategy. This could have been a positive measure that could have provided the needed direction for the project at the costs of reducing component outputs.

3.2.4 Degree of ownership

Project Ownership is vital to obtain a broad buy in into projects. Many institutions were present during the Inception Workshop for this Project in 2009 which showed the presence a lot of initial enthusiasm and involvements. While these comments and positive suggestions were illustrated on the IW report, the stakeholders were never involved during implementation. Interviewees indicated that though discussed during the Inception Workshop, the initiative to include these stakeholders did not eventuate. Moreover, the key beneficiary voiced their concerns during evaluation that they themselves felt no ownership of the project. The evaluation team considers this to be rather peculiar since MAL was consulted during the design phase, objectives and many of the activities are in-line with MAL's mandate and preoccupation as all the interviewees regard the CBSLM project to be relevant which addresses the national land issues. The evaluators deduce that was perhaps due to poor project management approach and the fact that cordial relationship between the PM and the Ministry was not present. During the interview with the PM it was revealed that the PM did not show any interest in involving any stakeholders such as other ministries and NGO.

At the **Community level** representatives of the focal areas for the project; (1) Mana'abu Community, Malaita Province (2) Lady Lever Community, Western Province highlighted their dismay in not feeling any ownership of this project. In addition, not only were their needs not identified at the inception, the lack of feedback, infrequent visits made by the PMU and the failure to understand the objective and roles of the pilot farms, all contributed to the loss of interest and enthusiasm on the project. Consequently, the demonstration sites did not achieve the targeted outcomes. In addition, the community needs were never assessed by the PMU. This is viewed to be a major setback of community ownership. Many of the land-users expressed water issue such as difficult access to water. However, to cultivate the highly situated demonstration farm in Hillview for instance, one needs to deliver water upward manually for irrigation. This reflects the insufficiency in situation analysis on the community's environment and concerns. The roles of the community members on the pilot farm were not clearly identified. Nobody knew who should do what and why. They viewed this as a top-

down obligation and the outcome of which was not regarded to their advantage. That might have generated an incentive oriented sentiment.

At the **Provincial level**, Provincial Extension Officers involved highlighted their disappointments in their minimal inclusion in the activities implemented. As the administrative body of the province their local knowledge is paramount which could have been utilized through appropriate coordination of MAL office and the PMU based in Honiara. The lack of feedback to communities and the Provincial centres lessen the interest to continue the Project.

From the **National perspective**, though MAL was present throughout the project implementation it was noticed in the interviews that even as a principal partner they did not feel ownership of the project. Their engagement in the activities at the national level was infrequent visits to the demonstration sites which produced poor results. They also expressed their heavy day-to-day workload and regarded the CBSLM project as an extra burden. This might have generated from the ignorance of the importance of the project from junior officers. The evaluation team believes a senior officer of high profile to be more appropriate to represent the Ministry in order to obtain better outcome.

Stakeholder participation during Project Design and Implementation is crucial to obtain mounting interests into the project. It was believed that several line Ministries, other government agencies, communities, civil society were consulted but did not participate in project implementation. The project claimed very few awareness building workshops but no evidence of workshop reports that could confirm the attendance of participants and obviously no gender participation information was found. Figure 2 below shows the technical working group, formed during the Inception Workshop, which represents a high number of stakeholders including the Line Ministries and NGOs. Unfortunately, this working group never met again afterwards. No invitation letter was sent to them for technical discussions on the project.

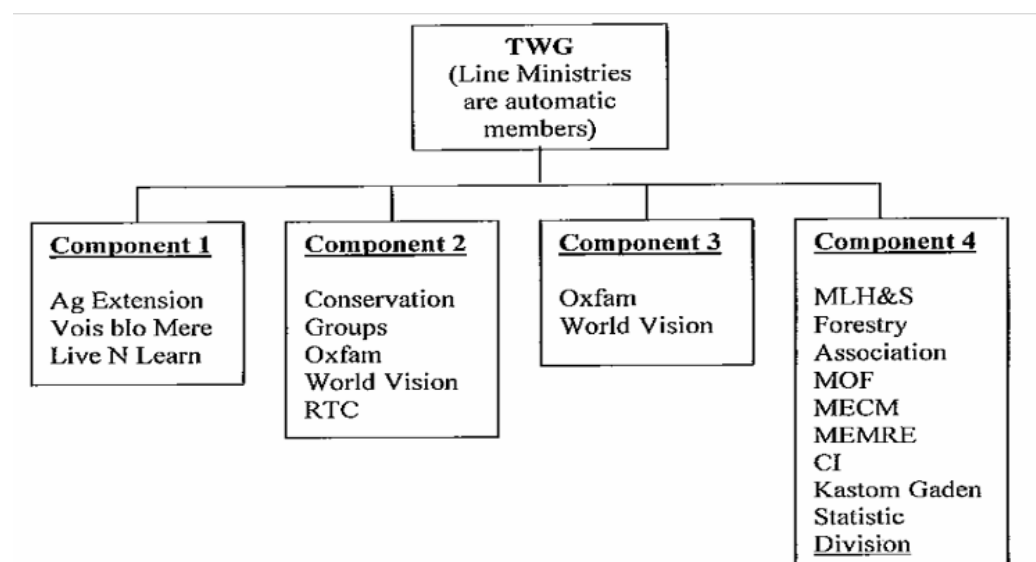


Figure 2 - Technical working Group formed during the Inception workshop

(Extract from Inception workshop report- please refer to Annex 6 document n°4)

3.2.5 Management of risks

Various identified risks still remain threats to the programme. They are not regarded as appropriately managed, namely,

Financial risk, i.e., delay in disbursement of project funds, the evaluation team did not observe any financial monitoring. A financial training was done only one year and a quarter after the assumption of duty of the second PM. We also did not find any trace of discussion regarding government finance. There was no review of business processes found, among the poor quality and limited documents available.

With respect to risk of non-inclusive of stakeholder involvement in the implementation process, we could not locate any guidelines to stakeholders reminding them of their roles. No monitoring of stakeholder involvement and engagements were observed by the evaluation team.

On the subject of risk of delay in the implementation of activities, no review of pending activities were found anywhere in any project report including the APR submitted by the PM. The submitted APR reports are not in GEF format but in narrative form with poor information. No indicators were found, not even the compulsory indicators such as stakeholder involvement, financial information per activity, project disbursement, work plan etc. as required by GEF. Such reports cannot be used for activity monitoring. In addition, some content in the submitted APR is doubtful regarding the completeness of activities, which was reported very high. However, at the end of the project, we did not find such as high rate of completeness of activities.

Concerning the risk of availability of legal drafting capacity, the design document has taken this into account by allocating sufficient budget for the recruitment of an expert. However, the evaluators failed to locate any document or valid information regarding any attempt of recruiting such a consultant. No interviewee including the PM recalled of doing so. Consequently, like many of the activities, legal drafting never commenced.

Thus the evaluators concluded that the project did not demonstrate sufficient risks management though they were well identified in the design phase. The logical framework was never modified except being discussed during the inception workshop but in the absence of the PM. The following table (Table 4) summarises the problems encountered during the project implementation along with the identified risks and proposed mitigating plans. It shows that the mitigating plans were not followed.

Table 4: Initially identified risks and related implementation problems

Identified Risks in Design Phase	Mitigating plans	Related Implementation problems
Financial risk i.e., delay in disbursement of project funds	<ul style="list-style-type: none"> financial monitoring financial training discussion with government finance regular review of business processes 	<ul style="list-style-type: none"> PM did not timely produce quality AWP engendering significant delays in approval and hence late disbursement No evidence of business processes review Insufficient financial monitoring
non-inclusive of stakeholder involvement	<ul style="list-style-type: none"> Clear guidelines to stakeholders describing their roles monitoring of stakeholder involvement & engagement 	<ul style="list-style-type: none"> the stakeholder involvement matrix as depicted in the Project Document were not sent to the stakeholders PM claimed never involved any stakeholders. The PM seemed not to consider this as important.
Risk of Delay in the implementation of activities,	<ul style="list-style-type: none"> review of pending activities as part of the APR reporting 	<ul style="list-style-type: none"> there was never any review of pending activities mentioned in the APR reporting written in a format other than that provided by GEF
availability of Legal drafting capacity	<ul style="list-style-type: none"> allocating sufficient budget for the recruitment of an expert regular communication with media regarding importance of project activities and importance of the issues; briefings to Lands Steering Committee 	<ul style="list-style-type: none"> while budget was there, no attempt was observed by the Evaluators of such recruitment communication in media never happened according to the observation of the evaluators there was not any steering committee meeting found in any document related to the project

5.3 Efficiency - Sound management and value for money

3.3.1 CBSLM Project Management efficiency

Overall Project Management Background: Project implementation was encountered by considerable delays and exhibit enormous inefficiency.

Inappropriate resource management

While the Solomon Islands Government in-kind contribution in terms of office space and utilities was realised, the opportunity to utilize resources economically (i.e. MAL Extension Officers who awaited delegation from the PMU) was not effective. At the same time, MAL's level of commitment and cooperation for the project was reproached by the Project Management Unit, as far from desirable. This shows a contradiction of attitude and inefficient resource management.

Despite the disproportional expenditure on travel logistic on the three project activities (out of over 80 altogether), namely, awareness raising, curriculum development and demonstration site events, key beneficiaries of this Project; (1) MAL and (2) Mana'abu and Lady Lever Communities expressed their disappointment over ineffective coordination and infrequent visits in Project Implementation. The evaluation team noticed that these beneficiaries had confusing ideas of the roles they have to play in the Project thus were not well informed on the objective and outcomes of the activities. These hamper the efficiency and effectiveness of the delivered outcomes.

Project Management Unit lacked crucial understanding of the Project Structure which was well displayed in the original Project Document (see figure 3 below).

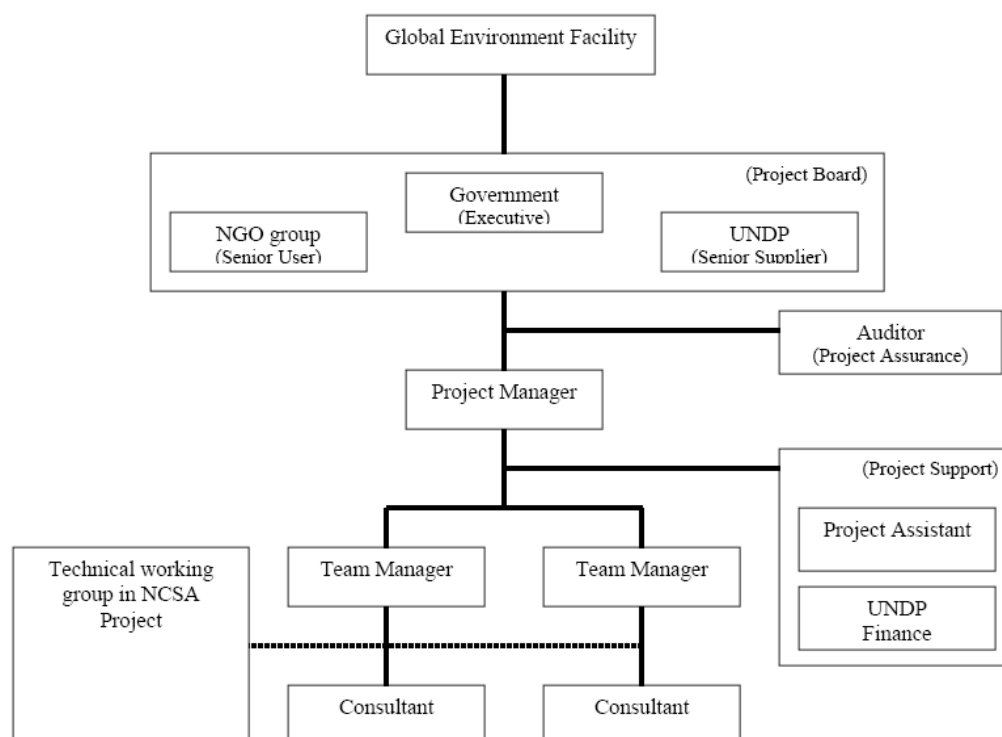


Figure 3 - MSP Management Arrangement (extract from Project document)

The second PM claimed during the interview that he had never seen such a diagram whereas it is an extract straight from the project document. The evaluators raised doubt on the frequency of consultation by the PMU on this essential document. Though the Inception workshop was conducted, specific roles and responsibilities of actors were not well understood. Similarly, the activities to be implemented were not clarified. Many interviewees exclaimed the lack of capacity of MAL and that it is understaffed for proper implementation the Project. MAL Officers are overloaded with everyday work hence were not even able to perform their core functions whilst being held up with additional activities of the CBSLM project.

The PMU had displayed several efficiency weaknesses, namely, poor deliveries, ineffective coordination and communication which were illustrated by insufficient consultation of project documents, poor quality report and missing report submission. A majority of the planned activities never implemented. Though the project was supported by all stakeholders during the Project Inception Workshop, the PMU lacked proper management and commitment to substantiate partnership with the stakeholders to assist activities on ground and to achieve targeted outcomes. Obviously the efficiency of this project could have definitely been higher with the engagement of other stakeholders, NGOs, Education Institutions and line Ministries.

Management of personnel: The late arrival of the first PM at the inception phase, who worked only for six months leaving a six month gap until the assumption of duty of the second PM, who displayed his incompetence in managing the project as explained above. The project assistant left after two and a half years in the project leaving the second PM leading a “one-man-team” as he described himself. During the implementation, he declared that he did not need to replace the resigned project assistant. However, when interrogated during the final evaluation, he could not explain the reasons behind not to have recruit another assistant but viewed himself as a victim of the system.

Missing important expert recruitment: However, it would be incorrect to regard the second PM as a manager without initiative. Though not planned initially or budgeted in the original project document, he attended a Landcare Conference in Adelaide (Australia) yet without substantiating any result. Merely networking was established. The project design foresaw the hiring of a Landcare expert to set up Landcare participatory approach in the pilot villages on community land use planning matters and catchment mapping to foster ownership through community engagement and empowerment. No Landcare expert was hired for this purpose.

The PM also took the initiative to attend a training course in Fiji which was not foreseen in the project document.

The following table (Table 5) summarises the consultants required to be recruited according to the Project Document with the corresponding budgets and the consultants recruited during the implementation of the CBSLM project.

Consultant to be recruited according to the Design Document	Budget as per Project Design Document	Consultant recruited in implementation
International consultant for policy development and investment plan	Component 2: 10,000 USD over 1 year	For drafting for NAP but not for investment plan
Local consultant for land use planning and technical working group	Component 2: 10,000 USD over 3 years	None
International consultant for community mapping and appraisal, introduction of landcare	Component 3: 60,000 USD over 3 years	None
Local consultant for provincial governance review	Component 3: 40,000 USD over 4 years	None
International consultant for tools, guidelines, manual development	Component 4: 30,000 USD over 4 years	None
Local consultant for project monitoring and evaluation	30,000 USD over 4 years	None

Table 5: **Consultant recruited in implementation**

Hence, only one consultant for drafting the NAP was recruited while other positions were left vacant. This explains the inefficiency in project management.

Implementing/Executing Agency's Supervision and Backstopping: The management framework as depict in Figure 3 above - UNDP Solomon Islands Sub-Office in Honiara held the responsibilities of administering GEF funds. The PMU oversaw the day-to-day functioning of the project. MAL, the principal partner, was responsible for timely delivery of inputs, outputs and activities. The Ministry of Forestry and MECDM were key stakeholders of this project. The Provincial Offices (also known as Extension Offices) were responsible for day-day management of the pilot sites.

Understandably, the financial coordination and supervision carried out by UNDP Solomon Islands Sub-Office has its defined procedures to follow. The root reason behind was the AWP submitted for fund disbursement

was of poor quality and was not accepted. To properly support fund release, the PM was demanded to submit a PIP (Project Implementation Plan) which was very late, therefore had engendered significant delays in approval and consequently late disbursement. However, the stakeholders who were less informed about these procedures and the reason causing delays, showed dissatisfaction on late disbursement. The delays had resulted in scheduled activities being cancelled, causing major delays. This could be one of the misunderstandings perceived by the stakeholders on the disbursement issue. The PMU justified the low efficiency by claiming insufficient backstopping from the UNDP Sub-office, excessively late fund disbursement and no orientation given from UNDP. The PM, when interviewed, still showed little understanding of the reasons behind the delays which cast doubt to the evaluators on his honesty.

Similarly, MAL, as a principal partner, had missed the opportunity to identify the root problems in a timely fashion which prevented itself from accurately estimating the seriousness of the problems. Three key players of the project amplified their concerns over reoccurring administrative and financial issues over the course of the project duration.

Moreover, there was no monitoring and evaluation process conducted during the 4 years to assess the project milestones and progress. The UNDP Sub-office as the authority that supervised MAL and PMU could have, at some point of the project, identified the problems encountered through a monitoring system.

At the execution level, MAL's responsibility was to provide quality support and advice to the project and was in a position to modify in time to restructure the project where necessary. However, since MAL itself was understaffed, project restructuring did not take place. Some interviewees claimed that MAL possessed limited skills and knowledge to execute various project activities. However, the evaluation team was not convinced. There were a lot of activities that MAL could have participated with ease. Notably, a "Land Use Planning Manual" was found in MAL office during the evaluation consultation. This could have been extremely helpful for the demonstration community. However, this was not distributed to the pilot communities. Similarly, some very basic SLM techniques such as composting could have been introduced. Likewise, some simple base maps could have produced, by the land use planners, on representative catchment/s in the pilot sites, even on existing topographical paper maps. Infrequent field visits to demonstration sites were said to be the most important failure of the project which reduced the confidence of communities and the Provincial Offices. However, the infrequent visits were not well prepared nor well documented. No handout material was given to the communities. No details were described to the communities who claimed not to have understood the objectives and roles. Therefore, relationships and partnerships for the project was far from desired which resulted in confusion and uncertainties at the community level. Though the PM complained about the Project Design being irrelevant to the communities, no modifications was done on the Logical Framework to better suit the community and environmental setting as he reckoned.

Flexibility to changes: The management team showed some degree of flexibilities to the unexpected difficulties. The second PM also took the initiative to attend a training course in Fiji which was not foreseen in the project design.

Budget and Expenditure: None of the four Project Outcomes was completed and achieved at the closure of the project. Table 6 below illustrates the budget and expenditure by component as well as the percentage of the corresponding component achievements.

Project Implementation Budget & expenditure – 2008-2011			
Component	2008-2011 (approximate to the nearest 100 USD)	Remarks	Component achievement percentage*
Component 1 - Increased knowledge and awareness	86,600 USD (budgeted 20,000)	overspent 4.3 times or 430%	19%
Component 2 - Systemic capacity	26,600 USD (budgeted 20,000)	overspent 1.3 times or 130%	9%

Component 3 - Enhanced technical, individual and institutional capacities	67,000 USD (budgeted 280,000)	24%	6%
Component 4 - Enhanced technical support to assist with mainstreaming and integrated decision-making	327 USD	No project outcome	0%
PMU incl a service contract 12,778 USD	94,000 USD (budgeted 50,000)	Overspent 1.9 times	-
Total expenditure	274,200 USD	Budgeted 508,000 or 54%	8% (=3.87/48) (achieved-output/planned-output)

**Please also refer to the components breakdown tables below*

Table 6 - Project Implementation Budget & expenditure – 2008-2011

From 2008-2011, the overall financial utilization stands at 54% of the total project budget however with an overall output achievement of 8% (achieved-output / planned-output). It is to be noted that not all the outputs required the same difficulties and demanded the same amount of time. The evaluators had to determine the rate of achievement by number of output using the following formula.

The formula used is (output achievement rate) = (number of output achieved)/ (number of planned output).
Hence, (output achievement rate) = (3.78)/(78) = 8%

The overall efficiency of the project management is **highly unsatisfactory**.

Table 6 above shows the rate of achievement by component and it is explained as follows:

The rate of achievement for component 1 amounts to 19% but the expenditure is 4.3 times over budget. The project component 1 has spent more than 77% of its overall component expenditure primarily on local travel logistics delivering only 2 outputs (out of 10 expected outputs) on awareness building, curricula development and demonstration site activities. Though such a large proportion of the budget was utilized about 88% of the activities in the component 1 of the Project Document were undelivered.

The rate of achievement for component 2 amounts to 9% (1 delivery out of 11) but the expenditure is 1.3 times over budget.

The rate of achievement for component 3 amounts only to 6% but the expenditure is 24% of the budget.

While component 4 yield a mere 0% of achievement with no output.

The following tables (Tables 7, 8, 9 and 10) are the breakdowns of the project deliveries and achievement by project component.

Component 1: Awareness workshops demonstrate delays which was detrimental to the project. The school curricula development was the only complete output of this component which can be sustainable for the many generations to come. But overall, most project outcomes did not eventuate as shown in Table 7 below.

	Component 1 - Output expected	Project Deliveries	achievement
1	social marketing plan	Not delivered	0
2	communication package 6 monthly newsletter	partial but not sighted	0
3	annual posters and 2 brochures one general SLM and one project related	partial but only one sighted (1 project related)	1/5=20% (=0.2)
4	media package : broadcasts radio, TV print and web-based circulation	Not delivered	0
5	2 national awareness workshops	Not delivered	0

6	9 provincial awareness workshops	6/9 No report as evidence	0.67
7	curriculum materials aggregated for primary schools and SICHE	Yes viewed	1
8	demonstration materials assembled, to included lessons	No, not viewed	0
9	GIS mapping layers la land degradation elements included in the national mapping system	Not delivered	0
10	report on the extend of land degradation	Not delivered	0
	Component 1	Total achievement	1.87/10 =19%

Table 7 Component 1 Achèvement breakdown

Component 2: Out of all the output expected, only the NAP was reviewed but not endorsed. All the other expected output did not occur. Table 8 below summarises the project deliveries of this component.

	Component 2 - Output expected	Project Deliveries	Achievement
1	NAP produced as part of or an addendum to the ARDS	NAP	1
2	NAP endorsed by GoSI	Not yet	0
3	on the ground investment needs identified and calculated	Not delivered	0
4	report to SISDAC recommending policy integration for NSDS and NDP	Not delivered	0
5	SLM represented consistently in thematic, sector policy	Not delivered	0
6	MDG reporting to include agreed indicators and data on LD	Not delivered	0
7	investment plan developed and endorsed by GOSI	Not delivered	0
8	funding conduits confirmed for follow up action on SLM	Not delivered	0
9	report on land and resources use planning and development decision making laws and processes	Not delivered	0
10	options report for improving legislative linkages for policy cohesion and empowerment	Not delivered	0
11	rural land use policy framework developed, incorporating means for village governance empowerment and use of TK	Not delivered	0
	Component 2	Total achievement	1/11 =9%

Table 8 Component 2 Achievement breakdown

Component 3 and 4 claims almost no output expected as indicated by the Logical Framework. Table 9 and 10 illustrates the expected outputs and the project achievement for components 3 and 4 respectively.

	Component 3 - Output expected	Project Deliveries	Achievement
1	Integrated GIS incorporating land resources information	Not delivered	0
2	Base mapping of catchment and use by communities in the Auluta basin area of Malaita	Not delivered	0

3	Spatial information sharing, with access by the Auluta basin communities via RTCs and CTCs	Not delivered	0
4	report on participatory technical development and community catchment appraisals	Not delivered	0
5	integrated catchment assessment maps by communities in the Auluta basin area of Malaita	Not delivered	0
6	integrated land use plans produced for the catchment needs, risks, opportunity areas and land use options	Not delivered – not sighted	0
7	Institutional development report, focusing on local empowerment	Not delivered	0
8	Report on legislative changes provided to improve institutional functions and services of village level governance: respect, roles linkages, administrative processes	Not delivered	0
9	Report on integrated land use plan adopted under strengthened and new institutional arrangements	Not delivered	0
10	report of institutional structures functions and practices for resource use agencies	Not delivered	0
11	institutional changes to strengthen roles, functions and services by MAL and MFEC to provinces and village level governance	Not delivered	0
12	Details on RTCs and CTCs in participatory technical development of communities	Not delivered	0
13	Details/report on regular demonstration at the community level (one event every 6 months)	Not delivered	0
14	Details on national and province level training workshops in basic EIA/SEA, land use planning & GIS focusing on use in technical extension and decision making	Not delivered	0
15	Details on regular national and provincial education events (at least 1 every 6 months) 2 years is counted	4/4	1
16	primary school geography curricula with use of local practical lessons	Not delivered	0
17	curricula materials for SICHE agriculture, rural dev and land use using local lessons and information	Not yet	0
	Component 3	Total achievement	1/17 =6%

Table 9 Component 3 Achievement breakdown

	Component 4 - Output expected	Project Deliveries	Achievement
1	3 manuals and 5 guideline documents covering methods techniques and specific tools for SLM	Not delivered	0
2	Details on dissemination of technical information to remote communities using ICT	Not delivered	0
3	Details on web-based knowledge management network, supported by e-databases incorporating SLM information	Not delivered	0
4	Details on spatial and thematic database system to assist with M&E of actions for SLM	Not delivered	0

5	Details on simple recording system developed for community participation in M&E processes	Not delivered	0
6	MDG reports incorporation SLM indicators	Not delivered	0
7	report on baselines and targets for SLM	Not delivered	0
8	report on model approach for incorporating local and traditional knowledge into an integrated land use planning system	Not delivered	0
9	report on human resources needs for providing on-going technical backstopping	Not delivered	0
10	M&E milestones and M&E plan	Not delivered	0
	Component 4	Total achievement	0/10 = 0%

Table 10 Component 4 Achievement breakdown

Cost of the project

The cost of the project is well over 275,000 USD (54% of the project) against a delivery of 12 % in component 1, 9% of component 2, 0 % component 3 and 4. This project is highly inefficient. A lot of money had been spent in local travelling to only execute the 3 activities (out of the 80 expected activities). Local travelling mainly related to activities in component 1 (see table 11 below) since the NAP review did not involve a lot of travelling. In addition, interviewees repeatedly expressed that infrequent visits to the pilot sites were a concern leading to the failure of the demonstration farms. The evaluation team thought that a financial audit could have been helpful.

Project local travel expenditure	Local travel expenditure (to the nearest 100 USD)	Total travel cost foreseen in the project document	Component 1 overall budget according to the design document
Component 1	34,900 USD	8,000 USD	20,000 USD

Table 11 Local travel expenditure on component 1

The above table (table 11) shows the expenditure on local travel alone in component 1. The project used 34,900 USD on local travel in Component 1 (2 outputs out of the 10 expected outputs) exceeding the overall budget (20,000 USD) for the whole component.

In order to reduce travel expenditure, the evaluators were told that agreement had been made between MAL in Honiara and the PMU so that frequent monitoring by extension officers can be conducted in the province. However, this did not happen.

3.3.2 Monitoring and reporting

Both PM declared that there was not any M&E system. Moreover, the AWP do not give information on important indicators or milestones preventing any monitoring

Absence of internal project management tools – The PMs did not attempt to monitor the project activities, pending activities and output of the project.

Insufficient quality and quantity of Reporting: The reports exhibit poor quality (with grammatical mistakes and consist of description of the journeys longer than the content of the mission in the pilot sites with the communities; mission objectives were often missing). The AWP submitted are without milestones and indicators so that monitoring and effective tracking are rendered impossible. Only a few activities (3 to 4 including the NAP review) were described in the reports whereas there are 80 project activities. A dash-board tool highlighting all outstanding issues, activities and progress should have been employed.

The quarterly progress reports remained one of the only monitoring tool containing management and technical information of the activities of the whole project. However, not only are they scarce in number, (see table 12 below – only five quarterly reports were found), the report contents are poor with very little information mentioning only 3 to 4 activities out of the over 80 activities expected to be conducted in the project life time.

Year	Number of Quarterly report viewed by the evaluators	Project Manager - PM
2008 project began in April 2008	2	PM1
2009	1	PM1 resigned in Feb 2009)
2010	1	PM2
2011	1	PM2
2012	0	No PM (PM2 resigned in Dec 2011)

Table 12 number of quarterly reports viewed

There were only two TPR reports available, in 2010 and 2012. There was only one APR report however not in the GEF format. No indicators were found as required.

In short, the insufficient project reports of poor quality rendered internal monitoring to be impossible.

5.4 Impact - Achievement of wider effects

Little impact has been generated by the project. Perhaps it could give us a bit of solace: there was a consensus amongst all key beneficiaries and relevant stakeholders interviewed that the components of the Project Design were of high relevancy to Solomon Islands. The villagers in the communities are still very keen on learning good practices to enhance their land however demanding quality training. The school curriculum developers have produced secondary school books on SLM that can sustain for generations. (Please refer to annex 7.3)

Capacity building enhancement related to implementation of sustainable land management on decision-making at different levels is synthesised as follows.

Individual land owners' level in the remote villages

With respect to the capacity building of individual land owners and land users, none of the two demonstration sites contributed to the increase of SLM knowledge. Awareness building workshops were judged by the community members as **insufficient** both in **frequency** and in **quality**. What is more unfortunate is that the community members received a reduced view of SLM as only growing legumes plants. Not only did the farmers never receive any written guidelines or instructions on good practices of SLM, farming instructions were given orally. Without physical support, the community members had difficulties to spread the knowledge. Moreover, they were not convinced of the effectiveness of what they have been taught. The evaluators were alarmed to learn that fundamental SLM practices such as composting, mulching, fallow periods, terracing were not introduced or mentioned. In addition, no written training material was distributed as expected in the project design. Both harvest demonstration activities came to a halt due to the absence of measurement of the yield results.

Institution level

As far as Institutional capacity building is concerned, since no implementation and no output was delivered in Component 3 (Enhancement of technical, individual and institutional capacities), the impact generated is minimal. The only successful event identified was the purchase of GIS equipment (Map Info v.9) by the PMU. The equipment was said to be set up but nothing was done with it thereafter. No training was being conducted. According to the logFrame, reviews on legal and administrative framework, on the Planning Division of MAL, were foreseen which would have strengthened MAL institution. However, the reviews were not realised by the project.

The NAP has been successfully completed. This is a high quality comprehensive document comprising of a list of priority activities and a wide stakeholder matrix on Sustainable Land Management. Nevertheless, the evaluation team did not have evidence on the corresponding stakeholder consultation meetings, according to the very few documentation of the project. Without the consensus and support of the stakeholders, there might be a risk regarding their participation and ownership of NAP activities in the future. Many of the components of the NAP are precisely the missing activities of the present evaluated CBSLM. It is most unfortunate that with funding available in the CBSLM project, the activities were not implemented. Now NAP has to wait for future funding to sustain the next step of CBSLM. It is also most regrettable that IFS was not carried out to secure financial resources for NAP, as was designed by the project document. Furthermore, legislative platforms that address land use planning were not reviewed as in the Project Document preventing the production of a roadmap for integration of law, administrative processes and fiscal system. This is part of the priorities as illustrated in the NAP. Nevertheless, funding is again necessary to continue the effort.

Cross-cutting Issues

There was no clear development on cross-cutting issue such as gender in the project documents. No visible specific attention had been paid, during the implementation of CBSLM. There was no integration of gender issue from the early stages or at any stage during the project. No attempt had been made on base-lining any indicators including gender distinction, even in the training programmes conducted. Most of the informants expressed their low considerations of these issues.

Gender mainstreaming

Though studies in Solomon Islands promote equal participation of both genders in any project implementation, mainstreaming gender was not observed in the project. We could not find traces of “women focus group” in any of the activities carried out. There was very limited documentation to prove the activities let alone the attention to gender balance participation in the CBSLM Project. In short, there was no evidence of any adequate measure in place to ensure that gender concerns were mainstreamed.

Since the project claimed a low achievement rate, it is difficult to generate impact. It did not obviously contribute much to maintaining and improving ecosystem stability, integrity, functions and services. Almost all informants told the evaluators that there was no impact generated by the project.

Nevertheless,

- CBSLM has brought the communities together to work on sustainable land management;
- Some trainings have been conducted so that increase in capacity has been started in the communities who are aware of the importance soil improvement and receptive to SLM practices;
- Stakeholders believe the relevance of CBSLM project design to the national needs;
- A degree of Awareness of SLM is raised at some levels (workshops, NAP consultation workshop);
- The NAP has recognized the importance of finishing the pending activities in CBSLM

5.5 Sustainability and catalytic role

Information dissemination and public awareness was insufficient in the project, which could have been a means of sustainability. The project did not utilize skills, experience and knowledge (e.g. GIS expertise, Awareness avenues etc.) of the appropriate government entities, NGOs, private sector, provincial government and academic institutions in implementation and monitoring of project activities. It was observed through the evaluation that there was the opportunity amongst relevant stakeholders for a partnership agreement to implement various activities of the Project but further dialogue and involvement did not happen. Therefore, to date there is no collection of essential information about SLM, progress reports exist however not in sequence nor in quality, limited documents on minutes, meetings and the achievement of the project. Most importantly no training guidelines developed that would have helped the practices to be duplicated at the local level. Though land degradation issues are still regarded by all informants as an urgent issue and there is interest for SLM practices to be adopted, the duplication of practices generated in this Project is unlikely.

The project failed to illustrate successfully the improvement to soil fertility in the communities through demonstration farms. It also failed to demonstrate any improvement of livelihoods so that it is unclear if rural stakeholders will take immediate action to replicate proper SLM practices. Though the Project was expected to target all three levels of decision making, awareness workshops had, to some extent, raised the awareness of SLM with rural dwellers. However, these awareness workshops were low in number delivering minimal SLM information; hence limited catalytic effect can be expected as a result of this project.

Notwithstanding the good quality of the NAP, there is a necessity for the NAP to be mainstreamed into existing and planned sustainable development plans and strategies at the national, provincial and institutional levels. This Action involves consultations and development of mechanisms to integrate the NAP into other plans and strategies.

Way forward for sustainability

Furthermore, the sustainability of the CBSLM project will now depend on the funding availability for the implementation of NAP. Thus the most urgent step for the Solomon Islands is to develop an IFS to support implementation of the NAP activities of Solomon Islands. The IFS will aim to establish a realistic mechanism of funding in order to incorporate the concept of SLM in a pragmatic and holistic approach. It is of vital importance to investigate, identify and mobilise all sources of financing mechanisms most adapted for Solomon Islands, to support SLM implementation as in other countries of similar nature (for instance other **Small Island Developing States** such as Mauritius where the IFS had been adopted by the government).

The IFS's objectives are to:

- identify priority SLM investment needs and opportunities;
- develop a SLM Investment Plan with costs including brief concept papers for priority investments;
- Identify sourcing of investments for SLM including internal, external and innovative financing sources such as CDM (Clean Development Mechanism) projects and carbon markets, CSR (Corporate Social Responsibility) with banks and multi-national companies, PES (payment for Environmental Services), Tradable development rights (TDRs), REDD mechanism, Special Climate Change Fund (SCCF), MDG Achievement Fund
- Prepare a consolidated strategy for the SLM Investment Plan, including GEF project, EU, AustAid, GIZ, and all possible bilateral and multilateral donors and innovative funding sources, involving all stakeholders
- Funding mobilization.

6 Conclusions and lessons learnt

The project design is valid and responds to the most important social and environmental problems in the Solomon Islands. It is based on the economic, political, and environmental contexts. The activities are designed to gear towards enhancing sustainable livelihoods through capacity building to implement sustainable land management into all levels of decision-making. The **project design is therefore relevant, given the project objectives and expected results**. There is consistency and contribution to GEF focal area objectives and to national development strategies. Most of the interviewed stakeholders highlight the importance of the project to the needs of Solomon Islands. The linkages between activities, outputs and outcomes (objectives) were clearly established in the design document.

However, the project had not been implemented in an effective, efficient and sustainable manner and consistent with the project design. The evaluators have observed insufficient involvement of the project management to generate project outputs. In-kind contribution on staff and expertise toward the project was inadequate. Communities' willingness to engage in project activities was high in the beginning however disillusioned during the project implementation for various reasons. Relevant stakeholder involvement in project implementation was minimal. Gender equity strategy or measures were not observed in the project. The evaluation team did not observe any effort taken to coordinate or harmonise similar or complementary projects that enhance project results. There were issues regarding financial planning and project disbursement due to inadequate reporting in accordance with GEF norms. Project reporting was not in accordance with the project document. The level of completion of planned output is low. A majority of the activities had never been started. Out of the completed outputs, the quality was not good apart from the comprehensive NAP and the well developed secondary school curricula. In addition, deficient project management led to a great number of issues such as coordination and communication. The project has achieved little its objectives and it has not contributed much toward global and national biodiversity

conservation and sustainable land management goals. Nevertheless, changes in attitudes, beliefs and behaviours towards SLM were observed during the evaluation however not as a result of the project.

The following are the main findings of the evaluation along with the lessons learnt.

6.1 Finding One: Appropriate and adequate design considerations, but inadequate with regards to setting measurable indicators.

The CBSLM project design made reference to the existing country needs and low technical capacity within the pertinent institutions of the target groups; the prevailing policy environment and lack of properly elaborated land policies and spatial data on land degradation. Identification of the priority needs of the target groups and the logical relationship between objective, purpose, results and activities adequately exhibit consistencies.

The project was designed as a four year medium-size GEF project with the aim of strengthening the enabling environment for SLM by increasing awareness and knowledge of land degradation, developing capacity for SLM and mainstreaming of SLM into policies and planning through completing the NAP for UNCDD, establishing investment plan, identifying synergies, gaps, duplications and anomalies in legislation, regulations, statutory directions or administrative procedures in order to produce a roadmap for the integration of law, administrative processes and fiscal systems – to achieve a nurtured development of an integrated land use planning.

The design document is very comprehensive and informative. It even comprises of a step by step approach for the project management to follow (Project scheduling p. 28 – 30). The stakeholder involvement appraisal with justification and expected roles were also detailed in Appendix 7 of the document. The Inception workshop purpose and objectives were detailed on paragraph 171 of the project document.

The planned outputs proved to have presented major challenges for the implementation. Most of which were beyond the capabilities of the project team, including implementation of “Improved GIS system”, local community mapping and appraisal and landcare, review of legal, policy & administrative frameworks, review and enhancement, tools, guidelines and manuals development, information clear-housing and web-based knowledge management, M&E system, just to name the important ones.

It is understandable that technology-oriented outcomes such as GIS, community mapping and appraisal and clear-housing and web-based knowledge management could have demanded expertise outside the capacity of the members of the PMU. Precisely, the project design provided the recruitment of a number of experts (international or local. Please find details on the Project Document Section II, Table 6: Total Budget and Workplan) to execute these endeavours. Incomprehensively, no other expert recruitments were taken apart from the expert to develop the NAP.

Similarly, no expert was recruited to develop the M&E system which is a crucial constituent of any project. The Project Document also requires the M&E activities to be discussed during the Inception Workshop.

The logFrame provides indicators in almost all levels, but lacks measurable impact indicators. The Project Document foresaw a logFrame revision at the initial stage of project implementation at the Inception workshop. However, the original document remained the only living reference. No logFrame update had been conducted. Nevertheless, there was so little deliveries in the implementation that even using the indicators provided, evaluation could take place since many “not delivered” was noted.

Lessons learnt:

A good project design needs to accompany good project implementation in order to yield a good project. A good project design is necessary but no sufficient. An effective M&E system with appropriate indicators is essential to measure the progress and outcome of intervention in any development situation.

6.2 Finding Two: Very Deficient Project management

The project manager was expected to play a crucial role in the successful implementation of the project. Being responsible for the project implementation, the PM should have mobilised all project inputs, production of outputs, M&E processes, as well as the supervision of PMU staff, consultants and sub-contractors. The PM's role was also to manage the MSP and assist with the elaboration of the NAP and the mainstreaming

of SLM into national development processes. The PM should act as the chief liaison point on the CBSLM project, the government and the UNDP, as well as for all stakeholders involved with the project.

However, the Project Manager fail to meet most of the above. As key players in coordination and communication for the project, both PMs did not consider involving stakeholders as important. Activities and output were delivered at a low level (8%) over an implementation period of over 3 years. Relevant divisions in MAL (e.g. Land Use Planning and Extension Offices), the academic sector and relevant NGOs' were not integrated in the project activities as expected.

Day to day monitoring of implementation progress should have been the responsibility of the Project Manager based on the project's Annual Work Plan and its indicators. However, the AWP produced did not bear any indicators of milestones making monitoring progress impossible.

Poor AWP quality AWP leading to huge disbursement delays: The submission of AWP (Annual Work Plans) is a prerequisite for fund disbursement. However, the project's AWP produced were of poor quality so UNDP Solomon Islands Sub-office demanded the submission of PIP (Project Implementation Plan). This had engendered huge delays on disbursement of project funding. (Please refer to section 3.3.1 for details). In addition, the APR (Annual Project Review) submitted were not in GEF format/content without the required compulsory indicators. For instance, no outstanding activities were indicated in any reports submitted. This additionally hindered performance and activity monitoring. Furthermore, no expert was recruited to establish an M&E system though funding was available in the project design.

Deficient in regulation & knowledge and narrow vision on stakeholder participation: The project was further hampered by the meaning of "in-kind" contribution. The second PM considered "in-kind" contribution from MAL to include expenses such as transportation. His false perception of "in-kind" contribution was reflected clearly in some of his reports where he described his pursuit of financial support from MAL (as described in APR 2011, Annex 6 - document N°8). The vision on stakeholder participation and its benefits were also overlooked by the two Project Managers. They did not consider, as exclaimed during the interviews, the usefulness of involving stakeholders. Their vision was demonstrated by the very low stakeholder participation and the very poor communication of project information.

Communication and Coordination of the Project implementation were regarded by all the informants as ineffective. The PMU never communicated feedback to the communities. The field trips conducted did not appear to be well planned since the arrivals to the provinces were often in haste. The other stakeholders such as the NGOs were never informed of the project activities after the Inception workshop.

Short in resource management: The PMU failed to recruit landcare experts to effectuate the planned activities, as required and described in the project design, The PM managed to make links with some experts during his trip in Australia but the recruitment never eventuated.

Poor management of time and resources: The PM position was a full-time commitment. While awaiting disbursement, a huge number of pending activities which did not require disbursement, could have been addressed. The Information Centre of MAL was not made use of for awareness raising activities. Workshops held by stakeholders (Kastom Gaden, SICHE) and their materials were not integrated in the project activities to share resources.

Insufficient quality and quantity of Reporting: Most reports exhibit poor quality (with many grammatical mistakes and the description of the journeys were longer than the content of the work in the communities and often without mission objective). The PIP and AWP produced were without milestones and no indicators as required and they do not facilitate effective tracking.

Providing false promises to the community members: the PM claimed during the interview that communities demanded remuneration against work in the demonstration farms. However, contradictory information was collected in the field. The interviewees in Ilitona, Lady Lever, told us it was the PMU who promised remuneration in the beginning of the pilot site implementation. It is well known that temporary incentive measure is not sustainable especially in this case which had led to disillusion. Whoever the initiator of the issue, the PMU should have explained clearly the objectives of the demonstration farms so that the community members would understand the benefits on the land they use or own which are far more than merely remuneration as "short-term money".

In short, the project manager did not live up to its name. The second PM did not follow the terms of reference shown in appendix 14 (Terms of Reference – Project Manager) of the project design document which detailed the PM's roles and responsibilities (such as establishing project monitoring and reporting and mainstreaming SLM into national development processes). Neither did he follow the steps of project indicated and proposed in the project document. As a matter of fact, the evaluation team wondered how often he referred to the Project Document since he could not even recognise, when shown during the interview, the project arrangement diagram (Figure 3, section 3.31).

Deficient Project Management due to missing skill, knowledge and experience of project implementation, is believed to be one of the major reasons of the failure of the project and its very poor performance.

Lessons learnt:

- Select very carefully consultants for project management basing on recommendations and realistic past experience of similar successful projects. If no appropriate local experts are available, international consultant should be sought. An alternative is to hire advisors to be mentors of the project. The advisor can orient the PM by giving milestones and therefore intervention need no to be full time at all. This way, capacity building will take place and expert in-country will be accomplished through time.
- “Monitor” more closely on pending activities. One has to bear in mind that, in any given project, activities yield outputs and a collection of outputs yield outcomes. In the case of this project, there had been such a low level of activities. (3 out of 80) As a result, even lower level of outcomes produced. An effective M&E system to monitor activities is essential for all projects.
- A Mid term evaluation could have helped identifying major issues on the advancement including timely appropriate reports indicating outstanding activities and questionable financial issues.

6.3 Finding Three – weak capacity of the principal partner

MAL was the principal partner of the project. At the initial stages of project implementation, quite a number of activities were conducted with two backstopping MAL representatives, of which one was an experienced research officer. However, after her departure, her successor, a fresh college leaver with little experience, was left to be the only backstopping staff from MAL. Understandably, she relied on the PM as a “mentor” who himself displayed inconsistencies and deficiency in project management as described above. Thus, she saw her role as producing reports of workshops and trips. Despite the fact that she observed the incomprehension of the project by the PMU, absence of delivery of awareness building in the communities, she missed the opportunity to take any effective action. Other NGOs conducting similar activities in the communities was regarded by her as “competition” rather than “partnership”. Should any actor in the project had consulted the very detailed and rich project design document, he or she might have realised that NGOs and other ministries were partners to be collaborated with, instead of a competitor. The challenge is how to collaborate with them effectively. Roles of different stakeholders, including MAL, were described in detail in the same document. Therefore, MAL should also have taken the responsibility to assist engaging consultants for the project. This aspect seemed to be completely left out by the principal partner.

The late purchase and installation of the GIS was said to be due to a lack of office space. MAL could have been more reactive in this regard. The result is that no training on GIS was ever conducted, let alone the activities associated with mapping and land use planning.

Lessons learnt:

A project of such a scale and importance to the nation demands much more commitments from the principal partner. The evaluation team thought that sufficient consultation at MAL was done during the design phase but the departure of the key researcher was most unfortunate. MAL should have replaced the void with a high profile official, as it was done elsewhere in the world where successful CBSLM projects were demonstrated. (For example, the principal partner of CBSLM in Mauritius appointed a high profile official, the Conservator of forests as the National Project Director, the counter-part of the Project Manager, both being members of the effective PMU).

6.4 Finding Four - Reasonably appropriate budget allocation among major components but lacks adequate explanation for some expenditure items

Distribution of budget among the major components is reasonable to the extent possible. In the face of the complexity of the project and prevailing capacity limitations, the amount of budget allocated seems reasonable.

The disproportional expenditure in local transport, especially considering the low level of activities conducted and the low output, cast doubts in the minds of the evaluators.

Lessons learnt:

- A financial audit could have been needed to identify questionable financial issues at an earlier stage.

6.5 Finding Five - Level of SLM mainstreaming

The project produced minimal effect on integrating SLM into provincial and commune planning.

Nonetheless, in MAL's Corporate Plan (2011-2014), the Research Division described executing the activities of SLM as its key role and responsibility.

At the National level, SLM related policies were found in the National Strategic Development Plan (2011-2020 Page 36 - 41) on Objective 7, which considers the following as national development strategies: sustainable logging management, restoration of damaged ecosystems, integrated agriculture, land management strategies and the conservation & rehabilitation of agro-ecosystems.

Whether these results were generated by the CBSLM project is difficult to verify. SLM measures are nevertheless mainstreamed into National policies.

Lessons learnt:

SLM mainstreaming is a long process. SLM mainstreaming at provincial and community levels demands ownership and good project management.

6.6 Finding Six – Poor ownership and poor stakeholder participation

The project ownership is considered poor. MAL, as the principal partner at the national level, was active at the start of implementation but later during the process showed lesser motivation and commitment to activities. The other stakeholders were not invited or informed of the project activities.

Project ownership is vital to the success of any project. The wide participation during the Inception Workshop in 2009 witnessed a lot of enthusiasm and stakeholder support. The fact that the PMs did not show any interest in involving any stakeholders such as other line ministries and NGO impeded the dynamism generated to its minimum.

Weak community/project relationship was observed at the community level due to insufficient communication and coordination. The rural dwellers did not understand the objectives of the demonstration sites and considered the activity a top-down obligation. Hence, a low sense of ownership was created.

Lessons learnt: In the future, once the pilot sites are determined, the communities should be involved right from the inception of the project through participatory methods. Dialogue and communication among the community members and the development workers should be conducted to reach mutual understanding and plan for action. Background analyses should be carried out to better understand the community needs and difficulties. Moreover, project objectives should be explained and roles should be defined with clearly identified milestones. The PMU should organize more visits to the communities through the provincial administration, as described in the project design document. There was an initial agreement between the PMU and MAL in Honiara to carry out frequent monitoring by extension officers and research officers based in the province so as to cut cost. However, this did not happen. SLM guidelines and good agricultural practices should be established and disseminated and/or with the help of stakeholders' (NGOs and line ministries) participation and involvement. SLM guidelines and good practices with pictures/illustrations should be done in Pidgin language.

6.7 Finding Seven - Not cost effective, rate of expenditure and result delivered

The proportion of financial utilization is huge compared to the little deliveries. In terms of cost effectiveness, it was evident that the 54% (over 275,000 USD) of project budget yielding a mere 8% of actual output. It makes the project highly costly.

Lessons learnt:

A financial audit and a Mid-term evaluation should have been conducted. The objective of a mid-term evaluation is to gain a better understanding of the ways and means through which the project can be improved to achieve its intended objective, at a mid-term stage. This way, upon recommendations proposed, the project could have been steered towards the right track, both financially and in terms of performance and impact.

6.8 Finding Eight – Poor project achievements and performance

The inability to complete all of the planned outputs, low efficiency and low cost effectiveness in delivering end results are the remarks of the project. The late effort to generate a high quality NAP and the secondary school curricula development were the major achievements. However, they only constitute part of the results of the respective components (1 and 2). No Best practices documentation was produced nor disseminated. The “land use planning” document found in MAL during the evaluation was not an effort of this project but anyway not used.

Lessons learnt:

A close monitoring on activities was needed.

6.9 Finding Nine – Uncertain sustainability potential

The NAP is completed and awaits endorsement. It is a very good and comprehensive document covering the outstanding components of CBSLM. However, it is urgent to effectuate IFS to identify and mobilise funding resources. Together with the NAP, IFS will assist GEF and donors in the development of future programs to address SLM and thereby offer a useful function. But the potential to sustain and expand CBSLM project results will depend upon establishing a distinct and effective home for SLM advocacy, the necessary resources for programs within MAL, and the ability (including sharing resources) to work with other ministries, the communities and civil society to make progress on the unfinished activities in CBSLM. At the completion of the CBSLM project, it is uncertain whether sufficient momentum and commitment are in place along with required mechanisms and government staff incentives to sustain and utilize the CBSLM project outputs.

Way forward for sustainability

The sustainability of the CBSLM project will depend upon funding accessibility to carry out the NAP. Thus the most urgent step for the Solomon Islands is to develop IFS to mobilise financial resources in order to support implementation of the NAP. (Please refer to section 3.5 for details on IFS)

6.10 Rating of Project Performance

The project's performance is summarised in Table 13, which illustrates different rating indicators as proposed by the Project Document along with their corresponding achievement levels and reasons for the ratings.

Rating indicators	Levels of achievements	Reasons for the ratings
Project Results - Progress toward objective of strengthening human, institutional capacity, systemic capacity for Sustainable Land Management (SLM)".	Highly Unsatisfactory (HU) 1: HU	1. Capacity to implement SLM at three levels of decision making was accomplished to a little extent and most insufficient. Positive achievement was the development of the secondary school curricula at SICHE. Awareness was raised to a little extent at the community, provincial and national level. Awareness raising is insufficient in quality and quantity

<p>- Achievement of Outputs</p> <p>Component 1 - Increased knowledge and awareness</p> <p>Component 2 - capacity building and mainstreaming of SLM principles and objectives</p> <p>Component 3: Enhanced technical, individual and institutional capacities for SLM</p> <p>Component 4: Enhanced technical support at the local, provincial and national levels to assist with mainstreaming and integrated decision-making</p>	<p>2: HU</p> <p>3: HU</p> <p>4: HU</p>	<p>2. NAP accomplished but awaits endorsement by the Government. Not enough evidence on relevant policies contain specific sections on and follow principles of SLM; SLM is NOT mainstreamed into Millennium Development Goals processes; Mid term investment plan is NOT developed and necessary resources are NOT mobilized</p> <p>3. No evidence of other stakeholders possessing the capacity to implement SLM practices and able to train others; technical information & skills on SLM are NOT implemented; Community bases capacities are a little enhanced through the SLM pilot; Best practice not developed; SLM networks only established at Inception Workshop.</p> <p>4. All land users and govt staff (interviewed) are dissatisfied with the available technical support since they are inexistence; no innovation tools for SLM introduced. GIS and GPS manuals NOT in place.</p>
<p>Project Implementation</p> <p>1 AWP preparation and implementation</p> <p>2 Budgeting and expenditure rates</p> <p>3 Project organization effectiveness</p> <p>4 Adaptive management by UNDP</p> <p>5 Project communications</p> <p>6 Coordination and operational efficiency</p>	<p>Highly Unsatisfactory (HU)</p> <p>1: HU</p> <p>2: HU</p> <p>3: HU</p> <p>4: MS</p> <p>5: HU</p> <p>6: HU</p>	<p>1. poor quality AWP preparation; insufficient implementation</p> <p>2. overspending is observed in component 1, 2 and in Project Management</p> <p>3. ineffective organization due to missing experts and poor organisation</p> <p>4. UNDP training on procurement for the Project Manager; supported the PM to attend Landcare conference however no concrete outcome</p> <p>5. No social marketing plan produced; poor communication at all levels</p> <p>6. poor coordination at all levels; activities highly inefficient</p>
<p>Monitoring and Evaluation</p> <p>1 M&E plans and process</p> <p>2 Monitoring indicators data collection</p> <p>3 Quality and timeliness of reporting</p>	<p>Highly Unsatisfactory (HU)</p> <p>1: HU</p> <p>2: HU</p> <p>3: HU</p>	<p>1. no M&E plans set up</p> <p>2. no monitoring of indicators, not even in APR</p> <p>3. missing quarterly reports and APR not in GEF format which did not contain indicators and pending activities; reports of poor qualities</p>
<p>Project Sustainability</p> <p>1. Institutional sustainability of capacity development</p> <p>2 financial sustainability of achievements and progress</p>	<p>Highly Unsatisfactory (HU)</p> <p>1: HU</p> <p>2: MU</p>	<p>1. No training of GIS and Land Use mapping produced; no community catchment appraisals output.</p> <p>2. no IFS conducted but NAP contains project's pending components</p>

Table 13 - rating of project performance

6.11 Recommendations

Resources sharing

Despite so many negative notes, there remain possibilities of inter-divisions and inter-project synergies to be explored and shared with SLM activities. GIS expertise was found within MAL in another project. The geological and soil farming assessments of Hansell and Wall produced in 1976 are already sent for scanning. Subsequent digitising will be underway in order to produce a GIS layer of Land Degradation. This will be very useful for the unfinished SLM activities and training in GIS applications. A sustainable and effective monitoring mechanism is recommended to be created within the Ministry to monitor projects at regular basis. This way, a more reliable information system will be ensured for national, provincial and community use. This monitoring process can identify any shortfall at a given time to enable effective changes. Such a system can be re-usable for other projects. MAL should be able to identify similar activities, expertise and opportunities to allow the project to reuse developed skills within at least the same institution and preferably other institutions. This avoids duplication of work and increases efficiency.

Mobilising of financial resources

The development of IFS is one of the ways to mobilise financial resources to support implementation of the NAP of the Solomon Islands.

Role of principal partner - MAL

Owing to the large number of untouched activities, MAL should provide clear direction for follow-up SLM implementation activities through cross-sectoral and inter-ministerial mechanisms that have the potential to provide greater impact on national SLM. MAL should establish SLM Best Practices and disseminate it widely. This is done in Mauritius and in Cambodia, for example, through a booklet describing adapted agricultural techniques and knowledge for the country according to its soil nature, landscape challenges such as flooding and soil salinisation. SLM techniques in Mauritius include terracing, mulching, composting, crop rotation, diversion channels, waterways, contour cultivation, strip cropping etc. This way, especially through feedback information from farmers, people and institutions can be linked to promote and enable mutual learning and share and use agriculture-related technology and skills, version after version. These documents on agriculture, community forestry, community fisheries, etc. should provide an important resource for future environmental related projects.

Participatory Rural Communication – Dialogue and communication among the rural people and the development workers should be conducted to reach mutual understanding and plan for action. Communities should be involved in decision-makings that affect their livelihood. Community background analyses should be carried out to better understand the actual needs of farmers, the environmental and socio-cultural context. Moreover, project objectives should be explained in detail. Milestones and roles should be defined so that the communities can have a clear vision of the project. Community members' perceptions of problems and solutions should not be overlooked, as it was the case of the project. Their local knowledge, information and experience and should not be neglected. Otherwise, rural people would regard themselves as mere recipients, rather than as the actual creators of change and progress. Demonstration sites need to conduct complete and accurate analysis of problems, and accurate identification of solutions. Agricultural knowledge (from the Research division in MAL), the farmers in the community and the institution should be linked together through projects to promote and enable mutual learning so as to enhance the sharing of agricultural-related technology, traditional knowledge, skills and information.

Future GEF projects, the related project design and operational guidelines, should recognize the implementation difficulties of the CBSLM project and give particular attention to: (a) commitment and leadership from senior government officials from the principal partners, (b) a well-defined and accepted project inception strategy, such as employing experienced international advisors where necessary, to guide implementation, (c) recruitment of qualified and experienced project management staff with probation conditions (upon validated project deliveries of good quality) for the inception period, and (d) an adequate set of strategies to ensure staff participation of the principal partner. Given the cross-sector linkages between SLM and climate change adaptation and resilience, UNDP should facilitate the integration of these SLM Best Practices into the Climate Change Alliance activities.

The role of a good project manager is to manage different resources effectively. The critical role of human resources was highlighted in the project implementation, particularly the need to manage the project effectively. Sharing a common consultant database with other international donors and to share experience is a good practice. If no appropriate local experts are available, international consultant should be sought. Another alternative is to hire advisors to be mentors of projects. The advisor can orient a less experienced PM by identifying milestones. Therefore, the subsequent interventions of the advisor can be punctual. This way, capacity building will take place simultaneously and expert in-country will be trained through time.

7 Annexes

7.1 Annex 1: The Terms of Reference of the evaluation

CONSULTANT FOR TERMINAL EVALUATION - BUILDING CAPACITY FOR SUSTAINABLE LAND MANAGEMENT IN THE SOLOMON ISLANDS

Background

Building Capacity for Sustainable Land Management (SLM) in the Solomon Islands is a Medium Sized Project (MSP) funded by the Global Environment Facility (GEF) through the United Nations Development Programme (UNDP). The project, implemented directly by UNDP, commenced on 22 April 2008. The project completion was originally planned for December 2011 but was extended to 30 June 2012.

The human, institutional, technological and systemic capacity for SLM in the Solomon Islands was very low. The country was emerging from a decade of internal conflict that has brought many of its communities to the realms of absolute poverty. Reduced capabilities and capacities for subsistence and cash agriculture pursuits had severely affected food security. The poor state of affairs had led to rampant forest clearing, the emergence of large-scale agriculture based developments for economic development and changes to farming practices – to the detriment of land, water and coastal resources.

The project's goal is to build capacity to implement SLM into each level of decision-making: from remote farming communities, to provincial government administrations to the national level agencies responsible for rural land management and economic development. The aim is to provide a systems approach to maintain and improve ecosystem stability, integrity, functions and services – bearing in mind the need for sustainable livelihoods in very harsh and remote villages.

The expected outcomes are (1) an increased knowledge and awareness of the state of land degradation and the importance of sustainable land management for food security and sustainable livelihoods; (2) Systemic capacity building and mainstreaming of SLM into policies, including the elaboration of the NAP enhanced; (3) Enhanced technical, individual and institutional capacities for SLM; and (4) Enhanced technical support at the local, provincial and national levels.

Duties and Responsibilities

The Monitoring and Evaluation (M&E) policy at the project level in UNDP/GEF has four objectives: (1) to monitor and evaluate results and impacts; (2) to provide a basis for decision making on necessary amendments and improvements; (3) to promote accountability for resource use; and (4) to document, provide feedback on, and disseminate lessons learned. A mix of tools is used to ensure effective project M&E. These might be applied continuously throughout the lifetime of the project – e.g. periodic monitoring of indicators, or as specific time-bound exercises such as mid-term reviews, audit reports and independent evaluations.

In accordance with UNDP/GEF M&E policies and procedures, all regular and medium-sized projects supported by the GEF should undergo a terminal evaluation upon completion of implementation. The terminal evaluation must provide a comprehensive and systematic account of the performance of a completed project by assessing its project design, process of implementation, achievements vis-à-vis project objectives endorsed by the GEF including any agreed changes in the objectives during project implementation and any other results.

Terminal evaluations have four complementary purposes:

- To promote accountability and transparency, and to assess and disclose levels of project accomplishments;

- To synthesize lessons that may help improve the selection, design and implementation of future GEF activities;

- To provide feedback on issues that are recurrent across the portfolio and need attention, and on improvements regarding previously identified issues; and,

- To contribute to the GEF Evaluation Office databases for aggregation, analysis and reporting on effectiveness of GEF operations in achieving global environmental benefits and on the quality of monitoring and evaluation across the GEF system.

The overall objective of this terminal evaluation is to review progress towards the project's objectives and outcomes, assess the efficiency and cost-effectiveness of how the project has moved towards its objectives and outcomes, identify strengths and weaknesses in project design and implementation, and provide recommendations on design modifications that could have increased the likelihood of success, and on specific actions that might be taken into consideration in designing future projects of a related nature.

The assessment will be based on the GEF Terminal Evaluation Guidelines and will include an assessment of:

1. Project results;
2. Assessment of Sustainability of Project Outcomes;
3. Catalytic Role;
4. Monitoring and Evaluation Systems;
5. Processes that Affected Attainment of Project Results.

The report will also present the evaluation team's Lessons and Recommendations. Ratings for different aspects of project will need to be presented by the evaluation team with appropriate data, analysis and explanations as outlined below. All these sections MUST be presented in the final report. The report must also contain an annex with co-finance details and appropriate tracking tools.

The terminal evaluation mission will produce the following deliverables:

1. A detailed Terminal Evaluation Report in concise English, including lessons learned and recommendations, using on the specified UNDP/GEF format (no more than 50 pages, excluding Executive Summary and Annexes) with sections and assessment ratings outlined earlier in the TOR;
2. Record of key outputs from the evaluation process, including workshop outputs, and minutes of meetings with stakeholders;
3. Summary presentation of Terminal Evaluation Report findings to be presented at the Project Terminal Workshop.

The final report together with the annexes shall be written in English and shall be presented in electronic form in MS Word format as well as a hard copy.

The final report should include the sections specified in Annex 1 of this TOR and not exceed 50 pages, in addition to the annexes.

Competencies

- Demonstrating/safeguarding ethics and integrity;
- Demonstrate corporate knowledge and sound judgment;
- Self-development, initiative-taking;
- Acting as a team player and facilitating team work;
- Facilitating and encouraging open communication in the team, communicating effectively;
- Creating synergies through self-control;
- Managing conflict;
- Learning and sharing knowledge and encourage the learning of others. Promoting learning and knowledge management/sharing are the responsibility of each staff member;
- Informed and transparent decision making.
- Required Skills and Experience

Education:

Minimum of a master's degree or equivalent in natural resource management, environment, development or related field demonstrably relevant to the position.

Experience:

- Substantive experience in reviewing and evaluating similar technical assistance projects, preferably those involving UNDP/GEF or other United Nations agencies, development agencies and major donors;
- International/regional consultant with academic and/or professional background in natural resource management or related fields with experience in land management, with in-depth understanding of land issues as well as community-based natural resource management. A minimum of 10 years of working experience is required;
- Experience in leading multi-disciplinary and multi-national teams to deliver quality products in high stress and short deadline situations;
- Familiar with SLM approaches in pacific and/or developing countries either through management and/or implementation or through consultancies in evaluation of land related projects. Understanding of local actions contributing to global benefits is crucial;
- Highly knowledgeable of participatory monitoring and evaluation processes.
- Language Requirements: Excellent English writing and communication skills.

UNDP is committed to achieving workforce diversity in terms of gender, nationality and culture. Individuals from minority groups, indigenous groups and persons with disabilities are equally encouraged to apply. All applications will be treated with the strictest confidence.

7.2 Annex 2: names of the evaluators and their Brief CVs

Cindy, Celine PUBELLIER (Team Leader- International Consultant)

1. **Family name:** PUBELLIER
2. **First names:** Cindy, Céline
3. **Date of birth:** 23 October, 1958
4. **Nationality:** French
5. **Civil status:** Married with two children
6. **Education:**

Institution	Degree(s) or Diploma(s) obtained:
2007-2008 – EBS European Business School, Sorbonne, Paris	Master of Arts (with honours) in Diplomacy and Geopolitics - Sustainable Development and International Relations & Environmental Economics
1981- 1984 University of East London, UK	(BSc) with Upper second class honours (first Division) in Surveying and Mapping Sciences specialised in Photogrammetry using DTM, Environmental (Geographic) Information Management
September 1976- May 1978 University of London	General Certificate of Education Examinations (Advanced Level) Pure Mathematics and Physics (Credits)

7. **Language skills:** Indicate competence on a scale of 1 to 5 (1 - excellent; 5 - basic)

Language	Reading	Speaking	Writing
English	1	1	1
French	1	1	1
Chinese(Mandarin)	1	1	1
Chinese(Cantonese)	1	1	1

8. **Membership of professional bodies:**

France IGUG (France Intergraph Graphic Users' Group)	President (since 2001)
FEGUG - Federal European Graphics Users Group	Board of Directors (since 2001)

9. **Other skills: (e.g. Computer literacy, etc.)**

- **Strong computer literacy - IT and software and hardware consultant**

GIS software	Arc GIS 9.2, 9.3, 10, including DTM (Spatial Analyst module), Geomedia Professional, Arc Network Analysis extension, ArcView, MGE, Geomedia Web Map, MapInfo, WinMap (Open Source GIS), NSDI, Microstation & AutoCAD (DWG), Open GIS Consortium Standards (Map Servers) as well as software development Cycle
Land Surveying, Photogrammetry Hardware and software Cadastre	Digital Photogrammetry to produce DTM - stereoanalysis <i>software</i> SOCET SET Total Stations, Theodolites and precision DGPS surveying, GNSS Measurements, topographic survey FIG Cadastre 2014, Core Cadastre Domain Model, Satellite Imageries (Ikonos, LandSat, Google Earth)
Institution capacity identification	Nigeria, Algeria, Irak, Nepal, Solomon Island, Mauritius, China
Hardware & Software procurement	Solid Experience in drafting detailed technical and administrative specifications and tender dossier for EU tenders and UN tenders (Nigeria, Algeria, Irak, Nepal, China) Conversant with PRAG Technical requirements identification after needs analyses
Independent Evaluator of Tenders (EC)	Solid experience in supporting and assisting contract Authority on EC tendering procedure for supply and service contract on IT Hardware & software procurement for GIS and related disciplines (Nigeria, Algeria)
EC Contract Manager	Good experience in contract procedures (Nigeria, Algeria) including response to technical clarifications to tenderers, acceptance of supplied items and services

Environmental Laws and Regulations	GRI, Global Reporting Initiative, Global Compact 2000, NRE – Nouvelle Réglementation Economique France, 2002 Agenda 21 – 1987, ISO 14001 Environment 1996 Charte de l'environnement – France 2004 INSPIRE – Shared Environmental Information for Europe GMES-Global Monitoring for Environment and Security , OGC, ISO SEVESO – European Directive for Industrial Risks Sites
development languages	C, C++, VB, Fortran, Assembler, as well as software development Cycle
Institution Development	China, Nepal, Algeria, Nigeria, Lithuania, Iraq Fully conversant with EDF rules, UNDP rules
MEAs - Multilateral Environmental Agreements and Financial Mechanism	Experience in UNCCD, UNFCCC, GEF – Global Environmental Facility, Global Mechanism, CDM
Land related Development Cooperation	Land Policies, Integrated Land Administration Systems, Earth Observations, Census Mapping & GIS, Land use Mapping, SLM - Sustainable Land Management, NSDI, Geoportal, FLIS – Forest Land Information System
Methodologies	SADT, Merise, Gap Analysis, CASE, PCM, Logical Framework , Project Identification, Project/Programme Evaluation, Risk management Cycle, SMART indicators , as well as software development Cycle
Graphic development languages	MDL (Microstation), UCM
Data Base Management	SQL, Oracle, DBA (Data Base Administration) Oracle , DB 2
Project Management	Intergraph Registered Consultant (IRC) since 1989 Consulting services : Pipeline GIS, Cartography, Photogrammetry, land surveying EU PCM – Project Cycle Management (fully conversant with principles and working methods), Logical Framework Approach
Training and lectures Capacity Building	- develop and deliver training courses for Intergraph France and IDS France on GIS - provide lectures in University of Paris VI, Ecole Nationale des Sciences Géographiques, France on GIS and Pipeline Management. - Provide conferences and capacity Building in GIS, e-government, data-sharing, Integrated Emergency Response Platform after the Sichuan Earthquake - EU-China Information Society Project, China - Census GIS for Office National des Statistiques, Algeria - Census Iraq on finger-print technology, IT setup and servers including IS environment - University of Technology Petronas on GIS

10. Present position:

Title	Role
CEO of Geolines Senior Consultant – EC Category I and Team Leader, ADB (Asian Development Bank)	- Company management (Financial and Administrative) - Senior Consultant – EC Category I & Team Leader - Technical expert in industrial and international projects in Energy and Environmental Information Management - Project management (large scale national and European projects)

11. Key qualifications: (Relevant to the assignment)

- Excellent leadership, analytical skill and experience (20 +years)
- Excellent public speaking, delivery of seminars at international level and in multicultural environment
- Strong negotiation skills
- Good knowledge of international relations and international development
- Proven communication skills in multilateral stakeholder situations and in government relations at all levels
- 10 years of wide experience in institutional development within Government Ministries and Contracting authorities on environmental issues
- Familiarity with European Commission guidance on programming, country strategies (Nigeria, Nepal, Mauritius, Solomon Islands, China, Algeria, Ethiopia, etc.), PCM, policy mix and integration of environmental issues into other policy areas (gender, poverty, community development)
- Knowledge of EU, UN and ADB environment integration and development policies

- **Independent Evaluator of Tenders (EC)**, including responses to clarifications requested by potential tenderers. (Nigeria, Algeria)
- Fully experienced conversant with project cycle management and EC aid delivery methods
- Elaboration of **project fiches, technical requirement identification, equipment needs identification**
- **Market research on current equipments, preparation of evaluation grid, (Nigeria, Algeria, Nepal),**
- Good Experience in procurement (Supply, service and Hybrid **Full Tender** preparation) hardware and software of the European Commission and well conversant with **PRAG**
- **Contract Management** on behalf of **Contracting Authority** (extensive experience in EC procedures & guidelines) including **provisional acceptance process (Nigeria & Algeria supply procurement)**
- Solid Experience in environmental and climate change analyses and preparation of development programmes (Mauritius including Rodrigues, Algeria)
- Proven Experience with Donor guidance on programming, country strategies, Project Cycle Management, policy and integration of environmental issues, gender into other policy areas;
- Deep experience in use of GIS and computer systems design and setup on Environmental and Hazards prevention issues.
- Solid experience of institution capacity building assessments in different continents (Asia, Middle East, Africa and Europe)
- Experience with participatory planning process (UNDP, EU with Nigeria, Lithuania, China, Mauritius and Algeria)
- Experience with country environmental profile (Mauritius and Algeria)
- Deep knowledge of Geodesy, land surveying, cadastre, Global Position System, Global Navigation Satellite System (GNSS)
- Extensive experience, over 15 years on DGPS - satellite based cadastral and topographic surveying
- Extensive experience in DGPS surveying, GNSS Measurements for Total Gas and Oil, France
- Proven Team Leader skills including management of international teams
- 3 years (3 framework contracts) Team Leader and Senior Expert for preparation of Census Nigeria 2006
- Confidence in communication at all levels
- Proven Management Skill to motivate multicultural Teams
- Development co-operation projects (USAID-Haiti, EU-Nigeria, EU-China, ADB-Nepal, EU-Algeria, EU-AUC)
- Application of Millennium Development Goal with mapped Indicators – Nigeria, Algeria, Rodrigues, Nepal
- **Knowledge of Environmental Laws:** GRI – Global Reporting Initiative 1997, Global Compact 2000, NRE – Nouvelle Réglementation Economique, France 2000, Agenda 21 – 1987, 1992, ISO 14001 Environment 1996, Charte de l'environnement, France 2004, Kyoto Protocol, Disaster Cycle Management
- Knowledge and implementation of French decree of combustible gas transport and chemicals (multi-fluid)
- Environmental policy and Management (SEVESO, EU Directive INSPIRE, GMES – Global Monitoring for Environmental and Security) in both Public and Business (Oil and Gas, industrial Risks & Security) Sectors
- Knowledge of Environmental Indicators and methodology
- **IFS – Integrated Financial Strategy; UNDP PIMS, Cost & Benefit Analysis on Environments**
- **PCM - Project Cycle Management and Logical Framework (design, implementation and evaluation)**
- Good experience to use GIS as a tool for **holistic aggregated assessment on Environmental Issues**
- Experience with Project formulation, cost-benefit and impact analysis, **monitoring and evaluation – IT procurements, Mid-term Evaluation, Capacity Building**
- **RBM Evaluation & Monitoring** result oriented evaluation and impact assessment of large-sized EU funded projects employing EC methodologies.
- Good knowledge development projects with EC (EDF & PHARE) , USAID, UNFPA, UNDP
- Proven experience in working effectively with government officials at senior levels (China, Nigeria, Algeria, Nepal, Ethiopia, Mauritius & Lithuania)
- Excellent report writing skills (please refer to reference letters)

Date	Location	Company	Description
Jan – March 2012	Algiers, Algeria	Idom EC Delegation, Algeria ONEDD	Team Leader - Senior Expert on Environmental Statistics P3A – Programme d'Appui à la mise en œuvre de l'Accord d'Association National Observatory of Environment and Sustainable Development Implementation of Institutional Twinning for the Ministry of Land Management and Environment financed by European Commission. Technical Assistance on Development of Twinning Project Fiches on Environmental Protection and Sustainable Development in Algeria
May 2012– Jan 2014	Malaysia	UTP – University of Technology Petronas	Adjunct Lecturer for Masters Courses Fundamentals of GIS for Environmental Studies
Jan – Dec 2012	Ipoh, Malaysia	Banjaran	Senior Scientific Advisor on Environment and Sustainable Development in Private Sector; Private forest owner/user programme, Preparation of the RBM Evaluation & Monitoring framework
Jan –Oct 2011	Mauritius including Rodrigues	UNDP Beneficiary: Ministry of Forest, Mauritius	TL, Senior International Consultant On SLM – Sustainable Land Management RBM Evaluation & Monitoring; M & E System using GIS FLIS - Forest Land Information System; Use of Earth Observation data on Forest monitoring and management Capacity Building on <u>Sustainable Land Management Project</u> - Preparation of SLM Investment Plan and M&E framework - Preparation of an Integrated Financing Strategy (IFS) for Sustainable Land Management Development of a monitoring and evaluation systems for SLM using Aerial and Satellite Imagery
March – July 2010	Ethiopia, Congo, Mauritius, Botswana,	Particip EuropAid	Team Leader of Evaluation Team (3 international experts), Use of Earth Observation on Forest monitoring and management Mid-term Evaluation MTR of AMESD - African Monitoring of the Environment for Sustainable Development (21 M€)
May 2008 – Nov 2011)	Algier, Constantine , Oran, Algeria	Altair with EC Itziar Alonso / Altair Asesores Use of Earth Observation data (WEB based GIS for data dissemination)	Senior International Expert in GIS and Census ICT Contract Management – Monitoring & evaluation Team Leader of 5 international experts in GIS – Monitoring the Implementation of GeoPortal for Census data dissemination <u>Programme d'Appui au Management de l'économie (AMECO)</u> Project Identification - Drawing up Tender Dossier and Tender Evaluation – GIS for Economic and Social Census/Survey for Algeria. Provide the <u>National Office of Statistics</u> in Algeria with expertise for: Project Identification and Formulation, Technical Assistance
April 2010	Amman, Jordan	UNFPA	Finger-print IT expert in Census Technical Training for Iraqi Population and Housing Census 2010
Dec 2007-June 2009	China, Beijing and Chengdu	Emerging Markets Group, EC Team Leader:Chris Brown	International Senior Expert Category I, Project of Monitoring Environment and Security; Technical Assistance Capacity Building and training of Chinese Officials Support of Software Development; Senior International GIS Expert for <u>EU-China Information Society Project</u> Provide expertise on Information exchange platforms and data resources to Chinese government officials and experts at local level in Chengdu, Sichuan
2008 June to Sept	Kathmandu , Pokhara, Bhaktapur, Jomsom, Nepal	Fincon with ADB Team Leader: GabrielARANCIBI A arancibiag@sympatico.ca	Senior International Expert – Institutional Assessment Technical Assistance on Land Surveying, Parcel information, Land administration, Land Policy and Property rights <u>Strengthening Land Administration Services</u> , LIS (Land Information System) Nepal : National Land Policy Evaluation of the current system on National Land Administration including different projects in the MLRM Help modernize land administration services and prepare a framework for a comprehensive national policy, improving effectiveness and efficiency of the land administration services, identify policy gaps and recommend a road map, thereby improving social justice and poverty reduction. Review of office and field workflow and development of Business Process Re-engineering (BPR) throughout the country to improve parcel registration process. Design, Feasibility Study, development of a databased land records management strategy
May 2007-Dec 2011	Paris, France, China, Indonesia	Total France	TL and consultant in database management - Manuel Pubellier Map of Asia for TOTAL, France Evaluation of relevant international projects on Land Data Management

Dec 2006-May 2007	Pau, France	Total Infrastructure Gaz France	Team Leader – consultant in Pipeline Management and Disaster & Risk Prevention; Application of European Pipeline Regulations – transport of Natural Gas; Energy Project - Roadmap Development– Gas Pipeline Geo-Portal - Project Monitoring of Risk Prevention Project - Project identification - Evaluation of existing database design and Environmental Information Management in the South of France on B2B, B2G and B2C projects.
Jan – Nov 2007	Nigeria, France, Italy	Astec, EC	Team Leader, Senior IT Expert, Evaluator of EC Hybrid Tender; anti-corruption framework; Capacity Building; IT Contract Management – Monitoring implementation and support for quality supply - Geo-Portal for Census Nigeria
Jan – Nov 2006	Nigeria	Agri-consulting, EC Nick Costello	Team Leader – Senior Expert in Information Management ; Expert in Project Identification and Formulation; Project Identification - Drawing up Tender Dossier and Tender Evaluation – RDBMS, Census Nigeria 2006
March- Nov 2005	Nigeria	Astec, EC Team Leader	<u>IT Supply Tender evaluation and Contract Management - (Supply contract of 10 million Euros) – Population and Housing Census 2006 in Nigeria</u> Project Evaluation and Monitoring
Feb – Dec 2004	Lithuania	Astec, EC ;	Team Leader of 4 national Experts; Project formulation and identification; Environmental Governance; LGII – Pre-accession Project - <u>"GIS-Centras" Received ESRI Special Achievement Award</u> ; Development of <u>Lithuanian Geographic Information Infrastructure</u> (Geo-Portal) Lithuania - the Interoperability and accessibility via Internet of national reference geospatial data (existing and developing) harmonised with other geo-located data. Services
Oct 03 – Oct 2004	France	Total S.A.	Team Leader on Energy and Environment
Nov 2002-Sept 03	France	Total S.A	Team Leader – Hazardous Product Management- Project on SEVESO (European Environmental Law); Transportation of Petrol by Pipeline Environmental Information Management Project (for the Greater Paris Region) – Pipeline L'Ile de France
Sept 1997-Oct 03	France	Trapil	Team Leader – Implementation of GIS – Risk Assessment and Management on Oil pollution - Environmental Impact assessment
Jan 1994-Sept 97	France	Michelin	Technical Director – Digital Mapping and GIS
Feb – Oct 1993	France	Thales	Consultant in <u>Photogrammetry</u>
1989-1994	Paris France	COGEMA (now AREVA)	Project Leader in Nuclear Energy Project - Industrial Photogrammetry
1988-89	France	Technip	Team Leader & software development Engineer
1987-1988	France	Consult Infra	Team Leader
1985-1986	Haiti	CARE & USAID	IT Consultant and training
1984	Hong Kong	Lands Dept	Land Surveyor

(Expert 2) Senoveva Mauli (National Consultant)

PROFILE: Attained a Masters of Science Degree (specialization – Marine Science) at the University Of Auckland, New Zealand in March 2010 (awaiting Graduation). With my research experience in habitat mapping I have used the following software; ArcView v.9 and Primer E v.6. In addition, using an Ecosystem Approach coupled with local ecological knowledge to define goods and services in the marine ecosystem. Study Area – Langalanga Lagoon, Malaita Province.

NATIONALITY: Solomon Islands Citizen

KEY SKILLS AND RELEVANT EXPERIENCE

Research Skills:

- 2 years academic research experience to complete thesis on the Ecosystem Approach to Resource Management in Solomon Islands.

- Familiarity with a variety of research techniques from literature searches through database and archives, to analysis and synthesis scientific data collected from field work. Component in both qualitative and quantitative analysis (interviewing focus groups at the local, national and regional level).
- 6 months in research and writing the Solomon Islands State of Coral Triangle Report

Technical Skills:

- Experience in scientific fieldwork and conducting local interviews as part of my Masters Research Project.
- Experience in ArcMap v.9 to produce habitat and environmental maps
- Experience in Primer v.6 through my Masters Research to produce cluster analysis of species and sampling location distribution within the Langalanga Lagoon region.
- High standard ability to collect, manipulate, analyse and interpret scientific data and prepare and present report of findings.
- Experience in working knowledge of common software applications (eg. Word, Excel, Web Browsers) and am equipped with high standard computer skills.

Policy Analysis Skills:

- As one of the key implementer in country addressing environment and climate change issues, I have provided analysis and policy recommendations to the finalizing of Solomon Islands Climate Change Policy
- As a member of Solomon Islands National Coordinating Committee (NCC) for the Coral Triangle Initiatives, I have represented Solomon Islands at the Regional Exchange of Tools for addressing Climate Change Impacts. I have participated in meetings at the regional level and have contributed to the Regional Framework to addressing climate change issues.
- At the community level, under my current role as Applied Scientist for The Nature Conservancy-Solomon Islands I facilitate community meetings translating environment and climate change research to their level of understanding
- In partnership with the Solomon Islands Government, I have been involved in recommending to other policies, legal linkages such as the developing of the Protected Area Act and when necessary provide my technical advice at Government meetings relating to the environment.

Communication Skills:

- Oral – Well developed oral communication skills developed through seminar presentations for University courses at the University of Auckland. And also have previous experience in public speaking and seminar presentation whilst with my former employer.
- Written – able to adapt writing to suit target audience. Skills in report writing, writing proposals and writing Project Evaluation Reports. Excellent writing skills developed from writing my Masters Thesis, course assessments during Undergraduate and Postgraduate.

Creativity and Innovation:

- As my immediate role as Scientist for The Nature Conservancy – Solomon Islands Office I have developed a Community Management Plan template for Marine Protected Areas in the Choiseul Province.
- Propose to develop effective management strategies in resource use for coastal communities in the Langalanga Lagoon (as a follow on activity from my Master Thesis)

Organization and Time Management:

- Task focused approach to work over 2 years meeting deadlines while studying full time to complete a Masters Thesis.
- Am consistent to attain good grades for my academic performance and prompt to submit to departmental deadlines.
- Am determined to manage time and diverse activities that would require setting and meeting realistic deadlines.

EDUCATION:

- 2009 – 2010, University of Auckland – MSc (Marine Specialization)
- 2008 – Post Graduate Diploma (specialization in Marine Science) at University of Auckland, New Zealand.
- 2004 – Graduated with Bachelor of Science (Majors: Biology and Geography) at the University of the South Pacific, Fiji.

WORK EXPERIENCE:

August 2010 till present: The Nature Conservancy

Position: Applied Scientist

Responsibilities:

- Am Science lead the conservation work on ground in Choiseul and Isabel Provinces, Solomon Islands.
- Negotiates & run awareness for local communities on marine conservation and climate change issues at the local, national, regional and international level.
- Conduct surveys and research, record data, writes projects and develops proposals
- Leads Training on MPA monitoring techniques/scientific & community
- Perform fieldwork, including ecosystem assessment and field monitoring
- Collaborate effectively with communities & partners for effective conservation efforts based on the TNC principles of Conservation by Design.

May – August 2010: JICA – Japanese International Cooperation Agency

Position: Administrative Assistance

Responsibilities:

- English Proof Reader for the JICA personnels working in Honiara, Solomon Islands.
- Produces letters for JICA Representative in country, prepare and coordinate International visits by JICA representatives to the Solomon Islands.

February 2005 – February 2008: Pacific Islands Forum Fisheries Agency

Position: Regional Registry Officer

Responsibilities:

- Update on a timely basis the FFA Regional Register of Foreign Fishing Vessels
- Produce and Provide Updated “Good Standing” listing of Vessels to the members countries of FFA.
- Liaise with various Division within the Secretariat on Foreign Vessel specifications and maintain country license list

MEMBERSHIP:

- Member of the Asian Pacific Region GIS Team under The Nature Conservancy Asia Program.
- Author of the State of Coral Triangle Report.
- Member of the Solomon Islands Coral Initiative National Coordinating Committee
- Member (Steering Committee) – Solomon Islands Mangrove Ecosystem Services

Climate Change Adaptation Livelihoods Project

- Member of the Solomon Islands GIS User Group
- Member of the Solomon Islands Communication Working Group- Coral Triangle Initiative

AWARDS AND ACHIEVEMENTS:

2008: New Zealand Aid Scholarship for Masters of Science, in New Zealand

2011: Part of the TNC team that provides feedback to the Environment Impact Assessment produced by Sumitomo Metal Mining

2012: Member of writing team and Author of the State of Coral Triangle Report for Solomon Islands.

2012: Local Consultant for the Terminal Evaluation of the Capacity Based Sustainable Land Management (member of a two person team).

2012: Solomon Islands Focal Point for the Coral Triangle Centre

TRAINING AND MEETINGS:

DATE	MEETING, TRAINING, OR CONFERENCE	VENUE
September (5th – 7th) 2012	Auluta Oil Palm Project – Construction of 3D Model	Auki, Malaita, Solomon Islands
August (1st – 3rd) 2012	Marine Protected Area Management and Effectiveness Workshop	Rockhaven Inn, Honiara Solomon Islands
July (2nd – 4th) 2012	Stakeholders Consultation facilitated by World Fish Centre	Malaita, Solomon Islands
March (6th – 8th) 2012	Sumitomo Metal Mining Environment Impact Statement Consultation	Honiara, Solomon Islands
April 2012	Climate Change Policy Consultation	Honiara, Solomon Islands
February (1st – 5th) 2012	1 st Conservation Planning Meeting for Isabel Province	Solomon Islands
August 2011	Reef Resilience to Impacts of Climate Change	Koror, Palau
July 22nd 2011	USP EU – Global Climate Change Adaptation Project Inception Workshop	USP, Solomon Islands
July 12th 2011	NPoA (National Plan of Action), Target Workshop	Honiara, Solomon Islands
April 26th – 29th 2011	Inception Workshop to Roviana Project to addressing Climate Change Impacts	Western Province, Solomon Islands
April 14th - 20th 2011	Regional Exchange for Tools for Climate Change	Honiara, Solomon Islands

March 14th -18th 2011	Learning Network Regional Planning Meeting	Manila, Philippines
February 2011	Construction of Participatory 3D Model for Boeboe Community	Choiseul, Solomon Islands
December 4th – 6th 2010	Marxan Planning Tool	Arnavon Islands, Solomon Islands
October 6th – 13th 2010	TNC Climate Change Meeting	Stradbroke Islands, Brisbane
September 2010	Choiseul Stakeholders Ridges to Reef Planning Meeting	Choiseul Province, Solomon Islands
August 2010	Board Training – Arnavon Islands and Lauru Land Conference of Tribal Chiefs	Solomon Islands
May 2010	Launching of the Children Policy	Pacific Casino, Solomon Islands

7.3 Annex 3: Logical framework – Status of Progress and evaluation criteria

Logical framework – Status of progress achieved

Project Strategy	Indicator	Baseline	Target	Progress achieved
To strengthen human, institutional capacity, systemic capacity for Sustainable Land Management (SLM).	<p>Training programmes and awareness raising programmes for local communities are being implemented in a financially sustainable manner and cover a range of technical requirements and alternative practices</p> <p>National Development Plans pay adequate attention to SLM</p> <p>Productivity and sustainability of upland farming by adopting SLM in a pilot area improved</p>	Nil	<p>SLM incorporated into the NDP;</p> <p>Resource agency Plans include budgets for SLM;</p> <p>GIS system enable characterization of LD;</p> <p>Curricula on SLM in schools & SICHE; CTC and RTCs active</p>	<p>No Training programmes and awareness raising programmes sustains;</p> <p>Though SLM is not explicitly incorporated into the NDP, SLM related policies on Climate Change, Environment management;</p> <p>Unlikely since IFS is not done;</p> <p>No, GIS not operational;</p> <p>Curricula on SLM in schools & SICHE but CTC and RTC are not active in SLM activities driven by the project</p>
<p>OUTCOME 1</p> <p>Increased knowledge and awareness of land degradation and the importance of sustainable land management</p>	<p>Efficient and Effective Knowledge management systems in place</p> <p>Information on SLM is developed and utilized for land use planning</p>	Nil	<p>Awareness materials on LD and SLM available at Natgovt. and provincial govt. levels.</p> <p>Awareness of LD and SLM at community levels.</p> <p>Information available on LD & SLM</p>	<p>No</p> <p>No</p> <p>No</p>
<p>OUTCOME 2</p> <p>Systemic capacity building and mainstreaming of SLM principles and objectives</p>	<p>NAP formulated and approved</p> <p>Relevant policies contain specific sections on and follow principles of SLM</p> <p>SLM is already mainstreamed into Millennium Development Goals processes</p> <p>National Development Plans pay adequate attention to SLM</p> <p>Mid Term Investment Plan is developed and necessary resources are mobilized</p>	Nil	<p>NAP implemented;</p> <p>MAL and MFEC Corporate plans & budgets include SLM;</p> <p>Investment plan for medium to longer term financing;</p> <p>Rural LU policy</p>	<p>NAP Formulated but not endorsed</p> <p>MFEC annual workplan and corporate plan: SLM is not explicitly quoted in plans but through sustainable forest management and environmental protection, Climate change adaptation, etc. However, overarching measures such as agro-forestry or integrated land management are not presented.</p> <p>No not mainstreamed in MDG</p> <p>A little, through climate change and environmental management</p> <p>No, IFS not done</p>

<p>OUTCOME 3</p> <p>Enhanced technical, individual and institutional capacities for SLM</p>	<p>The staff of Department of Forests, Environment and Conservation, Department of Lands both have the capacity to implement SLM practices and train others to SLM</p> <p>Technical information & skills on SLM able to implement</p> <p>Community based capacities are enhanced through 1 SLM pilot that are established in key sites in the Solomons</p> <p>Best practices in environment economics for policy assessment, land use approached and sustainable farming guidelines are established by MOA</p> <p>SLM Network established at national and local levels</p>	Nil	<p>Model GIS system for land resource mapping;</p> <p>legal & institutional links between community, province and national governance;</p> <p>communities participating in resource assessment & planning; RTCs & CTCs active;</p>	<p>No since they were not trained themselves in SLM practices;</p> <p>No since SLM technical information not produced by the project;</p> <p>No the pilot farms are stopped.</p> <p>No</p> <p>No</p>
<p>OUTCOME 4</p> <p>Enhanced technical support at the local, provincial and national levels to assist with mainstreaming and integrated decision-making</p>	<p>50% of land users and government staff are satisfied with available technical support</p> <p>Innovative tools for SLM such a options for community based planning traditional farming</p> <p>practices ecosystem approaches to development, resource economics and its use in decision making, EIA, GIS and GPS manuals adapted to local and national needs, and are functional in places</p>	Nil	<p>Tools, guidelines and manuals available at national, province and community centres; Info and communication systems for remote communities used to transfer SLM materials; Reference material assembled, managed & available</p>	<p>No</p> <p>No</p> <p>No</p>

Evaluation Criteria

Evaluation Components	Evaluation Criteria
Project Formulation	Was the project design relevant, effective and efficient given the project objectives and expected results?
1) Implementation approach - relevance and effectiveness	Consistency and contribution to GEF focal area objectives and to national development strategies

	<p>§ Stakeholder views of project significance and potential impact related to the project objective</p> <p>§ Extent to which the linkages between activities, outputs and outcomes (objectives) were clearly established and understood</p> <p>§ Changes in project circumstances that may have affected the project relevance and effectiveness</p>
2) Country ownership at national and local levels	<p>§ Government involvement in the project management and completion of project outputs</p> <p>§ Community willingness to engage in project activities and to contribute in-kind toward the project</p>
3) Stakeholder participation in the project concept	<p>§ Extent to which relevant stakeholders were involved in project implementation, and any that in hindsight were overlooked</p> <p>§ Gender equity strategy or measures adopted in the project</p>
4) Replication approach viability in the project concept	<p>§ Consideration given to expanding and disseminating the approach in other parts of Solomon Islands</p> <p>§ Evidence of replication of project interventions/catalytic role</p>
5) Cost-effectiveness of the project concept and modalities	<p>§ Reasonableness of the costs relative to scale of outputs generated</p> <p>§ Efficiencies or inefficiencies in project delivery modalities</p>
6) UNDP comparative advantage	Efforts to utilize the strategic role of UNDP in supporting project implementation
7) Linkages between project and other interventions within the sector	§ Efforts to coordinate or harmonize similar or complementary projects or programs that enhance project results
8) Project indicators quality and utilization	<p>§ Usability and usefulness of the project indicators</p> <p>§ Accuracy of the indicators in measuring project results</p>
Project Implementation	Has the project been implemented in an effective, efficient and sustainable manner, consistent with the project design?
9) Financial planning and cofinancing	<p>§ Extent to which project disbursements occurred as planned</p> <p>§ Extent of fulfillment of the agreed co-financing commitments</p> <p>§ Financial reporting in accordance with UNDP and GEF norms</p>

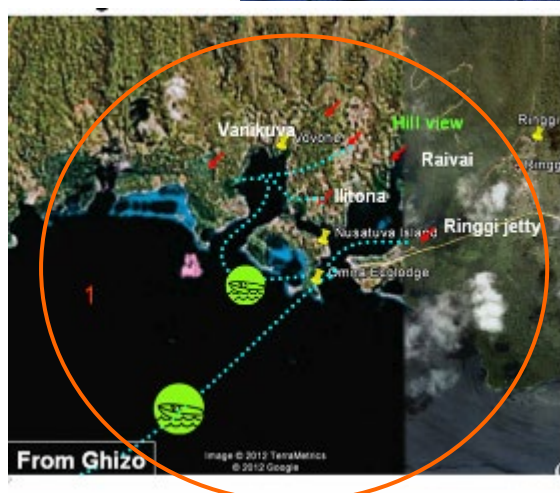
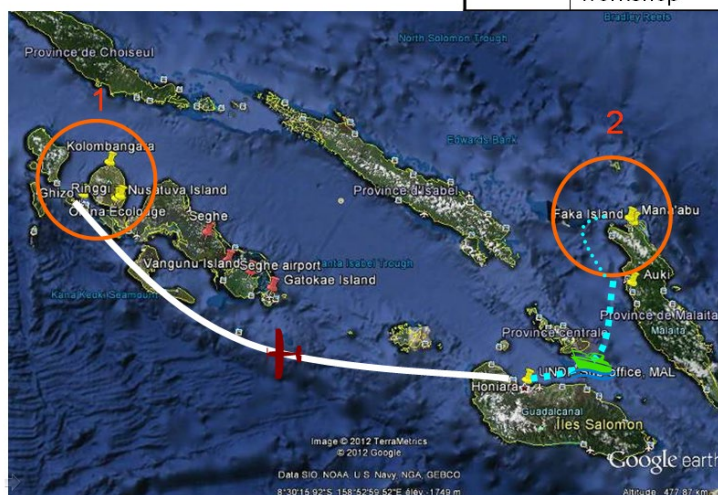
10) Execution and implementation modalities	§ Stakeholder views of the effectiveness of the project organization and implementation approach § Timeliness of completion of annual work plans as scheduled
11) Monitoring and reporting process	§ Implementation of an effective, operational monitoring system § Quality, objectivity, frequency and relevance of Project reporting
12) Project management arrangements	§ Participants' understanding of roles and responsibilities § Effective management process that is able to respond to issues and needs during implementation (adaptive management) § Effective working relationships between members involved in the project management decision making
13) Management by the UNDP Country Office	§ Timely and effective implementation of UNDP's role § Guidance and direction provided by UNDP staff on key issues § Identification of risks and management efforts to mitigate or manage risks
14) Coordination and operational issues	§ Extent and quality of communication and information dissemination between project partners § Level of coordination and collaboration between relevant ministries and programs § Problems or inefficiencies related to coordination functions and integration of activities
Project Results	Has the project achieved its objectives and contributed toward global and national biodiversity conservation and sustainable land management goals?
15) Progress toward Objectives and Outcomes	§ Level of achievement of expected outcomes or objectives to date § Long term changes in management processes, practices and awareness that can be attributable to the project
16) Achievement of Outputs	§ Level of completion of planned outputs § Quality and use of outputs completed

17) Sustainability project results	<p>§ Degree to which outputs and outcomes are embedded within the institutional framework (policy, laws, organizations, procedures)</p> <p>§ Implementation of measures to assist financial sustainability of project results</p> <p>§ Observable changes in attitudes, beliefs and behaviors as a result of the project</p>
18) Capacity building contribution to upgrading skills of the national staff	<p>§ Measurable improvements from baseline levels in knowledge and skills of targeted staff/beneficiaries: rangers, technical staff, senior officials, community participants</p>
19) Capacity improvements of the targeted management institutions	<p>§ Measurable improvements from baseline levels in the planning and management functions of the responsible organizations that were targeted by the project</p>

7.4 Annex 4: Map of project area and field visit calendar

TE- Itinerary in 20 days

Honiara	12 working days
Kolombangara	3.5 days including workshop
Malaita	3 days including workshop



Mon, 17 Sept	
Tue, 18 Sept	
Wed, 19 Sept	Travel to Brisbane, transit overnight
Thur, 20 Sept	Travel to Honiara, (arrived at 14:00 airport) Arrived at UNDP sub-office at 14:30 Meeting with Tristram and Gloria Suluia Desk Analysis commenced on available documents (very few only 25 documents including CDRs and TOR)

Fri, 21 Sept	Desk Analysis continued on available documents
Sat, 22 Sept	Saturday
Sun, 23 Sept	Sunday
Mon, 24 Sept	documents Analysis Welcomed and worked with Senoveva Mauli on methodology & workplan
Tue, 25 Sept	Desk Analysis continued on available documents Interview - Lynelle Popot Continued on workplan Local consultant joined the team Desk Analysis on documents Kickoff Meeting with Jude & Gloria
Wed, 26 Sept	Data collection – interviewed Robert Zutu Project Manager
Thur, 27 Sept	Interview – Jimi Saelea MAL
Fri, 28 Sept	Data collection - Interview : curriculum development officer, Min of Education, Kastom Garden, Live n Learn
Sat, 29 Sept	Saturday
Sun, 30 Sept	Travel to Ghizo flight 15:00 Stayed overnight in Ghizo

Mon, 1 Oct	Arrival Kolombangara by boat Ecolodge By boat: Vanikouva, Hill View (demo farm), Ilitona, Ringgi
Tue, 2 Oct	Workshop on Terminal Evaluation SLM in Onma Ecolodge, Kolombangara Boat back to Ghizo, stayed overnight in Ghizo
Wed, 3 Oct	Early flight from Ghizo, arrival in UNDP office at 11 AM – Meeting Akiko Suzaki, Gloria, Maurice, Deltina
Thur, 4 Oct	Early boat to Auki, Malaita - arrival 11am speed Boat to North Malaita - arrival 7PM
Fri, 5 Oct	Workshop on Terminal Evaluation SLM in Mana'abu (demo farm), North Malaita Boat back to Auki by speedboat, overnight in Auki
Sat, 6 Oct	Travel from Auki to Honiara arrival 1700pm
Sun, 7 Oct	Sunday
Mon, 8 Oct	Data collection - MAL Land Use planner, GIS
Tue, 9 Oct	Data collection – Charles Kelly (PM1)
Wed, 10 Oct	Data collection – F Weckham absent

Thur, 11 Oct	Presentation Preliminary Findings Flight to Brisbane 15:00 PM
Fri, 12 Oct	Flight to Singapore 01:30 AM

Sat, 13 Oct	Flight to Malaysia 22:00 PM
Sun, 14 Oct	Train to Ipoh arrival 06:00 AM (Home)

7.5 Annex 5: List of persons/organisations consulted

The evaluators would like to express their appreciation for the cooperation of all those named below, who were courteous and helpful, and in many cases invested considerable effort to ensure the team was provided with full and accurate information.

NAMES	POSITION	ORGANIZATION	LIEU	REMARKS	DATE OF INTERVIEW & TIME
Lynelle Popot	Environment Programme Assistant	UNDP – Honiara Sub Office	UNDP	Skype and email	25 th /9/2012
Robert Zutu	Former Project Assistant	CBSLM – PMU	Pacific Casino Lobby	Interview	26/9/2012
Freddy Kwakwala	Former Project Assistant	CBSLM –PMU	UNDP	Interview	27/9/2012
Jimi Saelea	Under Secretary – Technical	Ministry of Agriculture & Livestock (MAL)	MAL Office	Interview	27/9/2012
Watson Puiahi		Formerly Live & Learn	UNDP	Interview	27/9/2012
Clement	Country Director	Kastom Garden	UNDP	Interview	27/9/2012
Willie Okenikini	Chief Planning Officer	MAL	MAL	Phone Interview	26/9/2012
Helen Tsaitisia	Acting Director Research	MAL	MAL	Interview	27/9/2012
Roy Vaketo	Field Research Officer	MAL	MAL	Interview	9/10/2012
Luise Wale	Northern East Region Extension Officer	MAL	MAL	Interview	4/10/2012
John Faleka	Chief Agriculture Officer	MAL	MAL Sub office – Auki	Interview	4/10/2012
Nigel Tutuo	GIS Specialist	MAL	MAL – Planning Office	Interview	9/10/2012
Jimmy Walton	Land Use Planner	MAL	MAL – Planning Office	Interview	9/10/2012

Cornelius Henson	Agriculture Curricula	Curriculum Development Centre-SICHE	UNDP	Interview	27/9/2012
Charles Kelly	Former Project Manager	UNDP	Honiara City Council	Interview	10/10/2012
Frank Wickham	Permanent Secretary	MAL	MAL Head Office	Interview	19/10/2012
Jules Damutalau	Senior Research Officer	MAL	MAL Research Office	Interview	13/10/2012
Linda Lai	Assistant Research Officer	MAL	MAL Research Office	Interview	13/10/2012
Barnabas Bago	Chief Planning Officer	MDPAC – Ministry of Development Planning Aid & Coordination		Phone Interview	12/10/2012
Deltina Solomon	Environment Programme Assistant	UNDP	UNDP	Interview	6/10/2012
Jude Devesi & Yoko Ebisawa		UNDP	UNDP	email	22/10/2012
Jean Galo	Research Officer	Former MAL		email	

7.6 Annex 6: Literature and documentation consulted

ITEM	NAME OF DOCUMENTS
1	Letter – Sustainable Land Management Solomon Islands Submission for GEF Funding (Co financing Arrangement)
2	CBSLM Project Document signed 22 April 2008
3	Minutes of LPAC [Thursday 03 April 2008]
4	Inception Workshop Report_CBSLM Honiara (5 th – 6 th March 2009)
5	Tripartite Review Report (5 th May 2010)
6	SLM Work Plan (2010 - 2012)
7	3 rd Quarter Progress Report (2010)
8	Project Annual Report (12 th January 2011)
9	2 nd Quarter Progress Report (2011)
10	Trailing Tour Report (25 th April – 6 th May 2011)
11	UNDP EEG A and GEF Annual Performance Report (1 July 2010 – 30 June 2011)
12	Back to Office Report Western Province SLM Mission
13	Mana'abu Tour Report (25 th – 30 th July 2011)
14	Tripartite Review Report (24 th January 2012)

15	Solomon Islands - National Action Programme to Combat Land Degradation [NAP]
16	Auki Awareness Program Report
17	Auki Inception Report 2009
18	CBSLM Report Inception
19	CBSLM Guadalcanal Inception Workshop
20	CBSLM Reviewed Work plan 2009
21	Gizo_Awareness Program Report
22	Western Province Provincial Consultation
23	CBSLM_Quarterly Progress (April 2009)
24	Land Use Planning Scoping Report_Mana'abu
25	Mana'abu First Harvests Report
26	Mana'abu Randomized Plot Design
27	Mana'abu Demo Progress Report
28	Progress Report (April – June 2009)
29	Quarterly Progress Report (September – December 2008)
30	UNCCD Report (12 th – 16 th March 2010)
31	Annual Review Report (March 2009)
32	Ministry of Agriculture and Livestock (Corporate Plan 2011 – 2014)
33	Resources Kit – Monitoring Evaluation & Reporting for Sustainable Land Management in LDC & SIDS Countries (GEF, UNDP January 2006)

7.7 Annex 7: Other technical annexes

Annex 7.1 Slides of Preliminary Findings

Annex 7.2 LogFrame Key indicators analysis

Illustrated below is an analysis of the Project Indicators along with the designated Project Outcomes, which this Evaluation judge as not being “SMART”.

PROJECT COMPONENTS	PROJECT INDICATOR	EVALUATION JUSTIFICATION (Not SMART)
PROJECT OBJECTIVE	<p>Training Programmes and awareness raising for local communities are being implemented in a financially sustainable manner and cover a range of technical requirements and alternative practices</p> <p>National Development Plans pay adequate attention to SLM</p> <p>Productivity and sustainability of upland farming by adopting SLM in a pilot area improved.</p>	<ul style="list-style-type: none"> • There is no indication of how many training programmes and awareness programmes expected of this Project? • How many individuals would have done the training? • No mention of the technical requirements and alternative practices • How do we measure adequate attention • How do we measure productivity and sustainability • How do we measure improvement
<p>OUTCOME 1</p> <p>Increased knowledge and awareness of land degradation and the importance of sustainable land management</p>	<p>Efficient and Effective Knowledge management systems in place</p> <p>Information on SLM is developed and utilized for land use planning</p>	<ul style="list-style-type: none"> • How many individuals would have benefited from the training? • What information is referred to? Posters, Brochures (how many??) • What would be produced to prove utilization?
<p>OUTCOME 2</p> <p>Systemic capacity building and mainstreaming of SLM principles and objectives</p>	<p>NAP formulated and approved</p> <p>Relevant policies contain specific sections on and follow principles of SLM</p>	<ul style="list-style-type: none"> • By when is NAP formulated and developed • Relevant policies – name policies, when will this be done? • By when will SLM be mainstreamed into MDGs • How many policies and by whom? • How do we measure adequate attention?? • When is the Mid Term Investment Plan developed and mobilized

	<p>SLM is already mainstreamed into Millennium Development Goals processes</p> <p>National Development Plans pay adequate attention to SLM</p> <p>Mid Term Investment Plan is developed and necessary resources are mobilized</p>	
<p>OUTCOME 3</p> <p>Enhanced technical, individual and institutional capacities for SLM</p>	<p>The staff of Department of Forests, Environment and Conservation, Department of Lands both have the capacity to implement SLM practices and train others to SLM</p> <p>Technical information & skills on SLM able to implement</p> <p>Community based capacities are enhanced through 1 SLM pilot that are established in key sites in the Solomons</p> <p>Best practices in environment economics for policy assessment, land use approached and sustainable farming guidelines are established by MOA</p> <p>SLM Network established at national and local levels</p>	<ul style="list-style-type: none"> • How many staff will be trained? • By when would they have had the training to train others • What is the technical information, what skills on SLM to implement? • When will that be possible? • What are the community-based capacities (SLM practices and more)? (it could have been more specific). • By when will the 1 SLM pilot be established • When will the guidelines be established • How many within the Network
<p>OUTCOME 4</p> <p>Enhanced technical support at the local, provincial and national levels to assist with mainstreaming and integrated decision-making</p>	<p>50% of land users and government staff are satisfied with available technical support</p> <p>Innovative tools for SLM such a options for community based planning traditional farming practices ecosystem approaches to development, resource economics and its use in decision making, EIA, GIS and GPS manuals adapted to</p>	<ul style="list-style-type: none"> • What technical support? • By when? • How many government staff and land users? • Indicator too long in words, • Functional in how many places? • Should this indicator be broken in parts; what are the farming practices? • Which development practices

	local and national needs, and are functional in places	
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Overall, although Project Outcomes and Objectives were clear a shortfall of Project Implementation was the indicators been vague and “Non Smart”. There is no specific time-bound on when the Indicators are achievable and their measurement as qualitative or quantitative value.

Annex 7.3 SLM Learners' Book

Chapter 2: Introduction to Sustainable Land Management

9.2.1. Sustainable Land Management

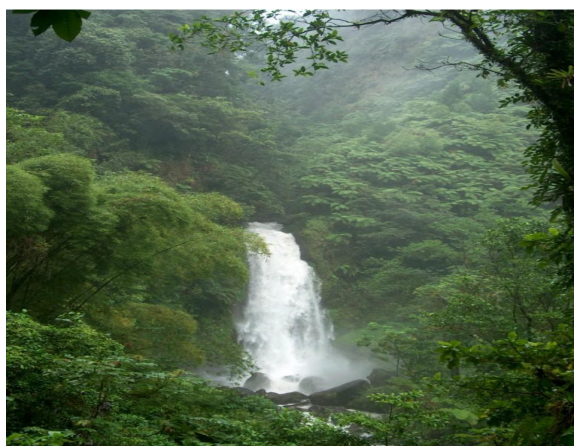
Specific Learning Outcomes: By the end of this sub-strand, learners should be able to;

9.2.1.1.1. Describe the term 'Sustainable Land Management'

9.2.1.1.2. Describe the link between Sustainable Land Management and environment

9.2.1.1. What is Sustainable Land Management?

Sustainable Land Management can be defined as “the use of land resources (including soils, water, animals and plants) for the production of goods to meet changing human needs, while at the same time ensuring the long-term productive potential of these resources and the maintenance of their environmental functions”. It requires the maintenance of the following key components of the environment;



- **Biodiversity:** variety of species, populations, habitats and ecosystems.
- **Ecological integrity:** general health and resilience of natural life-support systems, including their ability to integrate wastes and withstand stresses such as climate change and ozone depletion

Figure 9.01: Maintaining our natural environment

- **National capital**: stock of productive soil, fresh water, forests, clean air, ocean and other renewable resources that underpin the survival, health and prosperity of human communities

The main concern of sustainable land management is not to preserve nature in its untouched state, but to coexist with nature in a sustainable manner so that land resources are used and maintained for the benefit of society (see figure 9.01). Sustainable land management attempts to use renewable land resources like soils, water, plants, and animals for the production of goods, while at the same time protecting the long-term productive potential of these resources.

Land is often managed for multiple benefits, such as agricultural production, biodiversity conservation, water quality, soil health and supporting human life. To ensure long-term sustainability, land managers need to consider economic, social and environmental factors. Only a few countries in the world still have enough spare land resources to meet the needs of their expanding populations. Most countries are forced to increase and intensify production on land that is already under cultivation (see figure 9.02). Usually, this land is also subject to resource degradation.



In most developing countries, the majority of people are still engaged in agriculture, livestock production, forestry, and fishery, and their livelihoods and options for economic development are directly linked to the quality of their land and its resources

Figure 9.02: Intensifying crop production

For such rural societies, sustainable land management is the basis for sustainable development. The concept of sustainable land management is important as its adoption and application;

- ❖ Enables land users to get the most out of the economic and social benefits from the land while maintaining the ecological support functions of the land resources.
- ❖ Help to minimize land degradation, rehabilitate degraded areas and ensure the best possible use of land resources for the benefit of present and future generations.
- ❖ Create teamwork and partnership at all levels (land users, technical experts and policy-makers) to ensure that the causes of the degradation and corrective measures are properly identified, and that the

policy and regulatory environment enables the adoption of the most appropriate management measures.

- ❖ Enhance sustainable development and plays a key role in maintaining long term productivity of the ecosystem functions (land, water, biodiversity) and increasing productivity (quality, quantity and diversity) of goods and services, and particularly safe and healthy food.
- ❖ Covers and involves a holistic approach to achieving productive and healthy ecosystems by integrating social, economic, physical and biological needs and values.
- ❖ Contributes to sustainable and rural development that requires great attention in national, provincial and community level programmes and investments.
- ❖ Recognizes that people (the human resources) and the natural resources on which they depend, always exist together for both ecological and socio-economic benefits.

Sustainable land management can be achieved by way of an integrated approach which addresses the physical, biological and socio-economic aspects of the pressing issue of desertification, as well as strategies for poverty eradication and the aspect of global land degradation.

Activity 2.01

1. Fill in the blank using the correct terms

'Sustainable land _____ can be defined as the _____ of _____ resources, including _____, _____, animals and _____, for the production of _____ to meet changing _____ needs, while at the same _____ ensuring the _____ term productive potential of these _____ and _____ of their _____ functions'

2. State and briefly describe the key components of the environment;

- a. _____
- b. _____
- c. _____

3. Explain briefly two reasons why applying sustainable land management concepts and practices is important

- a. _____
- b. _____

Activity 2.02

Take a field visit to observe any farmers who practice sustainable land management around your home or school area. Copy the table into your exercise book and record your observation.

Farm/Garden site	Sustainable Land Management practices				
	OM/Mulching	Terracing	Composting	Cover crop	Crop rotation
1					
2					
3					
4					

1. What is the most common farming or gardening features you observed at these sites?
2. Do you think the use of Sustainable Land management practices is applicable to these sites? Why?
3. What would be your recommendation to the farmers in relation to the use of SLM concepts and practices?

9.2.1.2. Link between SLM and environment



Figure 9.03: Coexist with nature

The existence and interdependence of a variety of living things is an extremely important part of life on earth. It creates and maintains the different ecological systems; *forests, tundra, aquatic, grasslands and deserts.*

In the past centuries, human activities have had an especially negative effect on biodiversity but now are becoming more aware of its value and role. Thus, it is very necessary that we protect our natural environment (see figure 9.03).

Clearly life plays a major role in the function of ecosystems. Without vegetation or organisms, landscapes would be almost indistinguishable from one another. However, humans have been the main cause of recent rapid change. Ecosystems are being destroyed, animals and plants becoming extinct, and biodiversity is being lost due to increased human activity.

Although environments would be shifting and evolving regardless of human influence, it is necessary to understand that humans are causing the rate of change to become particularly dangerous. Environmental conditions are changing so quickly that individual species as well as entire ecosystems are struggling, and often failing, to adapt. For these reasons, it is very important that we protect biodiversity and the natural environment.

Biodiversity or a variety of living things is clearly a fundamental component of life on Earth and creates complex ecosystems that could never be reproduced by humans. The value of that biodiversity, both intrinsically and to humans, is immeasurable, and thus must be protected. In the end, we both want and need biodiversity. Although we continue to harm the natural environment, often without realizing the impact that we have, an increasing number of people are becoming aware of the need to protect biodiversity. Hopefully humans will continue to pursue the issue so we can eventually live entirely with nature, not harm the very system that allows us to exist.

In many countries, increasing pressure on resources, especially in exposed regions has caused serious soil productivity decline under extensive farming practices. Reversing the degradation of soil, water and biological resources and enhancing crop and livestock production through appropriate land use and management practices are essential components in achieving food and livelihood security.

Reversing the degradation of soil, water and biological resources and enhancing crop and livestock production through appropriate land use and management practices are essential components in achieving food and livelihood security

Efforts to restore productivity of a degraded land must be coupled with efforts to recognize productive capacity of land resources. There is a need to encourage farmers to utilize ways and practices that enhance the sustainable use of our land resources.

Activity 2.03

Take a field visit and identify a site near your home or school area to observe and analyze biodiversity within and around the site.

1. Describe the specific location or site to include plant communities, other vegetation, physical characteristics, geological features and surrounding land use).
2. List the common name of plant and animal species observed at your site.

Plants	Animals
1	1
2	2
3	3
4	4
5	5
6	6
7	7

3. Identify signs of animals and plant presence (track, nests, chewings, bones, fallen leaves, seeds, pollen, etc)
4. Are there any threats or disturbances (natural or unnatural) to the observed species?
5. Are there any changes in environmental conditions?

9.2.2. Land degradation

Specific Learning Outcomes: By the end of this sub-strand learners should be able to

- 9.2.2.1.1. Describe the term 'land degradation'
- 9.2.2.2.1. Explain the factors that cause land degradation
- 9.2.2.3.1. Explain the effect of land degradation
- 9.2.2.4.1. Explain the term 'waste management'

the economic well being of people, and at a global level by undermining the integrity, stability functions and services of ecosystems. Land Degradation is defined as "...any form of degradation of the natural potential of the land that affects the integrity of the ecosystem, in terms of its reduction in sustained ecological productivity or in terms of its native biological wealth and the maintenance of its flexibility".

Land degradation caused by poor land management practices such as slash and burn agriculture, uncontrolled livestock grazing on fragile lands, poor road construction and unplanned or poorly planned settlements in landslide-prone areas is of great concern. Every year untold amounts of valuable top-soil is eroded away and washed into rivers and out to sea during heavy rains. Over time, the productivity of land for agriculture is lost, as is the productivity of coral reefs as they become blanketed by silt. In both cases this presents challenges in maintaining food security.

Siltation of rivers (caused by build-up of eroded soil in the river channels) increases the flood-risk in low-lying areas with potential for loss to life and property. The valuable tourism industry is also negatively impacted by the outcomes of unsustainable land management. Land degradation causes pollution of rivers and near-shore coastal waters, affecting the very beaches and reefs that are centre-pieces of the vacation attractions. Land degradation also affects terrestrial and coastal ecosystems that on small islands are particularly vulnerable.

Managing land resources must therefore be given paramount importance as it underpins long-term social and economic development. The challenge however has been the fact that planning for sustainable management of land resources has not featured prominently in national development policies. Local stakeholders tend not to be sufficiently empowered to engage in processes that would alleviate land degradation, and financial resources required to effectively address the problem are often very limited.

Activity 2.04

Learners take guided tour to observe area around their home or school and identify examples of land degradation.

9.2.2.2. Causes of land degradation

Land degradation is a human induced or natural process which negatively affects the land to function effectively within an ecosystem, by accepting, storing and recycling water, energy, and nutrients.



The causes of land degradation are mainly related to origin of humankind and agriculture. The major causes of land degradation include; Land clearing and deforestation, agricultural mining of soil nutrients, urban conversion, irrigation and pollution, population increase, climate change, bush fire, etc.

Severe land degradation affects a significant portion of the earth's arable lands, decreasing the wealth and economic development of nations. The link between a degraded environment and poverty is direct and intimate.

As the land resource base becomes less productive, food security is compromised and competition for declining resources increases, the seeds of potential conflict are sown. Species diversity is lessened and often lost as lands are cleared and converted to agriculture. Thus a downward eco-social twist is created when marginal lands are nutrient depleted by unsustainable land management practices resulting in lost soil stability leading to permanent damage.

Land degradation put at risk lives of people who are dependent on the land resources for survival. Land degradation cancels out gains advanced by improved crop yields and reduced population growth.

Activity 2.05

In your small group, discuss some of the main causes of land degradation in Solomon Islands. Present your findings to the class.

9.2.2.3. Effects of land degradation

The main outcome of land degradation is a substantial reduction in the productivity of the land. The major stresses on vulnerable land include:

- Accelerated soil erosion by wind and water (see figure 9.07)
- Soil acidification and the formation of acid sulfate soil resulting in barren soil
- Soil alkalinisation owing to irrigation with water containing sodium bicarbonate leading to poor soil structure and reduced crop yields
- Soil salination in irrigated land requiring soil salinity control to reclaim the land
- Soil water logging in irrigated land which calls for some form of subsurface land drainage to remediate the negative effects

- Destruction of soil structure including loss of organic matter



Over-cutting of vegetation occurs when people cut forests, woodlands and shrub lands to obtain timber, fuel wood and other products, at a speed exceeding the rate of natural re-growth. Overgrazing is the grazing of natural pastures at stocking intensities above the livestock carrying capacity; the resulting decrease in the vegetation cover is a leading cause of wind and water erosion.

Figure 9.07: Soil erosion

Agricultural activities that can cause land degradation include shifting cultivation without adequate fallow periods, absence of soil conservation measures, fertilizer use, and a host of possible problems arising from faulty planning or management of irrigation.

The role of population factors in land degradation processes obviously occurs as a consequence of continued population growth in the face of the limited land resources. In the context of land shortage the growing population pressure, has led to decreases in the already small areas of agricultural land per person. Population pressure also operates through other mechanisms like improper agricultural practices, for instance, cultivating too shallow or too steep soils, plough fallow land before it has recovered its fertility, or attempt to obtain multiple crops by irrigating unsuitable soils. Severe land degradation affects a significant portion of the earth's arable lands, decreasing the wealth and economic development of nations. As the land resource base becomes less productive, food security is compromised and competition for diminishing resources increases, the seeds of famine and potential conflict are sown.

Activity 2.06

Organise field visit to observe any effects of land degradation around your home or school area.

9.2.2.4. Waste management

Waste management is the collection, transport, processing, recycling or disposal, and monitoring of waste materials. The term usually relates to materials produced by human activity, and is generally undertaken to reduce their effect on health, the environment or outward appearance of a given location. Waste management is also carried out to recover resources from it. Waste management can involve solid, liquid, gaseous or radioactive substances, with different methods and fields of expertise for each.

Waste management practices differ from one country or locality to another. Management for non-**hazardous** residential and institutional waste in metropolitan areas is usually the responsibility of **local government** authorities like Honiara City Council, while management for non-hazardous commercial and industrial waste is usually the responsibility of the generator. Some common methods of waste disposal include; land fill, recycling, gasification, incineration, biological processing, energy recovery and avoidance and reduction method (see figures 9.08 to 9.10).



Figure 9.08: Land fill



Figure 9.09: Recycling



Figure 9.10: Biological procession

There are a number of concepts about waste management which vary in their usage between countries or regions. Some of the most general, widely used concepts include:

- **Waste hierarchy**

The waste hierarchy refers to the "3 Rs" reduce, reuse and recycle, which classify waste management strategies according to their desirability in terms of waste minimization. The waste hierarchy remains the cornerstone of most waste minimization strategies. The aim of the waste hierarchy is to extract the maximum practical benefits from products and to generate the minimum amount of waste.

- **Extended producer responsibility**

Extended Producer Responsibility (EPR) is a strategy designed to promote the integration of all costs associated with products throughout their life cycle (including end-of-life disposal costs) into the market price of the product. Extended producer responsibility is meant to impose accountability over the entire lifecycle of products and packaging introduced to the market. This means that firms which manufacture, import and/or sell

products are required to be responsible for the products after their useful life as well as during manufacture.

- **Polluter pays principle**

The Polluter Pays Principle is a principle where the polluting party pays for the impact caused to the environment. With respect to waste management, this generally refers to the requirement for a waste generator to pay for appropriate disposal of the waste.

Education and awareness in the area of waste and waste management is increasingly important from a global perspective of resource management. Local, regional, and global air pollution; accumulation and distribution of toxic wastes; destruction and depletion of forests, soil, and water; depletion of the ozone layer and emission of "green house" gases threaten the survival of humans and thousands of other living species, the integrity of the earth and its biodiversity, the security of nations, and the heritage of future generations.

Activity 2.07

Look around your home. Discuss and plan how best you should manage the wastes you produce at your home. What other ways should the wastes produced used for?

9.2.3. Land management

Specific Learning Outcomes: By the end of this sub-strand learners should be able to

9.2.3.1.1. Explain the term 'land management'

9.2.3.2.1. Explain the term 'Land Use Planning'

9.2.3.1. What is land management?

Land management is the process of managing the use and development of land resources in a sustainable way. Land resources are used for a variety of purposes which interact and may compete with one another; therefore, it is desirable to plan and manage all uses in an integrated and sustainable manner.

Land management and use practices have a major impact on the natural resources including water, soil, nutrients, plants and animals (see figure 9.11). Land use information can be used to develop solutions for natural resource



Figure 9.11: Intercropping

Having knowledge of current land use is essential to support improved management of land, vegetation and water resources and to develop responses to catchments management issues such as salinity, water quality and the maintenance of biodiversity.

Understandably, the world population continues to increase, both in numbers and in affluence, putting great pressure on our land and its resources. Over the years, we had seen vast areas of native vegetation been cleared or degraded, resulting in adverse affects on biodiversity, soil and water quality and assisting in the spread of weeds, feral pests and diseases. Although the harmful consequences of most human activities are unintentional at times, they have the capacity to threaten the natural systems essential to life. There is increasing effort to improve land management practices so that pressures on the land are reduced and declines in biodiversity, soil and water quality are reversed and improved to sustain human existence.

Activity 2.08

Arrange a field visit to observe and identify land management practices around your home or school area.

9.2.3.2. Land use planning

Land use planning is the term given to policy that directs how the land in a community is used. The goal of land use planning is to balance the needs of the people who live in the area with the needs of the environment. The term land use planning is often used interchangeably with urban planning. At its most basic, land use planning determines what parts of a community will be used for residential areas, and what parts will be used as commercial areas. This is called zoning.

There is bound to be conflict over land use. The demands for arable land, grazing, forestry, wildlife, tourism and urban development are greater than the land resources available.



Figure 9.12: Coconut integrated with root and fruit crops

Figure 9.13: Cassava farm

In the developing countries, these demands become more pressing every year. The population dependent on the land for food, fuel and employment will continue to increase (see figure 9.12 and 9.13). Even where land is still plentiful, many people may have inadequate access to land or to the benefits from its use. In the face of scarcity, the degradation of farmland, forest or water resources may be clear for all to see but individual land users lack the incentive or resources to stop it.

Land-use planning is the systematic assessment of land and water potential, alternatives for land use and economic and social conditions in order to select and adopt the best land-use options. Its purpose is to select and put into practice those land uses that will best meet the needs of the people while safeguarding resources for the future. The driving force in planning is the need for change, the need for improved management or the need for a quite different pattern of land use dictated by changing circumstances. All kinds of rural land use involved may include; agriculture, pastoralism, forestry, wildlife conservation and tourism. Planning also provides guidance in cases of conflict between rural land use and urban or industrial expansion, by indicating which areas of land are most valuable under rural use.

The land use planning system provides one key to protecting the environment. However, it currently operates without any clear framework for the overall effect of decisions on the natural environment. There is also a need for action to urgently reverse the destruction of the natural environment and forests, which is being driven by the global market for timber, agricultural activities and bio-fuels, etc. The damage is immense, for the rainforests are home to the world's richest biodiversity, as well as being a significant carbon sink. Controlling the demands that lead to rainforest destruction and rewarding local people for conserving their environments require the combine actions of every stakeholder.

Activity 2.09

Identify and list down some of the land-use practices around your home or school area.

9.2.4. Land Rehabilitation

Specific Learning Outcomes: By the end of the sub-strand, learners should be able to;

9.2.4.1.1. Explain the term 'Land Rehabilitation'

9.2.4.2.1. Explain the term 'Landscaping'

9.2.4.1. What is land Rehabilitation?



Figure 9.14. Rehabilitated wetland

Land rehabilitation refers to the process of returning the land in a given area to some extent of its former state, after some process (industry, natural disasters etc.) has resulted in its damage. While it is not often possible to restore the land to its original state, the rehabilitation process usually attempts to bring some degree of restoration.

Across huge areas of the world, human activity has degraded once fertile and productive land. Practices like deforestation, overgrazing, continuous farming and poor irrigation have affected large areas of land worldwide, threatening the health and livelihoods of people. Amongst one of the most major reasons for land degradation is the practice of clearing trees from the land, primarily to provide areas for cropping or raising animals. Agriculture as an important primary industry, responsible for feeding the world populations and improving economic prosperity for many nations, has face a very real threat in terms of reduction in yields and water quality. As fertile soil is degraded, those who rely on the land are less able to grow or harvest enough food, and their hopes of improving their livelihoods are reduce. In order to support the increased demand for food and income by a growing population, it is vital that measures are put in place to provide the drive for major land rehabilitation initiatives that would bring back into production any degraded lands.

Land rehabilitation as a process involves such thing as removing all man-made structures, toxins and other dangerous substances, improving the soil condition and adding new flora. In many cases, modern methods have not only restored degraded land but actually improved it as shown in figure 9.14.

Trees are seen as an integral part of a healthy environment, and it is for that reason that tree planting operations to rehabilitate degraded land as well as prevent further damage are being actively encouraged. The importance and demand for land rehabilitation and caring for the environment has been receiving more and more attention in recent times, as new environmental-protection laws are introduced and people become increasingly conscious of the environment, understand the importance of limited resources and the effects of human activities like agriculture, industry, and recreation on the environment. However, rehabilitation can be a very costly process and exercise at times, depending on the nature of the land rehabilitation tasks undertaken. Although land rehabilitation is most often used to correct problems caused by man-made processes, it is also used to "clean up" natural processes. For example, natural disasters such as earthquakes and flooding can also cause damage to the natural environment. Land rehabilitation techniques can be used to speed up the amount of time necessary to restore the location back to its original state.

The desertification, erosion and general degradation of once fertile lands should prompt us to think seriously about our actions and investigate why and how these processes have occurred. It should also lead us to look at ways we can stop and/or reverse it. Natural forests are amongst the most stable and productive ecosystems. We need to plant and conserve forests for their conservation value, to help maintain healthy air, soil and water and for their potential to provide food, forage, fuel and timber. The importance of trees to land rehabilitation cannot be overstated. Often in the past they have been seen as competing for valuable land space and felled indiscriminately. Over clearing of trees can lead to salinity problems and numerous forms of erosion and land slips. As we have become more familiar with their vital role in ecological processes, retention and selective planting of trees has been widely acknowledged, in improving farm viability and ultimately production.

Recently, however, some have been using a variety of techniques like; use of cover crops, trees, mulch, compost and crop rotation to improve soil health and help to keep crops healthy and resistant to pests and diseases. A variety of Integrated Pest Management techniques, including strategic planting and the production of natural pesticides have enabled farmers to save money and avoid the use of potentially dangerous chemical pesticides. Tree planting and erosion control barriers made from rocks, trees or other materials have also helped to prevent their improved topsoil from washing away.

Activity 2.10

Identify and observe a site around your home or school area that needs rehabilitation due to some form of land degradation activities.

1. What causes land degradation on the site?
2. Is it possible to rehabilitate the site?
3. Suggest possible ways to rehabilitate the site.

9.2.4.2. Concept of landscaping

Landscaping refers to any activity that modifies the visible features of an area of land, including:



Figure 9.15: Landscaping of deforested hill in Nepal

- Living elements, such as flora or fauna with a goal of creating a beautiful environment within the landscape.
- Natural elements such as landforms, terrain shape and elevation, or bodies of water.
- Human elements such as structures, buildings, fences or other material objects created and/or installed by humans.
- Abstract elements such as the *weather and lighting*

Landscaping is both science and art, and requires good observation and design skills. A good landscaper understands the elements of nature and construction, and blends them accordingly (see figure 9.15).

Landscape rehabilitation based on ecological planning and design can be used satisfactorily to restore degraded land to make it productive and re-establish a stable ecological balance that is coordinated with its surroundings in order to attain ecological holism. Degraded land can be classified into diverse types, with different rehabilitation methods possible for each of the classifications. In addition, degraded lands are also associated with various types of landscape. Accordingly, landscape rehabilitation goals can only be realized by working out reasonable macro

landscape patterns and establishing suitable micro ecological conditions based on the landscape ecology.

Activity 2.11

Arrange field visit to observe a site that has been landscaped around your home or school area;

1. What sort of landscaping activities was carried out on the site?
2. What benefit would be derived from landscaping the site?