

Strengthening the Resilience of Small Scale Rural Infrastructure and Local Government Systems to Climatic Variability and Risk



Mid-term Review – FINAL Report

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Cover Page Mid-term Review report for UNDP-GEF Project Strengthening the Resilience of Small Scale Rural Infrastructure and Local Government Systems to Climatic Variability and Risk

Project Title	Strengthening the Resilience of Small Scale Rural Infrastructure and Local Government Systems to Climatic Variability and Risk			
UNDP PIMS #	4817	Project Financing	At Endorsement	At MTR
GEF Project ID#		Total grant ODA	\$4,900,000	\$4,900,000
Region	Asia-Pacific	LDCF grant:	\$4,600,000	\$4,600,000
Country	Timor Leste	To be mobilized:		
GEF Operational Focal Area/Strategic Program	Baucau, Ermera and Liquica Municipalities	UNDP TRAC	\$300,000	\$300,000
Executing Agency/Implementing Partner	Ministry of State Administration (MSA)	In-cash	\$300,000	\$300,000
Other Project Partners	Ministry of Commerce Industry and Environment (MCIE)	In-kind	\$1,935,600	\$1,935,600
International MTR Consultant	Dr. Margaretta Ayoung	Project start date	Planned:	Actual:
			25 th Sept 2013	Dec 2013
National MTR Consultant	Mr. Sergio Barreto	Project End Date	Planned	Expected
		240	31 Dec 2017	31 Dec 2017

Timeframe: 21st February to 30th April 2016 **Inception Report:** 06 February 2016 **MTR Mission:** 29 February to 30th April 2016 **Draft Report:** 31st March 2015 **Final Report:** 30th April 2016

Final Report: 17th May 2016

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Acronyms and Abbreviations

AP	Administrative Post
ADB	Asia Development Bank
GEF	Global Environment Facility
GoTL	Government of Timor Leste
LA	Local Administration
LDCF	Least Developed Country Fund
LDP	Local Development Programme (UNCDF/UNDP)
LGSP	Local Governance Support Programme (UNCDF/UNDP) LoA
MCIE	Ministry of Commerce, Industry and Environment (former MED) MAF
MED	Ministry of Economy and Development (now MCIE) MoF
Mol	Ministry of Infrastructure (now MPW)
MPW	Ministry of Public Works (former Mol)
MSA	Ministry of State Administration
NDIEACC	National Directorate for International Environmental Affairs and Climate Change (MCIE) NDPACE
NDWRM	National Directorate for Water Resource Management (MPW) NIM
O&M	Operation and Maintenance (of infrastructure) PCCSP
PDD	Local Development Funds for implementation of local plan activities PDID
PDID	Planning and implementation of District Development Investment Plan (now PDIM)
SDP	Strategic Development Plan
SoS	Secretary of State
SoSE	Secretary of State for Environment
SSRI	Strengthening the Resilience of S mall S cale R ural Infrastructure and Local Government Systems to Climatic Variability and Risk (LDCF Project)
UNDP	UN Development Programme
UNFCC	United Nations Framework Convention on Climate Change UNMIT

1 EXECUTIVE SUMMARY

1.1. Project Information Table

1.2. Project Description

Rural populations of Timor Leste are highly exposed to a number of hazards including flash floods, landslides, soil erosion, coastal flooding and drought, due to unfavorable terrain, socio-economic factors and intensification of these climate-induced hazards over time. In addition, anthropogenic factors such as poor, non-climate-resilient design and application of infrastructure construction standards and the limited investment in operation and maintenance, are exacerbating exposure and resulting in the failure of small scale rural infrastructure which is essential to the development of rural communities. Impacts include isolation of communities when roads and bridges are damaged by localized extreme events, contamination of unprotected water sources, reduction in yield of water supply sources due to droughts, flooding of communities due to inadequate or failing flood defences. In addition, the institutional and financial capacity of Local Administrations and communities to adapt to the situation is weak. This includes the ability of municipality planning officials, engineers and decision makers to identify areas that are critically vulnerable to climate hazards, to draw the links between ecosystems management and infrastructure development, and to identify, appraise, prioritize, design and 'budget in' greater resilience measures. There is also a weak ability to understand and address gender and climate change related development and equity issues at local level.

The climate induced problem that the project is seeking to address is that Local Administrations, particularly in drought prone areas and areas vulnerable to extreme rainfall events, are finding it increasingly difficult to supply and maintain critical small scale rural infrastructure for rural communities, leading to measurable reductions in household income as well as increased food insecurity and health issues. The project is also seeking to address climate induced threats caused by the slowly decreasing protective and water storage functions of ecosystems due to over-exploitation of forest and coastal areas resulting in rapid deforestation.

The LDCF-funded UNDP SSRI Project focuses on supporting Ministry of State Administration (MSA) and Ministry of Commerce, Industry and Environment (MCIE) to implement climate resilient rural infrastructure projects in a socially and environmentally acceptable manner as well as to develop institutional and human capacity at national and sub-national level (local community and Municipalities) to integrate climate resilience into the planning and implementation of District Development Investment Plan (PDIM) projects.

SSRI supports integrating climate change issues into Municipality and local level planning and implementation of PDIM projects in a manner that makes them withstand risks and impacts of climate change. SSRI works in three Municipalities of Baucau, Ermera and Liquica. The three focus municipalities represent the diversity of key climate variability risks and vulnerabilities, which the project aims to address. They combine relatively high population densities with relatively poor areas, vulnerable flood-prone coastal conditions and landfall prone vulnerable mountainous terrain and areas with a projected increased drought period with areas of high groundwater vulnerability. The vast majority of the population in the selected municipalities depends on unprotected gravity-fed water sources is used for both domestic use and important subsistence, and in some cases, cash crop production (paddy rice and market vegetables).

1.3. Project Progress Summary

At this mid-point, the following progress has been made towards achieving the project outcome

level indicators as reported in the project progress reports and verified as far as possible during the MTR.

1.4. Progress towards Objective level indicator

Objective level indicator - Number of (sector-specific) standard designs and specifications, for small infrastructure works, which have been upgraded to address and/or withstand increased climate risks Percentage change in number of Administrative Post level annual development plans, which include climate risk mitigation/resilience measures, as climate resilient activity designs (of small infrastructure works) and complementary bio-engineering and land management measures (AMAT 1.1.1.1)

By the end of the first year (2014), the project had completed the climate-resilient designs and Bills of Quantities (BOQs) for 10 climate resilient small-scale infrastructure project which include climate proofing and bio-engineering components, using the government District Investment Development Plan (PDIM) project implementation process. This represents 18.3% of the intended 60 PDIM projects, as a portion of the overall municipality development plan priorities to be implemented by government in 2015.

During 2015 the 10 projects started implementation and at this mid-point the 10 projects are at or near completion in 10 sucos. Many of the projects include bio-engineering catchment management approaches for example planting along drainage routes (e.g. Ossoala and Maubaralisa), vegetation for protection of water sources (Ossoala, Lacoliu), catchment management practices such as engaging communities in planting (e.g. Ossoala with NGOs, Talimoro, Ermera - planted 2,000 seedlings) and bio-engineering measures to protect structures (Legiuema 10 bridges, Lisadilla flood defence)

1.5. Progress towards Indicator 1

Indicator 1: number and type of stakeholders served by the multi-sector knowledge sharing and policy influencing platform of MCIE Number of evidence climate change risk/vulnerability assessment reports and policy recommendation documents, timely disseminated through the knowledge sharing and policy influence platform Number of sectors which have endorsed MCIEs national climate change policy framework and strategy, and which have subsequently translated and/or integrated climate risks in key sector policies

The CCCB was established by UNTL and MCIE with support from the project on behalf of UNDP in 2014 through the provision of technical assistance (expertise and training), computer equipment, GPS equipment and GPS training, GIS software for climate mapping, mapping exercise, and facilitation of experts in climate mapping. The Centre is managed by the UNFCCC focal point. An SSRI staff member is the key technical assistant developing methodology for Climate Change assessment. Members of four line Ministries namely Ministry of Social Solidarity (MSS), Ministry of Public Works (MPW), Ministry of State Administration (MSA), Ministry of Agriculture and Fisheries (MoAF) participated in the Climate Change Forum meetings organized by Ministry of Commerce, Industry and Environment (MCIE) coordinated Climate risks and natural disaster affecting rural infrastructure has been collected and collated to be used by the Ministry of Commerce, Industry and Environment (MCIE) to inform its policy advocacy work. The ultimate aim is to integrate climate risk into key sector policy and it is understood that this integration work will begin in 2016.

At project mid-point, based on evidence gather during the MTR mission, it is clear that policy makers are aware of climate risks and vulnerabilities to rural infrastructure, vulnerability assessments that SSRI project undertook, and climate resilient design and construction approaches that the SSRI project has implemented. Information was disseminated to the community members and other entities through seminar, TV broadcast, pamphlets, brochures, event etc. (500,000-600,000 listeners countrywide). There is also strong evidence that the knowledge sharing platform established through the CCCB has been effective in disseminating climate resilience information via CCCB website and through working group meetings. It should be noted, however, that the climate risk information is not currently accessible to Local Authorities, many of whom do not have access to computers at Administrative Post (AP) level and municipalities have stated that the information is not being used at their level.

1.6. Progress towards Indicator 2

Indicator 2: Climate change vulnerability guidelines and tools developed under the project are accepted by MSA as integral part of local planning and budgeting process (Yes/No). Percentage of Administrative Posts which use climate change vulnerability assessments and CC adaptation activity identification guidelines/tools as integral part of the local development and planning and budgeting process [AMAT 1.1.1.3] Number of (municipality) engineering and contractor staff in focus Districts with a solid understanding of climate-induced risks to small scale infrastructure works and of possible adaptation and mitigation measures (design, construction, maintenance)

During the first year of the project guidelines for mainstreaming climate change into MSA District Development Plans and project implementation were produced and included into the revised Ministry of State Administration (MSA) PDIM Planning Manual (See Section 4.1 for a review of the guidelines), Procurement Manual, and Decree Law no. 4/2012. Six (06) Administrative Posts (Aps) out of a total of 8 Aps in the target municipalities implemented climate resilient projects in 2015. Three District Investment Plans (PID) for Baucau, Ermera and Liquica included climate resilient projects for implementation in 2015. 90 District technical staff and 106 pre-qualified private contractors were trained on aspects of climate-resilient infrastructure planning and implementation.

Implementation of the 10 climate resilient pilot projects commenced in six (06) Aps in the three municipalities. The estimated number of beneficiaries of the 10 projects is reported to be approximately 69,603 people in rural communities representing a 68% progress against the entire project life target.

A main output of the project is the *Climate Vulnerability and Capacity Assessment: A Baseline Report* (herein after referred to as the CVCA report) and maps which has been disseminated in electronic and hard copy and via a video at all levels. The Climate Vulnerability and Capacity Assessment (CVCA) has identified approx.14,000 hectares of degraded hotspot areas affected by landslides and approx.186,548 ha of land affected by erosion that require rehabilitation.

Based on evidence gathered during the MTR the following progress has been made towards this indicator:

- 1) CVCA report completed and endorsed by MSA.
- 2) MCIE raised major concerns regarding the appropriateness of the methodology used for the CVCA;
- 3) A review of the CVCA report by the MTR team found many shortcomings with the technical basis of the work (The review of the CVCA methodology is provided in Section 4.1). Furthermore, the MTR team has also reviewed stakeholder feedback on the report which revealed that many of the shortcomings that were independently identified by the MTR team

had also been raised by stakeholders, but that they have not been addressed. The achievement of the outcome and indicator is therefore limited by this.

- 4) There is little evidence that MSA has adapted the local planning and budgeting process guidelines to include the climate change vulnerability assessment guidelines/tools produced by the project. Based on interviews with municipalities and AP's, the non-SSRI project PDIM approach has not changed and SSRI project appears not to be been fully embedded in the process.
- 5) While staff at all levels expressed general understanding of climate induced risks to small scale infrastructure, there is little evidence of step change in design approach to take account of climate change.
- 6) The MTR team has reviewed the training that has been undertaken by the project and found that there was no assessment of institutional capacity or a capacity development and training plan with clear objectives to support the training¹. The team also found training to be suboptimal, with many stakeholders asking for more training or stating that they have not received any of the promised training.
- 7) There is evidence that the project is introducing participatory approaches via community engagement which will catalyse greater embedding of climate risk identification and identification of projects that will address these risks.

1.7. Progress towards Indicator 3

Indicator 3: Number of Local Administrations (Districts and Sucos) which invest in climate resilient small rural infrastructure works, including complementary soil and land management measures as integral part of the local infrastructure development process. Number of people benefiting from climate resilient small scale infrastructure works which are constructed in accordance with climate resilient designs in the three project focus Districts (target 100,000) [AMAT 1.2.1.2]. Coverage in Hectares of complementary soil and land management measures in 3 Districts (target 5,000²))

During 2015, Implementation of 10 climate resilient pilot projects commenced in six (06) Administrative Posts (APs) the three municipalities. The 10 projects are estimated to benefit approximately 69,603 people in rural communities representing a 68% progress against the entire project life target. The Climate Vulnerability and Capacity Assessment (CVCA) has identified approx.14,000 hectares of degraded hotspot areas affected by landslides and approx.186,548 ha of land affected by erosion that require rehabilitation

Based on evidence gathered during the MTR the following observations were made regarding progress towards this indicator

1) District annual construction plans and engineering designs do not currently include climate resilience measures. Only SSRI projects do, which, while benefiting the communities in the

¹ The report titled 'CAPACITY ASSESSMENT OF THE MINISTRY OF STATE ADMINISTRATION & TERRITORIAL MANAGEMENT was reviewed and was found not to be an institutional capacity assessment that would be done as part of a project implementing capacity develop and training. It was a UNDP standard assessment to determine whether MSA as able to implement via DIM or NIM. ² This figure was revised from 50,000 to 5,000 during the project inception workshop. It should be noted that the wording of these indicators in the inception report (Annex 3) still has the original target, although the document states that it had been revised. It is advised that the official wording needs to be changed for this indicator if it has not already been done in ATLAS

short term, may limit the sustainability of the approach if the PDIM process does not include such measures into all their projects.

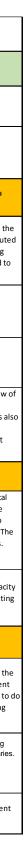
- 2) Method of calculating beneficiaries needs to be examined to ensure that it correctly represents beneficiaries in all cases. In addition, other measures of benefits could help to better measure progress. At mid-point the project is below 50% of the target of 32 projects³ when considering number of projects to be implemented, but above 50% of the target 100,000 beneficiaries.
- 3) The project reports on number of complementary soil and land management measures and total hectares implemented. In at least eight Administrative Posts in 3 Municipalities, various new small scale infrastructure works are constructed some of which were visited by the MTR team. Further details of site visits are provided in the Key Findings section.

³ 32 projects as per the LoA between UNDP and MSA

1.8. MTR Ratings & Achievement Summary Table

Table 1-1: Outcome Indicator Rating

Indicators	Target by end of project	Progress Towards each outcome indicator	Overal rating per outcome and objective	Comments/reason for rating
Objective : Critical small scale rural infrastruc	ture is climate resilient designed and implemented through participatory approaches and strengthened l	ocal governance systems	, reflecting the needs of co	mmunities vulnerable to increasing climate risks.
Number of (sector-specific) design approaches and specifications, for small infrastructure works, which have been upgraded to address and/or withstand increased climate risks	By the end of the project climate resilient designs are developed for all small scale infrastructure works constructed through the project and 2 of these climate resilient design approaches are accepted by national level sector agencies as the standard design approach.	4		
Percentage change in number of sub-district level annual development plans, which include climate risk mitigation/resilience measures, as climate resilient activity designs (of small infrastructure works) and complementary bio-engineering and land management measures (AWAT 1.1.1.1)	By the end of the project a minimum of 50% of sub-district annual development plans in the project areas include 3 specific climate risk mitigation/resilience actions	3	3	
	Outcome 1: Policy makers and public in TL are aware of critical climate risks to rural (infrastructure) development a gover	nd are systematically being informatically being informatically being information mechanism		pased information on climate hazards through vulnerability assessment and cross
Number and type of stakeholders served by the multi-sector knowledge sharing and policy influencing platform of MCIE	At least 5 platform members from relevant National Directorates and 2 members each from (or one representative organization): Local Administration, Civil Society, private sector, International NGOs, education institutions	5		The platform is established and information is being disseminated via the CCCB website and other means. CVCA report and maps widely distributed although not to local level. CVCA reports and maps not currently being used to information project selection and CR information not yet used to integrate climate risks into key sector policies
Number of evidence-based climate change risk/vulnerability assessment reports and policy recommendation documents, timely disseminated through the knowledge sharing and policy influencing platform	At least five evidence-based policy influencing documents disseminated through the platform	5		
Government of Timor Leste endorses MCIE's national climate change policy framework and strategy, and line Ministries have subsequently translated and/or integrated climate risks in key sector policies	Endorsement of climate change policy framework by Government (Yes/No) and climate risk concerns have been translated or integrated into at least 2 sector policies	2	3	
Climate change vulnerability guidelines and tools developed under the project are accepted by MSA as integral part of local planning and budgeting process (Yes/No)		2		CVCA report accepted by MSA but not by MCIE. An independent review of the methodolgy found significnat shortcomings that will need to be addressed before the approach can be scaled up to national level. It is also noted that many of the shortcomings indentifed by the independent review had been raised by stakeholders during feedback, but have not been addressed
	Outcome 2: Local Administration integrate climate risks inro partie	cipatory planning, budgetin	g and standards of small sca	le rural infrastructure development
Number of Sub-districts which use climate change vulnerability assessments and CC adaptation activity identification guidelines/tools as integral part of the local development and planning and budgeting process [AMAT 1.1.1.3]	All 8 focus Sub-districts in the 3 focus Districts use the new climate change vulnerability assessments and have identified and implemented climate resilient designs and climate risk protection measures for small scale infrastructure works	2	2	Review of the CVCA report found many shortcomings with the technical basis of the work. Furthermore, the review revealed that many of the shortcomings that were independently identified by the MTR had also been raised by stakeholders, but that they have not been addressed. The achievement of the outcome and indicator is therefore limited by this.
Number of (district) engineering and contractor staff in all districts of Timor Leste with a solid understanding of climate-induced risks to small scale infrastructure works and of possible adaptation and mitigation measures (design, construction, maintenance)	By the end of the project at least 100 (district) engineering and 30 contractor staff have received capacity development and have solid understanding of climate-induced risks to small scale infrastructure works and of possible adaptation and mitigation measures (design, construction, maintenance)	1		Training of technical staff has not been within the framework of a capacity development plan and has been somewhat ad hoc in nature, thus limiting its usefulness.
	Outcome 3: Small scale rural infrastructure made resilient against climate change induced risks (drou	ights, floods, erosion and la	ndslides) in at least the 3 di	stricts of liquica, ermera and Baucau (physical investment component)
Number of Local Administrations (Districts and Sub-district) which invest in climate resilient small rural infrastructure works, including complementary soil and land management measures as integral part of the local infrastructure development process	In at least eight sub-districts in three Districts, various new small scale infrastructure works are constructed in accordance with the new climate resilient designs and additional measures are implemented to safeguard existing infrastructure works against climate risks	5		Investment in CR SSRI is only via the SSRI prejct to date. By the end of the project, the project should aim to assist the municiplaities to implement climate resilient projects themselves and secure government funding to d so. This would involve deeper capacity building and project embedding into the PDID process
Number of people benefiting from climate resilient small scale infrastructure works which are constructed in accordance with climate resilient designs in the three project focus Districts (target 100,000) [AMAT 1.2.1.2]	At least 100,000 people benefited from climate resilient small scale infrastructure works in the 3 focus Districts	5	5	At mid-point project slightly below target of for 32 projects when considering number of projects to be implemented, but above 50% of 100,000 beneficiaries. The site visits to some of the projects provided examples of good implementation, but there are some project which are examples of mal implementation and which will need to be addressed going forward.
Coverage in Hectares of complementary soil and land management measures in 3 Districts	A minimum of (total) 5,000 hectares of catchment and slope stabilization measures have been implemented	5		Unable to verify number of hectares on which soil and land management measures are being implemented. See Recommendation 3.1.5



1.9. Project Ratings Summary table

The project has been rated against the main criteria of Progress Towards Results, Project Implementation and Adaptive Management and Sustainability. The summary ratings are as follows:

Measure	MTR Rating	Achievement Description
Project Strategy	N/A	
	Objective 1 Achievement Rating: (rate 6 pt. scale)	4
	Objective 2 Achievement Rating: (rate 6 pt. scale)	3
Progress Towards Results	Outcome 1 Achievement Rating: (rate 6 pt. scale)	3
	Outcome 2 Achievement Rating: (rate 6 pt. scale)	2
	Outcome 3 Achievement Rating: (rate 6 pt. scale)	5
Project Implementation & Adaptive Management	(rate 6 pt. scale)	4.5
Sustainability	(rate 4 pt. scale)	3

1.10. Concise summary of conclusions

At the midpoint, it is clear that the SSRI project has the potential to meet the primary objective, of embedding climate risk into the planning process for small scale rural infrastructure. It has already demonstrated how this can be done through the implementation of 10 projects in 10 sucos. To ensure that the project meets its ultimate objective by the end of the project, there are a number of urgent recommendations that need to be considered in the second half of the project to achieve the desired outcome.

1.11. Recommendation Summary Table

No	Recommendation
	Relevance
1	Recommendation 4.1.1 – Undertake a detailed capacity assessment of the PDIM process to include technical and functional capacity, assessment of existing resourcing (manpower, financial resources), effectiveness of existing institutional arrangements (where this impacts capability/capacity), methods, standards and protocols used throughout the process. Based on the outcome of the capacity assessment, develop an institutional capacity development and training plan for project-based capacity development and long-term capacity development. This should include a capacity development plan for the long-term implementation of climate resilient small scale infrastructure projects via the PDID process.
2	Recommendation 4.1.2 – Undertake a detailed review of the CVCA work and take steps to address the major technical shortcomings identified. Key considerations should include: data availability and data use (re-examine datasets for all hazard assessments, incorporate primary data on infrastructure, establish socio-economic data collection methods for use in risk and vulnerability assessment); review and strengthen hazard assessment and mapping methodology for all hazards, review and strengthen risk assessment methodology (incorporation of socio-economic data, use of established risk and vulnerability methods that include damage and loss assessment, loss of livelihoods, infrastructure risk assessment). The review should also address shortcomings in the treatment of gender.
3	Recommendation 4.1.3 – Re-focus the project strategy to under component 2, to ensure greater impact of the project on the PDIM process. This should include the following inputs to the PDIM project selection process:
	 a) Use of the CVCA (once it is revised and strengthened as per Recommendation 4.1.2) in the project identification process to provide a more comprehensive, robust and evidence-based means of identifying projects at suco level b) Provide technical assistance to AP staff and engineers in prioritizing projects at this level and in undertaking appropriate level of feasibility studies on which the second prioritization
	which to based prioritization c) Technical input to the Municipal level project prioritization and review. Introduce climate risk criteria into the prioritization process, and include other methods of measure benefits of projects other than number of beneficiaries (e.g. environmental enhancement).
	d) Provide training on engineering feasibility studies to include technical feasibility, investment feasibility, socio-economic cost-benefit analysis, optioneering and options appraisal methods and outline environmental impact assessment, to strengthen the feasibility process, safeguard investments and optimize engineering solutions.
	e) Provide technical assistance to introduce climate change considerations into design of infrastructure to ensure that they will accommodate likely changes of environmental variables (frequency and intensity of occurrence) expected with climate change.
	 f) Introduce detailed Environmental impact assessment (EIA) at the detailed design stage, in line with international good practice to ensure that the potential impacts of the project are identified based on the detailed design and that mitigation measures can be built into the design. g) Provide technical assistance to streamline the procurement process by pre-qualifying contractors for the different types of projects to be
	implemented.
	h) Provide technical assistance to strengthen the monitoring capacity at AP level through the provision of appropriate engineering expertise during implementation. Recommendation 4.1.4 – Review method of assessing project benefits and implement cost-benefit analyses more closely aligned with international
4	best practice, for the purpose of providing sound and robust information to decision makers, and for providing evidence for project replicability and scaling up.
5	Recommendation 4.1.5 - Document more closely, the soil and land management hectares being planted by first identifying on GIS maps the planned route for planting (using a Polygon from which area can be derived. This should be part of the agreed contract terms) and then using GPS to document and verify what has been planted.
	Effectiveness
6	Recommendations 4.2.1 – Re-examine the \$150k budget limit and strengthen the vetting of projects to ensure they are technically feasible within the budget.
7	Recommendation 4.2.2 - In the case of Lacoliu irrigation scheme, identify budget from within the project or elsewhere to correct the problem.
8	Recommendation 4.2.3 – Gender and vulnerability currently only focus on numbers of participants in workshops or training sessions. It is recommended that specific vulnerability indicators are introduced (e.g. CVCA methods targeting gender specific and vulnerable groups, Training material translated into as many local minority languages as possible or visual training/assessment tools, participatory assessment tools to illiterate people). It is also recommended that gender indicators should include measures of gender mainstreaming improvement.
9	Recommendation 4.2.4 – Undertake a full capcity assessment (technical and functional) and develop a capacity plan which will form the basis of training for the remainder of the project. It is also recommended that capacity indicators should be upgraded to include actual measures of increased capacity.
10	Recommendations 4.2.5 – It is recommended that the project undertakes more active risk management as outlined above. In particular actively managing, monitoring, review, communicating and consulting on risks as well as implementing appropriate corrective measures to address these risks
12	Efficiency Recommendation 4.3.1 - Training for M&E to project staff as well as municipality staff.
12	Recommendation 4.3.1 - Fraining for NacL to project start as well as multicipality start. Recommendation 4.3.1 - Engage international expertise to enhance local capacity in key areas such as hazard and risk assessment and mapping, engineering design, contract management, cost-benefit analysis and investment planning.
13	
	Sustainability
14	Recommendation 4.4.1 - Introduce a financial analysis output, based on the vulnerability mapping, cost-benefit analysis (and scaled up to rest of TL), to help identify the financial commitment that government will need for long-term national SSRI funding.
15	Recommendation 4.4.2 – Develop the financing model for maintenance of infrastructure and roll out for all SSRI schemes already built. Include monitoring mechanism to collect evidence base and calibrate financial model for long-term maintenance financing.
16	Replication and Scaling up Recommendation 4.5.1 – Use evidence gathered from the project to provide cost-benefit evidence of implementing climate resilient SSRI and for defining the capacity (and feasibility) of replicating and scaling up the project nationally. This can be done with closer evidence gathering, and parameter/indicator measurement.
17	Recommendation 4.5.2 – Formulate an investment framework based on cost benefit analysis and evidence base, with project figures for the rest of TL
	Lessons Learned
18	Recommendation 4.6.1 – Set up a lessons learned log to include lessons identified, lessons learned and lessons disseminated as well as detailed write up of each project implemented for the purpose of evidence-based advocacy.
19	Recommendation 4.6.2 – Hire a communications specialist, develop a communication plan, develop articles, video blogs, short programs, and other media material (tailor communication material to audience and medium) to disseminate information.

2 INTRODUCTION

2.1. Purpose of the MTR and objectives

The primary purpose of this Mid-term review is to identify challenges and outline corrective actions to ensure that the project is on track to achieve maximum results by its completion. It is also hoped that this MTR will help lay the foundation for a strong Terminal Evaluation (TE). The focus of the review is as follows:

- Assessment of progress towards results
- Monitoring of implementation and adaptive management to improve outcomes
- Early identification of risks to sustainability
- Emphasis on supportive recommendations

This review is an independent review and has been undertaken using a participatory and collaborative approach, with open opportunities for discussion. The ratings provided are based on

- Progress Towards Results (by Outcomes)
- Project Implementation & Adaptive Management
- Sustainability

The MTR will provide evidence-based information that is credible, reliable and useful. The MTR team has reviewed all relevant sources of information including documents prepared during the project design and preparation phase (i.e. the Project Document and Project Inception report), project reports including Annual Project Review, project budget revisions, M&E framework documents, national strategic documents, and other materials that the team considered useful for this evidence-based review.

The MTR has been a collaborative and participatory approach and has ensured close engagement with the Project Team, government counterparts, the UNDP Country Office, UNDP Regional Technical Advisers, and other key stakeholders.

2.2. Scope & Methodology: principles of design and execution of the MTR, MTR approach and data collection methods, limitations to the MTR

The methodology for the research included:

2.3. A desk top study of the documentation relating to the project and including:

- 1. PIF
- 2. UNDP Initiation Plan
- 3. UNDP Project Document
- 4. UNDP Environmental and Social Screening results
- 5. Project Inception Report
- 6. All Project Implementation Reports (PIR's)
- 7. Quarterly progress reports and work plans of the various implementation task teams
- 8. Audit reports
- 9. Finalized GEF focal area Tracking Tools at CEO endorsement and midterm (fill in specific TTs for this project's focal area)
- 10. Oversight mission reports
- 11. All monitoring reports prepared by the project
- 12. Financial and Administration guidelines used by Project Team

- 13. Environmental Impact Assessment and Social Safeguards report
- 14. Project technical documents (CVCA report, comments on CVCA report, site maps, design drawings)

2.4. An Evaluation Matrix

An evaluation matrix and questionnaires to guide consultation with stakeholders was developed and used. The evaluation matrix is included in Annex 2 of this report and an example questionnaire is included in Annex 3 which details the major evaluation criteria used against each of the following: relevance, effectiveness, efficiency, sustainability, network-linkages, lessons learned, project impacts, replicability.

2.5. Interviews with key informants

Individual interviews with key informants (Example questionnaire in Annex 3 was the basis of interviews with government stakeholders, and this was further tailored for different informants and for group discussions). Where possible group discussions were held with informants.

2.6. Site Visits

Field observation and meetings in the beneficiary communities provided an additional source of data. Field visits were conducted in the 3 municipalities in order to see implemented projects, and interviews were conducted with the following groups of stakeholders/beneficiaries:

- Interviews with key project stakeholders and implementation partners (national level)
- Interviews with Municipality staff (Administrator, DDO, technical staff)
- Interviews with Administrative post staff (administrator)
- Interviews with beneficiaries (chefe de suco, community members)
- Interviews with local project implementation partners (contractors, GMF staff, NGOs)
- Site visits and assessment of implemented projects

The principal objective was to hear from stakeholders and beneficiaries how and what benefit they are getting from SSRI project, what impact they have had on implementation of the project in their communities (municipalities, villages) and what role they have played in project implementation if any.

The same types of questions were asked of all similar types of informant, and the information garnered from the various sources were compared and elements triangulated.

2.7. Key Focus Areas

The project has been assessed according to standard evaluation criteria, as set out below. Annex 2 includes a list of sub-questions to be addressed, and sources of information for each.

i. Project Strategy

Project design:

- Review the problem addressed by the project and the underlying assumptions. Review the effect of any incorrect assumptions or changes to the context to achieving the project results as outlined in the Project Document.
- Review the relevance of the project strategy and assess whether it provides the most effective route towards expected/intended results. Were lessons from other relevant projects properly incorporated into the project design?

- Review how the project addresses country priorities. Review country ownership. Was the project concept in line with the national sector development priorities and plans of the country (or of participating countries in the case of multi-country projects)?
- Review decision-making processes: were perspectives of those who would be affected by project decisions, those who could affect the outcomes, and those who could contribute information or other resources to the process, taken into account during project design processes?
- Review the extent to which relevant gender issues were raised in the project design.
- If there are major areas of concern, recommend areas for improvement.

Results Framework/Logframe:

- Undertake a critical analysis of the project's logframe indicators and targets, assess how "SMART" the midterm and end-of-project targets are (Specific, Measurable, Attainable, Relevant, Time-bound), and suggest specific amendments/revisions to the targets and indicators as necessary.
- Are the project's objectives and outcomes or components clear, practical, and feasible within its time frame?
- Examine if progress so far has led to, or could in the future catalyse beneficial development effects (i.e. income generation, gender equality and women's empowerment, improved governance etc...) that should be included in the project results framework and monitored on an annual basis.
- Ensure broader development and gender aspects of the project are being monitored effectively. Develop and recommend SMART 'development' indicators, including sexdisaggregated indicators and indicators that capture development benefits.

ii. Progress Towards Results

Progress Towards Outcomes Analysis:

• Review the logframe indicators against progress made towards the end-of-project targets using the Progress Towards Results Matrix and following the *Guidance For Conducting Midterm Reviews of UNDP-Supported, GEF-Financed Projects*; colour code progress in a "traffic light system" based on the level of progress achieved; assign a rating on progress for each outcome; make recommendations from the areas marked as "Not on target to be achieved" (red).

In addition to the progress towards outcomes analysis:

- Compare and analyse the GEF Tracking Tool at the Baseline with the one completed right before the Midterm Review.
- Identify remaining barriers to achieving the project objective in the remainder of the project.
- By reviewing the aspects of the project that have already been successful, identify ways in which the project can further expand these benefits.

iii. Project Implementation and Adaptive Management

Management Arrangements:

- Review overall effectiveness of project management as outlined in the Project Document. Have changes been made and are they effective? Are responsibilities and reporting lines clear? Is decision-making transparent and undertaken in a timely manner? Recommend areas for improvement.
- Review the quality of execution of the Executing Agency/Implementing Partner(s) and recommend areas for improvement.
- Review the quality of support provided by the GEF Partner Agency (UNDP) and recommend areas for improvement.

Work Planning:

- Review any delays in project start-up and implementation, identify the causes and examine if they have been resolved.
- Are work-planning processes results-based? If not, suggest ways to re-orientate work planning to focus on results?
- Examine the use of the project's results framework/ logframe as a management tool and review any changes made to it since project start.

Finance and co-finance:

- Consider the financial management of the project, with specific reference to the costeffectiveness of interventions.
- Review the changes to fund allocations as a result of budget revisions and assess the appropriateness and relevance of such revisions.
- Does the project have the appropriate financial controls, including reporting and planning, that allow management to make informed decisions regarding the budget and allow for timely flow of funds?
- Informed by the co-financing monitoring table to be filled out, provide commentary on cofinancing: is co-financing being used strategically to help the objectives of the project? Is the Project Team meeting with all co-financing partners regularly in order to align financing priorities and annual work plans?

Project-level Monitoring and Evaluation Systems:

- Review the monitoring tools currently being used: Do they provide the necessary information? Do they involve key partners? Are they aligned or mainstreamed with national systems? Do they use existing information? Are they efficient? Are they cost-effective? Are additional tools required? How could they be made more participatory and inclusive?
- Examine the financial management of the project monitoring and evaluation budget. Are sufficient resources being allocated to monitoring and evaluation? Are these resources being allocated effectively?

Stakeholder Engagement:

- Project management: Has the project developed and leveraged the necessary and appropriate partnerships with direct and tangential stakeholders?
- Participation and country-driven processes: Do local and national government stakeholders support the objectives of the project? Do they continue to have an active role in project decision-making that supports efficient and effective project implementation?
- Participation and public awareness: To what extent has stakeholder involvement and public awareness contributed to the progress towards achievement of project objectives?

Reporting:

- Assess how adaptive management changes have been reported by the project management and shared with the Project Board.
- Assess how well the Project Team and partners undertake and fulfil GEF reporting requirements (i.e. how have they addressed poorly-rated PIRs, if applicable?)
- Assess how lessons derived from the adaptive management process have been documented, shared with key partners and internalized by partners.

Communications:

- Review internal project communication with stakeholders: Is communication regular and effective? Are there key stakeholders left out of communication? Are there feedback mechanisms when communication is received? Does this communication with stakeholders contribute to their awareness of project outcomes and activities and investment in the sustainability of project results?
- Review external project communication: Are proper means of communication established or being established to express the project progress and intended impact to the public (is there a web presence, for example? Or did the project implement appropriate outreach and public

awareness campaigns?)

• For reporting purposes, write one half-page paragraph that summarizes the project's progress towards results in terms of contribution to sustainable development benefits, as well as global environmental benefits.

iv. Sustainability

- Validate whether the risks identified in the Project Document, Annual Project Review/PIRs and the ATLAS Risk Management Module are the most important and whether the risk ratings applied are appropriate and up to date. If not, explain why.
- In addition, assess the following risks to sustainability:

Financial risks to sustainability:

• What is the likelihood of financial and economic resources not being available once the GEF assistance ends (consider potential resources can be from multiple sources, such as the public and private sectors, income generating activities, and other funding that will be adequate financial resources for sustaining project's outcomes)?

Socio-economic risks to sustainability:

 Are there any social or political risks that may jeopardize sustainability of project outcomes? What is the risk that the level of stakeholder ownership (including ownership by governments and other key stakeholders) will be insufficient to allow for the project outcomes/benefits to be sustained? Do the various key stakeholders see that it is in their interest that the project benefits continue to flow? Is there sufficient public / stakeholder awareness in support of the long term objectives of the project? Are lessons learned being documented by the Project Team on a continual basis and shared/ transferred to appropriate parties who could learn from the project and potentially replicate and/or scale it in the future?

Institutional Framework and Governance risks to sustainability:

• Do the legal frameworks, policies, governance structures and processes pose risks that may jeopardize sustenance of project benefits? While assessing this parameter, also consider if the required systems/ mechanisms for accountability, transparency, and technical knowledge transfer are in place.

Environmental risks to sustainability:

• Are there any environmental risks that may jeopardize sustenance of project outcomes?

2.8. Evaluation Approach

The following evidence been collected:

- 1) Quarterly reports have been reviewed against overall project programme in project inception report (i.e. the intended programme at project start) and annual work plans.
- 2) The following relevant technical documents were requested and reviewed where available (greyed out documents are those that were requested but have not been provided):
 - a. Guidelines for mainstreaming Climate change into MSA PDIM planning and implementation and evidence of use of the guidelines by the PDIM process.
 - b. Critical assessment of the existing PDIM process of project identification, selection, implementation (design, monitoring, commissioning and maintenance). PDIM process diagram has been developed as part of this review to facilitate the project intervention in the process.
 - c. The CVCA report review of methodology for assessing and mapping hazard and risk, level of detail and usability of CVCA output in the process of identifying and prioritization of projects to address climate risk. Evidence of use of the CVCA maps in the PDIM process or for any other strategic decision making processes. Evidence of wide and appropriate dissemination of CVCA output including maps.

- d. CAMP process documentation, methods and tools. Evidence of implementation of CAMP process
- e. Evidence of national platforms established and their effectiveness membership, activities (regularity of meetings), functions (information dissemination, data sharing, advocacy), level of decision making of the national platforms, influence with government, formality of arrangements (i.e. is there a legal basis for groups) and sustainability of groups.
- f. Design documents for selection of implemented SSRI projects that have been visited as part of the mission (for detailed review of process of project identification, selection, feasibility, design and implementation). It should be noted that design drawings were provided for all implement projects, but no detailed assessment or calculations that support the designs were provided.
- g. Details of M&E system and lessons learned documentation and approach. To assess how the project is capturing lessons learned and using lessons learned for improved implementation
- h. Code and guidelines for climate resilient small scale rural infrastructure dissemination and advocacy methods (i.e. record of advocacy efforts such as workshops, hosted exhibitions etc.
- i. Methods and guidelines for including bio-engineering into designs.
- j. Capacity development plan.
- k. Training approaches and activities. Measures of capacity built (testing, exercising, certification, evidence of application of knowledge for 'step-change' from 'business-as-usual working.
- I. Assessment of sustainability of training approaches (ToT methods, refresher courses, identification of long term training needs, approaches to knowledge transfer from trainees to others within their departments).
- 3) Technical gaps in current project have been identified based on the above technical assessment and by comparing against other similar projects
- 4) Indicators have been critically assessed and made more relevant where necessary
- 5) Feedback on implementation linking human and financial resources to the context in the field (i.e. has the project provided outputs/outcomes that reflect the level of human and financial resources input). A value-for-resources analysis has been undertaken.
- 6) Capacity of local contractors has been assessed by inspection in the field of quality of construction, interviews with contractors, and feedback from communities.
- 7) Community level benefits An assessment has been made of how the project has contributed to key socio-economic indices of the communities including economic improvement, health and resilience to disaster. This was done by a combination of examination of actual benefit (numbers and composition) and by beneficiary perception of the contribution of the project through interviews with the communities.
- 8) Progress has been assessed against baseline situation, progress against milestones and achievement of indicators
- 9) Where the data exists (i.e. where beneficiary data has been collected for these sectors), and through consultations, the impact of the project on other sectors has been assessed
- 10) Where possible (and where the data exists) the project has been reviewed against other similar projects
- 11) Gender mainstreaming into the planning process has been assessed by examining the CVCA report as a starting point, and by interviewing stakeholders and beneficiaries in the field.
- 12) Opportunities and suitability for scaling up and replication have been examined as an additional consideration. This has been examined by a combination of factors including: progress of the project in providing a step change in mainstreaming climate change into the PDIM process, changes to and standardization of the process of design of measures to incorporate climate resilient infrastructure, suitability of new evidence base provided by the project, being translated into new policy, guidelines and methods for scaling up.
- 13) Partnerships the role of NGOs has been examined. Given that the project is aiming to imbed a bottom up approach to infrastructure planning and implementation and for

mainstreaming climate change considerations into SSRI design, partnerships with NGOs is important. The assessment included an examination of the effectiveness of the implementation arrangements between the project and NGOs and the relative roles. Role of key project implementation partners (MCIE and MSA) has also been assessed.

14) Ownership, buy-in and securing the sustainability of the project results. The relationship of the project with key counterparts (MCIE and MSA) has been critically examined to ensure that project outcomes will be embedded in the right organization, that there is country ownership of the project and that there is championing of the project approach within government for potential scaling up and replication. The relevance of the project against National Strategy development plan of TL (2011-2013) has been examined.

2.9. Limitations of the Review

The main limitation of the review is time spent gathering, reviewing and processing information and evidence, and the lack of available data/information for review. Information requested and not provided has been highlighted above, and the report additionally highlights where information provided was weak or did not provide the evidence sought/expected. In general, it should be noted that all stakeholders, beneficiaries and project team have been extremely helpful, open and facilitating to the extent possible.

2.10. Structure of the MTR report

The MTR report follows the structure outlined in the MTR inception report and where necessary includes additional sub-sections in order to clarify and organize the information and allow for better flow of the discussion. The main chapter is the Findings chapter which discusses the results of the review and concludes with recommendations under each area of examination (relevance, effectiveness efficiency, sustainability, replicability, network-linkages, lessons learned).

3 PROJECT DESCRIPTION AND BACKGROUND CONTEXT

3.1. Development context: environmental, socio-economic, institutional, and policy factors relevant to the project objective and scope

Climate Change context

Timor Leste is a least developed country with a growing population that remains largely dependent upon subsistence agriculture; it has one of the lowest HDI scores/ratings among ASEAN countries. The main climate change related threats are the increasing incidence of dry periods leading to droughts, and higher rainfall variability including higher intensity rainfall events leading to flooding and rainfall induced landslides. Landslide risk is also exacerbated by highly exposed steep terrain that characterizes must of the territory of Timor Leste. Despite projected increases in average annual rainfall, the projected further increase in rainfall variability, with the largest increases in rainfall falling in the present wet season, will progressively stress ecosystem functions in water provisioning and flood protection. Increasing occurrence of bush fires and the migration of invasive species, as additional likely consequences of increasing mean temperatures, will further increase soil erosion and the incidence of landslides and flash-flood events.

Socio-economic context

Small scale infrastructure is particularly vulnerable to extreme rainfall events, causing erosion, landslides and flash floods as a result of the physical context and non-climate resilient designs, poor construction, and limited investment in operation and maintenance. Communities frequently become isolated when roads and bridges are damaged by localized extreme events and in the water sector many rural communities are dependent on unprotected wells or springs, as well as other surface water features such as rivers, lakes and streams.

The three focus municipalities selected, Baucau, Liquiça and Ermera represent the diversity of key climate variability risks and vulnerabilities, which the project aims to address. They combine relatively high population densities with relatively poor areas, vulnerable flood-prone coastal conditions and landfall prone vulnerable mountainous terrain and areas with a projected increased drought period with areas of high groundwater vulnerability. The vast majority of the population in the selected muncipalities depends on unprotected gravity-fed water sources which it uses for both domestic use and important subsistence and in some cases cash crop production (paddy rice and market vegetables).

Environmental context

Climate induced threats are further affected by the slowly decreasing protective and water storage functions of ecosystems, caused by drivers such as over-exploitation of forest and coastal areas resulting in rapid deforestation. The combination of climate variability-related pressures and other drivers means that village water supply systems dry out more often, and that baseline physical infrastructure, which is not protected from irregular and intense water flows, is degrading more rapidly. Underlying causes contributing to this situation include basic geological and geographical factors (soil type, bedrock type, topography, and land use practices), poor application of infrastructure construction standards and maintenance practices, and a social and institutional context that increases the vulnerability of the poor and women to climate risks. The desired situation that the project seeks to bring about is that the genuine needs of communities vulnerable to climate variability and change are fully reflected in local planning and budget processes so that the development prospects of these communities are secured in face of increasing climate risks. Barriers to achieving this situation include weaknesses in climate risk analysis, knowledge management and planning at sub-national level, financial constraints in resourcing the additional costs of building greater redundancy into rural infrastructure, a silo approach to local planning whereby ecosystem functions and services are not taken into account, and the limited incentives that exist to encourage local officials and decision makers to address climate related risks.

3.2. Problems that the project sought to address: threats and barriers targeted

The project document provides a very detailed situation analysis, baseline and reasoning for the project and very clearly sets out the approach of the project in addressing the identified barriers. The project objectives, outcomes and outputs are outlined in the section below.

The project document identified a number of individual, informational, financial, regulatory, technological and institutional barriers that prevent the desired situation from emerging and states how the project has been designed to address them. **Table 3-1** is a summary of the identified barriers.

Table 3-1: Identified barriers and project outputs addressing them

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Institutional Capacity Local officials and other local state/holders are not sufficiently familiar with basic scenario-based planning approaches as a means of dealing with uncertainty Informational Disaggregated baseline data for scenario-based planning (such as the geography, hydrology and vegetation of sub-catchments, which is not available). Simplified tools such as simplified VA tools not systemized and applied by local adaptation of forts are not in place to inform future adaptation strategies. Technical/Informational Lessons learned and knowledge transfer from on-going local adaptation of forts are not in place to inform future adaptation strategies. Technical/Informational Informational Informational Informational Information on the social dimensions to climate vulnerability has yet to be collected and analysed. Technical/Informational Methods for the identification and appraisal of appropriate engineering options including data on surface and ground water availability have yet to be applied Technical/Informational Informational Capacity for climate resilient policy development Informational Informational Capacity for climate resilient policy development Informational Capacity for and experiences amongst government agencies, civil society (NCOs) and education institutes (a.g. University). Institutional Capacity of mande see for seponsibile agency (NDIEACC now DNCC) to address and mainstream climate change concerns and opportunities into approaches for instate and policies Currently no strategy developed by responsible agency (NDIEACC now DNCC) to address and mainstream climate change concerns and opportunities into action strategy developed by estinghtend and capacity of the NDCC needs to be substantially strengthened. Better coordinatio among NDCC, NDE, NDWRM and MPW on climate change and experinces. Climate resil	Barrier Type	Barrier Description
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	Institutional	

	Project output addressing the barrier
	Outputs 1.1, 1.2, 1.3 and 2.2
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	Outputs 2.2 and 2.3
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	Outputs 2.1, 2.2 and 2.4,
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)	Output 2.3, 2.5 and 3.1

Institutional Capacity	Existing standards are also not always rigorously applied for small-scale infrastructure due to capacity constraints of local administrations and communities and due to budgetary limitations.	
Technical/institutional capacity	Due to inadequate non-climate resilient designs, construction quality and maintenance a substantial number of such infrastructure works are no longer functional over time.	
Technical/institutional capacity	Existing standards do not take into account potential multiple services that can be provided by a single infrastructure category – multiple use infrastructure.	
Technical/Informational	No best practice examples on integrating ecosystem management with small- scale infrastructure development.	
Institutional Capacity/Technological	National as well as local level contractors and engineers work to stand-alone non climate resilient standards and norms. In most cases they do not have the tools and necessary experience to 'design-in' additional allowance margins, to account for CC.	
Financial	Local companies are reluctant to offer more expensive solutions to clients that only pay-off in the long-term, due to reasons of competitiveness.	
	Understanding of the benefits for ecosystem based adaptation measures	
Technical/Institutional Capacity	Significant knowledge gap with regards to combined ecosystem-based management and infrastructure development and maintenance solutions.	Outputs 2.2, 2.3,2.4, 2.5
Technical/Institutional Capacity	Low level of awareness among planners and investors of the interdependencies inherent in sound environmental management and adaptation.	
Technical/Institutional Capacity	Disconnect between upstream and downstream levels adaptation measures being implemented to reduce the overall vulnerability of critical infrastructure to acceptable levels.	
Technical/Institutional Capacity	Limited awareness of government officials on ecosystem-based adaptation	
Institutional	Absence of coordination and collaboration among sectors on climate change issue	
Technical/Institutional Capacity	At the community level traditional understanding of environmental issues in relation to livelihoods strategies and local development activities usually takes into account only the adjacent natural environment and day to day tasks, rather than broader landscape concerns.	
	Limited financial resources for climate resilience and adaptation	
Financial	Limited investment priority for climate change adaptation related activities, especially at the local level.	Outputs 3.1and 3.2
Financial	High cost of CC adaptation measures in mountainous, difficult terrain with a large proportion of rural-based population and relatively low population densities.	
Financial	At the local level the requisite discretionary funds for covering the additional costs of designing and including climate resilience features into small scale infrastructure, or to apply ecosystem based approaches to offset climate related risks not available or not prioritized during the planning and budgeting process.	
Financial/Institutional	Centralised budgetary allocations based on central (non-climate-resilient) design standards.	
Financial/Institutional	Local administrations have limited capacity and scope to influence central design standards and to request for higher level investment budgets for climate resilient infrastructure.	
Financial/Institutional	Operations and maintenance budgets for infrastructure works are undervalued	

3.3. Project Description and Strategy: objective, outcomes and expected results

3.3.1. Project objective and overall goal

The objective of the project is as follows:

Critical small scale rural infrastructure is climate resilient designed and implemented through participatory approaches and strengthened local governance systems, reflecting the needs of communities vulnerable to increasing climate risks.

The overall goal of the project is to safeguard development benefits for rural communities from future climate change induced risks. This goal is consistent with and underpinned by, a number of important policies and strategies governing Timor-Leste's national development and its specific response to climate change.

3.3.2. Expected Project Outcomes

LDCF funds are being used by the Government of Timor Leste to address these barriers through 3 components.

Outcome 1: Policy makers and the public in Timor Leste are aware of critical climate risks to rural (infrastructure) development and are systematically being informed on up to date evidence-based information on climate hazards through vulnerability assessment and cross government coordination mechanisms.

LDCF grant requested: USD 430,000 and Co-financing: USD 12,577,384.

Outcome 2: Local Administrations integrate climate risks into participatory planning, budgeting and standards of small scale rural infrastructure development. LDCF grant requested: USD 573,610 and Co-financing: USD 12,579,523.

Outcome 3: Small scale rural infrastructure made resilient against climate change induced risks (droughts, floods, erosion and landslides) in at least the 3 Districts or Municipalities of Liquiça, Ermera and Baucau (Physical Investment Component). The Ministry of State Administration is to act as the lead partner from the government of Timor Leste as well as responsible party for the investment component (Component 3).

LDCF grant requested: USD 3,366,390 and Co-financing: USD 23,174,128.

3.4. Project Beneficiaries

The project is being implemented in 8 Administrative Posts (reduced from 10) and is targeting 100,000 beneficiaries and 5,000 ha (reduced from 50,000) of eco-system activities to be maintained and achieved, as well as capturing the diversity in climate change impacts and vulnerabilities. The Administrative Post selection was finalized during the municipality inception workshops. Based on the selection of 8 sub-municipalities each Administrative Post has been allocated a total of about USD 373,919 which consists of US\$ 258,754 for project investments and US\$ 115,165 in technical project support to project planning, resilient design and implementation. This amounts to about US\$ 115,043 per year. Furthermore the project team is providing innovation projects to selected Administrative Posts with a total value of about US\$ 350,000. The 20% allocation of the project investment budget to ecosystem services was also endorsed by stakeholders as an important instrument to highlight the importance of such services and to create an understanding of their value to overall watershed catchment ecosystem improvement, protection and management.

3.5. Project Implementation Arrangements: short description of the Project Board, key implementing partner arrangements, etc.

The project was designed to align with the 2009-2013 Country Programme Action Plan (CPAP) and is also aligned with the new CPAP (2015-2019) which is aligned with the government's Strategic Development Plan 2011-2030 (SDP), which recognizes climate change and environment as a key area of focus. Under the new CPAP, UNDP will systematically engage with municipalities and assist the government's decentralization agenda for promoting inclusive and sustainable development, building resilience among the institutions and communities⁴. This is in line with the government focus on decentralization of the planning process, via the PDIM process and the main focus of the SSRI project.

The Project is implemented by UNDP under direct implementation arrangements (DIM), and there is a commitment to promote a phased move towards National Implementation (NIM) in preparation for the current country programme cycle. To this end a limited capacity assessment of MSA was undertaken in June 2011, which evaluated the administrative and financial management capacity of MSA and revealed limited capacity and systems for MSA to implement under NIM modality.

It should be noted that the project was originally formulated to be integrated into the Local Government Support Programme (LGSP) II which was institutionally housed in the Ministry of State Administration (MSA) and was directly accountable to the Project Board under the guidance of the Minister of MSA. The LGSP II Project has since been discontinued, which has had implications for the intended management arrangements of the project. The implications are dealt with in the Risk Management section of this report.

3.6. Project timing and milestones

The project three components are being implemented by a number of activities, all of which are detailed in the project annual work plans. The table below summaries the intended expenditure of the project for each outcome for each year. Output 3, where the main project budget is allocated shows a steady annual spend for years 2 to 4, indicating the intended rate of implementation of the SSRI projects.

GEF Outcome/Atlas Activity	Amount Year 1 (USD)	Amount Year 2 (USD)	Amount Year 3 (USD)	Amount Year 4 (USD)	Total (USD)
OUTCOME 1: Policy makers and the public in Timor Leste are aware of critical climate risks to rural (infrastructure) development and are systematically being informed on up to date evidence-based information on climate hazards through vulnerability assessment and cross government coordination mechanisms.	86,070	183,484	188,884	122,564	581,002
OUTCOME 2: Local Administrations integrate climate risks into participatory planning, budgeting and standards of small scale rural infrastructure development.	147,330	183,582	171,282	132,262	634,456
OUTCOME 3: Small scale rural infrastructure made resilient against climate change induced risks (droughts, floods, erosion and landslides) in at least the 3 Districts of Liquiça, Ermera and Baucau	318,340	1,034,034	1,046,394	1,041,314	3,440,082

⁴ Country Programme action Plan between DPR of Timor Leste and UNDP (2015-2019)

3.7. Main stakeholders: summary list

The following is the list of stakeholders as identified at project design stage.

Stakeholder	Role in Project
MSA, National Directorate for Local Administration	 Implementing Agency LDCF project Executive Member in Project Board Appoints Project Manager Lead agency with responsibility for local governance reform lead implementation of especially components 2 and 3 Investment fund (Component 3) release to focus Districts based on approved climate resilient plans; M&E Districts Liaise with MCIE on implementation of component 1 Support standardization of climate resilient designs, evidence- based policy influencing and up-scaling Organize awareness raising and training events
MCIE, National Directorate for Climate Change	 Lead government agency component 1 Executive Member in Project Board Support to evidence-based policy influencing and up-scaling Organize awareness raising and training events
MPW, National Directorate for Water Resources and BESIK	 Collaborate on climate resilient design approaches, designs and sustainable O&M for rural water, sanitation and hygiene sector Standardization of designs and climate resilient policy development
MPW, Roads 4 Development	 Collaborate on climate resilient design approaches and design for small drainage structures, ecosystem based approaches, bio- engineering, and other related small infrastructure works; Standardization of designs and climate resilient policy development Technical capacity development for communities and LAs
Municipalities of Liquiça, Ermera and Baucau (Sub-) Municipality Development Commissions LA staff	 Project focus Municipalities Implementation of project components 2; CVRVA, local planning, Strategic Municipality Plans, budgeting and climate resilient infrastructure development Implement investment component 3: develop annual climate- resilient investment plans, determine budgets, implement climate resilient small scale infrastructure and ecosystem services Main target of capacity development activities Support standardization of climate resilient designs, up-scaling of good practice to whole Municipality Plans and evidence-based policy influencing
Communities and Local decision makers	 Provide local knowledge, support stakeholders acquire adequate understanding of local realities and facilitate development of practically feasible solutions

4 **EVALUATION FINDINGS**

4.1. RELEVANCE

4.1.1. Project Strategy and project design

Problem to be addressed and underlying assumptions

The problem addressed by the project is climate-induced risks to Small Scale Rural Infrastructure. The LDCF project is fully harmonized with the priorities of the current UNDP Timor Leste Country Programme (CPD 2009-2013) which is enabling social mobilization as a poverty reduction strategy, linking communities to microfinance services and marketing channels and promoting sustainable growth and MDG achievement through sustainable livelihoods that integrate climate change vulnerabilities in local development planning, more sustainable climate resilient small-scale infrastructure services and improved environmental protection. The project is supporting the development of effective governance through providing the combined climate resilient infrastructure and ecosystem adaptation options within the already existing local planning and budgeting process.

The project is the first dedicated climate change adaptation initiative in Timor Leste that from the design phase, directly aims at integrating ecosystem-based management approaches with small-scale infrastructure development.

Review of underlying project assumptions and the effect of any incorrect assumptions or changes to the context to achieving the project results as outlined in the Project Document.

The project assumptions stated in the Project Document are as follows:

Objective Level assumptions:

- A: Central Ministries and sector projects are willing to engage in the process of developing climate resilient designs and to endorse (joint) national standards
- A: Willingness within MSA and LAs to make existing local development planning and budgeting processes more participatory, needs- and asset-based, climate change sensitive and accountable
- Outcome 1 assumptions:
 - A: MCIE is willing to take the lead for inter-sector coordination and strategy/policy development on CC
- Outcome 2 assumptions:
 - A: Baseline development funds available in focus LAs over the project period
 - A: LAs willing to improve the existing local development process and to integrate climate risks through more dialogue with communities and the use of sufficiently detailed risk/vulnerability analysis to capture localized climate risks
 - A: Existing capacity of Local Administrations, especially in engineering, sufficient to build upon for addressing additional challenge of climate risk, including improved operation and maintenance of infrastructure

• Outcome 3 assumptions:

- A: Adequate LA capacity to deal with additional work load from Project investments
- A: Project activity planning and -financing will be adequately integrated in LA planning and budgeting cycles

Highlighted in red are the assumptions that have been identified as being incorrect and which have led to limitations in the effectiveness of implementation of the project strategy. The first is regarding the sufficiency of the existing capacity of Local Administrations to meet the additional challenges of implementing climate resilient measures and improving the operation and maintenance of infrastructure, and the second is the adequacy of capacity (i.e. available resources) to deal with additional work load from project interventions.

The MTR has found that there was no capacity assessment undertaken to determine existing

capacity of the LA engineers and identify training needs at the start of the project. Given the importance of capacity building to the strategy for imbedding climate resilient SSRI into the Local Authority PDIM process, it is essential that a capacity assessment is first undertaken and a capacity development plan developed on which to base training to be implemented as part of the project as well as long-term (beyond the project). Furthermore such a capacity development plan should include evidence-based measures of capacity development and should clearly measure and document capacity built for advocacy and scaling up/replicating in the future.

While the project has provided training in GIS, GPS, bioengineering, CAMP and CVCA (see also Section 4.2.3 for full list of project capacity building activities) it appears not to have resulted in a discernible step change in the capacity of Municipality engineers to undertake design and implementation of the climate resilient interventions that the project is implementing and while Municipality staff have indicated increased awareness of climate resilient measures, many interviewed have stated that there is no real change in how they currently work and how they design and implement non SSRI projects. Furthermore, all the designs of the climate resilient aspects of the 10 projects implemented have been done with inputs by SSRI engineers while three projects were fully designed (BOQ, drawings, technical specifications) by SSRI engineers (Wailia Water Supply Project, Lacoliu Irrigation Project and Leguimea culverts). This perhaps reflects a continuing lack of capacity of municipalities to undertake the SSRI projects. While this is partly expected at this mid-point stage of the project, a key indication of capacity building in the second half of the project will be for each municipality to undertake the full design, implementation and supervision of SSRI projects, and to be able to do so without the input of SSRI engineers by the end of the project.

Some municipalities interviewed expressed a need for support with regard to resourcing for engineering input to deal with the SSRI projects. Ermera Municipality, for example currently have no engineers and are seeking support from the project to hire two engineers to support design and implementation.

Based on information gathered via the MTR and, in particular, interviews with key stakeholders, we have found that there is a capacity/capability and resourcing deficit throughout the entire PDIM process which needs to be addressed, before training needs are identified, for supporting the SSRI project, and for the long-term strengthening of the PDIM process in the implementation of climate resilient small scale rural infrastructure. The long-term plan for capacity building would ensure the sustainability of the SSRI project outcomes. See **Recommendation 4.1.1**.

Review of the relevance of the project strategy and effectiveness of route towards expected/intended results.

Outcome 1 - Policy makers and the public in Timor Leste are aware of critical climate risks to rural (infrastructure) development and are systematically being informed on up to date evidence-based information on climate hazards through vulnerability assessment and cross government coordination mechanisms.

Indicator 1: Number of (sector-specific) standard designs and specifications, for small infrastructure works, which have been upgraded to address and/or withstand increased climate risks. Percentage change in number of Administrative Post level annual development plans, which include climate risk mitigation/resilience measures, as climate resilient activity designs (of small infrastructure works) and complementary bio-engineering and land management measures (AMAT 1.1.1.1)

The strategy for achieving outcome 1 included contribution in establishment of a knowledge platform for sharing of climate risk information – the Centre for Climate Change and Biodiversity (CCCB) - awareness raising for policy makers through regular meetings of the CCCB and workshops, introduction of CVCA methods, undertaking of CVCAs in the three target municipalities and production of climate risk information, and the eventual use of climate risk data and evidence in the integration of climate risks into key sector policies. In general, this strategic approach is appropriate for achieving the desired outcome and has been largely successful in increasing awareness in

climate risks among policy makers. However, apart from the SSRI-funded projects, there is no evidence that administrative posts (APs) level annual development plans include climate risk mitigation/resilience measures, and/or complementary bio-engineering and land management measures.

The CCCB was established by UNTL and MCIE with support from the project on behalf of UNDP in 2014 through the provision of technical assistance (expertise and training), computer equipment, GPS equipment and GPS training, GIS software for climate mapping, mapping exercise, and facilitation of experts in climate mapping. The Centre is managed by the UNFCCC focal point. An SSRI staff member is the key technical assistant developing methodology for Climate Change assessment (report pending).

The work of the CCCB is to build capacity (gained to a larger extent from the SSRI team) and provide training, expert advice and support to practitioners and policy makers on Climate Change. Thus far, the Centre has helped to do vulnerability assessment in Hera and Pantai Kelapa, Dili, hosted workshops on Climate change using real data collected by the project, gathered and disseminated lessons learned. The Centre has a clear understanding of the need for sustainability of capacity built and this is being ensured through the provision of products of the project to MCIE and the commitment to long-term management of climate risk data (data bases have been designed and established to collect, collate and disseminate climate change information). CCCB has created a website and provided access to data and information. CCCB is also sharing skills by sharing lessons learned during training and workshops. CCCB is also involved in public awareness raising and training of staff from other ministries dealing with climate change, including the Ministry of Social Solidarity (responsible for Disaster Risk Reduction (DRR), trained in risk mapping), MSA, and MCIE (NDCC), Ministry of Agriculture and Fisheries, Ministry of Public Works, Transport and Communications, meteorology and physics university departments (trained to analyse data, and use climate mapping software).

The Centre will be an important partner during the process of development of policy for Climate Change Adaptation (CCA) and Climate Change Mitigation to be undertaken by the SSRI project. Data collected and managed by the CCCB will be used to help develop these policies and SSRI project pilots will be used to provide an evidence base for policy development. It is therefore important that the evidence base provided by the pilot projects is sound. Since ratification of UNFCCC the SSRI project is the first to address community level climate risk. CCCB is currently working on evaluation of NAPA implementation and will use the data from the SSRI project in loss and damages assessments and as baseline data for NAPA implementation assessment.

The CCCB has been instrumental in the collection, systematization and dissemination of climate risk information collected via the CVCA (interview with CCCB head and examination of CCCB website⁵), provision of training to practitioners and policy makers, identification and coordination of climate change related research, and establishment of links to international organisations involved in climate change. In November 2014 the CCA Technical Working Group led by NDCC, MCIE hosted the 1st International conference on Climate Change Adaptation.

One challenge identified by the CCCB head and corroborated by NDCC director is that cooperation among shareholders is still quite weak. Meetings and activities of the CCCB are not always well attended and relevant departments do not involve the appropriate level of staff. There is no key focal point from each stakeholder organization/department for involvement in the working group. Hence different representatives are sent to different meetings and mechanisms for dissemination of information from meeting attendees to others within their departments are weak and disjointed. As it stands the knowledge platform is based on shared interests and relies on the buy-in and participation of stakeholders at their discretion. Buy-in at present seems weak and the project needs to examine ways of strengthening this, perhaps considering some sort of mandatory involvement (e.g. provide a legal basis for the platform).

⁵ See <u>http://www.centre-climatechange-biodiversity-tl.org/</u>

Another challenge is that little use is being made of the CVCA outputs by any of the relevant stakeholder organisations interviewed (see also review of the CVCA methods and outcomes in next section).

In summary, the CCCB that has been established supports the government's development goals and strategies by supporting the national planning strategies (NAPA, National strategy plan in CCA), and is aligned with government plans, procedures, and policies in this regard.

Awareness of climate risks to rural infrastructure and awareness of vulnerability assessments that SSRI project undertook is high among policy makers and decision makers (interviews with all key stakeholders) indicating that the information dissemination mechanisms have been appropriate and effective. The CVCA report and maps have been widely disseminated including video at all levels although other methods of providing useful/usable maps at community levels needs to be examined (See discussion in next section on effectiveness of CVCA mapping and information dissemination).

Outcome 2: Local Administrations integrate climate risks into participatory planning, budgeting and standards of small scale rural infrastructure development.

Indicator 2: number and type of stakeholders served by the multi-sector knowledge sharing and policy influencing platform of MCIE Number of evidence climate change risk/vulnerability assessment reports and policy recommendation documents, timely disseminated through the knowledge sharing and policy influence platform Number of sectors which have endorsed MCIEs national climate change policy framework and strategy, and which have subsequently translated and/or integrated climate risks in key sector policies.

Review of the Guidelines for mainstreaming climate change into MSA District Investment Plans

The guidelines for mainstreaming climate Change into the MSA district develop plans via the PDIM process, is comprised of two pages inserted into PDIM planning manual (which is 86 pages long), adding climate change issues into the planning process only in some sections and some levels of intervention. A review of the guidelines revealed that it is essentially a list of criteria rather than guidelines and does not provide any specific guidance to practitioners on how to make the assessments for each of the criteria listed, or what are the decision points or thresholds applicable for each criteria. In order for the guidelines to be strengthened it could perhaps provide some guidelines on how to do the various types of assessments, what the thresholds are for each criteria and what the decision points are. This will result in a document that will help bring about the step change that the project is seeking to achieve.

Review of the CVCA

The Climate Vulnerability Capacity Assessment was undertaken in the 3 Municipalities by CARE International and the output was a series of maps and a report. The CVCA is intended to be a key deliverable of the project and it is the intention and hope of the project, that the approach would be adopted nationally as the basis for climate risk and vulnerability mapping for Timor Leste. The MTR team has undertaken a review of the CVCA methodology and outputs as well as the stakeholder engagement and feedback to determine 1) the appropriateness of the approach; 2) the level of consensus among key climate change experts and practitioners, and hence; 3) the scalability and replicability of the CVCA to the rest of Timor Leste.

Annex 1 of the CVCA report outlines the methodology for the spatial analysis and mapping. The hazards that have been analysed and mapped are flooding, landslides and erosion. An immediate concern is that drought hazard has not been included, even though drought has been identified as a key climate risk and the project includes water supply systems for which drought is a major risk.

The analysis uses the following spatial datasets for landslides and erosion:

- Digital Elevation Model (DEM) from which slope is derived
- Land Cover

- Rainfall (average annual)
- Soil Characteristics
- Rivers and Streams

While data is likely to have been limited for the study, it is important to ensure that the right types of data are used in the analysis. A noticeable issue is with the use of average annual rainfall for both landslide and erosion risk. It is likely that rainfall intensity is a more important contributing factor for these risks. Furthermore, the list does not include anthropogenic factors such as agricultural practices on inappropriate slopes.

The approach to landslide and erosion mapping is essentially to apply weighted values to derive a composite risk factor ranging from 1 to 3 for each cell of a 30 x 30 m grid. There is no stated basis on which these risk categories have been decided and no references to scientific papers that support this (although the consultant states that experts such as geologist were consulted). Also, there is no explanation of what the values 1, 2, and 3 or risk represent (i.e. there is no reference to probability of occurrence, which is essential to the calculation of risk). While landslide hazard requires long and detailed observation and study to be able to 'predict' with any degree of certainty when and where is might occur, it is reasonable to expect that the relevant scientific communities (i.e. university researchers, government departments) have undertaken some studies on TL in the past, such as landslide inventories on which to base this study. However, the analysis makes no references to previous studies. Furthermore, some of the datasets that will be required for catchment flood risk assessment can be used to undertake preliminary assessment of landslide hazards (for hydrologically induced landslides anyway) that will provide more detail than the cursory approach outlined here.

For flooding the analysis uses the Digital Elevation Model (DEM) – from which slope is derived. The report states that the large "combinations of events(e.g. rising water levels in rivers, lakes or the sea, large volumes of water being forced into a confined space or channel (flash flooding), leaks in damaged water control structures such as dams, canals and drains, when drainage channels are blocked or simply too small to cope with heavy, persistent rainfall) that could lead to flooding makes it almost impossible to predict flooding with any confidence". As a result, the approach that has been used to derive flood 'risk' is to simply assume that all slopes < 3 degrees will be flooded.

There are well developed methods for estimating flood risk using historical hydrometeorological (rainfall, flow, water level) and physical data (catchment topography, land use, soil and geology etc.). There are also methods of predicting flooding due to infrastructure failure (e.g. canal or river banks breaching, or drainage capacity being exceeded). The statement that it is impossible to predict where and where flooding would occur is therefore an incorrect one. While it is likely that there might not be sufficient data on which to base very detailed analysis, the availability of data should have first been examined and a judgement made as to what level of detail is possible with the given data. In other words, the presumed 'impossibility' of predicting with confidence should not be the stated or accepted reason for not doing the analysis. Data availability, time and resources should be the basis on which to decide whether to use these standard and established methods, or not.

The simplistic approach to mapping flood 'risk' is a very poor approach and does not make best use of the available data or the GIS tools for basic hydrological analysis and flood hazard mapping. For example, ArcHydro Tools within ArcGIS could have been used to derive a Wetness Index which is a better indication of where flooding might occur. Alternatively, using the DEM and freely-available 2D software (such as Sobek, Hec-Ras2D, ISIS2D) simple models of the river basins could have been built and using the available rainfall data, soil, land use and geology data, 2D hydraulic models of the river could have been developed, from which flood hazard maps could be generated. The consultant stated that only monthly rainfall data was available, but I would expect that the water and sanitation department could have provided data of better temporal resolution. Furthermore the DARDC project has recently installed automatic rain gauges which could be used to provide sub-daily data or to derive at least daily data from the freely available global monthly datasets (using correlation methods). Alternatively, synthetic storms can be derived based on average monthly or

daily data.

In addition, the approach does not take account of all of the factors that control flooding (topography, land use, soil, geology, rainfall intensity) and is also not likely to give any indication of frequency of occurrence of flooding, likely extent of flooding under storms of different magnitudes, or destructive nature of flow of high velocities. Furthermore, this is not 'risk' (same comment applies to the risk calculation for landslide and erosion). The approach is attempting to calculate hazard and not risk. The methods used cannot actually be converted to risk as it gives no measure of probability of occurrence of the hazard, or consequence (i.e. impact on receptors such as people, property etc. Risk is a function of magnitude and importantly the probability of the hazard, and the consequence of the hazard on receptors (depth of flooding and impact on people, agriculture, livelihoods etc.).

The report goes on to state that risk is calculated by overlaying the output datasets for flood risk, landslide risk and erosion risk onto base maps showing administrative boundaries, catchment boundaries and various types of infrastructure, from which the 24 risk maps were compiled. The 3 risk datasets were used for the statistical analysis which mainly describes number of beneficiaries affected. An important shortcoming of the approach is that of the infrastructure that was considered in the study (private houses, schools, health facilities and roads) only roads are relevant to the infrastructure of interest to the SSRI project. The assessment of risk is therefore of little relevance to the focus of the project which is small scale rural infrastructure including water supply, flood defences (e.g. as built by the project in Liquica) the risks to all infrastructure can be factored into the benefits of a given flood defence scheme. However, since the aim of the study was to identify infrastructure at risk in order to protect them or upgrade them, then the relevant infrastructure (water supply, bridges, irrigation systems, flood defences themselves) would need to have been included in the study. Importantly, the study does not deal with drought risk, which is the main risk that the water supply schemes are addressing. This is a major short coming of the work.

Simply overlaying the very rough calculations of hazard onto infrastructure data and counting numbers affected does not sufficiently estimate risk. Risk calculation requires much more detailed consideration than this, utilizing socio-economic datasets. Globally available socio-economic datasets could have been used, in conjunction with the stated 'excellent' housing and infrastructure data set to provide a better framework for risk calculation (or rather to correctly calculate risk). This would have provided a useful tool on which to build future analyses and would have provided information other than numbers affected, on which to base decisions in the future. In addition, the damages and losses that have been or are likely to be incurred due to these hazards, would be far more useful measures of vulnerability and exposure.

Importantly, with regard to identifying infrastructure at risk, severity of the hazard at the structure is important (e.g. velocity of flow at a bridge will determine whether the bridge will be washed away or not). This type of calculation is not possible based on the very simplistic approach to flood mapping used.

Furthermore, there is no account taken of climate change in the analysis of any of the hazards. Given the importance of mapping climate-induced risks for rural infrastructure, this is a gapping omission in the analysis. Any decisions taken based on the analysis will therefore not include considerations of climate change.

Following hazard and 'risk' mapping the consultant undertook field visits to gain a'better understanding of conditions on the ground and ensured the maps gave a reasonable representation of those conditions'. The consultant stated specifically that

"The main purpose was to confirm, to the extent possible, that the contributory factors were accurately mapped. Where the maps showed steep slopes, it was confirmed that the slopes are, indeed, steep. Where the maps showed flat land next to major rivers, it was checked to see if that was really the case. Where there were densely forested areas in the field, it was verified that these

were shown as densely forested on the maps".

Ground truthing time and resources would have been better spent verifying the outcome of the analysis rather than the input data (a separate input data ground truthing or cross checking exercise should have been carried out separately before the start of the analysis). As a minimum, ground truthing should have included mapping all of the small scale infrastructure that have been identified as at risk by the analysis (despite the stated shortcomings of the analysis of hazard). For example, for flood risk verification, perhaps site visit could have examined whether the predicted locations of flooding have actually experienced flooding in the past and to what extent (e.g. how far away from the river has flooding occurred in the past and how deep, so verifying the extent of the 'flood hazard map'), rather than verifying that the ground is flat or steep! The ground truthing was also an opportunity to collect information on past damages and losses (if Post Disaster Needs Assessment (PDNA)⁶ reports are not available to provide this type of information).

Following the independent review of the CVCA, the stakeholder feedback document 'Compiled Comments on the CVCA Report' was reviewed and it was found that there had been major concerns with the report with many of the findings of the MTR review matching those of the stakeholders (it should be noted that many of the technical concerns highlighted by the MTR are additional). It is understood that there is additional work being carried out to update the CVCA with primary data (i.e. the relevant infrastructure data) in order to address this major shortcoming. However, given the shortcoming identified by the MTR on the technical robustness of the approach, it is recommended that a major review is undertaken of the work and interventions made to address them, in addition to the updating to include the primary data currently being collected. See **Recommendation 4.1.2**.

Integration of Climate Risk into participatory planning, budgeting and standards of small scale rural infrastructure development

There is little evidence that the local planning and budgeting process has been adapted based on guidelines to include the climate change vulnerability assessment in the planning process. For example, the CVCA maps are not being used to identify projects, inform design or adapt standards and there is limited awareness of the CVCA at municipality level and below. While staff at all levels expressed general understanding of climate-induced risks to small scale infrastructure, there is little evidence of step change in design approach.

A key project strategy to incorporate climate risk into the planning process is to implement the SSRI project through the PDIM process, while building capacity within the PDIM process. The MTR has reviewed this strategy by assessing the PDIM process in practice, the inputs of the project to the process and the extent to which the project inputs have resulted in a change to the process towards one that takes climate risks into consideration. The MTR has identified a number of capacity gaps in the PDIM process which could limit the effectiveness of the current strategy in influencing the process.

- Project selection municipality selection process and criteria does not include climate risk factors due to lack of knowledge of climate risk within the municipalities.
- Project implementation limited municipality engineering capability

Figure 4-1 and Figure 4-2 illustrate the PDIM selection process and the PDIM project implementation process respectively. In both cases, the blue boxes in the middle of the diagram illustrate the existing elements of the processes, while the green boxes above illustrate the SSRI project interventions in the processes. The orange boxes below illustrate the suggested additional interventions that the project needs to make to successfully implement this strategy. The assessment of the process is based on detailed consultations with all levels of stakeholders and beneficiaries across all three municipalities.

⁶ Post-Disaster Needs Assessment reports are normally done following major disasters and are a useful sources of risk verification information.

PDIM project selection process

- 1) At the level of the sucos, 3-4 projects are proposed annually from each suco, with sucos chiefs submitting proposals to Administrative Post Administrator
- 2) At the level of administrative post, the projects from all sucos (2-9 proposals depends on how many sucos in one AP and based on Suco Development Plan) are reviewed and loosely prioritized through discussions with suco chiefs. At this level, AP staff undertake initial feasibility studies during the review process.
- 3) All project proposals are then sent to municipality level where they are assessed against standard criteria and ranked.
- 4) SSRI selects projects from the list under category A that meets its selection criteria and guidelines/checklist (Category A projects have a budget of between \$1 and \$150,000).
- 5) The remaining ranked projects are sent to the national level where budgets are set and the ranked projects that fit within the budget are ear marked for implementation.

Suco chiefs identified a lack of knowledge of how to write project proposals that would attract funding and result in projects being implemented (two suco chiefs interviewed stated that project proposals had been rejected on several occasions before being taken up by SSRI project). They lack the skills to systematically identify the impacts of climate change or anthropogenic impact on their resources or on the resilience of their infrastructure, and project proposals are often not well defined and therefore rejected at municipality level. The SSRI project is already taking steps to assist communities in identifying their risks and formulating projects through the community engagement activities. These activities needs to be further strengthened by the project and complemented with additional training in computer skills, report writing, English language and project management (requested by the suco chiefs and AP Administrators). In the last year (2015), there was essentially no project intervention in the selection process but for the 2016 projects, there has been community engagement at the level of the sucos to build capacity in identifying projects that incorporate climate risk, and in writing proposals. The MTR team is suggesting that the project makes the following additional interventions in the project selection process:

- a) Use of the CVCA (once it is revised and strengthened as per **Recommendation 4.1.2**) in the project identification process to provide a more comprehensive, robust and evidence-based means of identifying projects at suco level
- b) Provide technical assistance to AP staff in prioritizing projects at this level and in undertaking appropriate level of feasibility studies on which to base prioritization
- c) Technical input to the Municipal level project prioritization and review. Introduce climate risk criteria into the prioritization process, and include other methods of measure benefits of projects other than number of beneficiaries (e.g. environmental enhancement).

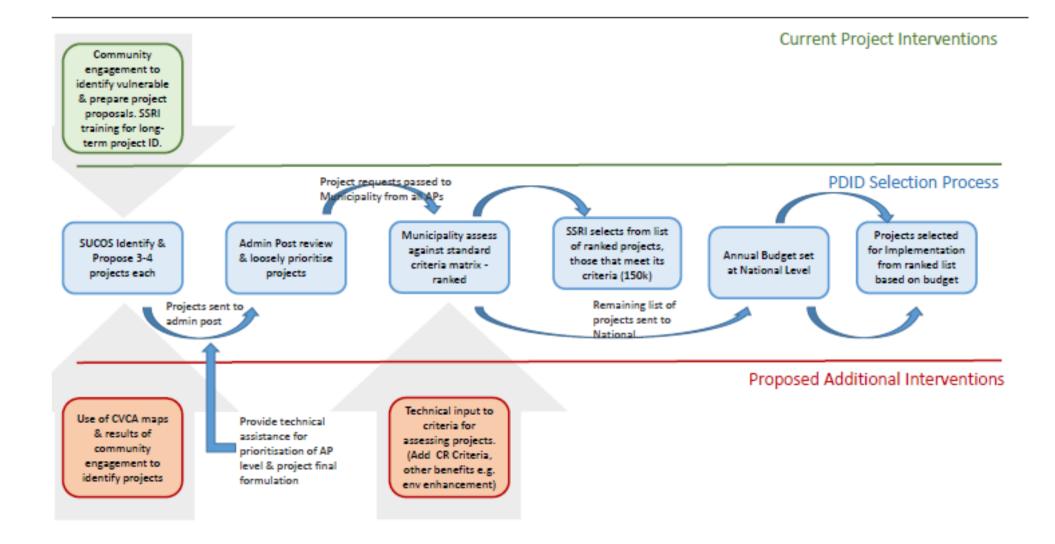


Figure 4-1: PDIM Selection process showing current and suggested project interventions

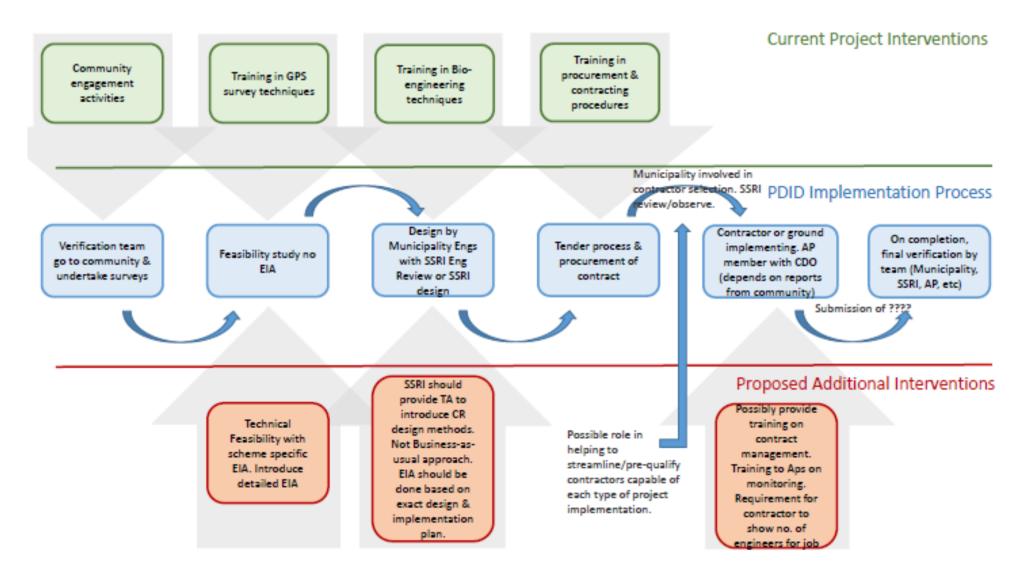


Figure 4-2: PDIM project implementation process showing current and suggested project interventions

PDIM Project Implementation Process

- 1) Once projects are approved for funding a verification team comprising personnel from municipality and administrative post undertake a site visit. Verification involves surveys aimed at confirmation of the number of beneficiaries and presumably technical measurements for the works to be done.
- 2) A feasibility study is then done by municipality engineers. The MTR team requested example feasibility studies, but have not been provided this so the level of detail in these studies cannot be confirmed. Interviews with municipality confirmed that feasibility studies do not include environment impact assessments, and do not include investment feasibility or cost-benefit analysis. The MTR team has reviewed the "EIA AND SOCIAL SAFEGUARDS IN SSRI SUPPORTED PDIM INFRASTRUCTRE PROJECTS" report which was prepared at the start of the project. This report is essentially an environmental scoping report which discusses, in very general terms, the likely benefits of the project. There is no technical assessment of the impact of the actual works.
- 3) Design is then undertaken by the municipality engineers or by SSRI project engineers in the case of SSRI-funded projects. For SSRI funded-projects designs by municipality engineers are reviewed by SSRI engineers. Again, at detailed design stage, there is no EIA undertaken. Requests for design standards and guidelines for different types of infrastructure were also not fulfilled, so it has not been possible to confirm methods or standards of design. However based on interviews with technical staff and with SSRI project engineers, designs do not include any allowance for climate change. For example the design of bridge openings do not take account of likely flow and water level increases due to climate change.
- 4) The BOQ is developed and the tender, procurement and contract process follows. The Municipality evaluates bids and for SSRI projects, SSRI engineers observe and review the evaluation process. Some of the challenges identified by municipalities in the procurement process include long timeframes between tender and contracting, lack of engineering expertise in contractor teams (although CVs for engineers are often submitted),
- 5) Once the contractor is engaged, the implementation starts and AP monitors the construction through the Community Development Officer (CDO). It is noted that the CDO generally is not a qualified engineer with the capability to technically monitor the work, but relies on reports from the community on their level of satisfaction with the work. Some of the challenges that have been identified by municipalities and AP's is the lack of expertise and resources (personnel, transportation, and equipment for monitoring engineering works) to properly monitor construction works.
- 6) On completion, the work is verified by a team comprising municipality administrative post and SSRI staff. Consultations with municipalities, APs and sucos found that there are sometimes issues identified only on completion at the final verification stage (e.g. Lacoliu irrigation scheme, Maubaralisa road, Ossoala water supply project. See Section 4.2.2 for details of site visit findings), and although the contractor has up to 6 months after completion to address any issues (and 10% of the fee is withheld for this purpose), some of these issues can be avoided with better contractor management, monitoring of works and technical input and monitoring throughout implementation.

Current project interventions include community engagement at the initial verification stage, training in the use of GPS for the feasibility stage, training of municipality staff in bioengineering techniques and training of municipality staff in procurement and contract procedures. The MTR team is suggesting that the project makes the following additional interventions in the project implementation process:

 Training should be provided on engineering feasibility studies and should include technical feasibility, investment feasibility, socio-economic cost-benefit analysis, optioneering and options appraisal methods as well as outline environmental impact assessment, to strengthen the feasibility process, safeguard investments and optimize engineering solutions.

- 2) Technical assistance should be provided to introduce climate change considerations into design of infrastructure to ensure that they will accommodate likely changes of environmental variables (frequency and intensity of occurrence) expected with climate change. For example, the design of bridges should include consideration of the increased flow and level of water that will pass under the bridge under climate change scenario. Flood defences should be designed to meet standards of protection that include climate change.
- 3) Introduce detailed Environmental impact assessment (EIA) at the detailed design stage. This is in line with international good practice and will ensure that the potential impacts of the project are identified based on the detailed design (and not only at the early scoping stage before the actual works are designed) and that mitigation measures can be built into the design.
- 4) There is a potential for the project to streamline the procurement process by pre-qualifying contractors for the different types of projects to be implemented. Pre-qualification could include criteria such as certification in SSRI training on implementation of CR SSRI projects, contract management and access to engineering expertise.
- 5) There is a need to strengthen the monitoring capacity at AP level through the provision of appropriate engineering expertise during implementation. To truly build capacity with the process, this should be done by training existing AP staff to undertake project monitoring and to provide the resources to do so. Alternatively, in order to safeguard the investment that the project is making, additional/complementary monitoring should be performed by the project on SSRI projects.

See Recommendation 4.1.3

Outcome 3: Small scale rural infrastructure made resilient against climate change induced risks (droughts, floods, erosion and landslides) in at least the 3 Districts of Liquiça, Ermera and Baucau. **Indicator 3**: Number of Local Administrations (Districts and Sucos) which invest in climate resilient small rural infrastructure works, including complementary soil and land management measures as integral part of the local infrastructure development process Number of people benefiting from climate resilient small scale infrastructure works which are constructed in accordance with climate resilient designs in the three project focus Districts (target 100,000) [AMAT 1.2.1.2] Coverage in Hectares of complementary soil and land management measures in 3 Districts (target 5,000))

The project has already implement 10 small scale rural infrastructure projects that include climate resilient measures in all three municipalities. A key element of the strategy is to limit the value of each project to \$150,000 USD (PDIM Category A projects) in order to maximize the number of projects that can be done and the number of sucos in which the project can intervene.

The 10 projects implemented in 10 sucos are estimated to have 69,603 beneficiaries (38,481 men, 31,122 women), which at project mid-point is slightly ahead of target on number of beneficiaries (100,000 by end).

No	District	Project Name	Co	ntract Value	Number of Beneficiaries	Duration /Date
1		Rehabilitation of water Source Wailia	\$	21,146.66	34,820	
2	Baucau	Rehabilitation of water supply system at Suco Ossoala	\$	83,878.01	665	3 months each
3	(4 projects)	Water supply installation project at Aldeia Uatu-ua	\$	76,337.24	2,384	(10 Jun - 30 Sept
4		Construction of new irrigation scheme at Suco Lacoliu	\$	135,113.37	3,986	2015)
		Subtotal Baucau	\$	316,475.28		
5	Ermera	Water supply Installation project suco Talimoro	\$	65,948.15	921	3 months
7	(4 projects)	Water supply Installation project suco Leirema	\$	82,281.24	489	(8 Jun - 30 Sept

8		Water supply Installation project suco Lemeia Kraik	\$ 80,332.90	450	2015)
		Rehabilitation Bridges project at Suco Leguimea	\$ 132,495.55	1,851	6 months (8 Jun - 30 Dec 2015)
		Sub-total Ermera	\$ 361,057.84		
9	Liquica	Rehabilitation Road 1.6km Aldeia Nunuleta and Darulema (2 projects)	\$ 119,864.41	21,078	6 months (12 May - 30 Nov 2015)
10	- (2 projects)	New construction of Gabion 435m at Kakae river	\$ 133,418.25	2,959	3 months (12 May - 31 Aug 2015)
		Sub-total Liquica	\$ 253,282.66		
		Total 2015 Projects	\$ 930,815.78	69,603	

Table 4-1 lists all implemented projects and includes contract value and number of beneficiaries. It has not been possible to verify the number of beneficiaries for any of the projects, and the method of calculating needs to be reviewed. Of interest is the fact that the project with the smallest contract value (Rehabilitation of water Source Wailia), has the largest number of beneficiaries. This project involved the protection of a water source in the centre of Baucau town which included fencing to keep vendors out and stop them washing their vegetables in the spring, and building a gazebo to protect the source from falling leaves. The number of beneficiaries has been calculated as the whole population of Baucau (16,000) and the population of a number of villages nearby. On enquiring about this, the explanation that was given was that the water source serves all neighboring villages who buy trucks of water from Baucau town. The first issue is that the town of Baucau is not rural and it could be argued should not be included in the beneficiaries. The second issue is with using the number of people served by the source, rather than the change in reliability of supply to rural areas (if this was an issue in the first place) and health benefits to rural populations, of protecting the source. By using the number of beneficiaries of any project, there is no measure of the 'incremental' benefit or added value that the project provides, particularly where the works have included rehabilitation rather than complete construction. Appropriate cost-benefit methods would identify the baseline situation ('do nothing') and calculate benefits only for the 'do-something' scenario as a means of assessing the added value. Also of interest is the "Rehabilitation of water supply system at Suco Ossoala" project with a contract value of \$ 83,878.01 and only 665 beneficiaries. In general all water supply projects appear to have a high cost-benefit ratio, when the only measure of benefits is number of beneficiaries.

International best practice methods of cost-benefit analysis would factor in direct and in-direct, tangible and intangible benefits on which to base investment decisions.

Benefits of climate proofing infrastructure (or any infrastructure works) would normally include a range of benefit measures including:

- Reduction in probability of infrastructure failure i.e. breaching, overtopping, collapsing (measureable/demonstrable to some extent by the change in standard of protection (SoP) provided by the infrastructure. So for flooding, decreased magnitude and frequency of flooding will be experienced due to a flood defence being built
- 2) Reduction in damages and losses to communities (i.e. destruction and damages to homes, loss of household goods)
- 3) Reduction in lives lost (for DRR end of the scale)
- 4) Reduction in loss of subsistence crops and the household 'food basket' value of such agriculture
- 5) Reduction in losses to commercial agriculture

- 6) Increased health benefits. Associated reduction in aide to affected areas
- 7) Income generation,
- 8) Gender equality improvements
- 9) Access to markets and associated economic development
- 10) Impact on GDP when damages and losses are averted

There are standard best-practice methods for accessing and calculating the benefits of infrastructure projects.

The CVCA report stated that there is very good property data for TL. Socio-economic data linked to property data can be used to assess impact (and benefit) of any project/scheme down to the household level (e.g. as developed in Georgia⁷ and elsewhere). The benefit of this approach is that within the model that calculates the risks to communities, you can also calculate the benefits and costs associated with risk reduction measures such as climate proofing infrastructure.

It is recommended that, for the purpose of providing sound and robust information to decision makers, and for providing evidence for scaling up, the project should implement cost-benefit analyses more closely aligned with international best practice. A more standard approach to cost-benefit may reveal that the main strategy of limiting the value of each project to \$150,000 might not actually represent value for money in every case (see also project impacts section on the implications of limiting the project value). See **Recommendation 4.1.4**.

It has not been possible to verify the number of hectares on which complementary soil and land management measures have been implemented mainly due to the fact that the project awarded grants to 5 local NGOs for watershed management activities at \$20,000 each in December 2015, but their proposals had targets that were different from those expected by the project. In addition, the metrics for evaluating NGO performance is not clear. Again, for the purpose of recording and monitoring project results the project needs to have a better way of identifying and verifying areas on which soil and land management measures are to be undertaken. In addition watershed measures should be linked with the SSRI constructed or rehabilitated infrastructure, and the watershed areas must be prioritized based on the areas of infrastructure interventions, (or existing functioning infrastructure) otherwise there is no correlation between the structural measures of infrastructure resilience and land-based measures of resilience that are to support the resilience of target infrastructure and as secondary benefit of a broader settlement and community. See **Recommendation 4.1.5**.

The strategy for implementing the 10 SSRI projects has been to use the PDIM process as discussed above. The strategy is largely relevant, although given the limited impact that the project has had on influencing the PDIM process, the implementation of these projects has been somewhat separate (and seen as separate by stakeholders and beneficiaries) and additional to 'business as usual'. As such, while the municipalities have had projects that include climate resilience implemented, the municipality annual construction plans and engineering designs do not currently include climate resilient measures of their own accord and rely on the SSRI project to implement such projects.

Without further intervention of the project in the PDIM process (as per **Recommendation 4.1.3**) there is a risk that this indicator will not be met. Evidence of achievement of Indicator 2 would be for municipalities to include climate resilient measures in their non-SSRI within their 2016 plans.

Table 4-1: Project implemented by SSRI project in 2015

No District Project Name Contract Value Number of Duration
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⁷ UNDP/AF project "Developing Climate Resilient Flood and Flash Flood Management Practices to Protect Vulnerable Communities of Georgia

				Beneficiaries	/Date
				24.222	
1	-	Rehabilitation of water Source Wailia	\$ 21,146.66	34,820	
2	Baucau	Rehabilitation of water supply system at Suco Ossoala	\$ 83,878.01	665	3 months each
3	(4 projects)	Water supply installation project at Aldeia Uatu-ua	\$ 76,337.24	2,384	(10 Jun - 30 Sept
4		Construction of new irrigation scheme at Suco Lacoliu	\$ 135,113.37	3,986	2015)
		Subtotal Baucau	\$ 316,475.28		
5		Water supply Installation project suco Talimoro	\$ 65 <i>,</i> 948.15	921	- 3 months
7		Water supply Installation project suco Leirema	\$ 82,281.24	489	(8 Jun -
8	Ermera (4	Water supply Installation project suco Lemeia Kraik	\$ 80,332.90	450	— 30 Sept 2015)
	- projects)	Rehabilitation Bridges project at Suco Leguimea	\$ 132,495.55	1,851	6 months (8 Jun - 30 Dec 2015)
		Sub-total Ermera	\$ 361,057.84		
9	Liquica	Rehabilitation Road 1.6km Aldeia Nunuleta and Darulema <i>(2 projects)</i>	\$ 119,864.41	21,078	6 months (12 May - 30 Nov 2015)
10	— (2 projects)	New construction of Gabion 435m at Kakae river	\$ 133,418.25	2,959	3 months (12 May - 31 Aug 2015)
		Sub-total Liquica	\$ 253,282.66		
		Total 2015 Projects	\$ 930,815.78	69,603	

4.1.2. Review of Project Logframe indicators and targets

	Indicator	Targets (End of Project)	Comment on Indicator and target
objective: Critical small scale rural infrastructure is climate resilient designed and implemented through participatory approaches and strengthened local governance systems,	Number of (sector-specific) design approaches and specifications, for small infrastructure works, which have been upgraded to address and/or withstand increased climate risks.	By the end of the project climate resilient designs are developed for all small scale infrastructure works constructed through the project and 2 of these climate resilient design approaches are accepted by national level sector agencies as the standard	At half way stage the project should have reviewed current approaches and specification and be able to state which sector-specific design approaches can be upgraded (e.g. water infrastructure design approaches will incorporate climate change margins from downscaled GCM for TL). Can be made smarter by targeting embedding of new methodologies at a rate of 1 per year of remaining project.
reflecting the needs of communities vulnerable to increasing climate risks.	include climate risk mitigation/resilience measures, as climate resilient activity designs (of small infrastructure works) and complementary	50% of Administrative Post annual development plans in the project areas	Based on scheduled implementation of interventions, can be more specific about which Administrative Posts will have the capacity to develop climate risk mitigation action plans in each year

Outcome 1	Indicator	Targets (End of Project)	Comment on Indicator and target
	Number and type of stakeholders served by the multi-sector knowledge sharing and policy influencing platform of MCIE	sector, International NGOs, education	Target can include method of data sharing such as web-enabled access to climate risk information database, data sharing protocols X, Y and Z established and positions from stakeholder organisations who will be members of the platform.
Policy makers and the public in Timor Leste are aware of critical climate risks to rural	Number of evidence-based climate change risk/vulnerability assessment reports and policy recommendation documents, timely disseminated through the knowledge sharing and policy influencing platform	At least five evidence-based policy influencing documents disseminated through the platform	
(infrastructure) development and are systematically being informed on up to date evidence-based	Government of Timor Leste endorses MCIE's national climate change policy framework and strategy, and line Ministries have subsequently translated and/or integrated climate risks in key sector policies	framework by Government (Yes/No) and climate risk concerns have been translated	At mid-point, should be able to identify which policies likely to have climate change integrated? It is suggested that DRR and water sector policies are targeted.
information on climate hazards through vulnerability assessment and cross government coordination mechanisms.		NDIEACC staff and at least 50 other national and 50 District level technical staff trained	At mid-point and with Capacity Assessment and Capacity Development plan in place, should be able to list training to be conducted and numbers to be trained. See Recommendation 4.1.1
	Climate change vulnerability guidelines and tools developed under the project are accepted by MSA as integral part of local planning and budgeting process (Yes/No)	By the end of the project the climate change vulnerability guidelines and tools have become an integral part of the national local planning and budgeting	Suggested key step would be to gain consensus for methodology among key stakeholders, experts, practitioners etc. before seeking to advocate for integration into national local planning and budgeting process. But note Recommendation 4.1.2 .

Outcome 2	Indicator	Targets (End of Project)	Comment on Indicator and target
		All 8 focus Administrative Posts in the 3 focus Districts use the new climate change vulnerability assessments and have identified and implemented climate resilient designs and climate risk protection measures for small scale infrastructure works	
participatory planning,	Number of Administrative Posts which use climate change vulnerability assessments and CC adaptation activity identification guidelines/tools as integral part of the local development and planning and budgeting process [AMAT 1.1.1.3]	development and have solid understanding of climate-induced risks to	Note Recommendation 4.1.3 e)
	Number of (municipality) engineering and contractor staff in all municipalities of Timor Leste with a solid understanding of climate-induced risks to small scale infrastructure works and of possible adaptation and mitigation measures (design, construction, maintenance)		Needs further thought to ensure that achievement of this indicator can be demonstrated. Note Recommendation 4.1.3 e)

Outcome 3	Indicator	Targets (End of Project)	Comment on Indicator and target
	Number of Local Administrations (Districts and Administrative Post) which invest in climate resilient small rural infrastructure works, including complementary soil and land management measures as integral part of the local infrastructure development process	In at least eight Administrative Posts in three Districts, various new small scale infrastructure works are constructed in accordance with the new climate resilient designs and additional measures are implemented to safeguard existing infrastructure works against climate risks	Note Recommendation 4.1.3.
Small scale rural infrastructure made resilient against climate change induced risks (droughts, floods, erosion and landslides) in at least the 3 Districts of Liquiça, Ermera and Baucau.	Designs for small scale infrastructure works, implemented at the Local Administration level, are often prepared by national level sector departments or agencies. These designs are at present not climate resilient, nor adapted to local conditions. Local Administrations also lack the capacity to make climate resilient designs and to construct in accordance with required higher quality standards.		The wording of this indicator is odd. Is this simply a comment on the indicator above? I suggest removing it! Also Note Recommendation 4.1.3 .
	Number of people benefiting from climate resilient small scale infrastructure works which are constructed in accordance with climate resilient designs in the three project focus Districts (target 100,000) [AMAT 1.2.1.2]	At least 100,000 people benefited from climate resilient small scale infrastructure works in the 3 focus Districts	Consider demonstrability of number of beneficiaries by end of project. Note Recommendation 4.1.4 .
	Coverage in Hectares of complementary soil and land management measures in 3 Districts	A minimum of (total) 5,000 hectares of catchment and slope stabilization measures have been implemented	Note Recommendation 4.1.5.

4.1.3. Key Recommendations - Relevance

Recommendation 4.1.1 – Undertake a detailed capacity assessment of the PDIM process to include technical and functional capacity, assessment of existing resourcing (manpower, financial resources), effectiveness of existing institutional arrangements (where this impacts capability/capacity), methods, standards and protocols used throughout the process. Based on the outcome of the capacity assessment, develop an institutional capacity development and training plan for project-based capacity development and long-term capacity development. This should include a capacity development plan for the long-term implementation of climate resilient small scale infrastructure projects via the PDIM process.

Recommendation 4.1.2 – Undertake a detailed review of the CVCA work and take steps to address the major technical shortcomings identified. Key considerations should include: data availability and data use (re-examine datasets for all hazard assessments, incorporate primary data on infrastructure, establish socio-economic data collection methods for use in risk and vulnerability assessment); review and strengthen hazard assessment and mapping methodology for all hazards, review and strengthen risk assessment methodology (incorporation of socio-economic data, use of established risk and vulnerability methods that include damage and loss assessment, loss of livelihoods, infrastructure risk assessment). The review should also address shortcomings in the treatment of gender.

Recommendation 4.1.3 – Re-focus the project strategy under component 2, to ensure greater impact of the project on the PDIM process. This should include the following inputs to the PDIM project selection process:

- d) Use of the CVCA (once it is revised and strengthened as per **Recommendation 4.1.2**) in the project identification process to provide a more comprehensive, robust and evidence-based means of identifying projects at suco level
- e) Provide technical assistance to AP staff and engineers in prioritizing projects at this level and in undertaking appropriate level of feasibility studies on which to base prioritization
- f) Technical input to the Municipal level project prioritization and review. Introduce climate risk criteria into the prioritization process, and include other methods of measure benefits of projects other than number of beneficiaries (e.g. environmental enhancement).
- g) Provide training on engineering feasibility studies to include technical feasibility, investment feasibility, socio-economic cost-benefit analysis, optioneering and options appraisal methods and outline environmental impact assessment, to strengthen the feasibility process, safeguard investments and optimize engineering solutions.
- h) Provide technical assistance to introduce climate change considerations into design of infrastructure to ensure that they will accommodate likely changes of environmental variables (frequency and intensity of occurrence) expected with climate change.
- i) Introduce detailed Environmental impact assessment (EIA) at the detailed design stage, in line with international good practice to ensure that the potential impacts of the project are identified based on the detailed design and that mitigation measures can be built into the design.
- j) Provide technical assistance to streamline the procurement process by pre-qualifying contractors for the different types of projects to be implemented.
- k) Provide technical assistance to strengthen the monitoring capacity at AP level through the provision of appropriate engineering expertise during implementation.

Recommendation 4.1.4 – Review method of assessing project benefits and implement cost-benefit analyses more closely aligned with international best practice, for the purpose of providing sound and robust information to decision makers, and for providing evidence for project replicability and scaling up.

Recommendation 4.1.5 - Document more closely, the soil and land management hectares being

planted by first identifying on GIS maps the planned route for planting (using a Polygon from which area can be derived. This should be part of the agreed contract terms) and then using GPS to document and verify what has been planted.

4.2. EFFECTIVENESS

4.2.1. Progress towards results (Achievements of Project Expected Outcomes)

The project Inception report, APRs (2014 and 2015) and quarterly reports have been reviewed to assess progress made against expected outputs and outcomes. Table 4-2 provides a summary at the output level, of progress made for 2014 and 2015 respectively. It has not been possible to undertake a full quantitative assessment of the project finances due to lack of data but a summary of stated planned and actual total expenditure is provided. However a qualitative assessment has been made based on reported project activities and progress.

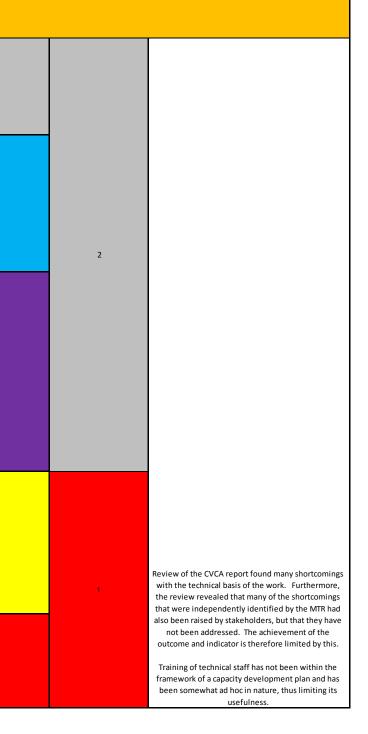
Key for ranking

6	Highly Satisfactory (HS)	Completed, No shortcomings Output achieved no shortcomings
5	Satisfactory (S)	Well on track, still needs some work. Minor shortcomings to date
4	Moderately Satisfactory (MS)	Broadly on track but some significant shortcomings.
3	Moderately Unsatisfactory (MU)	Some progress, but largely behind schedule. Corrective measures needed
2	Unsatisfactory (U)	Very limited progress. Component is way behind schedule and off-track. Urgent correction needed.
1	Highly Unsatisfactory (HU)	No perceptible progress and critical intervention required.

Table 4-2: Progress towards Results (achievement of expected outcomes)

	Output	Progress towards result 2014	Progress towards result 2015	Progres towards Outputs	Progress Towards Outcome Indicators	Comments/reason for rating
			regress towards result 2015	l e needs of communities vulr	herable to increasing climation	
Indictors	Number of (sector-specific) design approache	es and specifications, for small infrastructure works, which have been upgraded to address an	d/or withstand increased climate risks		4	
	Percentage change in number of sub-district I	level annual development plans, which include climate risk mitigation/resilience measures, as measures (AMAT 1.1	climate resilient activity designs (of small infrastructure works) and complementary bio-enginee 1.1.1)	ering and land management	3	
Indicators		Outcome 1: Policy makers and public in TL are aware of critical climate risks to rural (infrastructure) developm	ent and are systematically being informed on up to date evidence-based information on climate bazards through	vulnerability assessment and cross	s government coordination me	chanisms
		2014 Q1 - An agreed set of activities and role of NDIEACC; Counterpart Focal Person in MCIE designated (NDE)	ent and are systematically being informed on up to date evidence-based information on climate hazards through 2015 Q1 - NDIEACC designated staff to participate in the SSRI planned collection of secondary and primary data; The annual sub-district and district plan for 2016 for climate resilient project has been postpone due to re-structure of new government of TL since first quarter. 2015 Q3 - National Climate Change data collection and coordination matrix finalized; Capacity and Needs Assessment methodology finalized 2015 Q4 - Vulnerability Assessment for Hera and Pantai Kelapa. Draft Report finalized and circulated to stakeholders for comments and validation; Communication and information material prepared and distributed by the members of Climate Change Adaptation Working Group including CCCB to create public awareness on climate change; Capacity and needs assessment shared with the CCCB and NDCC management to undertake constructive interventions recommended in the report; Information table on climate change activities in Timor-Lester provided.	5	5	The platform is established and information is being disseminated via the CCCB website and other means. CVCA report and maps widely distributed although not to local level. CVCA reports and maps not currently being used to information project selection and CR information not yet used to integrate climate risks
	Climate change policy framework and strategy Output 1.2: Platform for national dialogue and information sharing on climate risks established and coordinated by MCIE, based on the existing NAPA working group structure, delivering regular bulletins, information updates and policy briefs				5	into key sector policies
sector policies	Output 1.3: Organisation strategy and capacity development plan in climate risk management developed for NDIEACC			2	2	
Climate change vulnerability guidelines and tools developed under the project are accepted by MSA as integral part of local planning and budgeting process (Yes/No)				2	2	CVCA report accepted by MSA but not by MCIE. An independent review of the methodolgy found significnat shortcomings that will need to be addressed before the approach can be scaled up to national level. It is also noted that many of the shortcomings indentifed by the independent review had been raised by stakeholders during feedback, but have not been addressed

		Outcome 2: Local Administration integrate cl	imate risks inro participatory planning, budgeting and standards of small scale rural infrastructure de	evelopment
	Output 2.1: Development of climate variability risk and vulnerability assessment guidelines and tools which are integrated and up-scaled within the participatory district and sub-district level planning process			2
Number of Sub-districts which use climate change vulnerability assessments and CC adaptation activity identification guidelines/tools as integral part of the local development and planning and budgeting process [AMAT	Output 2.2: District annual activity plans developed under implementation in a participatory way, climate variability risk and vulnerability assessment guidelines/tools	2014 Q2 - Draft Designs and BoQs including climate proofing and bio-engineering technologies for 11 projects to be supported; A concept and roadmap for collecting secondary data and for engaging with the identified lead agencies developed and will be implemented in Q3; BESIK staff participated in the verifying water projects in Baucau in support of the SAS team 2014 Q3 - A trip report with list of 11 potential climate resilient infrastructural projects for SSRI support in 2015 and total of beneficiaries those who get benefit from the project; Final design and BoQ including climate proofing and bio-engineering technologies for 11 projects to be supported; Final training tools and forms to be implemented for training and field trip assessment	2015 Q3 - The annual sub-district and district plan for 2016 for climate resilient project has been finalized. The matrixes has been sent to SSRI and national level for further field assessment and verification 2015 Q4 - Field verification started during the first week of the 4th quarter in the municipality of Baucau, Liquica and Ermera. Detailed information were collected to aim in the preparation of designs and BoQs for projects to be supported by SSRI project in 2016	5
planning and budgeting process [AMAT 1.1.1.3]	Output 2.3: Code, guidelines and best practices for climate resilience measures for small scale rural infrastructure (including eco-system based approaches and gender differentated concerns) are developed disseminated and advocated	 2014 Q1 - List of projects such as water resources infrastructure [water for domestic use and water for irrigation], roads, etc. identified by the EVAS teams in Liquica and Ermera; A total of 20 EVAS members, 22 district and sub-district leaders as well as 45 Suco members benefited from the events. 2014 Q2 - 26 EVAS team members, Community leaders from selected Sucos benefited from sharing information 2014 Q3 - 65 participants composed from EVAS team members, DDOs, CDOs, Line ministries staff benefited from the trainings and meetings; Key sectors with secondary data were identified. These are MoPWs, Ministry of Agriculture and Fisheries and Ministry of Social Solidarity, Care, Oxfam, Besik, Seed of Life, ALGIS, Irrigation; A concept and roadmap for collecting secondary data and for engaging with the identified lead agencies developed and are implemented; Trainings and meetings. 	 2015 Q1 - Secondary data collection commenced using the developed methodology and tools for collecting secondary data and for engaging with the identified lead agencies developed and are developed and implemented; 18 participants benefited from the training. 4 KAD members benefited from a half day training; Three days training on GIS and Map risks to MCIE staff and DNDD staff Training (5 staff from both ministries).; A half day training to KAD members in Ermera was conducted in order to help KAD members to be able on delivery procurement process for inclusion climate change aspect into procurement process. 2015 Q2 - Primary data and for engaging with the identified lead agencies; 37 participants 5 females) benefited from the workshop (on CAMP process) 2015 Q3 - Contunition of primary data collection activity 2015 Q4 - Continuation of primary data collection activity 	4
Number of (district) engineering and contractor staff in all districts of Timor Leste with a solid understanding of climate-induced risks to small scale infrastructure works and of possible adaptation and mitigation measures (design, construction, maintenance)	Output 2.4: Capacity Development Plan developed and technical capacity enhanced for district and sub-district level local administrations to understand and integrate climate risk information into local planning	2014 Q1 - 20 participants including EVAS team members, DDOs and CDOs in district of Ermera and Liquiça benefited from the initial training. 2014 Q2 - 37 participants including EVAS team members, Environment staff, DNDD technical staff, DDOs and CDOs in district of Ermera, Baucau and Liquiça benefited from the training. 2014 Q3 - 18 KAD members , DDOs, DNDD technical staff, line ministries from MAF, Public Works, MSS, benefited from sharing information	 2015 Q1 - A total of 18 (Ermera) and 34 (Liquica) pre -qualified contractors attended the training. Total of 52 pre-qualified contractors in the Category A and B were benefited from the training. 2015 Q2 - 25 participants (2 females) benefited from the training (GPS and risk Mapping) to EVAS team; 10 participants (3 female) including DNDD technical staff are benefited from the training in GPS and risk mapping to CCCB staff 2015 Q3 - 25 participants (3 females and 32 males) Participated in 1 day workshop on CVCA 2015 Q4 - Workshop conducted at the national level and in three municipalities to present CVCA report was shared with national and local government and international agencies as guidelines on preparing planning and implementing climate resilient infrastructure. There were 134 participants (96 males and 38 females) from the three municipalities that attended the workshop. 	3
	Output 2.5: Capacity Development Plan for District engineering and local contractor staff and at least 100 district engineering and local contractor staff trained in climate resilient design, construction and maintenance of small scale infrastructure			1



		Outcome 3: Small scale rural infrastructure made resilient against climate chan	ge induced risks (droughts, floods, erosion and landslides) in at least the 3 districts of liquica, ermera	and Baucau (phys
Number of Local Administrations (Districts and Sub-district) which invest in climate resilient small rural infrastructure works, including complementary soil and land management measures as integral part of the local infrastructure development process	Output 3.1: Small scale physical infrastructure (water storage and supply, rural roads, small bridges, irrigation, irrigation and drainage) designedm built and/or rehabilitated in at least 100 villages	2014 Q1 - List of projects assessed during the preliminary field assessment in March for Liquica and Ermera. Field reports attached; A 2011 MSA organizational assessment report available Field reports available. Data from these reports will be transferred into a Baseline matrix 2014 Q2 - a total of 12 projects were assessed during the field assessment in Q2 for Liquica, Baucau and Ermera to be supported by SSRI in 2015; Climate resilient information was used to prepare draft design and BoQs for the 12 projects that have been submitted to DNDD as one of requirement for PDID; All projects to be supported by SSRI include a bio-engineering component to stabilize the watershed and reinforce the civil structures; A 2011 MSA organizational assessment report available, A draft LoA between UNDP and MSA in place to guide disbursement of funds to contractors for the accomplished work; Field rports available. Data from these reports will be transferred into a Baseline matrix to form a basis for and M+E framework and plan 2014 Q3 - LoA between UNDP and MSA signed to guide disbursement of funds to contractors for the accomplished work on SSRI funded projects. Field reports available. Data from these reports will be transferred into a Baseline matrix to form a basis for and M+E framework and plan	2015 Q1 - SSRI Engineer and District Procurement Committee (KAD) facilitated pre-bid meeting in three Municipalities of Baucau (6th Feb 2015), Ermera 12th February and Liquica 26th January respectively; Moreover, after pre-bid meeting there were conducted site visit to 11 project location in Baucau on 7-11th February 2015, Ermera 16-19th February 2015 and Liquica 4-5th February 2015. Total of 58 of local contractors are applied SSRI project with Baucau (26), Ermera (13) and Liquica (19). Field reports available. Data from these reports will be transferred into a Baseline matrix to form a basis for and M+E framework and plan 2015 Q2 - Pre bid and site visit were conducted in 11 project location and attended by all local contractors those who interested for the bidding. Total of 53 of local contractors applied for SSRI projects with Baucau (26), Ermera (8) and Liquica(19); Field reports available. Data from these reports will be transferred into a Baseline matrix to form a basis for and M+E framework and plan 2015 Q3 - 11 Projects has been awarded to ten (10) local contractors in order to execute the project based on timeline four (4) are in Baucau, 3 in Liquica and four in Ermera (4). 2015 Q4 - Four (4) in Baucau, Three (3) in Liquica, and Four (4) in Ermera (4). 2015 Q4 - Four (4) in Baucau, Three (3) in Liquica, one in Ermera and two in Baucau; Five local NGOs were selected to implement the activities; Approximately 8,895 (3,134 females and 5,761 males) participants benefited from the activities, and about 260 (160 females and 100 males) direct beneficiaries benefited from the program.	5
Designs for small scale infrastructure works, implemented at the Local Administration level, are often prepared by national level sector departments or agencies. These designs are at present not climate resilient, nor adapted to local conditions. Local Administrations also lack the capacity to make climate resilient designs and to construct in accordance with required higher quality standards				
Number of people benefiting from climate resilient small scale infrastructure works which are constructed in accordance with climate resilient designs in the three project focus Districts (target 100,000) [AWAT 1.2.1.2]				5
Coverage in Hectares of complementary soil and land management measures in 3 Districts	Output 3.2: Complementary soil and land management measures to build resilience to climate induced risks (natural retention of surface water, slope stabilisation, groundwater infiltration) implemented at sub-catchment level in at least 10 sub-districts across the 3 districts of Liquica, Ermera and Baucau, covering at least 5,000 hectares			4

nvestment co	omponent)	
	5	
		Investment in CR SSRI is only via the SSRI prejct to date. By the end of the project, the project should aim to assist the municiplaities to implement climate resilient projects themselves and secure government funding to do so. This would involve deeper capacity building and project embedding into the PDID process
		The wording of this indicator is odd. Is this simply a comment on the indicator above? I suggest removing
		it!
	5	At mid-point project slightly below target of for 32 projects when considering number of projects to be implemented, but above 50% of 100,000 beneficiaries. The site visits to some of the projects provided examples of good implementation, but there are some project which are examples of mal implementation and which will need to be addressed going forward.
	5	
		Unable to verify number of hectares on which soil and land management measures are being implemented. See Recommendation 3.1.5

Table 4-3: Summary of planned and actual expenditure in each quarter

		Total Approval Budget Per-Year								Quarterly Disbursement		
Quarterly Reports	Years UNDP			Funds GEF		(In-kind contribution) Government		Total Approval Budget		unt Disbursed	Disbursement Rate %	
	2013	\$	-	\$	78,545.00	\$	30,000.00	\$	78,545.00	\$	-	0.00%
Q1 (Jan-Mar)	2014	\$	33,281.00	\$	805,367.00	\$	30,000.00	\$	838,648.00	\$	109,779.91	13.09%
	2015	\$	78,700.00	\$	1,735,967.00	\$	30,000.00	\$	1,814,667.00	\$	166,135.32	9.16%
	2013	\$	-	\$	78,545.00	\$	30,000.00	\$	78,545.00	\$	-	0.00%
Q2 (Apr-Jun)	2014	\$	33,281.00	\$	805,367.00	\$	30,000.00	\$	838,648.00	\$	110,229.74	13.14%
	2015	\$	78,700.00	\$	1,735,967.00	\$	30,000.00	\$	1,814,667.00	\$	259,652.52	14.31%
	2013	\$	-	\$	78,545.00	\$	30,000.00	\$	78,545.00	\$	-	0.00%
Q3 (Jul-Sep)	2014	\$	33,281.00	\$	805,367.00	\$	30,000.00	\$	838,648.00	\$	165,772.82	19.77%
	2015	\$	78,700.00	\$	1,735,967.00	\$	30,000.00	\$	1,814,667.00	\$	392,270.36	21.62%
	2013	\$	-	\$	78,545.00	\$	30,000.00	\$	78,545.00	\$	67,134.14	85.47%
Q4 (Oct-Dec)	2014	\$	33,281.00	\$	805,367.00	\$	30,000.00	\$	838,648.00	\$	288,284.36	34.37%
	2015	\$	78,700.00	\$	1,735,967.00	\$	30,000.00	\$	1,814,667.00	\$	577,654.49	31.83%

Table 4-4: Summary of disbursements

Descriptions	Years							
	2013		2014		2015			
UNDP GEF	\$ \$	- 78,545.00	\$ \$	33,281.00 805,367.00	\$ \$	78,700.00 1,735,967.00		
Total Approval Budget Expenditure	\$ \$	78,545.00 67,134.14	\$ \$	838,648.00 674,066.83	\$ \$	1,814,667.00 1,395,712.69		
Budget Disbursement (%)		85%		80%		77%		

The summary tables above (Table 4-3 and Table 4-4) have been prepared by the SSRI team and show that the project disbursement rate is approximately 81% per year. Comparing with the financing and co-financing reported in the annual progress reports of 2014 and 2015, the project so far has not reported any of the in-kind contributions stated (\$1.9 Million from LGSP and 400, 000 from Government) nor the parallel funding (PDIM+ BESIK) of \$48.4 Million. For better clarity it is recommended that the project analyses the in-kind and parallel financing contributions and include these in the financial reporting in the future. There was a specific request from MCIE that the project should include the in-kind contributions that it makes in accommodating the project climate change officer, among other contributions.

Table 4-5: Financing and co-financing as reported in APR 14 and APR 15

Name of Contributor	Type of Contributions	Amount Carried Over from PDF-A into Project	Amount Committed in Project Document	Amount Committed After Project Approval	Disbursement to	Disbursement by
	In-kind/cash-UNDP managed onlv	US\$	US\$	US\$	31 st December 2015 US\$	US\$
GEF		515,043.00	4,600,000	805,367.00	1,312,577.70	46,000,000.00
Co- financing /Nature						
UNDP	Cash	47,180.00	300,000	300,000	33,281.00	300,000.00
	In-kind (LGSP now SNGDP)		1,935,600	1,935,600		
Gov	Cash					
	In -kind	400,000.00	400,000.00	0	0	1,600,000.00
	Parallel funding (PDID +BESIK)		48,429,799	0	0	

4.2.2. Project Impacts

To examine the impacts of the project on rural communities, the MTR team has examined whether the infrastructure implemented by the project has enhanced the value and derived benefits from existing community assets such as land, water, livestock and livelihoods, any evidence of impact on income generation and improvement in livelihoods, improved skill or health, education, and improvements in socio-economic conditions. Impact on increased capacity of local communities to exploit potential economic opportunities and to develop stronger links with the markets and external partners, through the infrastructure improvements provided by the project have been examined. Efforts to strengthen local level organizations in the implementation of similar projects in the future is a key desired impact of the project as it should reflect whether the project has built local capacity to implement and use these new climate resilient measures in the long-term. The capacity building and strengthening of local authorities has already largely been examined in the previous section on relevance, and the reader is referred to the recommendations under this (Section 4.1). Likely contribution of the project to food security is also a key indicator of impact, but it is too early to assess this in detail and the project is not currently tracking the relevant information to enable such an analysis.

Environmental degradation is very often a manifestation of poverty and the struggle for survival by the rural poor, and contributes to non-resilience to climate change and increased risk from climate-related disasters. The extent to which the project contributes to rehabilitation of the environment (particularly of the agricultural resource base and watershed management) in areas affected by natural resource degradation is strongly associated with poverty impact. The MTR has therefore examined the local level environmental impacts of the project, as well as any environmental consequences of the project. It is also concerned especially with those environmental impacts, which are under the control of, or are influenced by, the rural communities. Environmental impacts may be negative as well as positive intended or unintended and all of these have been examined.

Existing institutions, policies and regulatory frameworks significantly influence the lives of the rural poor. Supporting the capabilities of existing national, and especially local public institutions in servicing the rural communities and reorienting the existing policies of institutions in favour of the poor is an increasingly expected result of development projects and is an expected outcome of this project. This encompasses the change brought about in sectoral and national policies affecting the rural communities and their exposure. In addition, the degree of decentralization, which allows decision making to be taken at the local level, is also a relevant consideration and important to this project. In addition, traditional and social practices may also serve to restrict the equitable access to benefits, for example inter-tribal and ethnic divisions, social restrictions on women's activities, traditional allocation by gender of rural tasks and income from different crops and livestock. The review has examined to the extent possible, the contribution that has been made to improving the national, and particularly local institutions to implement, and manage rural infrastructure which affects the lives and livelihoods of rural communities.

In order to examine project impacts at the local level the MTR team visited several project sites and met with a broad spectrum of stakeholders and beneficiaries. The MTR team also conducted cursory reviews of the processes, input and outputs of some of the SSRI schemes visited. The results of the review are best illustrated by examining case studies.

Case Study 1 - Baucau – Lacoliu Irrigation Project in Quelicai Administrative Post municipality

The aim of the project was to provide an irrigation scheme for rice paddy fields from the villages of Bikanessi to Bikafalu as the communities used traditional irrigation methods of getting water from the river (and two springs). The objective was to formalize the irrigation scheme and ensure water availability in the dry season.

Lacoliu irrigation project is comprised of a reservoir for collecting water from three different sources which were previously unprotected, source protection works in the form of re-vegetation around the source areas, the construction of a 550m long irrigation channel, which would feed rice fields on the downwards slope and was meant to run through three villages. The original channel design length was 5km but this was reduced, based on agreement with the Administrative Post, to 550m due to the SSRI budget limitation of \$150,000 USD per project. The scheme was designed by EVAS (municipality) engineers and reviewed by SSRI project engineers.

The site visit involved a walk along the length of the channel and to the reservoir, interviews with beneficiaries, interview with the village chief and interview with the municipality DDO.

The key findings were as follows:

The reservoir and inflow pipes at upstream end appear to be well designed and constructed and serve the purpose of collecting water from the three sources and providing controlled outflow via a sluice gate which feeds the channel. Since it has not been possible to review the technical design documents in detail (hydrology, feasibility and EIA reports requested) it has not been possible to determine whether the sizing of the reservoir is appropriate, or whether full assessment has been made of the source yield and water availability, although the SSRI engineers have confirmed that the design is based on limited hydrological data. There is a concern that safety of the reservoir and sluice gate have not been considered, and while it provides a recreational benefit to the community (children were diving into and swimming in the reservoir while we were there), there is a risk of drowning and other accidents that are not uncommon at such installations (Figure 4-4 and Figure 4-3).



Figure 4-4: Pipes bringing water from the three sources into the reservoir



Figure 4-3: Reservoir with children playing

The irrigation channel is a trapezoidal channel approximately 1m deep and 550m long, which is almost 1 /10th of the original 5km specified. The main impact of this design decision is that flow from the open end of channel outfalls to the original earthen channel and due to the higher velocities and faster conveyance along the new channel, is eroding the earthen channel, destroying rice fields on the upslope and downslope faces of the channel and threatening houses. According to the villagers there has been no post-construction follow up to identify any issues or assess impact of the project. In addition, since demobilisation the community has seen no benefits because there has been no dry spell as yet.

During a storm event on February 26th fish farms downstream of channel were washed away resulting in extensive financial and livelihood losses to fish farmers. One farmer claims that he has lost \$3,000 due the flood flows from the channel which destroyed his fish farm. The fish farm is partly an effort by 26 villagers, who converted their rice fields a few years ago to diversify away from the heavy reliance on rice. The fish farming company earnings were \$1,800 USD/6 months according to the farmer.



Figure 4-5: End of the irrigation channel outfalling to earthen channel. Eroded rice paddy on upslope just visible



Figure 4-6: Rapidly eroding earthen channel

The impact of this project on the local community has therefore been negative to date and has resulted in the loss of livelihood, adverse environmental impacts and loss of community confidence in the project (although many were keen to stress that in general they agreed with the approach but felt let down by the reduced scope of the works). The factors that would have led to this situation can be summarised as follows:

- 1) Project identification and selection process failed to match the full project requirements (5km of channel) to the available budget. The decision to select projects that fall only in Category A of the PDIM (\$1 to \$150,000 per project) places a limit on what could be implemented, and which appears to have been an issue here. Ideally, the full cost of the project should have been identified and the risk associated with doing a reduced-scope, lower cost project evaluated (as part of the feasibility and EIA). In this case the project should not have been selected given the severely reduced scope that the available budget imposed. The true higher full cost of the project would have placed it under Category B of PDIM (\$150,000 to \$500,000) and would have resulted in it not being selected or implemented. It should be noted that the true cost of the project and any environmental consequences of reducing the scope should have been picked up during feasibility study and would have been picked up if a detailed EIA had been done.
- 2) No environmental Impact assessment was done at either the project scoping or detailed design stage. An EIA would have identified mitigation measures that could be put in place once it became clear that the design would result in the channel ending short of the intended length. It would appear that no technical assessment had been done on the changes to the flow velocities, and flow regime that the channel would cause (not that it requires calculations to identify this particular risk). Mitigation measures could have included, controlled operation of the reservoir inflow and outflow sluice during flood events to limit the quantity of flow in the channels. A review of the EIA and Safeguards report (already discussed above as inadequate level of detail for EIA on projects of this nature) revealed that only positive social impacts were identified and no detailed technical assessment against the actual scheme to be implemented was made of the risks posed. For example, the EIA and Safeguards reports states the following when considering runoff and hydraulic structures risk.

We noticed that runoff flow is high, because the land is sloppy, especially during the raining season, however, with line drains constructed and check dams erected, this flow will be reduced. The soil nutrient will be retained and productivity will improve.

No runoff calculations were done to determine the erosion risk and increased risk due to the outflow end of the channel and it appears that no hydraulic calculations were done to determine flow velocities along the channel or lateral flows along the channel which should also have been done as part of the sizing of the channel. A basic assessment of topography would have provided clues as to what will happen with increased runoff in and along the channel, and could have identified more appropriate end points for the channel (such as a river 1km downstream).

3) The community was consulted to discuss the issue of the limited budget and reduced channel length on 15th October 2015⁸. During this meeting the community voiced reservations about the likely consequences of the irrigation channel ending short of the intended length. They identified risks to rice paddies and fish ponds being washed away. Several solutions were suggested including restricting releases from the dam until the full irrigation channel is completed. Other solutions suggested included formally requesting the SSRI project to continue the construction in subsequent phases. While the minutes of this meeting suggest that the community was consulted and were well aware of the risks it is not clear why the decision was taken to go ahead with the project, with no apparent mitigation measures to minimize the risks. Also, given that the project cannot

⁸ Minutes of the meeting in suco Laculiu with land owner around the land issue in the Irrigation project of Bicaisi (002) docx October 2015

continue the construction in subsequent phases, it suggests that community expectations could have been managed more effectively.

Apart from the impacts that the scheme has had on the local communities, if left unaddressed, there is a risk to investment already made and to UNDP reputation. To specifically address this problem, and to avoid similar problems in the future the following recommendations are made:

Recommendations 4.2.1 – Re-examine the \$150,000 budget limit and strengthen the vetting of projects to ensure they are technically feasible within the budget (see also **Recommendation 4.1.3 d, e and f**).

Recommendation 4.2.2 – In the case of Lacoliu irrigation scheme, identify budget from within the project or elsewhere to correct the problem.

Case Study 2 - Ermera – Leguimea bridges project

The project is addressing the impacts of drainage and erosion, under an existing road which results in the road and drainage culverts/bridges being washed away on an annual basis. The project has replaced 10 small bridges, and installed gabion walls to stabilize the slopes along the existing road alignment.

The project designed and rebuilt the bridges using concrete box culverts and gabion baskets for extension of the wing walls and additional structural protection upstream and downstream of the bridges. Bio-engineering measures were also used to provide protection to the banks upstream and downstream of the bridges. The community is very happy with the project and have identified potential impacts of the projects including improved access to the village which is often cut-off during the rainy season when the bridges are washed away, and potential for developing access routes to market. They also highlighted a number of other urgent issues that they would have liked the project to address including water supply. They currently walk for 2 hours to the nearest source (which is in the opposite direction to the road). While the construction of the bridges has been worthwhile and could catalyse development for the small isolated villages, it is clear that the condition of the road is such that there is still a potential for road surface to be washed away, exposing the top of the bridges. Given what the project is trying to achieve, it would have been useful to involve the roads department to get them to surface the road or to confirm whether it is a priority for surfacing in the near future. As a minimum, and to safeguard the investment already made, the project could do some surfacing across the top of the bridges to the extent necessary to protect the works. Again, no detailed engineering designs were available for review, but it is clear that the bridges have been built to their original levels, suggesting a missed-opportunity to enhance the capacity of the bridges to accommodate increased water levels and velocities that could be expected with climate change. Of course, the design might have included increased capacity of the bridge opening (and the increased protection will help with conveyance through the bridges), but limited information means that designs methods and approaches cannot be confirmed. The SSRI engineers involved in the design have confirmed that hydrological data specific to the site were not available for design. Therefore, the designs were done based on observation and on-site conditions.





Figure 4-7: Wing wall and gabion baskets extending the protection on the upstream side of the bridge. Bio-engineering measures are also visible on the upstream banks

Figure 4-8: One of the 7 reconstructed bridges



Figure 4-9: Heavily eroding road surface of one of the bridges. As the picture shows, there is ponding on the bridge which will lead to further erosion and exposure of the top of the bridge.

Case Study 3 - Liquica – Maubaralisa Road project

The project is addressing an erosion problem along the Maubaralisa Road where some sections were blocked by sediments from eroded materials (scree) from upslope. The road was also characterized by inappropriate drainage structures that are largely destroyed, eroded away or silted up, due to a lack of maintenance and climate change.

During the rainy season, farmlands and houses were being flooded due to the poor drainage of the road, while at the same time the road was impassable due to its deteriorated conditions. There was a risk that the suco would be cut off thus affecting its cultural and economic activities. The project was proposed to preserve this vital link, and safeguard the livelihood of the local people.

The Maubaralisa project is a road project which has built a drainage channel and retaining wall along sections of 1.6km route and implemented climate resilient structural protection of the works using vegetation. In addressing these issues, the following measures were taken along the damaged sections:

- Bio-engineering, the planting of live vegetation along steep slopes to prevent landslides and erosion.
- Construction and replacement of damaged drainage structures with adequate and appropriately designed and reinforced ones.
- Installation of gabion walls to stabilize slopes.
- Combination of these measures at some locations



Figure 4-11: Drainage under the Marburalisa road



Figure 4-10: Drainage channel along the Mauburalisa road. Extensive vegetation of the slopes is also visible

As part of the review, the MTR team interviewed the Municipality Administrator, chief of suco and the contractor.

Key Findings

The drainage channel and retaining walls appear to be well built and provide the protection required. Bio-engineering methods for stabilizing slopes have been well implemented and most of the slopes are well vegetated and therefore protected. Drainage structures that cross under the road are formalised and in good condition and appear to provide protection from erosion of

the channels that flow under the road. Discussions with the chief of suco revealed that the scope of the project had to be reduced in order to fit with the \$150,000 budget so that some of the retaining walls in the original design had to be taken out. This has not caused any issues with the works and it is the intention of the chief to apply for further funding to complete the works as per the original designs. This is an example where the reduction in scope has been well thought through and no negative consequences have resulted. The chief of suco and Municipality administrator were both pleased with the project outcome and happy with works completed. Interviews with the contractor, however, revealed that there were issues with payment, which, have potentially affected established relationships between the municipality and local contractor. This issue points to the possible need for stronger contract manager and contractor supervision.

Case Study 4 - Lisadilla river protection (gabion) project

The Lisadila project was undertaken to address the issue of flooding faced by communities whose houses, schools, farms, are flooded in the rainy season and for whom services like water and sanitation are considerably disrupted. The project has designed and constructed an earth embankment, with gabion basket protection and Vetiver grass planted in the earth embankment to stabilize it. The approach is innovative and provides a mix of hard engineering and bioengineering which should enhance the climate resilience of the structures. Again no technical document has been provide so it is not known what standard of protection it provides or whether the design included allowance for increased water levels or frequency or overtopping under climate change, but the community and municipality are very happy with the project and expect to benefit from the protection from flooding it will provide and the safeguarding of lives and livelihoods.



Figure 4-12: Earth flood defence with Vetiver grass planted and gabion basket protection on the river side

Ossoala Water Supply scheme

For years the community in Suco Ossoala have been without clean drinking water due to the lack of maintenance of water pipes (installed by a previous government project). This project was

implemented to protect a spring source, replace pipes and to provide clean water to the community. Interviews with the chief of sucos and villages revealed that there is general dissatisfaction with the project as they claim that the works have resulted in reduced availability (source now supplies 9 water stations instead of 5), and the need to ration water between stations. The contractor refused our request to meet on site to discuss the project. However, we interviewed a member of the GMF team who will be responsible for maintenance of the installation (funded by a nominal fee to be collected from the villagers) and their main concern is that they have not received the training promised by the project to enable them to carry out maintenance work in the future, nor has the mechanism for collecting the nominal fee from villages been detailed.

Summary of Project Current and Potential Impacts

• Impact on physical and financial assets

The project is having significant impact on the physical assets of rural communities through the implementation of structural measures that address climate risks. For the schemes that have been successful, this impact is likely to be long-lived and will contribute to the advancement of socio-economic situation of the communities that use these infrastructure.

• Impact on Social Capital and Empowerment

At community level the project is building capacity to identify climate risks and to identify climate resilient projects in the future. Thus empowering communities and helping them to adapt to climate change. The project is contributing to gender empowerment by reducing time it takes for chores to be done by women (e.g. fetching water) and providing access to better hygiene and health through the supply of drinking water.

Impact on Food Security

Water supply projects have added benefits for subsistence farming as water supply systems are not only being used for drinking water, but for 'kitchen' gardens for subsistence too. In addition road stabilisation projects provide access to markets (both directions) and links communities thus allowing for greater trade and cooperation. With regard to food security, the irrigation project at Lacoliu has the potential to provide increased annual productivity and yield to the communities that will have more secure water availability for their rice production, but will need to address the significant adverse impacts before these benefits are fully realised.

• Environmental Impact

There are many examples of positive environmental impacts to date including the use of bioengineering techniques that reduce environment risks, catchment revegetation, water source protection (health impacts). However, the Lacoliu irrigation project is an example of negative environmental impacts and highlights the need to undertake detailed environmental impact assessments for all projects.

• Impact on Institutions, policies, and the regulatory framework

The project is attempting to strengthen the PDIM process (but note **Recommendation 4.1.3** above). The long-term impact of this institutional strengthening will be greatly enhanced once the recommendations for further intervention in the process are put into effect. This has the potential to truly embed climate risk considerations and resilience into the planning design and construction of small scale rural infrastructure. In general the project efforts have already raised awareness to climate risks (through component 1), built some capacity to address these risks and demonstrated how to implement climate resilient infrastructure (component 3). A key area of focus needs to be the embedding of climate risk considerations into sector policy, and the project should leverage the evidence it can gather from the SSRI projects inform the wider policy framework.

Impact on Gender

The project through the community engagement under the CVCA assessment has sought to reflect the gender differentiated aspects of climate risks through the use of single gender working groups when undertaking community-based risk mapping. The CVCA has disaggregated the data collected by gender, and the project, in general has been reporting gender disaggregated results.

It has not been possible to glean to what extent the project has embedded gender due to the lack of data beyond numbers of men and women participants or beneficiaries.

There is extensive guidance on the mainstreaming of gender and CCA and DRM⁹. It is therefore recommended that, as part of the review of the CVCA methodology the gender mainstreaming approach should also be strengthened (See **Recommendation 4.2.3**).

4.2.3. Contribution to Capacity Development

A main aim of the project is to build capacity within central and local government in climate risk based infrastructure planning and implementation. The project logframe has many references to the development of capacity development plans but requests for such plans revealed that they have not been done. This is a major shortcoming given the key focus of the project. The result has been the delivery of training which does not comprehensively meet the needs of the recipients, particularly at the local level. This is reflected in the outcome of the short analysis that has been done by the MTR team on capacity building. We have undertaken a review and comparison of training that has been reported by the project, against training reportedly received by stakeholders, and training needs identified by stakeholders.

Training as reported in project progress reports

- Three days training on GIS and Map risks to MCIE staff and DNDD staff Training (5 staff from both ministries);
 - 25 participants (2 females) benefited from the training (GPS and risk Mapping) to EVAS team
 - 10 participants (3 female) including DNDD technical staff benefited from the training in GPS and risk mapping to CCCB staff
- A half day training to KAD members in Ermera on delivery procurement process for inclusion of climate change aspects into procurement process;
- 37 participants 5 females) benefited from the workshop (on CAMP process);
- 37 participants 3 females and 34 Male) benefited from the workshop on CAMP process
- 25 participants (3 females and 32 males) Participated in 1 day workshop on CVCA;

Training that has been undertaken is recorded in terms of numbers of people trained but does not incldue measures of increased capacity.

Training received as reported by stakeholders:

- Study comparative to Vietnam visited Bio-engeneering project promoted by ADB;
- The contractors received training before implementing the project;
- Communities received training on how to identify their needs;

⁹ Gender Perspectives: Integrating Disaster Risk Reduction into Climate Change Adaptation Good Practices and Lessons Learned, UNISDR, 2008

Making Disaster Risk Reduction Gender-Sensitive Policy and Practical Guidelines, UNISDR 2009 UNISDR Policy on Gender Mainstreaming in Disaster Risk Reduction

Gender, Disaster Risk Reduction, and Climate Change Adaptation: A Learning Companion Oxfam Disaster Risk Reduction and Climate Change Adaptation Resources

http://asiapacific.unwomen.org/en/digital-library/publications/2015/05/policy-brief-gender-equality-in-climatechange-adaptation-and-disaster-in-vietnam

 Technical team at municipality level participated in training before implementing the project;

Training requested by stakeholders:

Based on stakeholders interviewed at national level and in three municipalities, the following recommedations related to capacity building needs to be conduced in 2 years:

- Training on data collection, GPS and data proccesing (National and Municipalities)
- Training on writing proposal (communities)
- Training on vulnerability risk assesment (National level, Municipality and Community)
- Training on project management (for Engineering);
- Training on procurement process (municipality);
- Training in bio-engeneering aspects including planting techniques (Municipality and community);
- English course for MAE staff;

Since the main aim of capacity building is to strengthen the PDIM process, and given earlier recmmendations made on how the project could further support and influence the PDIM process (**Recommendations 4.1.3**) it is strongly recommended that, the project should undertake a full capacity assessment (technical and functional) and develop a capacity plan which will form the basis of training for the remainder of the project (**Recommendation 4.1.1**).

See Recommendation 4.2.4.

4.2.4. Risk Management

At Inception phase the following risks were identified:

Discontinuation of LGSP

A key risk identified in the project document and realized in the first half of the project was the discontinuation of LGSP phase II, the project within which the SSRI project has been embedded. The agreed LGSP II project duration, which is in essence an extension of the LGSP phase I project with an adjusted project results framework, was initially until the end of December 2013. Based on the request of MSA a no-cost extension was agreed till June end 2014. To deal with this risk, the SSRI project was designed so that it could continue beyond 2013 outside of the LGSP II framework as an independent project, without major adjustments and the following management responses were identified as key to dealing with this risk.

- The SSRI project document has as a whole been integrated in the LGSP II as a third output and management arrangements have been streamlined accordingly. The LDCF results framework as a whole maintains therefore its integrity and has in addition been taken up as Output 3 into the Annual Work Plan of the LGSP II. This design modality has also been agreed for the LGSP follow-up phase, where the SSRI project will remain an output under the 'Local Development' pillar;
- The SSRI project is closely linked to the MSA and the PDIM, the municipality annual planning and budgeting process. All project outputs will in case of discontinuation of the LGSP II be linked to MSA and PDIM directly. This link and formalized collaboration with MSA and PDIM resources has been strengthened during the inception phase and this issue will remain a strategic agenda point for the Project Manager;
- The SSRI project design already had adequate resource allocations for TA and support staff to ensure that the project can be implemented with only its own resources. For the project to continue as an independent project only the ToRs of key staff and TA need to be adjusted, without the requirement of new recruitment. The Project Board has decided in December 2013 to strengthen project management capacity by combining the Project Manager position with

the International Environmental Engineer, so as to attain more experienced staff. The TA team has also proposed to recruit additional long-term volunteer engineering expertise to support the national consultants especially with the municipality based work. The strengthened TA team will be better able to also independently from the LGSP support implementing agencies and stakeholders with the execution of their responsibilities, as well as with strengthening their capacities.

4.2.5. Other Risks

- Decentralization process under the newly elected Government is further delayed, which may influence mandates and commitment of local administrations to use climate risk assessments in local planning process (re-assessment);
- Capacity of Local Administrations, stakeholders and national professionals for technical content work as well as project implementation is insufficient (new);
- De-linking of community demand and priorities from existing MSA local planning process (PDIM) resulting in suco, Administrative Post and municipalitys plans which do not address community needs, including for climate resilience (new);

The project risk matrix is presented in the inception report and includes intended management response to the identified risks.

During implementation project risks have been recorded in the UNDP Atlas system and reported in the quarterly reports. The table below is a summary of the risks that have been reported in each quarter. It is instructive to note that the risks regarding limitations in technical capacity which were identified at the inception phase (highlighted in red above) have been realised throughout 2014, but there appears to have been no corrective action taken to address these risks (such as hiring additional technical expertise into the project team). It is likely that the approach was to try to build capacity within the LAs but it is clear that it was not possible to build capacity at a rate that would have addressed the deficit without additional external technical assistance.

In general, it has to be concluded that, while risk have been identified and detailed in quarterly reporting, there is little evidence of active risk management during project implementation. A basic project risk management approach should include the following steps:

- 1. Establishing goals and context (i.e. the risk environment),
- 2. Identifying risks,
- 3. Analysing the identified risks,
- 4. Assessing or evaluating the risks,
- 5. Treating or managing the risks,
- 6. Monitoring and reviewing the risks and the risk environment regularly, and
- 7. Continuously communicating, consulting with stakeholders and reporting.

Highlighted in green are areas of risk management that the project does not appear to be doing. Risk management should include technical risks (e.g. as would be identified during detailed EIA) which would need to be addressed by the project. The project should also monitor risk with regard to contract management and could minimise these by implementing better contract management measures and by taking a more active role in project implementation monitoring when contractors are on the ground undertaking works.

Recommendations 4.2.5. It is recommended that the project undertakes more active risk management as outlined above. In particular actively managing, monitoring, review, communicating and consulting on risks as well as implementing appropriate corrective measures

to address these risks.

It should also be noted that **Recommendations 4.1.1, 4.1.3** (**d**, **e**, **f**, **g and h**) will all contribute to risk reduction and will directly address the risks identified above,

Quarter	Risk Identified
2014 Q1	 Capacity of Local Administrations, stakeholders and national professionals for technical content work as well as project implementation is insufficient- The project plans to provide information and awareness creation and providing training for capacity development related to climate change and climate resilience in infrastructure planning, design, preparing of BoQ as well as implementation. EVAS team members, community leaders and communities have limited comprehension of climate change and climate change risks and their impact on infrastructure – The project plans to provide information and capacity development training on climate change issues and help them to mainstream climate variability and risks in their planning and implementation of infrastructures to make them more resilient to climate change induced variations and risks
2014 Q2	 Capacity of Local Administrations, stakeholders and national professionals for technical content work as well as project implementation is insufficient- The project plans to provide information and awareness creation and providing training for capacity development related to climate change and climate resilience in infrastructure planning, design, preparing of BoQ as well as implementation. EVAS team members, community leaders and communities have limited comprehension of climate change and climate change risks and their impact on infrastructure – The project plans to provide information and capacity development training on climate change issues and help them to mainstream climate variability and risks in their planning and implementation of infrastructures to make them more resilient to climate change induced variations and risks Limited of technical staff in the district on preparing designs and BoQs has affected to the delay of submission of complete design and BoQ to national level- SSRI engineers to provide support to help them on design and preparing BoQ in order to meet deadline as well as to meet SSRI
2014 Q3	 Capacity of KAD members on dealing of procurement process related to climate change issue is insufficient – the project plans to provide training and awareness of climate change aspects into a whole procurement processes Capacity of Local Administrations, stakeholders and national professionals for technical content work as well as project implementation is insufficient-the project plans to provide information and awareness creation and training for capacity development related to climate change and climate resilience in infrastructure planning, design, preparing of BoQ as well as implementation. EVAS team members, community leaders and communities have limited comprehension of climate change and climate change risks and their impact on infrastructure. The project plans to provide information and capacity development training on climate change issues and help them to mainstream climate variability and risks in their planning and implementation of infrastructures to make them more resilient to climate change induced variations and risks. Limited of technical staff in the district on preparing designs and BoQs has affected to the delay of submission of complete design and BoQ to national level- SSRI engineers to provide support to help them on designing and preparing BoQ in order to meet deadline as well as to meet SSRI requirement on incorporating climate change considerations into BoQs and design. Lack of official standards for development of infrastructure such as rural roads hampers efforts of the SSRI to integrate climate change into the standards and guidelines for rural infrastructure The issue of land: land is a major cause of conflict in communities that will have a direct impact on the success or failure of infrastructures to be constructed. There is a need to address this including securing commitment and consent (in writing) from landowners accepting the infrastructure to be located in their land. SSRI project plans to address this during the Commu
2014 Q4	

2015 Q1	 Temporary halt of the PDID pending government restricting: The changing of government structure in the beginning of month of February that resulted into temporary halt of the PDID projects affected the procurement process schedule and implementation of the 11 SSRI supported projects. Although the original schedule was to award contracts and commence construction at the beginning of April 2015, by close of the reporting period it was not yet clear when the PDID and hence SSRI supported pilot project would resume. SSRI Project Management has been in discussion with the Ministries concerned (MAE and MPIE) to allow SSRI Projects proceed since these are funded outside the State Budget. The MAE Ministry has agreed in principle to resume the SSRI project supported infrastructural construction. However, by end of the reporting period, we were still waiting for the official letter to this effect. Transfer of PDID to the MPIE: Based on Government Decree Law no 11/2015 dated 11th March 2015, PDID was transferred from the Ministry of State Administration to the new Ministry of Strategic Investment and Planning. This resulted in additional delays since the two Ministries have to work out the new modalities of engagement and co-ordination for the implementation of the PDID projects
2015 Q2	 Temporary halt of the PDID pending government restricting: The changing of government structure in the beginning of month of February that resulted into temporary halt of the PDID projects affected the procurement process schedule and implementation of the 11 SSRI supported projects. Although the original schedule was to award contracts and commence construction at the beginning of April 2015, by close of the reporting period it was not yet clear when the PDID and hence SSRI supported project would resume. SSRI Project Management has been in discussion with the Ministries concerned (MAE and MPIE) to allow SSRI Projects proceed since these are funded outside the State Budget. The MAE Ministry has agreed in principle to resume the SSRI project supported infrastructural construction. However, by end of the reporting period, we were still waiting for the official letter to this effect. Transfer of PDID to the MIPIE: Based on Government Decree Law no 11/2015 dated 11th March 2015, PDID was transferred from the Ministry of State Administration to the new Ministry of Strategic Investment and Planning. This resulted in additional delays since the two Ministries have to work out the new modalities of engagement and co-ordination for the implementation of the PDID projects Dispatch letter from Minister of State Administration No.119/MAE/GM/VII/2015, dated 16 July 2015, on technical assistance from MSA to the implementation of PDID. In the dispatch letter the minister informed that the Minister of State Administration is the direct leading of the implementation of PDID to response to the request of the Ministry of MPIE and due to the matter of the reorganize of structure with the MSA and also the disappearance of the work of DNDD. The Minister informed that the former technical engineers of PDID that were under DNDD who are now being integrated into the directorate of General Urban Organization are still available to provide technical assistance to assure the implementation of PDID based on the
2015 Q3	 Based on Government Decree Law no 11/2015 dated 11th March 2015, PDID was transferred from the Ministry of State Administration to the new Ministry of Strategic Investment and Planning. This resulted in additional delays since the two Ministries have to work out the new modalities of engagement and co-ordination for the implementation of the PDID projects. Dispatch letter from Minister of State Administration No.119/MAE/GMV/II/2015, dated 16 July 2015, on technical assistance from MSA to the implementation of PDID. In the dispatch letter the minister informed that the Minister of State Administration is the direct leading of the implementation of PDID to response to the request of the Ministry of MPIE and due to the matter of the reorganize of structure with the MSA and also the disappearance of the work of DNDD. The Minister informed that the former technical engineers of PDID that were under DNDD who are now being integrated into the directorate of General Urban Organization are still available to provide technical assistance to assure the implementation of PDID based on the existing regulation. The changing of structure under the Ministry of State Administration also affected to monitoring and field assessment in involving national technical staff since the former national Directorate for District Development has been merged into two national directorates which is one Directorate supervise PDID technical staff which is not direct counterpart; Lack of technical staff (EVAS team members) at municipalities for monitoring and field assessment of an ongoing projects is a critical issues that needs to be addressed properly in order to guarantee the quality of the construction itself and to execute based on timeline;
2015 Q4	 Based on GEF requirement, Project Board Members needs to meet twice a year in order to discuss progress activities; issues related which might arise during program implementation. However, no PBM meeting was held during the entire 2015. However, the project convened the Sub-Steering Committee meeting in order to present 2015 progress activities and present the AWP 2016. Lack of technical staff (EVAS team members) at municipalities for monitoring and field assessment of an ongoing projects is a critical issues that needs to be addressed properly in order to guarantee the quality of the construction itself and to execute based on timeline;

4.2.6. Key Recommendations - Effectiveness

Recommendations 4.2.1 – Re-examine the \$150,000 budget limit and strengthen the vetting of projects to ensure they are technically feasible within the budget.

Recommendation 4.2.2 – In the case of Lacoliu irrigation scheme, identify budget from within the project or elsewhere to correct the problem.

Recommendation 4.2.3 – Gender and vulnerability currently only focus on numbers of participants in workshops or training sessions. It is recommended that specific vulnerability indicators are introduced (e.g. CVCA methods targeting gender specific and vulnerable groups, maps and training material translated into as many local minority languages as possible or visual training/assessment tools, participatory assessment tools to illiterate people). It is also recommended that gender indicators should include measures of gender mainstreaming improvement.

Recommendation 4.2.4 – Undertake a full capacity assessment (technical and functional) and develop a capacity plan which will form the basis of training for the remainder of the project. It is also recommended that capacity indicators should be upgraded to include actual measures of increased capacity.

Recommendations 4.2.5 – It is recommended that the project undertakes more active risk management as outlined above. In particular actively managing, monitoring, review, communicating and consulting on risks as well as implementing appropriate corrective measures to address these risks.

4.3. EFFICIENCY

4.3.1. Project Implementation and Adaptive Management

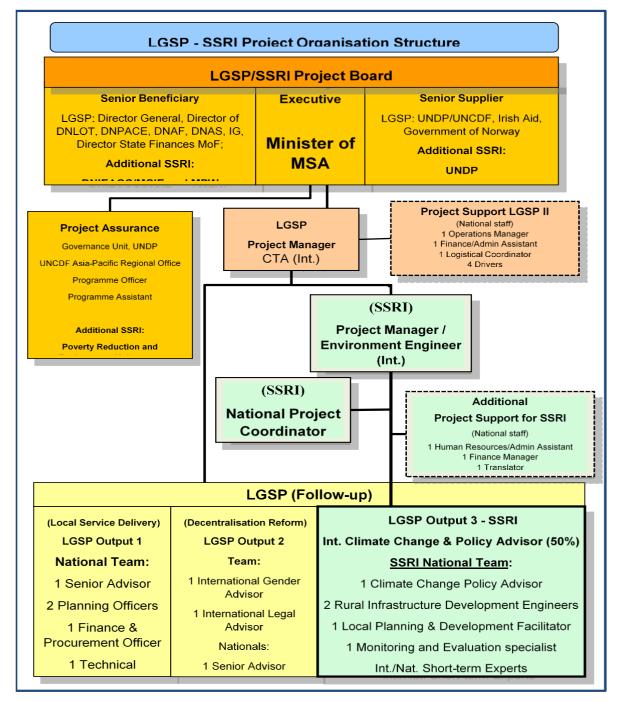


Figure 4-13: Project Management arrangements (taken from the Inception report)

The above diagram shows the management arrangements that was outlined in the project document and shows that the SSRI project (the green boxes) was originally embedded within the wider LGSP II framework and was intended to implement Outcome 3 of the LGSP. As such it was intended that the SSRI project would have the extensive support of the wider framework including access to international and national expertise. With the discontinuation of the LGSP II, while the implementing partners, project board and management arrangements remain the same, the technical support has not materialised for the SSRI project and this is reflected in the technical inputs to the project. No major changes have been reported to the PM arrangements set out in the Project Document, although there was a change in project CTA which led to the project being without technical support for 6 months (July to December 2015). Otherwise, responsibilities and reporting lines are clear in PD and in practice.

4.3.2. Work Planning and Management

Assessment of the timeline and quality of the reporting followed by the project

The work plan in the inception report has been reviewed against progress reports to confirm what progress has been made against planned activities. A review of the project financial summary reports (Table 4-6) show that disbursement is at approximately 80% per year with spend mainly in the latter half of each year. For example, the project started in September 2013, i.e. Q3, but the full 85.5% disbursement in 2013 was in 2013 Q4, Similarly in 2014 and 2015 Q1 spend is 13 and 9% while Q4 send is 34 and 32% respectively. In the startup year, this delayed expenditure is expected as the project activities get going and as payments are likely to have been scheduled with delivery at the end of the year. In general however, the ramping up of expenditure during the year suggests that perhaps project annual planning and AWP approvals at the start of each year is causing possible delays in the start of activities each year. It has not been possible to confirm this as detailed activities planning and implementation information is not available. If this is the case, one suggestion would be to start project planning earlier e.g. in October or November of the previous year.

Quarter	2013	2014	2015
Q1	0%	13.09%	9.13%
Q2	0%	13.14%	14.31%
Q3	0%	19.77%	21.62%
Q4	85.47%	34.37%	31.83%

 Table 4-6:
 Summary of project disbursement rate by quarter

Assessment of management and other inputs provided by the project

Qualitative: Technical Assistance – Apart from the CVCA report, the project appears to have commissioned no other technical studies and has not engaged any national or international consultants, despite there being several allowances for national and international consultants in the project work plan (Inception report). The main focus of technical assistance on the project has been through the capacity building activities which have been mainly provided by the SSRI project team led by the project CTA. In addition the climate change expertise is facilitated by the project to support the CCCB which is provided by an International expert. The recommendation regarding the strengthening of the technical input of the project into the PDIM process is likely to require technical assistance beyond the current capacity of the project team and likely beyond available expertise nationally. As part of the development of the CD plan, an assessment will need to be made of what additional technical national and international assistance will need to be hired to the project.

Project Management: The project employs a fulltime project manager/CTA, project coordinator, project financial and admin assistants, two project engineers, project M&E expert, climate change advisor, policy specialist and a Local Planning and Development Officer. The project team is

comprised of very skilled and highly motivated staff. The SSRI project unit is presently housed in the Director General for Urban Organisation Compound, Ministry of State Administration, which allows for close coordination as well as frequent interaction with the Secretary of State of Ministry of State Administration, DGOU, DNTOP, National Directors and other key staff. The office is fully equipped and well serviced with transport equipment.

Monitoring and Review: The limited technical assistance provided by the project suggests technical input in terms of checks and reviews of project technical outputs is also limited (perhaps reflected in some of the technical shortcomings identified). The QA and QC with respect to technical deliverables for the project, is not clear and has not been elaborated within the Project Document although it appears that the stakeholder feedback process (i.e. review of technical deliverables such as re CVCA report) provides some feedback and therefore QC on the project. A general observation is that the role of the project CTA is to provide sound technical support to the project which gives some support to project QA and QC and the new CTA will provide a much needed overview of technical quality on the project. When undertaking the capacity assessment and development planning it would be important for the project to identify what additional technical assistance would be needed to support the project team and assist in capacity building, QA and QC.

It is noted that project technical input was also expected to be provided by the wider LGSP II project which has now ended. In light of this (and as should be determined by the capacity assessment under **Recommendation 4.1.1**) it is recommended that the project engages international expertise to enhance local capacity in key areas such as hazard and risk assessment and mapping, engineering design, contract management, cost-benefit analysis and investment planning.

4.3.3. Fund Leveraging/Co-financing

4.3.4. Project Delivery Mechanisms / Partnerships

The project inception report details the intended approach to partnership to include:

- Assess project areas with opportunities for collaboration, conduct a stakeholder mapping and develop a content strategy on which aspects collaboration would be useful (e.g. existing good practice). Possible areas are:
 - Infrastructure design, e.g. water => WaterAid, RAIN Foundation, ILO, etc.
 - Construction: existing (I)NGOs
 - Capacity Development: existing training institutes, (I)NGOs, private sector
 - UNV and Engineers without Border Australia (specific services as part of the TA team)
 - Knowledge depository and -management: SNC, University
- Engage with possible partners and define complementarities and areas of collaboration, identify if collaboration during project implementation is mutually beneficial and appreciated;
- Develop joint collaboration process, results and deliverables of the collaboration. Decide what would be required in terms of multi-year performance, results delivery formulations, including methodology development, delivery of products, learning and adaptation, evidence-based policy advise, project requirements and mainstreaming requirements;
- Develop an understanding on how informal or formal the collaboration/partnership is desired/required;
- Develop a result measurement, monitoring and evaluation framework;
- Develop Requests for Proposals (tender documents) and contracts and/or partnership agreements. Assess UNDP procedures for contractual issues for different modalities. Conduct procurement;

The key project partners are the MSA and MCIE. Both have been assessed in terms of their input to the project and the level of engagement that has been achieved with both partners.

Ministry of State Administration

MSA is responsible for infrastructure at all levels and their main role is to guarantee the local development and good governance through decentralisation of functions. PDIM and PNDS processes are the main mechanisms by which this decentralisation is achieved. Community driven programmes such as SSRI using the PDIM process are therefore of importance to MSA and fully aligned with the strategy of decentralisation for local level rural economic development, and with the Strategic Development Plan 2011-2030 which includes the opening of rural roads to all hamlets, which the SSRI has enabled (e.g. Legiumea bridges project). SSRI is also aligned with the Conservation plan as it is actively promoting revegetation and reforestation and is aiming to protect the forests.

MSA during interview expressed deep gratitude to the SSRI project for support to the climate change programme. MSA recognise the benefits to rural communities of the climate resilient approach to SSRI and sees the sustainability of the approach. MSA is keen to upscale the project to other municipalities to highest risk municipalities.

The MSA is clear that extensive awareness has been raised at government level, on climate risk but feel that they are not ready to implement such projects themselves. They see the route to implementation of SSRI project in the future would be through continued partnership with UNDP and other donors.

With regard to capacity building, MSA felt that training and community awareness raising had been successful and that a key benefit of the project is the involvement the community in bottom-up planning and implementation. While highlighting capacity building initiatives such as the study comparative to Vietnam, training in English there was a request for more technical capacity building (e.g. to enhance programme focus on engineering for quality of project, and another study comparative to Vietnam or similar). This request for additional training reflects the view that capacity development needs to be rethought and redesigned to be more effective.

A key benefit of the project had been that MSA is taking the lead on embedding climate change in infrastructure with the Secretary of state for MSA personally acting as the focal point from MSA to discuss with other line ministries e.g. Ministry of Social Solidarity and Ministry of Agriculture and Fisheries through regular meetings where relevant updates are provided and information shared on planning and implementation policies. MSA is undertaking advocacy for bottom up planning through information sharing from CCCB and other platforms. The Secretary of State for MSA personally attends regular meetings of two of the platforms established by the project at committee level and delegates authority for more technical meetings. There is also an exchange of information with Dili-Ainaro project with the director of MSA being involved in technical level meeting.

MSA identified the following challenges in project implementation:

- 1) Difficulty with the number of technical staff to support implementation and more technical training required.
- Pilot projects it is hard to explain to communities why the project is being implemented in only a limited number of sucos. MSA's recommendation is to extend to other critical areas, and to continue project to address issues in other sucos.
- Gov't has budget but does not spend on bioengineering projects which is why the SSRI has been successful. A challenge is to provide evidence base to enable government to implement projects like SSRI.

MSA identifies the following project successes -

- 4) Can see difference between PDIM project and PNDS projects and the benefits of being able to hire contractors to do structural as well as softer measures.
- 5) Innovative approaches being introduced by the SSRI project. With river protection works, traditionally only gabion baskets were used, but SSRI is also planting vetiver grass on top of gabion baskets.

Ministry of Commerce, Industry and Environment (MCIE)

Three national directorates have been established - NDCC, NDCPEI, NDPB. NDCC – is mainly focused on international climate change activities, NDCPEI (planning application) and NDPD have input to biodiversity impact assessment of infrastructure projects. With the SSRI project the role of MCIE has included collaboration on bioengineering (SSRI used their methodology). The NDPEI directorate is responsible for EIA – project categorisation and this approach was used by the SSRI project to categorise the projects being implemented. MCIE has been involved in the SSRI project through the EIA and safeguards study. All directorates of the MCIE have been involved in the SSRI project since the beginning including EIA, CC, and Pollution directorates (biodiversity less so). The GEF focal point for Timor Leste also sits with the MCIE.

The NDCC has been the main SSRI project counterpart department. One role of the NDCC is to attend and cooperate on any regional, international meetings on climate change. To share how they meet COP requirement and challenges, act on Designated National Authority as head of CDM committee (clean development mechanism), Implementing HPMP (Phase out management plan for HFC). Under UNFCC NDCC coordinate with other agencies to prepare NAPA in collaboration with UNDP (GEF). NDCC undertook the Initial National Communication (INC) and currently undertaking the SNC Project.

During the SSRI project development NDCC director was involved in the proposal preparation and review (PIF and PD). NDCC has been involved in the implementation of outcome 1. Staff involved in field for data collection and the department makes in-kind contribution with space for SSRI team (project CC officer is based in NDCC office), approves workshop meetings etc., signs the letter. The director of NDCC stated that he is happy with the design of the project and very happy with the SSRI team. He highlighted that the previous CTA is a good man, and good manager who discussed activities with him in detail and kept him informed.

According the NDCC director, small scale interventions don't require EIA, but the SSRI do it anyway which demonstrates that the SSRI team go above the minimum standard¹⁰. NDCC and NDCPEI were involved in the EIA and Safeguards study that was done by the project and also in site visits to gain community perception and consult with communities, leaders etc.

MCIE raised a number of concerns with the CVCA undertaken by the SSRI project and expressed a need to adjust the method to one which is more appropriate to TL and which focuses on biophysical and socio-economic and development issues of TL. NDCC felt that they had not been sufficiently consulted during the CVCA and that the gaps identified have not been addressed.

NDCC director sees the benefits from the project as:

- 1) Ratification of the convention (received the funds from GEF),
- 2) The project has put climate change adaptation (CCA) into the planning process which will strengthen infrastructure planning.

NDCC director identified the following challenges experienced in project implementation:

¹⁰ It should be noted that the Director of the NDCC is referring here to the EIA and Safeguards report which was prepared by the project which has been reviewed by the MTR team and found to be inadequate for the purposes of engineering EIA (See discussion in Section 4.1 and refer to recommendation 4.1.3 d and f).

- 1) Capacity building According to the director none was received, but he is hopeful that in the next steps capacity development will be implemented¹¹.
- 2) What is needed on the ground, staff to engage in data collection (methods, application of GPS, maps) for CVCA data collection
- 3) Capability building needs international technical assistance (TA) from outside to build national capacity.
- 4) Standardising reporting methods so that reports can be properly referenced. Reports are currently not well structured and not well written.
- 5) Need to extend the project to other municipalities (too restrictive). Thinks that the government will be able to implement similar projects. SSRI will be good pilot for other succes. Thinks that SSRI should be merged under PNDS to be sustainable.
- 6) Duration of the contract of the teams. The director would like to see less turnoff of project staff.
- 7) Strengthening communication. Need quarterly or 6-monthly reports. Reports are currently only provided when finalised and NDCC director is only invited to board meetings when there is a challenge on the project. He feels that he needs regular and up to date information to be able to answer to Minister on progress.

Other directorates have identified the following shortcomings of the project:

- 1) Would like the project to provide quarterly reports to see what progress is made.
- 2) Would like evidence based information on whether physical infrastructure applies the climate change risk measures. This information is needed to help shape the policies and strategies for CC.
- 3) The project needs to do more to keep NDCC informed of evidence and outcomes to help provide basis for policy. More collaboration so that government has more ownership of the project.
- 4) Initial project document met the needs of MCIE, but in implementation more activities need to be added which fulfil MCIE priorities if project scope allows.
- 5) Coordination between MSA and public works need to be strengthened e.g. how risks are identified on road works and how to apply the climate change into the design of road projects.
- 6) Need to consider seasonality of project implementation research and design in rainy season and implementation in summer.
- 7) Raised issue with the quality of the project (pointed out that it does not only apply to SSRI). Due to the general lack of technical staff in the field. Recommended better technical expertise is used to improve the quality of the project.

CARE International

Care international was engaged by the project to undertake the CVCA work as the main external partnership of the project. It was not possible to meet with CARE International during the MTR mission, but an10-minute follow-up meeting was conducted by the National consultant. A major limitation of assessing the performance of CARE international is the fact that the person who led the CVCA has now left the organization. The brief consultation did not provide much insight into the partnership from the CARE International perspective so it has only been possible to analyse by reviewing the methodology and results of the CVCA work (Section 4.1 on relevance)

Other project partners

The project is implementing projects that cut across a number of different sectors (water and

¹¹ The project has reported that training was provided to DNCC staf including GIS and remote sengsing, South-south cooperation to Vietnam, involving staff for field trips for primary data collection and EIA, workshop training on CC, Procurement, monitoring and evaluation, training also provided to CCCB staff under NDCC portfolio including providede 2 GPS to CCCB to support the activities. See also Section 4.8 on Capacity Development.

sanitation, roads, forestry). In addition under Component 1 the project is aiming to influence and develop climate resilient policy in at least two sectors. It is therefore important that the project engages with all of the relevant partners in the formulation and execution of SSRI projects. The inception report outlined the key partnerships that would need to be formed given the cross-cutting nature of the project, but it has only been possible to meet with the Directorates for Water and Forestry. The interview was undertaken by the national MTR consultant.

Meeting with the National Director for Water (15th March 2016)

The national directorate for water is responsible for policy, planning, execution, organisation and monitoring of all water systems implemented by government and also all government partners. All agencies, NGOs who worked on water supply system activities on the SSRI must work directly with the directorate for Water and Sanitation.

Before installation of any water supply system the directorate has two activities that have to be implemented regarding community action plan. First, for community action plan related to socialization, consultation at community level, all beneficiary groups have to be consulted. Second for community action plan related to conducting survey, design, in this phrase involved technical staff from municipality, facilitator for water and sanitation in Administrative Post and also representative from the community (male and female). For monitoring and maintenance the technical staff from municipality and Facilitator for water and sanitation in Administrative post form the GMF (Grupo Maneja Fasilidade/ Group for Maintenance of Facility) were provided with training for the directorate on related water system maintenance, administrative and finance. According to the policy for water there are two categories, for urban area responsible for maintenance by technical staff in Municipality and in rural area by the community (GMF). To do the maintenance in rural areas the community must contribute, about 0.50 - 1.00 USD, depending on their capacity and in concordance with the community. So far no feasibility study has been done due to cost. However before installation any water supply, technical staff in municipality engaged in measuring water flow (the water debit, water volume and taken GPS point) but no EIA study conducted. The National Directorate for Water also provided the Guidelines for GMF.

Meeting with Chief of Department for Watershed Management (17th March 2016)

The department for watershed management provides three services including management of watersheds; mangrove and coastal areas and water flow services. At the moment they have agreement (MoU) with the government of Indonesia (Department of Forestry and Industrial Crops) in order to conduct rapid survey in 3 points watershed in border (Mota masin in Covalima Municipality, Nunura in Bobonaro Municipality and Tono in Oecussi Municipality). The directorate intervenes in catchment reforestation on projects such as Dili – Ainaro road and works closely with UNDP in order to intervene in catchment management activities. The permanent nursery in Maubara and another municipality always provided seedling and distributed for the community.

The Chief of Department said the Directorate of National forestry is principal counterpart on implementation of two projects from UNDP such as Dili – Ainaro corridor and Mangrove project for the next few years. Based on conversation with the Chief of Department (Mr. Fernando de Araujo), for Dili Ainaro corridor, UNDP provided 120.000 USD for three activities 1)- reforestation 6 m in the line of the road; 2-) Agroforestry; and 3)- Bioengineering and also support for Mangrove project it about 7 million USD for next 4 years.

In this year the Department for watershed management will promote 7 points of tank center for the communities who are living in rural areas and face difficulty on water access for subsistence farming.

National forestry play an important role in watershed management and reforestations in catchment areas in order to respond to climate change and sees the bioengineering methods introduced by SSRI as needed and innovative. The forestry department considers this approach to be very important and should be followed up by another project particularly in watershed management program interventions.

NGOs

A key project partner is the NGO community who have been engaged in the project (via and MoU) mainly for the implementation of catchment management measures and resilience measures for structures. The MTR team interviewed Timor Verde and Reddy, the NGO team working on the Ossoala road protection project. Activities include:

- 1) Community engagement, awareness raising and training
- 2) Planting along the route of the 1.5km road and using the communities to do so (with financial incentives)
- 3) Planting in communities in the upper catchment
- 4) Provide 1 year after care

The NGO team identified the following challenges to date:

- 1) Freely grazing animals eating the plants resulting in the need to fence before planting (although cannot fence the whole route)
- 2) Start of work in the rainy season has delayed progress
- 3) Communities have to travel long distance to help with the planting and arrive late causing delays

The NGO team identified the following benefits of the project and opportunities

- 1) Greater visibility on important government project (although NGO does not have a voice in local governance, projects like this give the opportunity to play a role).
- Would like UNDP to support rural NGOs in the future to implement such projects (community based planting) and to use its leverage to engage with Ministry of Agriculture to undertake such projects in the future.

4.3.5. Stakeholders Engagement

The project has developed and leveraged the necessary and appropriate partnerships with direct and tangential stakeholders through the engagement of key project partners (MSA and MCIE) and at the national and local levels. Most stakeholders interviewed were all actively involved in the project and expressed overall satisfaction with the level of their inclusion in project design and implementation, with the exception of MCIE (as detailed above).

4.3.6. Communications

It has not been possible to review any communications documentation on the project but as noted above, some communication issues have been identified by MCIE. It is also noted that, while the project technical group (national platform) has been a good vehicle for project technical communications, this could/should be extended to include other types of stakeholders.

4.3.7. Monitoring and Evaluation Systems and Progress Reporting

The project monitoring and evaluation framework as developed and presented as part of the project document was deemed appropriate and adequate and adopted during implementation. The essential aspects of the system are as follows.

Table 4-7: Monitoring and Evaluation schedule and budget

Type of M&E activity	Responsible Parties	Budget US\$ Excluding project team staff time	Time frame
Inception Workshop and Report	Project ManagerUNDP CO, UNDP GEF	Indicative cost: 15,000	Within first four months of project start up
Measurement of Means of Verification of project results (objectives and outcomes).	 UNDP GEF RTA/Project Manager will oversee the hiring of specific studies and institutions, and delegate responsibilities to relevant team members. 	To be finalized in Inception Phase and Workshop. Indicative cost: 15,000	Start, mid and end of project (during evaluation cycle) and annually when required.
Measurement of Means of Verification for Project Progress (outputs and activities)	 Oversight by Project Manager Project team 	To be determined as part of the Annual Work Plan's preparation.	Annually prior to ARR/PIR and to the definition of annual work plans
ARR/PIR	 Project Manager and team UNDP CO UNDP RTA UNDP EEG 	None	Annually
Periodic status/ progress reports	 Project Manager and team 	None	Quarterly
Mid-term Evaluation	 Project Manager and team UNDP CO UNDP RCU External Consultants (i.e. evaluation team) 	Indicative cost: 20,000	At the mid-point of project implementation.
Final Evaluation	 Project Manager and team, UNDP CO UNDP RCU External Consultants (i.e. evaluation team) 	Indicative cost : 25,000	At least three months before the end of project implementation
Project Terminal Report	 Project Manager and team UNDP CO local consultant 		At least three months before the end of the project
Audit	UNDP COProject Manager and team	Indicative cost 8,000	Yearly
Visits to field sites	 UNDP CO UNDP RCU (as appropriate) Government representatives 	For GEF supported projects, paid from IA fees and operational budget	Yearly
TOTAL indicative COST Excluding project team sta	off time and UNDP staff and travel expenses	US\$ 83,000	

Monitoring and Evaluation in practice

The project M&E framework comprises an activities log, issues and risk log, colour coded updates on activities planned quarterly, activities not done (including reasons not done), M&E check list, data on beneficiaries, report template and format. The M&E database was created from scratch by the project M&E officer and is based on the needs of the project. It appears to be comprehensive and well managed. During interview, it was noted that the M&E officer has no formal training on M&E but through experience on other projects has been able to create this comprehensive database. It was a direct request of the officer that formal M&E training be provided in the future. The MTR team would endorse this request, given the importance of the role in ensuring project efficiency, QA, QC and for providing evidence for project advocacy and scaling up.

The M&E officer identified a number of challenges in undertaking the role on the project including:

- Methods of data collection and format different for different components of project
- Project proposals from sucos are sent through the PDIM approvals process. However, data on beneficiaries (from sucos) is not always consistent with numbers calculated by the project. Hence it is difficult when M&E framework attempts to record correct numbers of beneficiaries for validation.
- Inception report changes in indicators which have not been reflected in the M&E system

• Technical issues e.g. with the water flow calculations for some structures designed are difficult to record within the M&E system

• Issues with communities e.g. where there is a change in their support for use of their land for projects needing land to implement, is difficult to record and follow up.

The M&E reports provided are focused on the implementation of the 10 schemes and shows very detailed accounting of project financial implementation. As part of improved project monitoring for advocacy and scaling up and in line with capacity building (capacity development needs to be identified in the capacity assessment), it is recommended that training is provided to strengthen M&E during the second half of the project. This could include training of municipality staff in such systems if they are not already in place, as the PDIM process, if it will fully embed SSRI projects, will need robust M&E in the future.

4.3.1. Recommendations – Efficiency

Recommendation 4.3.1 - Training in M&E to project staff as well as municipality staff. **Recommendation 4.3.1** - Engage international expertise to enhance local capacity in key areas such as hazard and risk assessment and mapping, engineering design, contract management, cost-benefit analysis and investment planning.

Table 4-8: Project Adaptive Management Summary and Rating

	Findings	Rating	
Work Planning			
Delays in project start-up and implementation, identify the causes and examine if they have been resolved	Based on project expenditure, no major delays in project start up in 2013, although spend in Q4 of 2013 is 85% although project started in Q3 of 2013. The low disbursement rate in Q1 of 2014 also points is continuing delays with project start up. The following challenges were note in the APR 14 report: delayed recruitment of local staff, lack of a separate Project Board for the project, lack of official standards for development of infrastructure such as rural roads hampers efforts of the SSRI to integrate climate change into the standards and guidelines for rural infrastructure.	5	
Are work-planning processes results-based? If not, suggest ways to re-orientate work planning to focus on results	Work planning is results based and closely monitored against targets. Average annual disbursement rate of 80& suggests under annual delivery with 2015 being only 77%. This needs to be closely monitored in the future and efforts made to bring annual delivery rate up to 100%.	5	
Use of the project's results framework/ logframe as a management tool and review any changes made to it since project start.	Changes to project targets and indicators made at inception need to be updated with M&E system	4	
	Finance and co-financing		
Financial management of the project, with specific reference to the cost- effectiveness of interventions	Project main interventions this far have been the 10 SSRI project implemented. These have bene largely cost effective, well managed and implemented projects with a few notable exceptions. The CVCA work with its major shortcomings, and the need to undertake further work on data collection (and revising of technical basis of the work) does not represent value for money.	3	
Changes to fund allocations as a result of budget revisions and assess the appropriateness and relevance of such revisions	No revisions to fund allocations	6	
Does the project have the appropriate financial controls, including reporting and planning, that allow management to make informed decisions regarding the budget and allow for timely flow of funds	Project financial controls appear to be adequate	6	
Informed by the co-financing monitoring table to be filled out, provide commentary on co- financing: is co- financing being used strategically to help the objectives of the project? Is the Project Team meeting with all co- financing partners regularly in order to align financing priorities and annual work plans	The main source of co-financing is UNDP TRAC which appears to be used strategically to achieve project objectives. It is noted that in-kind contributions e.g. cost of office facilities provided by MSA is not formally recorded by the project in financial reporting. It is recommended that this is recorded in the future.	5	
	Project-level Monitoring and Evaluation Systems		
Review the monitoring tools currently being used: Do they provide the necessary information? Do they involve key partners? Are they aligned or mainstreamed with national systems? Do they use existing information? Are they efficient? Are they cost-effective? Are additional tools required? How could they be made more participatory and inclusive	Bespoke M&E system has been developed by the project. It appears to be comprehensive and provides detailed information on all aspects of the project. Some noted challenges include reliability of information provided to M&E system and ability to verify against actual. Additional issues include integration with UNDP and national M&E systems	4	

1		
Examine the financial management of the project monitoring and evaluation budget. Are sufficient resources being allocated to monitoring and evaluation?		2
Are these resources being allocated effectively?	Budget for M&E has not been evaluated. Detailed financial reports on project expenditure has not been provided	
	Stakeholder Engagement:	
Has the project developed and leveraged the necessary and appropriate partnerships with direct and tangential stakeholders	Project has engaged all key partners as outlined in PD. While key sector stakeholders such as roads, water and forestry have been engaged to some extent, the project has not leveraged these partnerships fully as would have been expected for a project working across all of these sectors (e.g. bridges project should have engaged with roads department for surfacing works)	4
Participation and country-driven processes: Do local and national government stakeholders support the objectives of the project? Do they continue to have an active role in project decision-making that supports efficient and effective project implementation	Local and national government stakeholders support the objectives of the project and have an active role in project decision making. It is noted, however that MCIE would like to be more closely involved in decision making and implementation	4
Participation and public awareness: To what extent has stakeholder involvement and public awareness contributed to the progress towards achievement of project objectives	Stakeholder awareness of the project, its objectives and its results is very high. This has been instrumental in the relative success of Component 1 of the project (and was the objective of this component). Public awareness among communities interviewed is also very high and has contributed to project achievements. Project community engagement activities are well targeted and achieving excellent results	6
Reporting: Assess how adaptive management changes have been reported by the project management and shared with the Project Board	Quarterly reports are very detailed in terms of activities to be undertaken, progress made, challenges, risks etc. Minutes of project board meetings have not been reviewed, but based on quarterly reports, it is inferred that the project board is kept well informed of project progress.	6
Assess how well the Project Team and partners undertake and fulfill GEF reporting requirements (i.e. how have they addressed poorly-rated PIRs, if applicable?)	PIRs not reviewed	2
Assess how lessons derived from the adaptive management process have been documented, shared with key partners and internalized by partners	Lessons learned and good practices well documented on quarterly and annual reports	6
	Communications:	
Review internal project communication with stakeholders: Is communication regular and effective? Are there key stakeholders left out of communication? Are there feedback mechanisms when communication is received? Does this communication with stakeholders contribute to their awareness of project outcomes and activities and investment in the sustainability of project results?	It has not been possible to review project communications plan in detail (no communications plan in place), however, interviews with key stakeholders indicate that most are happy with level of communication and consultation. A notable exception is MCIE who appear not to be included in key communications and at key stages of consultation (e.g. during the CVCA work). Project awareness among stakeholders is very high and this contributes to project outcomes Project should, however, develop a communications plan (including awareness raising and advocacy) which will ensure better engagement of key stakeholders and further raise awareness of the project for advocacy, scaling up and future investment	4
Review external project communication: Are proper means of communication established or being established to express the project progress and intended impact to the public (is there a web presence, for example? Or did the project implement appropriate outreach and public awareness campaigns?)	Project has established technical information dissemination platforms (via CCCB website), it is also very well served by social media communications such as face book where project activities and results are reported. Further structure and targeting of such communications at the appropriate level could provide additional gains for advocacy and scaling up.	6

4.4. SUSTAINABILITY

4.4.1. Sustainability Strategy

4.4.2. Project Exit Strategy

There is no clear exit strategy for the project, but the fact that key government departments are project partners (MSA and MCIE) ensure that political factors are embedded in the exit strategy. In addition, the capacity building that has been done (and will be done) at central and municipality levels will ensure that, on exit, the capacity will be in place for future implementation of climate resilient SSRI.

To enhance further embedding of long-term capacity and contribute to long-term sustainability, the project could ensure that the final Capacity Assessment is used to develop a long-term capacity development plan to help guide government on what will be needed in terms of expertise for future implementation of SSRI.

4.4.3. Sustainability of the project interventions in terms of their effect on environment

The project EIA and safeguards report has been reviewed. Since the project includes physical interventions that can be either beneficial or harmful to the environment the project interventions have significant implications for environmental sustainability. The project needs to include more detailed EIA in order to ensure environmental sustainability (Recommendations 4.1.3 d and f).

It is not clear whether the interventions are embedding climate change considerations in the design of mitigation actions. Sustainable climate risk management requires robust consideration of climate change to ensure that any intervention measures will be sustainable in the face of climate change. It is noted that the ultimate aim of the project is the incorporation climate risk and climate change hazards into the planning process. If future risk due to climate change are not robustly considered, there is a risk that intervention measures being implemented might not be sustainable under climate change.

4.4.4. Catalysed beneficial development effects of the project

Income generation - The project does not directly result in income generation, but because the project outcome is aimed at reducing damages, improving food production (through irrigation and water supply project, through protection of agricultural land from flooding) are direct and indirect livelihood stabilization/protection and potentially income generation. The project could examine income generation opportunities as part of the socio-economic risk and opportunity assessment. As stated earlier, this can be done by first developing socio-economic baseline information on all communities, which can be done to the household level, which will be linked to the calculation of current climate induced risks by integrating hazard and socio-economic data on livelihoods, health, access to public services etc. The same model can then be used to identify income generation/improvements due to the project (due to the improved infrastructure and reduced risks).

4.4.5. Sustainability of resources

The institutional arrangement and resource availability for the long-term implementation of SSRI projects should be examined as part of the Capacity Assessment and long-term planning. Specifically this should include an examination of the human, financial and physical resources

(e.g. technical equipment etc.) or long-term SSRI embedding into the PDIM. This is included in Recommendation 4.1.1.

4.4.5.1. Financial resources

As has been recommended earlier, the project should undertake detailed studies of the cost-benefit of its interventions and should examine other financing mechanisms for implementation of climate resilient SSRI (e.g. also need to study how private sector funding can be accessed and develop clear guidance on how to do this) to ensure that there is a clear financial model for future implementation and to give government the evidence-base for further implementation of such projects.

4.4.5.2. Human resources

Resources gap has been identified by municipalities that include lack of engineers at municipality level, lack of staff at AP level to effectively monitor project implementation and lack of engineering skills within contractor teams.

4.4.6. Sustainability Risks

4.4.6.1. Financial risks to sustainability

There is an expectation and hope at all levels that the SSRI will continue under Donor funding. Potentially because it is seen as meeting a shortfall. It is suggested that the project could introduce a financial analysis output, based on the vulnerability mapping, cost-benefit analysis (and scaled up to rest of TL), to help identify the financial commitment that government will need for long-term national SSRI funding.

A key financial risk to sustainability is the cost of maintenance of the climate resilient infrastructure being implement by the project. The intended project strategy for maintenance of infrastructure is stated in the project design as involving the GMF who will be trained to maintain the climate resilient infrastructure over time. During the MTR mission, the main outcome of interviews with the maintenance organization (GMF) was that it is not clear how they should collect money for maintenance and that there was no training on how to maintain the infrastructure (see Ossoala case study above). The need for training maintenance staff will presumably emerge from the capacity assessment and development plan. However, the following further recommendations are made specifically:

Recommendation 4.4.1 – Introduce a financial analysis output, based on the vulnerability mapping, cost-benefit analysis (and scaled up to rest of TL), to help identify the financial commitment that government will need for long-term national SSRI funding.

Recommendation 4.4.2 – Develop the financing model for maintenance of infrastructure and roll out for all SSRI schemes already built. Include monitoring mechanism to collect evidence base and calibrate financial model for long-term maintenance financing.

4.4.6.2. Socio-economic risks to sustainability

Stakeholder ownership needs to be strengthened and evidence-based advocacy used to promote the benefits of the project approach

• Key project tools and deliverables e.g. CVCA, CC mainstreaming guidelines, CAMP manuals and tools etc. should be reviewed and strengthened where necessary, and consensus gained to ensure use in the future

4.4.6.3. Environmental risks to sustainability

Generally methods are environmentally sustainable, but without EIA within the process, there is a potential for adverse environmental impacts.

4.4.6.4. Institutional framework and governance risks to sustainability

The project is in line with legal frameworks, policies, governance structures and processes so benefits should be sustainable. The project could do more to influence processes to embed CC (**Recommendations 4.1.3 a** and **b**). Capacity building and technology transfer needs to be strengthened to ensure sustainability. The project needs to influence and change the existing PDIM process to include CC throughout (as per **Recommendations 4.1.2** and **4.1.3**).

4.4.7. Enabling Environment

4.4.8. Policy and Legislation and Institutions

Under Component 1 the project is influencing and developing the climate change policy framework. An important aspect of framework policy and institutional framework will be the development and use of standardised methods of assessment, design and construction which can all be set out in law and policy. It would therefore be important that the policy development should seek to introduce and embed standards and methods that would ensure the implementation of climate resilient infrastructure in the future, with accompanying guidelines and manuals.

4.4.9. Recommendations – Sustainability

Recommendation 4.4.1 – Introduce a financial analysis output, based on the vulnerability mapping, cost-benefit analysis (and scaled up to rest of TL), to help identify the financial commitment that government will need for long-term national SSRI funding.

Recommendation 4.4.2 – Develop the financing model for maintenance of infrastructure and roll out for all SSRI schemes already built. Include monitoring mechanism to collect evidence base and calibrate financial model for long-term maintenance financing.

It should be noted that all earlier recommendations relating to capacity development (**Recommendation 4.1.1**), introduction of climate resilient design standards and further embedding into the PDIM process will also contribute to project sustainability (**Recommendation 4.1.3**).

4.5. REPLICABILITY and SCALING UP

4.5.1. Replicability Approach

The approach to replicability has been outlined in the project document as follows:

- Through awareness raising, targeted Information, research activities and mainstreaming. Awareness is high but the project should seek consensus on key project outputs and approaches to ensure buy-in to scaling up
- Through field tested project activities, capacity development for improved management of climate risks.
- Project addresses issues which are prevalent throughout TL and methods being applied to strengthen the quality and climate resilience of local planning and budgeting so that it can take into account additional requirements and costs will be standardized in approach and integrated in the local planning guidelines of MSA.
- the project has identified a number of clear gaps in existing practices and procedures for the provision of rural infrastructure, specifically in the area of construction standards and guidance which are currently based on "business as usual" climatic variables
- Niche for work on policy influencing, with the potential to impact on similar types of infrastructure investment more widely nationally

The project selected intervention areas and the hazards that it is dealing with, can be considered to be a representative sample of the areas and hazards experienced throughout TL. The project is therefore sufficiently capturing the range of issues that will need to be addressed when scaled up. This therefore sets a good basis for consideration of replicability. In addition, the project is improving existing local technologies and approaches, and has developed and new methods/guidelines/tools essential for addressing the problem of climate risks to small scale infrastructure that is wider than its current implementation area. However, the project has not employed best practice in the developed of these tools, methods guidelines etc., and there will need to be substantial strengthening and of the methods, guidelines and tools developed to provide a basis for replication.

The project approach, in general, is simple to understand and to implement making it appropriate for replication, but there will need to be an examination of the recommended realignment of the project strategy under Component 2, to determine whether it remains so.

A significant constraint to the replicability of the project is the affordability of replication in terms of financial and time constraints. There is no robust cost model in place and no strong evidence base from the current project, for the financial viability of replication. A key recommendation is therefore that the current project should gather more detailed evidence base for replication and undertake financial modelling to understand and demonstrate the replication costs to government. In addition the project should leverage its influence through advocacy with government and other partners to promote the project benefits and benefits of replication/scaling up.

To encourage the replication and scaling up of resilience building investments at the local level, the project needs to provide evidence of the success of interventions made under the SSRI project in terms of increased adaptive capacity of communities, increased resilience of infrastructure, disaster risk reduction (a derived benefit), safeguarding of livelihoods and provision of opportunities for real economic development. The project needs to formulate an investment framework which addresses the key benefits of the approach.

Based on the MTR assessment, there is currently insufficiently evidence to clearly state that the SSRI funded infrastructure units are climate proofed. While climate proofing cannot be achieved 100% there need to be a measures of an improvement in climate proofing and the benefits that that provides. The objective of the evidence gathering exercise, therefore should be to demonstrate the engineering options and effectiveness of climate proofing of infrastructure. The purpose of this

demonstration is to influence the PDIM to replicate and scale up the approach of the project in the future. At this mid-point it is not surprising that the PDIM process still does not include climate proofing measures, but for advocacy and scaling up, and to ensure that the project is heading in the right direction the MTR team recommends that a stronger evidence gathering exercise needs to be undertaken.

4.5.2. Recommendations - Replicability & Scaling up

Recommendation 4.5.1 – Use evidence gathered from the project to provide cost-benefit evidence of implementing climate resilient SSRI and for defining the capacity (and feasibility) of replicating and scaling up the project nationally. This can be done with closer evidence gathering, and parameter/indicator measurement.

Recommendation 4.5.2 – Formulate an investment framework based on cost benefit analysis and evidence base, with project figures for the rest of TL

4.6. NETWORK – LINKAGES

4.6.1. Key Findings

The project has systematically documented lessons identified within the quarterly and annual reports However given that the project is aiming to provide an evidence basis for eventual implementation of the SSRI approach at nationwide, the project needs to document project results more closely (e.g. detailed case studies of the pilot/demonstration project results). The project also needs to better quantify project output results (e.g. with respect to capacity building, impact of implementation on the ground, cost-benefit of climate resilient over traditional approaches. The project therefore needs to develop a formal mechanism to capture lessons learned in a detailed manner for evidence-based advocacy and replicability/upscaling in the future.

It is recommended that the project sets up a lessons learned log to include lessons identified, lessons learned and lessons disseminated as well as detailed write up of each project implemented for the purpose of evidence-based advocacy (**Recommendation 4.6.1**). It is also recommended that the project seeks to acquire lessons learned from other project (such as DARDC) implementing similar projects or elements of the projects (e.g. Ministry of Agriculture projects on bio-engineering provide a source of lessons learned.

The project should also examine a variety ways to disseminate lessons learned and raise the profile of the project. These are best devised by a communications specialist who would be able to develop a communication plan, and undertake the appropriate information dissemination activities for the project (**Recommendation 4.6.2**).

4.1. Recommendations – Lessons Learned

Recommendation 4.6.1 – Set up a lessons learned log to include lessons identified, lessons learned and lessons disseminated as well as detailed write up of each project implemented for the purpose of evidence-based advocacy.

Recommendation 4.6.2 – Hire a communications specialist, develop a communication plan, develop articles, video blogs, short programs, and other media material (tailor communication material to audience and medium) to disseminate information.

5.1. Project Progress Summary

The MTR, based on evidence gathered has ascertained that at this mid-point, the following progress has been made towards achieving the project outcome level indicators

Objective level indicator - Number of (sector-specific) standard designs and specifications, for small infrastructure works, which have been upgraded to address and/or withstand increased climate risks Percentage change in number of Administrative Post level annual development plans, which include climate risk mitigation/resilience measures, as climate resilient activity designs (of small infrastructure works) and complementary bio-engineering and land management measures (AMAT 1.1.1.1)

By the end of the first year (2014), the project had completed the climate-resilient designs and Bills of Quantities (BOQs) for 10 climate resilient small-scale infrastructure project which include climate proofing and bio-engineering components, using the government District Investment Development Plan (PDIM) project implementation process. This represents 18.3% of the intended 60 PDIM projects, as a portion of the overall municipality development plan priorities to be implemented by government in 2015.

During 2015 the 10 projects started implementation and at this mid-point the 10 projects are at or near completion in 10 sucos. Many of the projects include bio-engineering catchment management approaches for example planting along drainage routes (e.g. Ossoala and Maubaralisa), vegetation for protection of water sources (Ossoala, Lacoliu), catchment management practices such as engaging communities in planting (e.g. Ossoala with NGOs, Talimoro, Ermera - planted 2,000 seedlings) and bio-engineering measures to protect structures (Legiuema 10 bridges, Lisadilla flood defence)

5.1.1. Progress towards Indicator 1

Indicator 1: number and type of stakeholders served by the multi-sector knowledge sharing and policy influencing platform of MCIE Number of evidence climate change risk/vulnerability assessment reports and policy recommendation documents, timely disseminated through the knowledge sharing and policy influence platform Number of sectors which have endorsed MCIEs national climate change policy framework and strategy, and which have subsequently translated and/or integrated climate risks in key sector policies

In the first year the project established a multi-sector knowledge sharing and policy influencing platform via the Centre for Climate Change and Biodiversity (CCCB). Members of four line Ministries namely Ministry of Social Solidarity (MSS), Ministry of Public Works (MPW), Ministry of State Administration (MSA), Ministry of Agriculture and Fisheries (MoAF) participated in the Climate change Forum meetings organized by Ministry of Commerce, Industry and Environment (MCIE) coordinated National Climate Change Adaptation Forum. Secondary data about climate risks and natural disaster affecting rural infrastructure has been collected and collated to be used by the Ministry of Commerce, Industry and Environment (MCIE) to inform its policy advocacy work. The ultimate aim is to integrate climate risk into key sector policy and it is understood that this integration work will begin in 2016.

At project mid-point, it is clear that policy makers are aware of climate risks and vulnerabilities to rural infrastructure, vulnerability assessments that SSRI project undertook, and climate resilient design and construction approaches that the SSRI project has implemented. Information was disseminated to the community members and other entities through seminar, TV broadcast, pamphlets, brochures, event etc. (500,000-600,000 listeners countrywide). There is also strong evidence that the knowledge sharing platform established through the CCCB has been effective in disseminating climate resilience information via CCCB website and through working group meetings. It should be noted, however, that the climate risk information is not currently accessible to Local Authorities, many of whom do not have access to computers at Administrative Post (AP) level and municipalities have stated that the information is not being used at their level. In general, progress towards Indicator 1 is good and there is strong evidence that by the end of the project this indicator will be achieved.

5.1.2. Progress towards Indicator 2

Indicator 2: Climate change vulnerability guidelines and tools developed under the project are accepted by MSA as integral part of local planning and budgeting process (Yes/No) Percentage of Administrative Posts which use climate change vulnerability assessments and CC adaptation activity identification guidelines/tools as integral part of the local development and planning and budgeting process [AMAT 1.1.1.3] Number of (municipality) engineering and contractor staff in focus Districts with a solid understanding of climate-induced risks to small scale infrastructure works and of possible adaptation and mitigation measures (design, construction, maintenance)

During the first year of the project guidelines for mainstreaming climate change into MSA District Development Plans and project implementation were produced and included into the revised Ministry of State Administration (MSA) PDIM Planning Manual (See Section 4.1 for a review of the guidelines), Procurement Manual, and Decree Law no. 4/2012. Six (06) Administrative Posts (Aps) out of a total of 8 Aps in the target municipalities implemented climate resilient projects in 2015. Three District Investment Plans (PID) for Baucau, Ermera and Liquica included climate resilient projects for implementation in 2015. 90 District technical staff and 106 pre-qualified private contractors were trained on aspects of climate-resilient infrastructure planning and implementation.

Implementation of the 10 climate resilient pilot projects commenced in six (06) Aps in the three municipalities. The estimated number of beneficiaries of the 10 projects is reported to be approximately 69,603 people in rural communities representing a 68% progress against the entire project life target.

A main output of the project is the Climate Vulnerability Capacity Assessment (CVCA) report and maps which has been disseminated in electronic and hard copy and via a video at all levels. The Climate Vulnerability and Capacity Assessment (CVCA) has identified approx.14,000 hectares of degraded hotspot areas affected by landslides and approx.186,548 ha of land affected by erosion that require rehabilitation.

Based on evidence gathered during the MTR the following progress has been made towards this indicator:

- 8) CVCA report completed and endorsed by MSA.
- 9) MCIE raised major concerns regarding the appropriateness of the methodology used for the CVCA;
- 10) A review of the CVCA report by the MTR team found many shortcomings with the technical basis of the work (The review of the CVCA methodology is provided in Section 4.1). These shortcomings include, lack of identification and use of all available datasets in the analysis,

poor technical basis of hazard assessment methods and particularly poor representation of flood hazard, omission of drought which is a key hazard and one which the project is addressing through the water supply projects, no representation of the key infrastructure that the project is addressing (this is being addressed by additional data collection), and lack of use of standard international best practice in risk and vulnerability measures. Furthermore, the MTR team has also reviewed stakeholder feedback on the report which revealed that many of the shortcomings that were independently identified by the MTR team had also been raised by stakeholders, but that they have not been addressed. The achievement of the outcome and indicator is therefore limited by this.

- 11) There is little evidence that MSA has adapted the local planning and budgeting process guidelines to include the climate change vulnerability assessment guidelines/tools produced by the project. Based on interviews with municipalities and AP's, the non-SSRI project PDIM approach has not changed and SSRI project appears not to be been fully embedded in the process. The MTR has undertaken an assessment of the PDIM process and identified areas where the project could have further intervention to maximise the chances of embedding climate risk approaches into the process including the use of climate risk information in the project identification process to provide a more comprehensive, robust and evidence-based means of identifying projects at suco level, introduction of environmental impact assessment at feasibility and detailed design stages, training of local staff in project identification and prioritisation, the introduction of climate risk criteria into the projects other than number of beneficiaries, and introduce climate change considerations into design of infrastructure to ensure that they will accommodate likely changes of environmental variables (frequency and intensity of occurrence) expected with climate change.
- 12) While staff at all levels expressed general understanding of climate induced risks to small scale infrastructure, there is little evidence of step change in design approach to take account of climate change. This is linked to the lack of proper embedding into the PDIM process.
- 13) The MTR team has reviewed the training that has been undertaken by the project and found that there was no assessment of institutional capacity or a capacity development and training plan with clear objectives to support the training. The team also found training to be suboptimal, with many stakeholders asking for more training or stating that they have not received any of the promised training.
- 14) There is evidence that the project is introducing participatory approaches via community engagement which will catalyse greater embedding of climate risk identification and identification of projects that will address these risks.

5.2. Progress towards Indicator 3

Indicator 3: Number of Local Administrations (Districts and Sucos) which invest in climate resilient small rural infrastructure works, including complementary soil and land management measures as integral part of the local infrastructure development process. Number of people benefiting from climate resilient small scale infrastructure works which are constructed in accordance with climate resilient designs in the three project focus Districts (target 100,000) [AMAT 1.2.1.2]. Coverage in Hectares of complementary soil and land management measures in 3 Districts (target 5,000¹²))

¹² This figure was revised from 50,000 to 5,000 during the project inception workshop. It should be noted that the wording of these indicators in the inception report (Annex 3) still has the original target, although

During 2015, Implementation of 10 climate resilient pilot projects commenced in six (06) Administrative Posts (APs) the three municipalities. The 10 projects are estimated to benefit approximately 69,603 people in rural communities representing a 68% progress against the entire project life target. The Climate Vulnerability and Capacity Assessment (CVCA) has identified approx.14,000 hectares of degraded hotspot areas affected by landslides and approx.186,548 ha of land affected by erosion that require rehabilitation

Based on evidence gathered during the MTR the following observations were made regarding progress towards this indicator

- 4) District annual construction plans and engineering designs do not currently include climate resilience measures. Only SSRI projects do, which, while benefiting the communities in the short term, may limit the sustainability of the approach if the PDIM process does not include such measures into all their projects.
- 5) Method of calculating beneficiaries needs to be examined to ensure that it correctly represents beneficiaries in all cases. In addition, other measures of benefits could help to better measure progress. At mid-point the project is below 50% of the target of 32 projects when considering number of projects to be implemented, but above 50% of the target 100,000 beneficiaries.
- 6) The MTR has examined projects/schemes already implemented and found examples of successful projects that have gone well as well as examples of projects with significant failings and which are having negative environmental impacts. These examples of maladaptation need to be addressed as a matter of priority.
- 7) The project reports on number of complementary soil and land management measures and total hectares implemented. In at least eight Administrative Posts in 3 Municipalities, various new small scale infrastructure works are constructed some of which were visited by the MTR team. Further details of site visits are provided in the Key Findings section.

Based on the review the following key conclusions can be drawn:

- 1) Relevance the project is highly relevant to Timor Leste and is well formulated in general to address the specific need of building resilience in rural infrastructure.
- 2) The project strategy needs to be realigned to ensure further embedding of climate resilient approaches to designing and maintaining climate resilient infrastructure
- 3) The project needs to undertake a comprehensive capacity assessment and develop and capacity development plan in line with the realigned strategy
- 4) The project needs additional technical assistance in a number of key areas to supplement the national and limited international expertise it has engaged thus far. Main areas of focus include hazard, risk and vulnerability assessment and mapping (strengthening of the CVCA), climate resilient engineering design, contract management, development of guidelines and standards to support policy.
- 5) The project needs to develop a strategy for replication and scaling up with which include, evidence gathering a measuring/assessing the benefits of climate resilient infrastructure approaches, development of a financial model for scaling up to support decision making for the implementation of long-term climate resilient infrastructure approaches.

the document states that it had been revised. It is advised that the official wording needs to be changed for this indicator if it has not already been done in ATLAS

At the midpoint, it is clear that the SSRI project has the potential to meet the primary objective, of embedding climate risk into the planning process for small scale rural infrastructure. It has already demonstrated how this can be done through the implementation of 10 projects in 10 sucos. To ensure that the project meets its ultimate objective by the end of the project, there are a number of urgent recommendations that need to be considered in the second half of the project to achieve the desired outcome.

	l a		
No.	Recommendation	by)	
	Relevance		
1	Recommendation 4.1.1 – Undertake a detailed capacity assessment of the PDIM process to include technical and functional capacity, assessment of existing resourcing (manpower, financial resources), effectiveness of existing institutional arrangements (where this impacts capability/capacity), methods, standards and protocols used throughout the process. Based on the outcome of the capacity assessment, develop an institutional capacity development and training plan for project-based capacity development and long-term capacity development. This should include a capacity development plan for the long-term implementation of climate resilient small scale infrastructure projects via the PDID process.	2016 Q3	
2	Recommendation 4.1.2 – Undertake a detailed review of the CVCA work and take steps to address the major technical shortcomings identified. Key considerations should include: data availability and data use (re-examine datasets for all hazard assessments, incorporate primary data on infrastructure, establish socio-economic data collection methods for use in risk and vulnerability assessment); review and strengthen hazard assessment and mapping methodology for all hazards, review and strengthen risk assessment methodology (incorporation of socio-economic data, use of established risk and vulnerability methods that include damage and loss assessment, loss of livelihoods, infrastructure risk assessment). The review should also address shortcomings in the treatment of gender.	2016 Q4	
3	Recommendation 4.1.3 – Re-focus the project strategy to under component 2, to ensure greater impact of the project on the PDIM process. This should include the following inputs to the PDIM project selection process:	2016 Q4	
	a) Use of the CVCA (once it is revised and strengthened as per Recommendation 4.1.2) in the project identification process to provide a more comprehensive, robust and evidence-based means of identifying projects at suco level	2016 Q4	
	b) Provide technical assistance to AP staff and engineers in prioritizing projects at this level and in undertaking appropriate level of feasibility studies on which to based prioritization	2016 Q2	
	c) Technical input to the Municipal level project prioritization and review. Introduce climate risk criteria into the prioritization process, and include other methods of measure benefits of projects other than number of beneficiaries (e.g. environmental enhancement).	2016 Q2	

¹³ It is assumed that project CTA/PM with support of project team and CO will take responsibility for implementing recommendations.

	d) Provide training on engineering feasibility studies to include technical feasibility, investment feasibility, socio- economic cost-benefit analysis, optioneering and options appraisal methods and outline environmental impact	
	 assessment, to strengthen the feasibility process, safeguard investments and optimize engineering solutions. e) Provide technical assistance to introduce climate change considerations into design of infrastructure to ensure that they will accommodate likely changes of environmental variables (frequency and intensity of occurrence) expected with climate change. 	2016 Q4 2016 Q4
	f) Introduce detailed Environmental impact assessment (EIA) at the detailed design stage, in line with international good practice to ensure that the potential impacts of the project are identified based on the detailed design and that mitigation measures can be built into the design.	2016 Q2
	g) Provide technical assistance to streamline the procurement process by pre-qualifying contractors for the different types of projects to be implemented.	2016 Q3
	h) Provide technical assistance to strengthen the monitoring capacity at AP level through the provision of appropriate engineering expertise during implementation.	2016 Q4
4	Recommendation 4.1.4 – Review method of assessing project benefits and implement cost-benefit analyses more closely aligned with international best practice, for the purpose of providing sound and robust information to decision makers, and for providing evidence for project replicability and scaling up.	2016 Q3
5	Recommendation 4.1.5 - Document more closely, the soil and land management hectares being planted by first identifying on GIS maps the planned route for planting (using a Polygon from which area can be derived. This should be part of the agreed contract terms) and then using GPS to document and verify what has been planted.	2016 Q2
	Effectiveness	
6	Recommendations 4.2.1 – Re-examine the \$150k budget limit and strengthen the vetting of projects to ensure they are technically feasible within the budget.	2016 Q2
7	Recommendation 4.2.2 – In the case of Lacoliu irrigation scheme, identify budget from within the project or elsewhere to correct the problem.	2016 Q2
8	Recommendation 4.2.3 – Gender and vulnerability currently only focus on numbers of participants in workshops or training sessions. It is recommended that specific vulnerability indicators are introduced (e.g. CVCA methods targeting gender specific and vulnerable groups, Training material translated into as many local minority languages as possible or visual training/assessment tools, participatory assessment tools to illiterate people). It is also recommended that gender indicators should include measures of gender mainstreaming improvement.	2016 Q2

9	Recommendation 4.2.4 – Undertake a full capacity assessment (technical and functional) and develop a capacity plan which will form the basis of training for the remainder of the project. It is also recommended that capacity indicators should be upgraded to include actual measures of increased capacity.	2016 Q2
10	Recommendations 4.2.5 – It is recommended that the project undertakes more active risk management as outlined above. In particular actively managing, monitoring, review, communicating and consulting on risks as well as implementing appropriate corrective measures to address these risks	Ongoing
	Efficiency	
12	Recommendation 4.3.1 - Training for M&E to project staff as well as municipality staff.	2016 Q3
13	Recommendation 4.3.1 - Engage international expertise to enhance local capacity in key areas such as hazard and risk assessment and mapping, engineering design, contract management, cost-benefit analysis and investment planning.	by 2016 Q4
15	Sustainability	by 2010 Q4
14	Recommendation 4.4.1 - Introduce a financial analysis output, based on the vulnerability mapping, cost-benefit analysis (and scaled up to rest of TL), to help identify the financial commitment that government will need for long-	2017 Q1
15	Recommendation 4.4.2 – Develop the financing model for maintenance of infrastructure and roll out for all SSRI schemes already built. Include monitoring mechanism to collect evidence base and calibrate financial model for long-term maintenance financing.	2017 Q2
	Replication and Scaling up	
16	Recommendation 4.5.1 – Use evidence gathered from the project to provide cost-benefit evidence of implementing climate resilient SSRI and for defining the capacity (and feasibility) of replicating and scaling up the project nationally. This can be done with closer evidence gathering, and parameter/indicator measurement.	2016 Q2 Ongoing up to 2017 Q3
17	Recommendation 4.5.2 – Formulate an investment framework based on cost benefit analysis and evidence base, with project figures for the rest of TL	2017 Q2
	Lessons Learned	
18	Recommendation 4.6.1 – S et up a lessons learned log to include lessons identified, lessons learned and lessons disseminated as well as detailed write up of each project implemented for the purpose of evidence-based advocacy.	2016 Q2

	Recommendation 4.6.2 – Hire a communications specialist, develop a communication plan, develop articles, video	
	blogs, short programs, and other media material (tailor communication material to audience and medium) to	
19	disseminate information.	2016 Q2

6 ANNEXES

ANNEX 1 – Terms of Reference

The full ToR is included in the International Consultant ToR. The following is a summary of the focus areas that the MTR examined.

v. Project Strategy

Project design:

- Review the problem addressed by the project and the underlying assumptions. Review the effect of any incorrect assumptions or changes to the context to achieving the project results as outlined in the Project Document.
- Review the relevance of the project strategy and assess whether it provides the most effective route towards expected/intended results. Were lessons from other relevant projects properly incorporated into the project design?
- Review how the project addresses country priorities. Review country ownership. Was the project concept in line with the national sector development priorities and plans of the country (or of participating countries in the case of multi-country projects)?
- Review decision-making processes: were perspectives of those who would be affected by project decisions, those who could affect the outcomes, and those who could contribute information or other resources to the process, taken into account during project design processes?
- Review the extent to which relevant gender issues were raised in the project design.
- If there are major areas of concern, recommend areas for improvement.

Results Framework/Logframe:

- Undertake a critical analysis of the project's logframe indicators and targets, assess how "SMART" the midterm and end-of-project targets are (Specific, Measurable, Attainable, Relevant, Time-bound), and suggest specific amendments/revisions to the targets and indicators as necessary.
- Are the project's objectives and outcomes or components clear, practical, and feasible within its time frame?
- Examine if progress so far has led to, or could in the future catalyse beneficial development effects (i.e. income generation, gender equality and women's empowerment, improved governance etc...) that should be included in the project results framework and monitored on an annual basis.
- Ensure broader development and gender aspects of the project are being monitored effectively. Develop and recommend SMART 'development' indicators, including sexdisaggregated indicators and indicators that capture development benefits.

vi. Progress Towards Results

Progress Towards Outcomes Analysis:

• Review the logframe indicators against progress made towards the end-of-project targets using the Progress Towards Results Matrix and following the *Guidance For Conducting Midterm Reviews of UNDP-Supported, GEF-Financed Projects*; colour code progress in a "traffic light system" based on the level of progress achieved; assign a rating on progress for each outcome; make recommendations from the areas marked as "Not on target to be achieved" (red).

In addition to the progress towards outcomes analysis:

- Compare and analyse the GEF Tracking Tool at the Baseline with the one completed right before the Midterm Review.
- Identify remaining barriers to achieving the project objective in the remainder of the project.
- By reviewing the aspects of the project that have already been successful, identify ways in which the project can further expand these benefits.

vii. Project Implementation and Adaptive Management

Management Arrangements:

- Review overall effectiveness of project management as outlined in the Project Document. Have changes been made and are they effective? Are responsibilities and reporting lines clear? Is decision-making transparent and undertaken in a timely manner? Recommend areas for improvement.
- Review the quality of execution of the Executing Agency/Implementing Partner(s) and recommend areas for improvement.
- Review the quality of support provided by the GEF Partner Agency (UNDP) and recommend areas for improvement.

Work Planning:

- Review any delays in project start-up and implementation, identify the causes and examine if they have been resolved.
- Are work-planning processes results-based? If not, suggest ways to re-orientate work planning to focus on results?
- Examine the use of the project's results framework/ logframe as a management tool and review any changes made to it since project start.

Finance and co-finance:

- Consider the financial management of the project, with specific reference to the costeffectiveness of interventions.
- Review the changes to fund allocations as a result of budget revisions and assess the appropriateness and relevance of such revisions.
- Does the project have the appropriate financial controls, including reporting and planning, that allow management to make informed decisions regarding the budget and allow for timely flow of funds?
- Informed by the co-financing monitoring table to be filled out, provide commentary on cofinancing: is co-financing being used strategically to help the objectives of the project? Is the Project Team meeting with all co-financing partners regularly in order to align financing priorities and annual work plans?

Project-level Monitoring and Evaluation Systems:

- Review the monitoring tools currently being used: Do they provide the necessary information? Do they involve key partners? Are they aligned or mainstreamed with national systems? Do they use existing information? Are they efficient? Are they cost-effective? Are additional tools required? How could they be made more participatory and inclusive?
- Examine the financial management of the project monitoring and evaluation budget. Are sufficient resources being allocated to monitoring and evaluation? Are these resources being allocated effectively?

Stakeholder Engagement:

- Project management: Has the project developed and leveraged the necessary and appropriate partnerships with direct and tangential stakeholders?
- Participation and country-driven processes: Do local and national government stakeholders support the objectives of the project? Do they continue to have an active role in project decision-making that supports efficient and effective project implementation?
- Participation and public awareness: To what extent has stakeholder involvement and public awareness contributed to the progress towards achievement of project objectives?

Reporting:

- Assess how adaptive management changes have been reported by the project management and shared with the Project Board.
- Assess how well the Project Team and partners undertake and fulfil GEF reporting

requirements (i.e. how have they addressed poorly-rated PIRs, if applicable?)

• Assess how lessons derived from the adaptive management process have been documented, shared with key partners and internalized by partners.

Communications:

- Review internal project communication with stakeholders: Is communication regular and effective? Are there key stakeholders left out of communication? Are there feedback mechanisms when communication is received? Does this communication with stakeholders contribute to their awareness of project outcomes and activities and investment in the sustainability of project results?
- Review external project communication: Are proper means of communication established or being established to express the project progress and intended impact to the public (is there a web presence, for example? Or did the project implement appropriate outreach and public awareness campaigns?)
- For reporting purposes, write one half-page paragraph that summarizes the project's progress towards results in terms of contribution to sustainable development benefits, as well as global environmental benefits.

viii. Sustainability

- Validate whether the risks identified in the Project Document, Annual Project Review/PIRs and the ATLAS Risk Management Module are the most important and whether the risk ratings applied are appropriate and up to date. If not, explain why.
- In addition, assess the following risks to sustainability:

Financial risks to sustainability:

• What is the likelihood of financial and economic resources not being available once the GEF assistance ends (consider potential resources can be from multiple sources, such as the public and private sectors, income generating activities, and other funding that will be adequate financial resources for sustaining project's outcomes)?

Socio-economic risks to sustainability:

 Are there any social or political risks that may jeopardize sustainability of project outcomes? What is the risk that the level of stakeholder ownership (including ownership by governments and other key stakeholders) will be insufficient to allow for the project outcomes/benefits to be sustained? Do the various key stakeholders see that it is in their interest that the project benefits continue to flow? Is there sufficient public / stakeholder awareness in support of the long term objectives of the project? Are lessons learned being documented by the Project Team on a continual basis and shared/ transferred to appropriate parties who could learn from the project and potentially replicate and/or scale it in the future?

Institutional Framework and Governance risks to sustainability:

• Do the legal frameworks, policies, governance structures and processes pose risks that may jeopardize sustenance of project benefits? While assessing this parameter, also consider if the required systems/ mechanisms for accountability, transparency, and technical knowledge transfer are in place.

Environmental risks to sustainability:

Are there any environmental risks that may jeopardize sustenance of project outcomes?

Annex 2 – MTR Evaluation Matrix

	Evaluation Matrix				
Criteria/Sub- criteria	Questions to be addressed	Sub-questions (what to look for)	Data sources	Data collection	
	Assess the contribution of the project towards the achievement of national objectives and CPAP goals /outputs	What outcomes does the project intend to achieve?	Project/programme/thematic areas evaluation reports	Review of PD and country national goals	
Relevance	Review the problem addressed by the project	What outputs has the project achieved?	Progress reports on projects, UNDP Staff, development partners, government partners, beneficiaries	Desk Review of PD situation analysis and baseline; Interviews with MSA, development partners, UNDP staff, civil society partners	
	and the underlying assumptions. Review the effect of any incorrect assumptions or changes to the context to	What percentage of the project results at the output level has been achieved?	UNDP Staff	Interview with PM, TS, Finance	
	achieving the project results as outlined in the Project Document.	What percentage has not been achieved and are the due to incorrect assumptions or changes to context	UNDP Staff, Development partners	Interview with PM, TS, Finance	
		What changes can be observed as a result of these outputs	Project beneficiaries at all levels	Interview with MSA, MCIE staff, Municipality and district level officials, Communities	

	In addition to UNDP initiatives, what other factors may have affected the results	Government Partners	Interview with MSA and MCIE
	What were the unintended results (+ or -) of UNDP initiatives?	Beneficiaries	Interview with MSA, MCIE staff, Municipality and district level officials, Communities
		Project Documents	Review of PD. Interview with beneficiaries e.g. what other strategy would they have liked to see used
Review the relevance of the project strategy and assess whether it provides the most effective route towards	Who are the target beneficiaries and to what extent have they been reached by the project?		
expected/intended results. Were lessons from other relevant projects properly incorporated into the project design?	Are the results of the project intended to reach local community, district, regional or national level? How far reaching have the results been to date	Progress and evaluation reports	Interviews with beneficiaries
	Are UNDP's efforts concentrated in regions/districts of greatest need? How were regions decided		

	Who are the target beneficiaries and to what extent have they been reached by the project?		
Review how the project addresses country priorities. Review country ownership. Was the project concept in line with the national sector development priorities and plans of the country (or of participating countries in the case of multi-country projects)?			Interview with government beneficiaries about ownership and delivery and sustainability
Review decision-making processes: were perspectives of those who would be affected by project decisions, those who could affect the outcomes, and those who could contribute information or other resources to the process, taken into account during project design processes?			Review PPG stakeholder engagement plan. Review Implementation phase stakeholder engagement plan. Interview questions to stakeholders about levels of engagement and whether sufficient
Review the extent to which relevant gender issues were raised in the project design.	How far has social inclusion been taken into account in the project/programme?	Evaluation reports	Desk review of reports itemized

Analyse whether the project's community based approach addresses the needs and demands of the beneficiaries in a disaggregated manner (for men and women), and the community response.		Interview with Women's Groups, obtain number of disaggregated beneficiaries of all aspects of the project. Interview with some women at community meetings if possible
Assess the relevance of the tools / instruments / inputs applied by the project in supporting effective Government policy implementation	List of tools/instruments used, developed, adopted, trained in. Sustainability plan for tools/instruments etc./	
Assess the relevance and effect of technical assistance and planning support given to the MSA, MCIE and other project target beneficiaries.	List of all technical assistance provided and deliverables. Evidence of incorporation of TA outputs into designs and implemented schemes	Interviews with some TAs who worked on the project. Gather evidence of use output from Technical assistance. Assess any technical capacity built

	Evaluation Matrix					
Criteria/Sub- criteria	Questions to be addressed	Sub-questions (what to look for)	Data sources	Data collection		
	Review whether the project has accomplished its outputs. In particular the mission should review:	What outcomes does the project intend to achieve?	Project/programme/thematic areas evaluation reports	Desk reviews of secondary data		
Effectiveness	Area selection criteria and its implementation	How were intervention areas identified and prioritised, what criteria used, who was consulted. Are there any areas that should/should not have been included? In how many areas has intervention been successfully completed	PPG studies to identify priority districts and sub- districts	Review of PD, Interview with MSA, MCIE, Municipality and community leaders		
	Targeting strategy for the identification of project beneficiaries including both men and women.	Who are the target beneficiaries and to what extent have they been reached by the project?	Pre and post-intervention conditions assessments (progress reports, evaluation reports)	Review of reports, Interview with beneficiaries		
	Any emerging effect of the project on beneficiaries including both men and women.	How have the particular needs of disadvantaged groups been taken into account in the design and implementation, benefit sharing, monitoring and evaluation of the project/ program	Annual work plans, gender and vulnerability assessment reports, progress reports	Review of reports, Interview with beneficiaries		

Assess the performance of the project so far with particular reference to qualitative and quantitative achievements of outputs and targets as defined in the project documents and work- plans and with reference to the project baseline	M&E reports	Review of project indicators
Assess the effectiveness of the cost sharing arrangements between the project and beneficiary communities and between the Government and UNDP	Finance reports,	Review of secondary data
Based on the progress so far and ground situations, suggest / recommend any changes to the systems outlined above		

		Evaluation Matrix		
Criteria/Sub- criteria	Questions to be addressed	Sub-questions (what to look for)	Data sources	Data collection
	Assess whether the project has utilized project funding as per the agreed work plan to achieve the projected targets	Have there been time extensions on the project? What were the circumstances giving rise to the need for time extension?	Programme documents	Desk reviews of secondary data
	Assess the timeline and quality of the reporting followed by the project	Has delivery been as per programme, Are QA and QC systems in place and adequate	Programme, M&E plan, Annual Work Plans	Desk Review, Interview with PM, Interview with Government partners
Efficiency	Analyse the performance of the Monitoring and Evaluation mechanism of the project and the use of various M&E tools		M&E system tools details, Evaluation report	Desk Review, Interview with PM
	Undertake a critical analysis of the project's logframe indicators and targets, assess how "SMART" the midterm and end-of-project targets are (Specific, Measurable, Attainable, Relevant, Time- bound), and suggest specific amendments/revisions to the targets and indicators as necessary			Desk Review

Are the project's objectives and outcomes or components clear, practical, and feasible within its time frame?		Desk Review
Assess the qualitative and quantitative aspects of management and other inputs (such as equipment, monitoring and review and other technical assistance and budgetary inputs) provided by the project visa-vis achievement of outputs and targets		
Identify factors and constraints which have affected project implementation including technical, managerial, organizational, institutional and socio-economic policy issues in addition to other external factors unforeseen during the project design.		

Review overall effectiveness of project management as outlined in the Project Document. Have changes been made and are they effective? Are responsibilities and reporting lines clear? Is decision-making transparent and undertaken in a timely manner? Recommend areas	UNDP staff (Programme Implementation Support Unit)	Interview with UNDP and PMU staff, Desk review
for improvement. Review the quality of execution of the Executing Agency/Implementing Partner(s) and recommend areas for improvement.		

	Evaluation Matrix					
Criteria/Sub- criteria	Questions to be addressed	Sub-questions (what to look for)	Data sources	Data collection		
		Does/did the project have an exit strategy?	Programme documents	Desk reviews of secondary data		
	Assess preliminary indications of the degree to which the project results are	To what extent does the exit strategy take into account the following:	Annual Work Plans			
	likely to be sustainable beyond the project's lifetime (both at the community and government level), and provide recommendations for strengthening sustainability.	 Political factors (sup- port from national authorities) 	Evaluation reports			
		 Financial factors (avail- able budgets) 				
		 Technical factors (skills and expertise needed) 				
Sustainability	Assess the sustainability of the project interventions in terms of their effect on environment	 Environmental fact- tors (environmental appraisal) 	design documents, EIA reports	Desk Review of		
	Examine if progress so far has led to, or could in the future catalyse beneficial development effects (i.e. income generation, gender equality and women's empowerment, improved governance etc) that should be included in the project results framework and monitored on an annual basis.	What anticipated or unanticipated sustainability benefits emerged during implementation?	Evaluation reports	Desk reviews of secondary data, interview with beneficiaries and UNDP staff		

Analyse the emerging impact on the communities for both men and women in terms of food security, income and asset enhancement.	How has UNDP approached the scaling up of successful pilot initiatives and catalytic projects? Has the government taken on these initiatives? Have donors stepped in to scale up initiatives	Progress reports	Interview UNDP programme staff
Based on the findings (relevance, efficiency, effectiveness, sustainability and impact) as well as taking into account any new initiatives emerging under the UN Country Plan for Timor Leste, recommend whether extension of this project is warranted.			Desk Review and recommendations

Criteria/Sub- criteria	Questions to be addressed	Sub-questions (what to look for)	Data sources	Data collection
Network- Linkages	Evaluate the level, degree and representation by the beneficiaries and stakeholders, (government and donor partners etc.) in the implementation of the project (with particular attention to the development, testing of community based approaches).		Project document, AWPs, Evaluation reports	Desk Reviews, Interviews with stakeholders and beneficiaries
	Examine the synergies and potential overlap between the project and the work of other agencies as well as propose strategy to enhance complementarities.	What synergies were anticipated during PPG, what changes? Opportunities have emerged since and how has project capitalized	Programmes/project details for other agencies	Desk Review
	Assess the alignment of the project with the UN program, identifying linkages and opportunities for achievement of objectives/targets;		County Programme document and other relevant strategic docs	Desk Review
	Assess the project's knowledge management strategy and outreach and communications to all stakeholders.	What was the KM strategy set out in the PD or developed since	Data management systems, websites developed information dissemination platforms, outreach programmes	Desk review of systems

	Evaluation Matrix						
Criteria/Sub- criteria	Questions to be addressed	Sub-questions (what to look for)	Data sources	Data collection			
	Analyse areas for improved programme planning, especially with respect to setting targets, relevance and capacity of institutions for project decision making and delivery. In particular examine the UNDP value added.		Lessons learned records	Desk Review and Interview with PM and TS			
Lessons-Learned	Identify significant lessons or conclusions which can be drawn from the project in terms of effectiveness, efficiency, sustainability and networking.		Lessons learned records	Desk Review and Interview with PM and TS			

Review external project communication: Are proper means of communication established or being established to express the project progress and intended impact to the public (is there a web presence, for example? Or did the project implement appropriate outreach and public awareness)	Lessons learned records; Communications plan
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		Evalua	tion Matrix	
Criteria/Su b-criteria	Questions to be addressed	Sub-questions (what to look for)	Data sources	Data collection
	Impact on physical and Financial	Has/will infrastructure and people access to markets change? (transport, roads, storage, communication facilities, etc.)?	review of feasibility and design documents	Feasibility and design document for infrastructure projects. Interviews with municipality staff, interviews with communities
	'assets'	Has/will households' financial assets change		Interview with communities
	Impact on Human 'assets' Impact on Social Capital	Has/will people access to potable water change?	review of water supply projects	Feasibility and design document for water supply projects. Interviews with municipality staff, interviews with communities
Project		Has/will access to basic health and disease prevention services change?		Interviews with municipality staff, interviews with communities
Impact		Has/will access to primary education change?		Interviews with municipality staff, interviews with communities
		Has/will primary school enrolment for girls change?		Interviews with municipality staff, interviews with communities
		Has/will women and children workload change?		Interviews with municipality staff, interviews with communities
		Has/will rural people organisations and institutions change		Interview with local organisations, NGOs etc.
	and Empowerment	Has/will social cohesion and local self–help capacity of rural communities change?		Interview with communities

	Has/will gender equity and/or womens' conditions change?	Interview with communities
	Has/will rural people feel empowered vis a vis local and national public authorities and development partners? (Do they play more effective role in decision making?)	Interview with communities
	Has/will household food security change?	Interview with communities
Impact on food security	Has/will farming technology and practices change?	Interview with local authority and communities
-	Has/will the frequency of food shortage change?	Interview with communities
	Has/will the natural resource base status change (land, water, forest, pasture, fish stocks…)?	Interview with communities
Environmental	Has/will exposure to environmental risks change?	Review of EIA, review of implemented project documents (case studies), interview with communities
Impact	Has/will biodiversity be enhance?	Review of EIA, review of implemented project documents (case studies), interview with communities
	Has/will ecosystems be restored/rehabilitated	Review of EIA, review of implemented project documents (case studies), interview with communities
	Did local public institutions and service provision change?	Interview with local authorities
Impact on Institutions, policies, and the regulatory	Did national/sectoral policies affecting the rural communities change?	Interview with national and local authorities
framework	Did the regulatory framework affecting the rural poor change	Interview with national authorities

	Evaluation Matrix					
Criteria/Sub- criteria	Questions to be addressed	Sub-questions (what to look for)	Data sources	Data collection		
Replicability	Innovation/uniqueness of project approach Extending the project remit	Is the project improving existing local technologies or approaches Has the project developed and new methods/guidelines/tools essential for addressing a problem that is wider than its current implementation area? Has the project developed best practice that can/should be scaled up? Is the project addressing a widely shared need or problem of rural communities Has the project sufficiently captured the range of issues that will need to be addressed when scaled up, with the limited geographical and technical context of the project. i.e. is the applicable everywhere. Is the project approach culturally and socially acceptable in the extended area				
	Ease of replication/scaling up	Is the project approach simple to understand and to implement				

	Is replication affordable in terms of financial and time constraints	
Affordability of replication	Is there a robust cost model in place and is there a strong evidence base from the current project, for the financial viability of replication	
	Is replication impact low risk,	
	and could it have any significant adverse impacts	
Replication Impacts		
	Can UNDP increase the outreach of its project activities by playing a catalytic role	
Institutional appetite/capability for replication	Has UNDP undertaken advocacy with government and other partners to promote the project benefits and benefits of	
	replication/scaling up?	

ANNEX 3 – EXAMPLE QUESTIONNAIRE

Introductions

Please explain your role within your organisation and your day to day responsibilities Please explain your role and responsibilities on the project

What support has the project provided and how has it changed the way you work?

What was your involvement in project design, were you or your organisation consulted?

Does the project approach meet your strategic priorities?

How has the project helped to build capacity in your organisation

How do the work differently

What tools and processes and equipment, training received

How has project helped to implement CR infrastructure at local level?

Has the project facilitated the sharing of knowledge, experience

Beneficiaries

Questions Relating to the main Evaluation Criteria

Relevance

How has UNDP's initiative supported or contributed to relevant national policies or strategies? In which areas? Via which types of project inputs or other forms of advice? Can you provide specific examples of good contributions?

Has UNDP followed good practices in its development work? Why or why not? Can you provide specific examples of where UNDP approaches were appropriate, well-needed and fit with national efforts? Where there were problems or challenges?

Did the UNDP project/programme support the government's development goals and strategies?

□ Is UNDP's project/programme aligned with government plans, procedures, and policies?

Did UNDP design the right project/programme to meet the needs of the stakeholders? Why or why not? What could have been done differently?

□ Were there obvious or critical gaps that the UNDP project/programme did not address? What were they?

Did the UNDP project/programme respond to significant changes happening in the local/country/regional/global context? In what ways did adaptation take place? What trade-offs were there (that you know of) between short-term response and support for longer- term initiatives? What could have been done differently?

 $_{\hfill}$ Was the project/programme adequately adapted to changes in local conditions? Provide examples.

Effectiveness

What activities have been undertaken under the UNDP project(s) you are familiar with? What short-term outputs have been produced? What longer-term effects were produced?

 $_{\hfill}$ Was the project linked to government activities or activities of other agencies? How well were they coordinated?

 $_{\Box}$ Were there significant unexpected results or achievements that you know of? What were they, at different levels?

□ What has been the scope or reach of the projects and their benefits? Who has been affected (either positively or negatively)? To what extent were men and women affected differently?

Has the UNDP project made a difference via this project? Within a limited area or in this thematic area or sector overall? To whom? In what way?

 $\hfill\square$ Did the project/programme have a capacity development objective? Were needs identified? Were some left out?

 $\hfill\square$ Has the project/programme been effective in developing capacities of the men and women involved?

 \Box Who have been the main beneficiaries of UNDP's work in the project you are familiar with? To what extent did men and women benefit differently? At what level (ministry-wide, specific departments or units, others for whom services or benefits were indirectly provided)?

Have any benefits been realized via this project for the poor, disadvantaged groups, rural communities, women, or others with specialised needs in the country?

Has any significant event occurred affecting project/programme outcomes? How well did UNDP adapt to these circumstances or changes?

Efficiency

To your knowledge, how well did UNDP use its human and financial resources? Were resources used well? Were funds received on time? Why or why not? Were projects approved and launched in a timely fashion? Why or why not? Please provide specific examples.

Are UNDP procedures and processes easy to understand? What types of reporting were required, and were they submitted on a regular basis? Why or why not? Did the plans and reports required from UNDP add to the burden of implementing partners or beneficiaries in any way? Please provide examples.

Are you familiar with the monitoring and evaluation arrangements for UNDP's project/programme? How well did M&E work (in your opinion) and what effects did they have on the project in which you were involved?

 \Box How would you describe UNDP's cooperation with other partners, including other Country Team partners and bilateral or multilateral donors that were important to this initiative? What went well? What could have been done better?

Sustainability

Were the project/programme achievements maintained and expanded over time?

What was learned from the UNDP-assisted project/programme? Have any knowledge and lessons been used?

 \Box Would you say there is a high degree of national/local ownership of UNDP-assisted projects/programmes? Why or why not? How could national ownership be improved?

 \Box What indications are there that the government, civil society entities or other partners will continue to support, or even upscale, this or similar initiatives?

MDGs

Bow did UNDP contribute to the achievement of the MDGs in the country? What specific initiatives, projects, or advice was UNDP able to offer towards fulfilling MDG aims? How has this made a difference to the country's overall development and/or commitment to the MDGs?

gender

 \Box Was the project or programme based on a gender analysis, targets and resources? What effects were realized in terms of gender equality, if any (provide examples)?

Were women and men distinguished in terms of participation and benefits within specific projects? Were there clear gender strategies provided and/or technical advice on gender mainstreaming issues?

Equity

Were specific vulnerable groups helped by UNDP's initiative? If so, how (provide examples)?

 \square Were the rights of indigenous peoples addressed in the project/programme? If so, how?

ANNEX 4 – MTR RATING SCALE

6	Highly Satisfactory (HS)	Completed, No shortcomings Output achieved no shortcomings
5	Satisfactory (S)	Well on track, still needs some work. Minor shortcomings to date
4	Moderately Satisfactory (MS) Broadly on track but some significant shortcomings.	
3	Moderately Unsatisfactory (MU)	Some progress, but largely behind schedule. Corrective measures needed
2	Unsatisfactory (U)	Very limited progress. Component is way behind schedule and off-track. Urgent correction needed.
1	Highly Unsatisfactory (HU)	No perceptible progress and critical intervention required.

Name	Organisation	
Adão Barbosa	Lecturer UNTL, Chief of CCCB	
His Exelency Mr. Samuel Mendonsa	Secretary of State, Ministry of State Administration	
Herminio Moniz	National Director for Toponomy	
Rui Pires	National Director for Biodiversity	
Joao Carlos	Director General for Environment	
Antonio Lelo Tasi	National Director for Control Pollution and	
	Environmental Impact	
Mario Ximenes	National Director of Climate Change	
Fernando Araujo	National Department of Watershed Management, MAF	
Gustavo da Cruz	National Director of Water	
Antonio Augustu Guterres	Administrator of Baucau Municipality	
Baltazar Belo	DDO of Baucau	
Ernesto Lemos	Technical Officer of SAS Baucau	
Sebastiao Correia	Administrator, Post of Vemasse	
Cesaltina Batista Ximenes	Chief of Village of Laculio	
Tomas Ximenes dos Reis	Chief of Village of Ossoala	
Joana Ximenes	Representative from GMF Ossoala Village	
Joanico Mateus da Costa	Representative from Timor Verde, the local NGO	
Hélio José António da Costa	Representative from Rede Floresta TL, Local NGO	
João Mestre Madeira	DDO of Ermera	
Afonso Soares Amaral	Chief of Aldeia Leguimea	
Franscisco Alves da Cruz	Representative of Community of Leguimea	
Maria Soares	Female representative of Leguimea	
Luis dos Santos	Chief of Suco Talimoro	
Rui Manuel Manuel	Chief of Suco Maubara Lisa	
Domingos d. C dos Santos	Administrator of Liquiça	
Egas dos Santos	Local Contractor in Liquiça	
Laurindo dos Reis da Silva	Administrator, Post of Maubara	
	UNDP Team	

UNDP Team

Name	Designation/Unit	
Jose Belo	Assistant Country Director and Head of Resilience Unit	
Gil da Costa	Head of Sustainable Development Unit	
Keti Chachibaia	Regional Technical Advisor, UNDP Regional Office	
Auxiliadora dos Santos	Programme Analyst, Resilience Unit	
Livio Xavier	Programme Analyst, Sustainable Development Unit	
Shanti Karanjit	Climate Change Advisor	
Devindranauth Bissoon	Project Manager/CTA, SSRI Project	
Bernadete da Fonseca	Project Coordinator, SSRI Project	
Gil Rudi Samba Firmansyah	Rural Infrastructure Engineer, SSRI Project	
Reinaldo Soares dos Santos	Rural Infrastructure Engineer, SSRI Project	
Mario Ramos de Carvalho Miguel	Local Planning & Development Officer, SSRI Project	
Julio dos Santos	Monitoring & Evaluation Officer, SSRI Project	
Ermelinda Amaral	Finance and Procurement Associate, SSRI Project	
Elizabeth Joana Soares	Administrative and HR Officer, SSRI Project	
Hipolito Amaral Ximenes	National Climate Change Policy Officer, SSRI Project	

ANNEX 6 – Audit Trail Template

Note: The following is a template for the MTR Team to show how the received comments on the draft MTR report have (or have not) been incorporated into the final MTR report. This audit trail should be included as an annex in the final MTR report.

To the comments received on (11th to 18th April) from the Midterm Review of **Strengthening the Resilience of Small Scale Rural Infrastructure and Local Government Systems to Climatic Variability and Risk Project**

The following comments were provided in track changes to the draft Midterm Review report; they are referenced by institution ("Author" column) and track change comment number ("No" column):

Note: There were no numbers associated with the received comments so I have copied and pasted the original sentences that each comment refers to. In addition, comments were received on three different days (initial consolidated comments from SSRI team which included comments mainly by SSRI as author but occasionally specific named authors such as Jose Belo, initial comments received from Keti Chachibaia, and responses from the SSRI team to MTR initial responses to their comments). The text in green are the initial responses provided by the MTR team to SSRI team and Keti Chachibaia's comments. The text in blue are SSRI team and CO follow up responses to initial MTR responses. The 'Final Text' section of the last column reflects how each comment has been addressed and the final wording used. Please note that section numbers might be different between the draft and final report, so the third column references section numbers as they were in the draft report only.

Author	No.	Para No./Comment	Comment/Feedback on	MTR Team Response and action
		Location	the Draft MTR Report	taken
SSRI		Section 1.6	SSRI project targets 8	MTR Initial Response
(12/04/16)		Original Text	APs. Thus far, physical	I think the figures quoted are for the
		Six (06) Administrative	infrastructure projects	whole of TL (i.e 14 Aps) to show the
		Posts (Aps) out of a	have been implemented	impact of the national impact of the
		total of 14 APs	in 6/8 = 75%	project. I will include the
		(representing 42.9% of		implementation rate of the project
		Timor Leste)		against planned AP interventional
		implemented climate		areas also.
		resilient projects in		
		2015 (requests for		Final Text
		these guidelines were		Six (06) Administrative Posts (Aps)
		not met and therefore		out of a total of 8 Aps in the target
		have not been		municipalities implemented climate
		reviewed)		resilient projects in 2015.
SSRI		Section 1.6	The PDIM procurement	MTR Initial Response
(12/04/16)		Original Text	guidelines and planning	Apologies. I could not conceive that
		(requests for these	shared with you.	the brief 2-page doument
		guidelines were not		constituted guidelines for
		met and therefore have		mainstreaming climate change into
		not been reviewed).		the PDIM process! In my opinion,
				this cannot be considered guidelnes.
				It is a list of criteria. I would expect a

Jose Belo (15/04/16)	Section 1.6 Original Text CVCA report completed and verbally endorsed by MSA during interview.	Who in the MSA verbally endorsed while all the result have been distributed to local authorities at one occasion the evaluator was in presence (i.e Inauguration of retention wall in Lisadila villages, Liquisa Municipality? Please reframe this.	more substantial document that would guide the practitioners in how to go about making the assessments for each of the criteria you have listed and what are the decision points (how do they decide if to include or not?). This is perhaps athe first missed opportunity to truly embed a more climate resilient approach if all that has been provided is a list of criteria. I note that the list includes a requirment for EIA! Action: I will revise to state that the guidelines have been received and will include comment on the adequacy of the document as guidelines. <i>Final Text</i> Sentence removed. Review of the guidelines provided in section 4.1.1 <i>MTR Initial Response</i> The Secretary of State of MSA verbally endorsed the CVCA report during our interview with him (he even held up a copy of the report while endorsing it) We are aware (and comment on the fact) that the report has been widely distributed and we did indeed witness the dissemination of the CVCA maps. Action: I can reframe, but I am not sure what aspect of this sentence is problematic. Please clarify. <i>Final Text</i>
Jose Belo (15/04/16)	Section 1.6 Original Text MCIE raised major concerns regarding the appropriateness of the methodology used for the CVCA	Are we considering the Adviser's view representing the institution in this case MCIE?	CVCA report completed and endorsed by MSA. MTR Initial Response The NDCC at MCIE, during their interview, wanted to go on record as having major concerns with the document. Therefore I have included this comment. Perhaps you should also read the MTR review of the CVCA method later on. If you would like, I can revise to say that the NDCC raised concerns but I presume that he is speaking on behalf of MCIE? Please advise. <i>Final Text</i> No Change

Jose Belo	Section 1.6	JB - Precisely for the	MTR Initial Response to JB
(15/04/16)	Original Text	reasons that some of the	Thank you for clarifying. If you read
(13/04/10)	A review of the CVCA	stakeholders and UNDP	the review of the CVCA, you will see
	report by the MTR team	comments could not be	that the secondary data collection
Keti	found many	incorporated by Care	will not resolve all of the issues with
Chachibaia	,	which did study but	the work. The methods used are not
(13/04/16)	shortcomings with the	decision was taken to	sound and therefore there is a risk
(-, -, -,	technical basis of the	accept the report as	that the incorporation of additional
	work. Furthermore, the	baseline report which	data will not provide the desired
	MTR team has also	was deviation from the	outcome by the end of the project.
	reviewed stakeholder	original TOR signed	The MTR team has made further
	feedback on the report	between UNDP SSRI and	recommendations for strengthening
	which revealed that	Care in 2014.	the technical robustness of the work.
	many of the		
	shortcomings that were		MTR Initial Response to KC
	independently	KC - It is important for	This is done later on in the document
	identified by the MTR	the MTR report to state	and includes recommendations to
	team had also been	concretely about these	address shortcoming. I will include a
	raised by stakeholders,	identified shortcomings	cross-reference here.
	but that they have not	and suggest the solution	
	been addressed. The	for the way forward	Final Text
	achievement of the		A review of the CVCA report by the
	outcome and indicator		MTR team found many shortcomings
	is therefore limited by		with the technical basis of the work
	this.		(The review of the CVCA
			methodology is provided in Section
			4.1). Furthermore, the MTR team has also reviewed stakeholder
			feedback on the report which revealed that many of the
			shortcomings that were
			independently identified by the MTR
			team had also been raised by
			stakeholders, but that they have not
			been addressed. The achievement of
			the outcome and indicator is
			therefore limited by this
SSRI	Section 1.7	The initial target of	MTR Initial Response
(11/04/16)	Coverage in Hectares of	50,000 ha was revised to	The MTR team is aware of this but
	complementary soil and	5,000 ha following the	the wording of these indicators have
	land management	inception workshop.	been taken from the project
	measures in 3 Districts		inception report (Annex 3) which still
	(target 50,000))		has the original target in, although
			the document states that it had been
			revised. I will change it here, but I
			also suggest that the official wording
			needs to be changed for this
			indicator if it has not already been
			done in ATLAS
			Final text
			Coverage in Hectares of
			complementary soil and land
		l	semplementary son and idita

			management measures in 3 Districts (target 5,000 ¹⁴))
Keti Chachibaia (13/04/16)	Section 1.7 District annual construction plans and engineering designs do not currently include climate resilience measures. Only SSRI projects do, which, while benefiting the communities in the short term, may limit the sustainability of the approach if the PDIM process does not include such measures into all their projects	It needs to be clarified whether there is a sufficient evidence to support that the SSRI funded infrastructure units are climate proofed. Climate proofing cannot be achieved 100% but is there an improvement in climate proofing? In relation to this it needs to be stated that the objective is to demonstrate the engineering options and effectiveness of climate proofing of infrastructure. The purpose of this demonstration is to influence the PDID. Therefore at this point it is not surprising that the PDID process still does not include climate proofing measures. It is still work in progress and strategic directions as well as practical recommendations from the MTR team are necessary.	MTR Initial Response Agreed and there is a recommendation to gather evidence to measure the effectiveness of the SSRI project in introducing climate proofing. Another recommendation is to introduce climate change information into the design of infrastructure to improve climate proofing. Final text No Change
SSRI 12/04/16	Section 1.7 The Climate Vulnerability and Capacity Assessment (CVCA) has identified approx.14,000 hectares of degraded hotspot areas affected by landslides and approx.125,287 ha of	Area to be verified? Landslides - 14,000 ha was clearly stated in the CVCA report but the 125,287 ha. affected by erosion was not shown in the report. The report shows for these three municipalities a total of	MTR Initial Response The MTR team cannot verify this number given all of the shortcomings found with the CVCA approach, but it is suggested that a revised CVCA methodology should also include robust ground truthing or verification techniques (e.g. as discussed with respect to verifying flood risk below).
	land affected by erosion that require	186,548 ha (Low risk = 61,261, medium risk =	Final Text The Climate Vulnerability and

¹⁴ This figure was revised from 50,000 to 5,000 during the project inception workshop. It should be noted that the wording of these indicators in the inception report (Annex 3) still has the original target, although the document states that it had been revised. It is advised that the official wording needs to be changed for this indicator if it has not already been done in ATLAS

	rehabilitation	83,638 ha. and high risk = 41,649 ha.)	Capacity Assessment (CVCA) has identified approx.14,000 hectares of degraded hotspot areas affected by landslides and approx.186,548 ha of land affected by erosion that require rehabilitation.
SSRI 11/04/16	Section 1.7	Sub-districts to Administrative Post, District to Municipality	MTR Initial response Will update terminology throughout the document as follows (Please add anything I've missed): PDID – PDIM Sub-districts – Administrative Posts District – Municipality Final text All changes made throughout document
Keti Chachibaia (13/04/16)	Method of calculating beneficiaries needs to be examined to ensure that it correctly represents beneficiaries in all cases. In addition, other measures of benefits could help to better measure progress. At mid-point the project is below 50% of the target of 32 projects when considering number of projects to be implemented, but above 50% of 100,000 beneficiaries.	What is meant here? Other co-benefits? other than climate proofing infrastructure?	 Benefits of climate proofing infrastructure (or any infrastructure works) would normally include a range of benefit measures including: 11) Reduction in probability of infrastructure failure i.e. breaching, overtopping, collapsing (measureable/demonstrable to some extent by the change in standard of protection (SoP) provided by the infrastructure. So for flooding, decreased magnitude and frequency of flooding will be experienced due to a flood defence being built 12) Reduction in damages and losses to communities (i.e. destruction and damages to homes, loss of household goods) 13) Reduction in lives lost (for DRR end of the scale) 14) Reduction in loss of subsistence crops and the household 'food basket' value of such agriculture 15) Reduction in losses to commercial agriculture 16) Increased health benefits. Associated reduction in aide to affected areas 17) Income generation, 18) Gender equality improvements 19) Access to markets and associated economic

SSRI 11/04/16 SSRI 11/04/16	Section 1.8 MTR Rating and Achievement Summary table Section 4.1 Furthermore, the designs of the climate resilient aspects of the 10 projects implemented have been	The targets by the end of the project are not consistent with that in the Project's Inception Report (IR). Reference to 4.1 Project Results and Resources Framework of the IR. SSRI technical team reviewed the designs and BOQ for each of the projects before it is approved and where necessary revisions were made to the deigns and	developed in Georgia and elsewhere). The benefit of this approach is that within the model that calculates the risks to communities, you can also calculate the benefits and costs associated with risk reduction measures such as climate proofing infrastructure. Action take: Targets corrected MTR Initial Response OK. I was trying to get an idea of the number of designs actually done by municipalities compared to those done by SSRI team as a measure of effectiveness of embedding the new design approaches. It I also to
	Furthermore, the designs of the climate resilient aspects of the 10 projects	 4.1 Project Results and Resources Framework of the IR. SSRI technical team reviewed the designs and BOQ for each of the projects before it is approved and where necessary revisions were 	OK. I was trying to get an idea of the number of designs actually done by municipalities compared to those done by SSRI team as a measure of effectiveness of embedding the new
	Furthermore, the designs of the climate resilient aspects of the 10 projects implemented have been done with inputs by SSRI engineers (X out of the	reviewed the designs and BOQ for each of the projects before it is approved and where necessary revisions were made to the deigns and BOQ before launching the procurement.	OK. I was trying to get an idea of the number of designs actually done by municipalities compared to those done by SSRI team as a measure of effectiveness of embedding the new design approaches. It I also to measure how available municipality staff have been for the design If the

SSRISection 4.1.2Engineers are at the Municipality level, not administrative post, the projects from all suces 2)MTR Initial Response We were told that there are available at AP level.MTR Initial Response We were told that there are is taken by EVAS team members after submission of all process allows for engineers i under take these initial studie process allows for engineers are reviewed and loosely prioritized through discussions with suce chiefs. At this level, AP engineers undertakeMTR Initial Response We were told that there are about what is meant by 'engi process allows for engineers are are reviewed and loosely prioritized through discussions with suce chiefs. At this level, AP engineersMTR Initial Response We were told that there are are reviewed and loosely prioritized through discussions with suce chiefs. At this level, AP engineersMTR lnitial Response Thank you.MURC INTERDENTSection 4.1.2Engineers are at the Municipality level, not available at AP level.MTR lnitial Response We were told that there are about what is meant by 'engi process allows for engineers' at this level who submission of all proposed projects from Suce to APs and then to Municipality . APs only have Community Development OfficersMTR linitial Response We were told that there are 'engineers' at this level who undertake freesibility study is taken by EVAS team members after submission of all process allows for engineers a level who should undertake freasibility studies (not wheth- Aps currently have engineers Thank you.	ea ts a ne SSRI age of of ad half e full and to nput of	(Wailia Water Supply Project, Lac Irrigation Project and Leguimea culverts). This perhaps reflects a continuing lack of capacity of municipalities to undertake the S projects. While this is partly expected at this mid-point stage the project, a key indication of capacity building in the second h of the project will be for each municipality to undertake the ful design, implementation and supervision of SSRI projects, and be able to do so without the input SSRI engineers by the end of the project.	by SSRI (Wailia Water Supply Project, Lacoliu Irrigation Project and Leguimea culverts)		
11/04/16PDID project selection processMunicipality level, not available at AP level.We were told that there are 'engineers' at this level who undertake these initial studie2)At the level of administrative post, the projects from all sucos are reviewed and loosely through discussions with suco chiefs. At this level, AP engineers undertakeSSRI: the feasibility study is taken by EVAS team proposed projects from submission of all proposed projects from level who should undertake feasibility studies (not whether through discussions with suco chiefs. At this level, AP engineers undertakeMunicipality level, not available at AP level.We were told that there are 'engineers' at this level who undertake these initial submission of all proposed projects from Municipality . APs only have Community Development OfficersWe were told that there are 'engineers' at this level who undertake through discussions have Community Development Officers	ularly I er you re also	The possible reasons are elaboral later in the document, particular under the review of the PDIM process. Please clarify whether y would like them discussed here a or if I should simply reference the	the reasons why these inputs did not trigger the change? What are the	many interviewed have stated that there is no real change in how they currently work and how they design and implement non SSRI projects. Furthermore, the designs of the climate resilient aspects of the projects have been done by SSRI engineers (X out of the	
Teasibility studies during the review process.are no technical background (engineer) .they support EVAS team members from Municplity when condcuting feasibility studyby 'at this time'. Should then engineers at AP level (in which the process diagram and desc of it above are correct, but th Currently no engineers at AP level	etanding neer'. DIM at this er the). Du mean e be h case cription ere are level?)	We were told that there are 'engineers' at this level who undertake these initial studies. Perhaps there is a mis-understan about what is meant by 'engineer Please confirm whether the PDIN process allows for engineers at the level who should undertake feasibility studies (not whether the Aps currently have engineers). Thank you. Please can you clarify what you me by 'at this time'. Should there be engineers at AP level (in which can the process diagram and description of it above are correct, but there currently no engineers at AP level	Municipality level, not available at AP level. SSRI: the feasibility study is taken by EVAS team members after submission of all proposed projects from Suco to APs and then to Municpality . APs only have Community Development Officers (CDOs) , most of them are no technical background (engineer) .they support EVAS team members from Municplity when condcuting feasibility study	PDID project selection process 2) At the level of administrative post, the projects from all sucos are reviewed and loosely prioritized through discussions with suco chiefs. At this level, AP engineers undertake initial feasibility studies during	

		APs level.	the projects from all sucos (2-9 proposals depends on how many sucos in one AP and based on Suco Development Plan) are reviewed and loosely prioritized through discussions with suco chiefs. At this level, AP staff undertake initial feasibility studies during the review process.
Keti Chachibaia 14/05/16	Section 4.1.2 PDID project Implementation process It has not been possible to verify the number of beneficiaries for any of the projects, and the method of calculating needs to be reviewed.	Is it possible to say how the number of beneficiaries is calculated by the project and what would be the MTR recommendation to make it more accurate.	MTR Initial Response My understanding is that the approach varies depending on the type of project (water, roads etc.). I was told that the number of beneficiaries was first calculated by the sucos and verified by the municipalities when the project starts. A comment from the project M&E officer was that the method of calculating beneficiaries at the suco and municipality level was creating problems for the project in verifying the actual benefits for M&E purposes. Recommendation 4.1.4 suggests that there needs to be a complete review of how benefits are calculated (methods other than number of beneficiaries should be included). If the intention is to stick with using only the number of beneficiaries then this would still need to be examined by the project if there is disagreement with the project calculated beneficiaries. It was not possible to undertake a full review of the method of calculating beneficiaries during the MTR due to lack of information.
SSRI 17/04/16	Section 4.2.2 The project Inception report, APR (for 2014 only) and quarterly reports have been reviewed to assess progress made against expected outputs and outcomes.	2015 APR has been shared.	MTR Initial ResponseThank you. It was shared afersubmisison of the Draft MTR report,but will be incorportaedFinal TextThe project Inception report, APRs(2014 and 2015) and quarterlyreports have been reviewed toassess progress made againstexpected outputs and outcomes
SSRI 15/04/16	Section 4.2.2 Key for Ranking	Based on the colour coding of progress outcomeis this also indicating progress towards the achievement	MTR Initial Response Table 1.1 is progress towards achieving indicators Table 4.4 is progress toward results (i.e. against outcomes)

		end-target based on the MTR. Green (6) – target on-tract to be achieved by end of project? Red (1) – target not on track to be achieved?	One more table is to be include with ranking on adaptive management but was not included as a review of financial reporting (a key aspect of adaptive management) has not been possible with the information provided) All rankings are on achievements towards project end-targets. <i>Final Text</i> All three tables include with the stated ranking
SSRI 17/04/16	Section 4.2.2 Table 4.3 Summary of planned and actual expenditure in each quarter	Figures in this table to be revised. Please see the quarterly budget expenditure as per attached.	MTR Initial Response Thank you for the additional information. Will revise accordingly Table updated with financial data provided my SSRI team
SSRI 17/04/16	Section 4.2.3 Case Study 1 1) Project identification and selection process failed to match the full project requirements (5km of channel) to the available budget. The inflexibility of the prescribed \$150,000k per project limit set by the project appears to have been an issue here, but the project should not have been selected given the severely reduced scope that the available budget imposed	As per the inception report there are budgetary allocations recommended per sub- district. Overall \$2,070,030 for the 32 projects in the LOA for the 8APs. However, the 10 projects in 2015 already cost \$930,815. SSRI select project under category A with budget between \$1 - \$150,000 – reference to PDID procurement manual) We should also examine whether the project can still be considered 'small scale' for infrastructure with budget allocations above \$150,000. As mentioned SSRI focus on PDIM Category A with budget between \$1 - \$150,000. Category B budget is \$150,000 - \$500,000 which is large.	MTR Initial Response My comment is on the effect of this recommended budgetary upper limit on project selection and implementation. Will re-word to state that it is a recommendation, but that the application of that recommendation has led to difficulties in the selection and imlementation of projects. <i>Final Text</i> 1)Project identification and selection process failed to match the full project requirements (5km of channel) to the available budget. The decision to select projects that fall only in Category A of the PDIM (\$1 to \$150,000 per project) places a limit on what could be implemented, and which appears to have been an issue here. Ideally, the full cost of the project should have been identified and the risk associated with doing a reduced-scope, lower cost project evaluated (as part of the feasibility and EIA). In this case the project should not have been selected given the severely reduced scope that the available budget imposed. The true higher full cost of the project would have placed it under Category B of PDIM (\$150,000 to \$500,000) and would have

SSRI 17/04/16	Section 4.2.3 Case Study 1	There has been collaboration between SSRI and Municipality.	resulted in it not being selected or implemented. It should be noted that the true cost of the project and any environmental consequences of reducing the scope should have been picked up during feasibility study and would have been picked up if a detailed EIA had been done. MTR Initial Response Thank you for the additional information which I will incorporate.
	3) Limited community engagement and senitisation about the changes to the original designs (which the community had initially endorsed).	Also there were community engagement and presentation of the changes in design. Please also refer to additional comment shared.	 Final Text 3) The community was consulted to discuss the issue of the limited budget and reduced channel length on 15th October 2015. During this meeting the community voiced reservations about the likely consequences of the irrigation channel ending short of the intended length. They identified risks to rice paddies and fish ponds being washed away. Several solutions were suggested including restricting releases from the dam until the full irrigation channel is completed. Other solutions suggested included formally requesting the SSRI project to continue the construction in subsequent phases. While the minutes of this meeting suggest that the community was consulted and were well aware of the risks it is not clear why the decision was taken to go ahead with the project, with no apparent mitigation measures to minimize the risks. Also, given that the project cannot continue the construction in subsequent phases, it suggests that community expectations could have been managed more effectively.
			communities, if left unaddressed, there is a risk to investment already made and to UNDP reputation. To specifically address this problem, and to avoid similar problems in the future the following recommendations are made:
SSRI 17/04/16	Section 4.2.3	10 bridges were constructed	Final Text The project has replaced 10 small

	Case Study 2		bridges, and installed gabion walls to
	The project has replaced 7 small bridges, and installed gabion walls to stabilize the slopes along the existing road alignment.		stabilize the slopes along the existing road alignment.
SSRI 17/04/16	Section 4.2.3 Case Study 2 While the construction of the bridges has been worthwhile and could catalyse development for the small isolated villages, it is clear that the road condition is such that there is still a potential for road surface to be washed away, exposing the top of the bridges and potentially leading to damage to the bridges. Given what the project is trying to achieve, it would have been useful to involve the roads department to get them to surface the road or to confirm whether it is a priority for surfacing in the near future	Did you check what is the case here? The top of bridges are designed to be exposed in many instances and do not require surfacing as it is already a rigid pavement.	MTR Initial Response I have not seen the design objectives of the bridges. If they have been designed to be exposed then this is new information. My understanding is that these are culverts designed to pass under a paved road. Final Text No Change
SSRI 17/04/16	Section 4.2.3 Case Study 2 Again, no detailed engineering designs were available for review, but it is clear that the bridges have been built to their original levels, suggesting a missed- opportunity to raise the bridges to accommodate increased water levels	Raising the elevation of the bridges is not the solution to accommodate increased water levels. There are other contributing factors and aspects to be taken into consideration such as invert levels, culvert CSA etc. The elevation of the bridges is dependent on the elevation of the road to ensure a comfortable riding at bridge approaches.	MTR Initial Response The key point here is that there is no evidence if or how changes in river flows (velocity and water level) due to climate change or landuse change in the upper catchment have been included into the designs. <i>Final Text</i> No Change

SSRI 17/04/16	 and velocities that could be expected with climate change. Of course, the design might have included increased capacity of the bridge opening (and the increased protection will help with conveyance through the bridges), but limited information means that designs methods and approaches cannot be confirmed. Section 4.2.3 Case Study 2 Of course, the design might have included increased protection will help with conveyance through the bridge opening (and the increased capacity of the bridge opening (and the increased protection will help with conveyance through the bridges), but limited information means that designs methods and approaches cannot be confirmed. 	Which information is limited? All information relating to designs, implementation are available. When you say design methods and approached, what do you mean?	MTR Initial Response Design drawings were provide. No feasibility, or detailed design reports showing hydrological or hydraulic calculations, scour calculations etc. were provided despite requests. These are essential documents that would normally be produced when designing a bridge!
SSRI 17/04/16	Section 4.2.3 Case Study 3 The Maubaralisa Marburalisa project is a road project which has built a drainage channel and retaining wall along sections of a 1.6km route. In addressing these issues, the following measures were taken along the damaged sections	This is only part of the scope of works. Please review and revise accordingly.	<i>Final Text</i> No Change. It was felt that no further detail was required for the purposes of this short case study.
SSRI 15/04/16	Section 4.3.3 Work Planning and	What kinds of financial information is required and when will the	MTR Initial Response I had hoped to have financial reports at the level of the outputs/activities

	Management	detailed financial assessment be	showing planned and actual expenditure including programme
	Once the financial information is provided a detailed assessment of financial efficiency of implementation will be assessed.	undertaken?	(i.e.when was the activity/spend planned and when it was actually implemented. Was it within budget etc.). Final Text Includes additional financial data provided by SSRI team
SSRI 15/04/16	Section 4.3.5 MCIE 1)Capacity building – None received, but hopeful that in the next steps capacity development will be implemented.	(training provided to DNCC staf including GIS and remote sengsing, South-south cooperation to Vietnam, involving staff for field trips for primary data collcetion and EIA, workshop training on CC, Procurement, monitoring and evaluation, training also provided to CCCB staff under NDCC portfolio including providede 2 GPS to CCCB to support the activities.	MTR Response This training is as described by the interviewee. I will make this clear and add the list training that is stated as having been provided to the organization. However, it is instructive that there appears to be a difference between training provided and training that the main project partners identify as having been provide. <i>Final Text</i> 1)Capacity building – According to the director none was received, but he is hopeful that in the next steps capacity development will be implemented.
Keti Chachibaia 17/04/16	Section 4.1.2 PDID Project Implementation process Again, for the purpose of recording and monitoring project results the project needs to have a better way of identifying and verifying areas on which soil and land management measures are to be undertaken. See Recommendation 4.1.5.	Correct and these watershed measures should be linked with the ISSR constructed or rehabilitated infrastructure. the watershed areas must be prioritized based on the areas of infrastructure interventions, (or existing functioning infrastructure) otherwise there is no correlation between the structural measures of infrastructure resilience and land-based measures of resilience that are to support the resilience of target infrastructure and as secondary benefit of a broader settlement and community.	OK
Keti Chachibaia 17/04/16	Section 1.14. Review of Project Logframe indicators and targets	Any reason why there is no comment included?	MTR Response The main reason is that the team confirmed that they were on target

Keti Chachibaia 17/04/16	At least five evidence- based policy influencing documents disseminated through the platformRecommendation 4.2.5It is recommended that the project undertakes more active risk 	Please enter the comment column so that it is clear whether the project is on track or any modifications are recommended. More active or additional risks identified above? It has not been analyzed how the risks are currently managed and whether there are areas of improvement in the risk management cycle. I would suggest to specify the recommendations re risk management. A suggestion that the team has to identify the technical risks (through EIA process) and put in place necessary safeguards should come out more strongly as MTR recommendation. What is the point of including the risk matrix below unless its quality is not analyzed and the	to have the 5 policies. I will confirm which ones will be done (DRR was already done I believe), and include additional comments This table is comment on the formulation of indicators and targets. The evaluation of progress towards achieving the targets is provided in table 1.2 with ratings <i>MTR Response</i> OK, I will reference the recommendation regarding EIA as relevant to a better risk management approach. I have analysed the risks that have been identified and pointed out that the key risk of lack of technical capacity has not been addressed by the project (it is the main risk reported in each quarter). I can make conclusions on the project's attempts to manage this particular risk and reference the recommendation to undertake capacity assessment and develop capacity development plan and implement it. I will try to undertake further analysis of how risks have been managed and make additional recommendations if possible.
Keti Chachibaia 17/04/16	Section 4.3.2 – Work Planning and Management .Is has not been possible to assess the project financial progress in detail as detailed financial reports have not been provided against individual project activities within the progress reports, although a summary is provide in the quarterly reports. The M&E reports provided are focused on the	suggestions for the improvements made. Has MTR informed the Country Office and the information has not been provided?	MTR requested all relevant financial reports, some of which have since been provided (APR for 2015 and a summary of all quarterly expenditure). There is still insufficient detail at the level of planned and actual expenditure against outputs/activities so any further financial assessment will only be at the level of quarterly financial reports. It appears that the expected level of detail is not available. So the review will be updated with the additional information but no further (deeper) analysis will be possible. <i>Final Text</i> Includes additional financial information provided by SSRI team

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	implementation of the 11 schemes that have been implemented but does not provide financial information for the project as a whole. Once the financial information is provided a detailed assessment of financial efficiency of implementation will be assessed.		
Keti Chachibaia 17/04/16	Interview with MCIE According the NDCC director, small scale interventions don't require EIA, but the SSRI do it anyway which demonstrates that the SSRI team go above the minimum standard. NDCC and NDCPEI were involved in the EIA that was done by the project. Involved in site visits to gain community perception and consult with communities, leaders etc.	Does not this information contradict the earlier findings that EIAs are not done for individual SSRI investments and therefore the investments do not have adequate social and environmental safeguards in place.	Yes it is contradictory. This is information provided by the NDCC director. He stated that in TL, small scale rural infrastructure project do not require EIA. When he says that the SSRI project has undertaken EIA he is referring to the EIA and Social Safeguards report which I have assessed as inadequate as EIAs. To clarify, I will do the following: 1) Make it clearer that he is referring to the EIA and SS report and reference my review of it is as inadequate 2) Strengthen the recommendation regarding the inclusion of EIA to include the need to change the policy that currently means that small scale rural projects do not require EIA. Perhaps this is one of the policy recommendations the project can make. <i>Final text</i> The final text is unchanged in the body of the document but the following footnote has been added It should be noted that the Director of the NDCC is referring here to the EIA and Safeguards report which was prepared by the project which has been reviewed by the MTR team and found to be inadequate for the purposes of engineering EIA (See discussion in Section 4.1 and refer to recommendation 4.1.3 d and f).
Keti	Section 4.4.1	The point of	I did not want to repeat
Chachibaia 17/04/16	Sustainability Use evidence gathered	sustainability is not to continue funding SSRI project but embed the	recommendations already made but I will reference the earlier recommendations regarding

	from the project to provide cost-benefit evidence of implementing climate resilient SSRI.	principles of climate proofing into the infrastructure development. How much of climate proofing is cost-effective needs to be established based on the cost-benefit analysis. Indeed the project team has to introduce the application of such methods to their climate proofing investment decisions. Sustainability has only one recommendation? What about influencing PDIM cycle to embed climate risk information; what about making that risk information readily available; what about embedding new skills and capacities at EVAS PDIM AP and at national level. These are all important factors of sustainability that need to be emphasized and reinforced under this section.	influencing the PDIM process and capacity building as relevant to sustainability. Final text Includes cross-reference to recommendations that promote sustainability
Keti Chachibaia 17/04/16	Section 4.4.3 4.4.3. Catalysed beneficial development effects of the project The project could examine income generation opportunities as part of the socio-economic risk and opportunity assessment.	This is a very good point. If I understood correctly the recommendation is for the project establish the evidence how the climate proofed infrastructure and its services contributed to local livelihoods and community welfare, both in terms of incomes, new livelihood opportunities and health and access to public services.	<i>Final Text</i> The project could examine income generation opportunities as part of the socio-economic risk and opportunity assessment. As stated earlier, this can be done by first developing socio-economic baseline information on all communities, which can be done to the household level, which will be linked to the calculation of current climate induced risks by integrating hazard and socio-economic data on livelihoods, health, access to public services etc. The same model can then be used to identify income generation/improvements due to the project (due to the improved infrastructure and reduced risks).
Keti Chachibaia 17/04/16	Section 4.4.5	Surprisingly there is neither an analysis or any targeted recommendation on the	MTR Initial Response The intended project strategy for maintenance of infrastructure is stated in the project design (and I

	organization of maintenance services and their costs and how to address this. Especially with CC maintenance costs might increase. This is critical for quality and longevity of service as well as sustainability of the investment.	will include a section on this), but during the MTR the main outcome of interviews with the maintenance organization (GMF) was that it is not clear how they should collect money for maintenance and that there was no training on how to maintain the infrastructure (see Ossoala case study above). The need for training maintenance staff will presumably emerge from the capacity assessment and development plan. However, I will do further analysis of the available information and see what specific recommendations can
		be made. Final Text A key financial risk to sustainability is the cost of maintenance of the climate resilient infrastructure being implement by the project. The intended project strategy for maintenance of infrastructure is stated in the project design as involving the GMF who will be trained to maintain the climate resilient infrastructure over time. During the MTR mission, the main outcome of interviews with the maintenance organization (GMF) was that it is not clear how they should collect money for maintenance and that there was no training on how to maintain the infrastructure (see
		Ossoala case study above). The need for training maintenance staff will presumably emerge from the capacity assessment and development plan. However, the following further recommendations are made specifically: Recommendation 4.4.1 – Introduce a financial analysis output, based on the vulnerability mapping, cost- benefit analysis (and scaled up to rest of TL), to help identify the financial commitment that government will need for long-term national SSRI funding.
		Recommendation 4.4.2 – Develop the financing model for maintenance of infrastructure and roll out for all SSRI schemes already built. Include monitoring mechanism to collect

			evidence base and calibrate financial model for long-term maintenance financing.
SSRI 17/05/16	Cover Page In-Cash contribution of \$300,000	Where were these figures obtained and amount of in-cash contributions provided?	Figures are taken from the Financial Information section of APR 14 and APR 15
SSRI 17/05/16	Cover Page In-Cash contribution of \$1,935,600	Please clarify this figure	Figures are taken from the Financial Information section of APR 14 and APR 15
SSRI 17/05/16	The Chief of Department said the Directorate of National forestry is principal counterpart on implementation of two projects from UNDP such as Dili – Ainaro corridor and Mangrove project for the next few years	Which department is referred to?	<i>Final Text</i> The Chief of Department said the Directorate of National forestry is principal counterpart on implementation of two projects from UNDP such as Dili – Ainaro corridor and Mangrove project for the next few years