
**Terminal Evaluation of the UN Environment – Adaptation Fund
Project “Implementation of Concrete Adaptation Measures to
Reduce Vulnerability of Livelihoods and Economy on Coastal
Communities of Tanzania” &
UN Environment – GEF Project “Developing Core Capacity to
Address Adaptation to Climate Change in Productive Coastal
Zones of Tanzania”**

FINAL REPORT



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(Implementation of concrete adaptation measures to reduce vulnerability of livelihoods and economy of coastal communities of Tanzania (Adaptation Fund); Developing core capacity to address adaptation to climate change in productive coastal zones of Tanzania (GEF Least Developed Countries Fund)
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ABOUT THE EVALUATION¹

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Brief Description: This report is a terminal evaluation of a UN Environment-GEF project “Developing core capacity to address adaptation to climate change in productive coastal zones of Tanzania” and UN Environment-Adaptation Fund project “Implementation of concrete adaptation measures to reduce vulnerability of livelihoods and economy of coastal communities of Tanzania. The projects were implemented between 2012 and 2019. The projects aimed to reduce the vulnerability of livelihoods, ecosystems, infrastructure and the economy in Tanzania and to develop institutional capacities to manage climate change impacts, through improved climate information, technical capacities and the reduction of climate change vulnerability at selected sites with adaptation measures. The evaluation sought to assess project performance (in terms of relevance, effectiveness and efficiency), and determine outcomes and impacts (actual and potential) stemming from the project, including their sustainability. The evaluation has two primary purposes: (i) to provide evidence of results to meet accountability requirements, and (ii) to promote learning, feedback, and knowledge sharing through results and lessons learned among UN Environment, the Adaptation Fund, the GEF, their executing partners and the relevant participating agencies.

Key words: adaptation fund; climate change adaptation; coast; coastal ecosystems; GEF; Tanzania; terminal evaluation

¹ This data is used to aid the internet search of this report on the Evaluation Office of UN Environment Website

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List of acronyms and abbreviations

AF	Adaptation Fund
BMU	Beach Management Unit
CAN-Tanzania	Climate Action Network – Tanzania
CBO	Community-Based Organization
CTA	Chief Technical Advisor
DAWASA	Dar es Salaam Water and Sewage Authority
DOE	Department of Environment
EA	Executing Agency
EBICAM	Ecosystem-based Integrated Coastal Management
EIA	Environmental Impact Assessment
GEF	Global Environment Facility
GoT	Government of the United Republic of Tanzania
IA	Implementing Agency
ICAM	Integrated Coastal Area Management
LDCF	Least Developed Countries Fund
MNMA	Mwalimu Nyerere Memorial Academy
MNRT	Ministry of Natural Resources and Tourism
MTEF	Medium-Term Expenditure Framework
MTR	Mid-Term Review
MWTC	Ministry of Works, Transport and Communication
M&E	Monitoring and Evaluation
NAPA	National Adaptation Programme of Action
NCCSC	National Climate Change Steering Committee
NCCTP	National Climate Change Technical Committee
NEMC	National Environmental Management Council
NGO	Non-Governmental Organization
PC	Project Coordinator
PIR	Project Implementation Report
PO-RALG	Office of the President’s Regional Administration and Local Government
PPR	Project Performance Report
PSC	Project Steering Committee
SLR	Sea Level Rise
STA	Senior Technical Advisor
SMART	Specific, Measurable, Attainable, Relevant and Time-bound
TFS	Tanzania Forest Service
ToRs	Terms of Reference
UN	United Nations
UNEP	United Nations Environment Programme
UNOPS	United Nations Office for Project Services
VPO	Vice-President’s Office

Table 1: Project Identification Table (Adaptation Fund)

“Implementation of Concrete Adaptation Measures to Reduce Vulnerability of Livelihoods and Economy of Coastal Communities of Tanzania” (Adaptation Fund)

UN Environment PIMS ID:	AFB (2G48)		
Implementing Partners	Division of Environment, Vice President's Office, United Republic of Tanzania		
Sub-programme:	Climate Change – Adaptation subprogram	Expected Accomplishment(s):	(3a) Adaptation planning, financing and cost-effective preventative actions incorporated into national development processes (3d) Increased carbon sequestration occurs through improved land use, reduced deforestation and reduced land degradation.
UN Environment Programme approval date:	February 29, 2012	Programme of Work Output(s):	(1.a2) Resilience of key vulnerable ecosystems increased through effective adaptation measures. (1.a4) National policies and capacities for integrated vulnerability assessments strengthened.
Expected start date:	March 2012	Actual start date:	1 November 2012
Planned completion date:	March 2017	Actual completion date:	November, 2019
Planned project budget at approval: December 2011	US \$ 4,616,188.00	Actual total expenditures reported as of 31 December 2018:	US \$ 4,424,602.98
Planned Adaptation Fund allocation:	US \$ 4,616,188.00	Actual Environment Fund expenditures reported as of 31 December 2018:	US\$ 4,424,602.98
Planned Extra-Budgetary Financing:	N/A	Secured Extra-Budgetary Financing:	N/A
Total Cash Advance as of December 30, 2018	US \$ 4,502,303.45	Actual Extra-Budgetary Financing expenditures reported as of [date]:	N/A
First disbursement:	US \$ 125,000.00	Date of financial closure:	November, 2019
No. of revisions:	6	Date of last revision:	December 2018
No. of Steering Committee meetings:	6	Date of last/next Steering Committee meeting:	Last: 2018 Next: N/A
Mid-term Review/ Evaluation (planned date):	March 2015	Mid-term Review/ Evaluation (actual date):	March 2015
Terminal Evaluation (planned date):	March 2017	Terminal Evaluation (actual date):	January 2019
Coverage - Country(ies):	Tanzania	Coverage - Region(s):	East Africa

Table 2: Project Identification Table (Least Developed Countries Fund)

“Developing Core Capacity to Address Adaptation to Climate Change in Productive Coastal Zones of Tanzania” (Least Developed Countries Fund)

UN Environment PIMS ID:	GEF ID 4141		
Implementing Partners	Ministry of Environment, Office of the Vice President, Tanzania		
Sub-programme:	Climate Change – Adaptation subprogram	Expected Accomplishment(s):	3a) Adaptation planning, financing and cost-effective preventative actions incorporated into national development processes (3d) Increased carbon sequestration occurs through improved land use, reduced deforestation and reduced land degradation.
UN Environment approval date:	23 April 2012	Programme of Work Output(s):	(1.a2) Resilience of key vulnerable ecosystems increased through effective adaptation measures. (1.a4) National policies and capacities for integrated vulnerability assessments strengthened.
Expected start date:	November 2012	Actual start date:	1 November 2012
Planned completion date:	March 2017	Actual completion date:	March 2019
Planned project budget at approval: December 2011	US\$ 3,356,300	Actual total expenditures reported as of 31 December 2018:	US \$ 3,106,642.86
Planned GEF allocation:	US\$ 3,356,300	Actual GEF expenditures reported as of December 2018:	US\$ 3,106,642.86
Planned Co-financing (cash and in-kind):	US\$ 67,828,4908	Secured Co-financing Financing:	US\$ 41,943,400
Total Cash Advance as of 30 December 2018:	US\$ 3,216,353.46	Actual Co-financing expenditures as of April 2019:	US\$ 41,943,400
First disbursement:	US \$ 125,000.00	Date of financial closure:	December 31, 2018
No. of revisions:	6	Date of last revision:	December 2-018
No. of Steering Committee meetings:	6	Date of last/next Steering Committee meeting:	Last: 2018 Next: N/A
Mid-term Review/ Evaluation (planned date):	November 2015	Mid-term Review/ Evaluation (actual date):	November 2015
Terminal Evaluation (planned date):	January 2019	Terminal Evaluation (actual date):	January 2019
Coverage - Country(ies):	Tanzania	Coverage - Region(s):	East Africa

Executive Summary

1. “Implementation of Concrete Adaptation Measures to Reduce Vulnerability of Livelihoods and Economy of Coastal Communities of Tanzania” (financed by the Adaptation Fund) and “Developing Core Capacity to Address Adaptation to Climate Change in Productive Coastal Zones of Tanzania” (financed by the Least Developed Countries Fund) were implemented over an 76-month period that began in November 2012 and was extended until their administrative closure in March 2019. These projects were funded by grants of US\$ 4,616,188 from the Adaptation Fund, and US\$ 3,356,300 by the Least Developed Countries Fund.

2. The project objectives and implementation strategies were complementary. The Adaptation Fund project aimed to reduce the vulnerability of livelihoods, ecosystems, infrastructure and the economy in Tanzania, and the LDCF project sought to develop institutional capacities to manage climate change impacts, through improved climate information, technical capacities and the reduction of climate change vulnerability at selected sites with adaptation measures. Both projects were executed by the Vice President’s Office through the Division of Environment, with UN Environment Programme (UNEP) assuming supervision and oversight as the GEF multilateral implementing agency. Senior DoE staff were selected for the national project coordinator and administrative support was provided internally. The UN Office for Project Services (UNOPS) was contracted in 2015 to provide procurement services and supervise infrastructure rehabilitation activities at several sites.

3. The evaluation found both projects to be very relevant to local, national and global priorities. They were designed as instruments for implementing Tanzania’s National Action Programme for Adaptation (NAPA), targeting vulnerable sites that were threatened by seasonal floods, rising sea levels, the loss of coastal ecosystems and land degradation. Most of the adaptation interventions were drawn from district development plans or suggested by district environmental authorities. Both projects were relevant to AF and LDCF priorities, as well as to the Climate Change Adaptation sub-programme of UN Environment’s 2010-2013 Medium Term Strategy. Likewise, both projects have supported the GEF-5 Focal Area of Climate Change Adaptation and in particular, associated strategic objectives addressing (i) the promotion of innovation and technology transfer for sustainable energy breakthroughs, (ii) demonstrating mitigation options with systemic impacts, and (iii) mainstreaming mitigation concerns into sustainable development strategies. They have assisted Tanzania’s implementation of the UNFCCC by reducing coastal vulnerability at critical sites and demonstrating effective adaptation practices.

4. The evaluation ratings indicate that the overall performance of both projects was moderately satisfactory. Despite slow implementation and low expenditures during most of the approved project periods, most of the planned outputs were fully delivered at the end of the extension period. Both projects have successfully reduced the vulnerability of communities, mangrove forests, and coastlines (including a coral reef) to floods, rising tides and degradation. There are indications that the construction of seawalls and drainage canals, with shoreline protection measures and mangrove reforestation, are already generating positive impacts by protecting human settlements, public infrastructure, farmlands and coastal ecosystems. Local demand for charcoal is being reduced in three urban districts, through the distribution of energy-efficient cooking stoves that are expected to lower stress on nearby forests and reduce the time devoted by women to cooking chores. The combined project site interventions are benefiting thousands of residents and building linkages between the Division of Environment, District and Municipal Councils, NGOs and community-based organizations. Some of the site interventions of both projects were adjusted in their scale, in response to delays or budget limitations. There were

intervening external factors – extreme weather events, security issues - that were outside the projects' control.

5. The projects were less effective in strengthening institutional capacities for vulnerability monitoring and adaptation planning, or in extending adaptation management to coastal management policies and plans. While general knowledge was enhanced for key stakeholders, projects did not have funds to enable the application of enhanced capacities in the field. This could have bearing on the project's likelihood of impact – in particular regarding the LDCF project objective – and on possibilities for replicating or up-scaling effective adaptation practices within a broader integrated coastal area management (ICAM) approach. The ecosystems-based coastal management plan (EBICAM) for Tanzania's extended coastal region that was foreseen under the AF project did not materialize, reinforcing a policy vacuum that is caused by the expiration of Tanzania's National Mangrove Management Plan (which hasn't been updated). The proposed climate change monitoring observatory and knowledge platform is not operational and needs to develop further. The local networks of community-based organizations that were intended as a mechanism for public participation (by the LDCF project) have not been consolidated at most sites and require further training to engage effectively. District environmental focal points and other participants did receive training on DIVA/GIS for vulnerability mapping and monitoring, but this has not had an effect on district capacities and is not being applied at any of the sites (the mangrove restoration sites have been plotted with coordinates and mapped). Capacity building is not a one-time event and more support will be needed, particularly at sites where most of the registered CBOs are new, i.e. Rufiji.

6. Capacity benefits were generated by the participation of local stakeholders – district and municipal environmental officers, NGOs, community organizations – in the adaptation interventions (mangrove restoration in particular), and the field research that was conducted by student interns and graduate students from University of Dar es Salaam. The baseline assessments that were conducted at the project sites have contributed to local knowledge, and various reference materials (including a manual for vulnerability assessment) were distributed to the district focal points.

7. Project outcomes were partially or fully achieved for the most part, with direct implications for the likelihood of impact. There are indications of reduced climate change vulnerability at the project sites as a result of the adaptation interventions. Infrastructure repairs and the construction of seawalls are already having effect, and targeted coastal ecosystems are likely to be rehabilitated over the medium term as new mangrove plantings and coral restoration measures take effect. Knowledge of climate change vulnerability for the project sites and surrounding districts has improved. Outcomes pertaining to capacity development for vulnerability monitoring and adaptation planning or enhanced public participation were partially achieved. There is a moderate likelihood of strengthened institutional capacities among the community-based organizations that participated in the projects – in particular, those that were registered under the second component of the LDCF project - and a lower likelihood of strengthened capacities within district and municipal governments (this is also affected by staff turnover).

8. With regards to the project objectives, there is a high likelihood of impact in reduced climate change vulnerability on livelihoods, ecosystems, infrastructure and the economy at the site or district level in most cases. This is central to the objectives of both projects and in particular to that of the AF project. However, the likelihood of this happening on a national or coastal regional scale, as reflected in the AF project objective, is low at present. The dissemination and upscaling of best practices to district and national policy planning levels were limited in part by the late implementation of several pilot interventions, in addition to funding availability. This may affect opportunities for replicating adaptation measures at other coastal locations. There is a moderately low likelihood that institutional capacities to manage climate change impacts will be consolidated,

as stated by the LDCF project objective, although the enabling conditions for this to happen have improved with the availability of baseline studies for the project sites, and the registration of community-based organizations as a means to promote public engagement in adaptation initiatives.

9. Both projects were complementary in their design and implementation approach. They were designed around thematic components that followed a logical progression in their causal pathways, linking vulnerability assessment and knowledge improvement to capacity building and public engagement, which in turn fed into the implementation of concrete adaptation interventions and policy linkages to promote their replication on a broader scale. The analysis of causal pathways under the Theory of Change model indicated high levels of articulation between outputs and outcomes of both projects. Various deliverables that were foreseen in the projects design were mutually relevant and potentially beneficial to both initiatives, such as the EBICAM Action Plan, climate change monitoring observatory, GIS training and public engagement mechanisms. There was a balance in their geographic distribution - the AF project was focused on the Dar es Salaam metropolitan area and the LDCF project worked at coastal locations on the mainland and Zanzibar. Execution arrangements included common premises within the DoE, a joint Project Steering Committee, shared evaluations and fluid communications between coordinators. There has been collaboration between projects in the contracting of baseline vulnerability assessment.

10. However, linkages between the development of an integrated coastal management framework, district monitoring capabilities and public engagement mechanisms were not operationalized, and cooperation towards their delivery was not pursued. Project timelines were adequate, yet slow implementation and procurement led to extensive delays, leading to the approval of project extensions. The approved budgets of some adaptation interventions were low and based on preliminary estimations. Project budgets were also affected by rising costs over time, and the continued degradation of infrastructure and coastal sites during the six years that lapsed between the initial budgeting of the adaptation interventions and their actual implementation (i.e. Bagamoyo and Pangani in the case of the LDCF project).

11. Project finances were managed in accordance with UN Environment guidelines, and the audits that were reviewed by the evaluators indicate satisfactory financial management by both projects. Adaptive management was applied to the project budgets, which were revised periodically to re-program unspent balances and adjust budget line allocations to evolving needs. The Vice President's Office approved additional co-financing for the LDCF project to enable the final stage of seawall construction on the north bank of the Pangani River. However, there were delays in the submission of financial reports and inconsistencies of data (caused by the different accounting methodologies) that needed to be reconciled. Annual audit reports were required but were not always submitted on schedule: Audit reports are available from 2013-2017, while the 2018-2019 audit reports are being finalized. There were also delays and deficits in the disbursement of co-financing contributions for the LDCF project. Against these factors, the financial management performance of both projects was given a moderately unsatisfactory rating.

12. Efficiency was the weakest aspect of project performance. Output delivery and budget expenditure levels were low and undermined by delays for most of the approved project periods. This was influenced by budget limitations that were exacerbated over time by rising costs and vulnerability at the project sites, and by an inefficient government procurement system that set implementation back during the first three years. Implementation was additionally delayed at some sites by extreme weather conditions and security issues. As a result, a two-year extension was needed by both projects to complete activities and spend their budgets. Project delivery did improve considerably during the extension period, influenced by higher levels of disbursement for adaptation interventions and the contracting of UNOPS to provide procurement services. The co-

financing delays and deficits are likely to have influenced the level of project activity at some sites, and the availability of resources for their replication.

13. Monitoring and reporting was consistent with UN Environment and GEF guidelines, and combined annual progress reporting with financial expenditure reports that required approval by UN Environment. Both projects had budgeted monitoring plans and used measurable indicators (when feasible) that were consistent with SMART guidelines. The project coordinators visited the adaptation sites twice a year on average, and implementation issues were discussed with district environmental focal points on-site and at annual Project Steering Committee meetings. UN Environment provided technical oversight through the annual missions of its Task Manager; the UNEP country representation (based in Dar es Salaam) did not play a role in project monitoring, although the representative did attend some Steering Committee meetings on behalf of the UNEP Task Manager.² Monitoring performance was satisfactory for both projects and contributed to their adaptive management.

14. There is a high likelihood of sustainability for the adaptation interventions that were implemented at the project sites. The rehabilitated seawalls and drainage canals are expected to withstand the elements and last for a century before major repairs are needed. Likewise, the environmental sustainability of the ecosystem restoration initiatives is also likely to be high given the dynamic growth and reproduction cycles of the mangroves that were planted. However, the long-term survival of restored mangrove sites is threatened by untreated sewage and industrial effluent, cattle encroachment and illegal logging. It is likely that some community organizations and NGOs will continue to monitor the restored mangrove areas beyond the project terms. Some of the seawall and drainage sites require further planting of deep-rooting vegetation to stabilize soils and prevent erosion.

15. There is a high likelihood of institutional sustainability as a result of the lead role given to District Councils for the coordination of activities at the project sites. Several of the NGOs and community-based organizations that participated in the ecosystem restoration initiatives are established entities with prior experience in conservation activities. Several of the community organizations that were registered with support from the LDCF project are likely to be sustained over the next years, although further training is needed to enable their effective engagement in adaptation activities. On the other hand, the likelihood of policy sustainability is moderately low (despite the projects contributions to the implementation of the NAPA). A regional framework for integrated coastal management is lacking, and district governments have limited budget resources for project implementation; at present there are limited perspectives at present for the replication or expansion of adaptation practices on a wider scale. Financial sustainability is undermined by the low revenue base of local governments, and the absence of climate financing mechanisms in Tanzania for adaptation initiatives. As a result, the financial sustainability of adaptation management will largely depend on budgetary transfers from central government or the availability of support from parallel programs or donors. Despite these budgetary constraints, it is likely that financial resources will be made available for the maintenance of rehabilitated infrastructure.

16. Among the contributing factors that have influenced project performance, the evaluation highlights the consistent engagement of district and community stakeholders in the implementation of project activities. This has encouraged commitment and ownership on the part

² Country offices do not provide project monitoring support under the UNEP corporate model. However, the evaluators consider that the consideration of arrangements for intermittent field monitoring by country-based staff (complementing the Task Manager's annual missions) or participation in the Steering Committee meetings might have enhanced the level of quality assurance of both projects.

of district council focal points, NGOs and community organizations in spite of the delays that were faced. Community participation was particularly strong under the LDCF project, which supported a larger number of ecosystems restoration initiatives and facilitated the registration of community organizations for the purpose of creating local networks. Project management was entrusted to two senior DoE staff who contributed experience and dedication to their work. However, effectiveness and efficiency were weakened by the intermittent availability of an international Chief Technical Advisor (who was recruited on a part-time basis) and the lack of a full-time project management unit devoted to their implementation and quality assurance.

17. The combined project experiences have generated a number of conclusions, lessons and recommendations that include the following:

- Both projects have successfully reduced the vulnerability of human settlements, infrastructure and ecosystems to climate change threats. These are important achievements that were accomplished through the rehabilitation of coastal infrastructure and ecosystems at vulnerable coastal sites. However, the impacts generated by the adaptation interventions cannot be quantified at present and require tracking beyond the project cycle.
- The design complementarities of both projects were reflected in their shared execution and institutional arrangements but did not lead to collaboration for the productions of outputs or results that were mutually relevant.
- The project implementation approaches reinforced horizontal and vertical linkages between different stakeholders. There was consistent engagement and cooperation on the part of the District and Municipal Council environmental officers, NGOs and community organizations for the implementation of adaptation initiatives (particularly in the case of mangrove restoration).
- The integrated coastal area management (ICAM) and policy frameworks that are needed to replicate and upscale adaptation interventions are not presently in place. Ecosystems-based Integrated Coastal Area Management (EBICAM) is needed on a broader geographic scale in order to have impact on Tanzania's coastal vulnerability beyond the pilot sites as reflected in the project objective.
- Climate financing is necessary to ensure continued adaptation management at district, municipal and community levels. The feasibility of financing mechanisms, i.e. payment for ecosystems services, needs to be considered in greater depth.
- Climate change adaptation is intrinsically linked to biodiversity conservation, land use, economic activity and local governance. These relations need to be reflected in project design and institutional arrangements. Human intervention and land use have a direct influence on climate change vulnerability and require greater attention in the formulation of adaptation measures.
- There is an immediate need to consolidate site adaptation interventions that were not fully implemented due time or budget constraints. This includes the construction of a seawall on the south bank of the Pangani River, continued mangrove planting in areas with low survival rates, and the consolidation of CBO networks at the project sites.
- Projects that support infrastructure investments should include (and fund if necessary) feasibility or engineering studies at the design stage, to ensure realistic costing and avoid budget shortfalls.
- The collaboration of UN Environment's Country Offices in project monitoring and oversight may offer potential benefits and the viability of this arrangement should be discussed at executive levels.

The overall rating of both projects is moderately satisfactory, based on the weighted evaluation criteria. The weighted performance rating tables for both projects are included with the evaluation's conclusions (Section V).

1. Introduction

18. This report is the first draft of the joint Terminal Evaluation (TE) for the UN Environment-Adaptation Fund project "Implementation of Concrete Adaptation Measures to Reduce Vulnerability of Livelihoods and Economy of Coastal Communities of Tanzania", and the UN Environment – GEF project "Developing Core Capacity to Address Adaptation to Climate Change in Productive Coastal Zones of Tanzania" with financing from the Least Developed Countries Fund (LDCF). These projects were executed by the Vice President's Office, Department of Environment, with UN Environment serving as the multilateral implementation agency through its Climate Change Adaptation Unit at the Ecosystems Division.

19. "Implementation of Concrete Adaptation Measures to Reduce Vulnerability of Livelihoods and Economy of Coastal Communities of Tanzania" (hereafter referred to as the AF project) was approved on February 29, 2012 under an agreement between the Adaptation Fund and UN Environment; whereas "Developing Core Capacity to Address Adaptation to Climate Change in Productive Coastal Zones of Tanzania" (hereafter referred to as the LDCF project) was approved by the GEF on December 27, 2011 and UN Environment on 23 April 2012. Both projects were cleared by the UN Environment Project Review Committee (PRC), and approved in 2011 for five-year periods between 2012 -2017 that were subsequently extended until 2019. They supported the 2010-2013 Medium-Term Strategy (MTS) by supporting the cross-cutting objective of climate change adaptation and in particular Expected Accomplishments (3.a) "adaptation planning, financing and cost-effective preventative actions incorporated into national development processes", and (3.d) "increased carbon sequestration through improved land use, reduced deforestation and reduced land degradation". Within these accomplishments, project activities have contributed to PoW Outputs (1.a2) "resilience of key vulnerable ecosystems increased through effective adaptation measures", and (1.a4) "national policies and capacities for integrated vulnerability assessments strengthened."

20. The Terminal Evaluation is required by UN Environment guidelines for GEF projects, and was undertaken to assess project performance, determine outcomes and impacts (actual and potential) that were generated, and consider the likelihood of sustainability. The evaluation has two primary purposes: (i) To provide evidence of results to meet accountability requirements, and (ii) to promote operational improvement, learning and knowledge sharing through results and lessons learned among UN Environment and the Division of Environment, Vice President's Office.

21. This is a joint evaluation that recognizes the design complementarity and linkages of both projects, which were initially conceived as a single initiative and subsequently divided on the basis of their different funding sources. "Developing Core Capacity to Address Adaptation to Climate Change in Productive Coastal Zones of Tanzania" was financed with a US\$ 3.356 million grant from Least Development Countries Fund for Climate Change (LDCF), which is managed by GEF. On the other hand, "Implementation of Concrete Adaptation Measures to Reduce Vulnerability of Livelihoods and Economy of Coastal Communities of Tanzania" received a US \$ 5,008,564 grant from the Adaptation Fund (AF). The Terminal Evaluation was preceded by a joint Mid-Term Review in 2016.

22. Both projects were similar in design and implementation approach, with various cross-project linkages that reflect the high level of complementarity. They addressed Tanzania's

vulnerability to climate change and supported the implementation of the National Adaptation Program of Action (NAPA) through direct interventions, capacity development and knowledge management. The objective of the AF project was “ to reduce the vulnerability of livelihoods, ecosystems, infrastructure and the economy in Tanzania”; whereas the LDCF project aimed to “...develop institutional capacities to manage climate change impacts through improved climate information, technical capacity and through the implementation of concrete adaptation measures and innovative solutions to reduce the vulnerability in key vulnerable areas, and learning.”

23. While the performance of each project is assessed and rated separately, the joint evaluation enables a deeper consideration of cross-project linkages and complementarities and the extent to which these have affected performance and results. It also enables the formulation of conclusions and lessons from a broader base of experience.

24. The Terminal Evaluation is based on the following performance criteria, combining qualitative and quantitative analysis:

- Strategic Relevance
- Quality of Project Design
- Nature of External Context
- Effectiveness (delivery of outputs, achievement of outcomes and likelihood of impact)
- Financial Management
- Efficiency
- Monitoring and Reporting
- Sustainability
- Factors Affecting Project Performance

25. The evaluation was guided by strategic questions that are highlighted by the Terms of Reference:

- To what extent was vulnerability reduced in the two project surrounding areas?
- How did the two projects work in terms of implementation approach, project linkages and collaboration, towards a common Theory of Change?
- To what extent has there been uptake of LDCF outcome 4.1: Knowledge transfer and learning system with universities, research institutes established together with demonstration projects”?
- For each project, what is status of pilot projects/ courses delivered and potential for replication/ scale up?

2. Evaluation Methods

26. The joint Terminal Evaluation was an independent evaluation that was conducted by two external consultants in the positions of international/lead evaluator and national evaluator.

27. The assessment of project performance was based on the evaluation criteria of relevance, effectiveness, likelihood of impact, efficiency, sustainability, monitoring and reporting, financial management, quality of project design and nature of the external context. The evaluation also assessed a set of factors affecting project performance. A reconstructed Theory of Change, based on the projects result frameworks and project documents) for the projects was developed during the inception phase of the evaluation, and was used as a basis for evaluating project performance. In addition to the key evaluation questions that are described above, the evaluators developed a detailed set of questions for each evaluation criterion that were directed at specific focus groups

(DoE, Steering Committee members, district environmental focal points, NGOs and community-based organizations, universities, UN Environment Task and Finance Managers).³

28. The evaluation approach combined a desk review of project documentation, a country visit that included consultations with national partners, visits to most of the pilot sites, and online interviews with UNEP focal points (see Annexes A and C).

29. In addition to interviewing the project directors and executives of the VPO-DoE, the evaluators intended to visit all sites where adaptation interventions had been implemented by both projects, to assess the effectiveness of the various measures in reducing vulnerability to climate change, and to interview local government focal points and community representatives who had participated in their implementation (and in the project's training activities). Although this was ultimately not feasible within the mission's duration, the evaluators were able to visit approximately 80% of the sites where adaptation activities had been implemented, encompassing the Dar es Salaam metropolitan area (Ilala, Temeke and Kinondoni municipalities: Mwalimu Nyerere Memorial Academy) for the AF project; and the districts of Rufiji, Kibiti, Bagamoyo and Pangani, in addition to the islands of Unguja, Pemba and Kisiwa Panza in Zanzibar, for the LDCF project.⁴ The site visits combined infrastructure repair and ecosystem rehabilitation initiatives that were implemented by both projects. At all locations, the evaluators met with project stakeholders that included district/municipal council environmental officers, NGO representatives, community organizations and faculty from the University of Dar es Salaam's Geography Department. The triangulation of information collected from the project documentation, site visits and stakeholder interviews led to the emergent findings and lessons that were further developed for this report.

30. The evaluation approach and timelines are summarized below:

31. Desk Review (January - mid February 2019). The desk review informed evaluators of what data was available and where there were gaps, providing a preliminary overview of project design and performance. The following documents were reviewed:

- The approved project documents and logical frameworks.
- Tanzania's National Adaptation Program of Action (NAPA)
- Progress Performance Reports (PPR) and Project Implementation Reviews (PIRs)
- The 2016 Mid-Term Review Report
- The Final Project Report
- Completion reports on adaptation interventions
- Reports of joint Project Steering Committee meetings
- Budget revisions
- Expenditure Reports

32. Inception Interviews (January 2019): The evaluators held initial communications with the AF and LDCF project coordinators and with the UN Environment Task Manager to plan the country visits, identify key stakeholders and gain an understanding of the current project status.

33. Elaboration of an Inception Report (February 2019): Based on the desk review and inception interviews, the lead evaluator formulated the Terminal Evaluation Inception Report that represented the first deliverable of the evaluation. The Inception Report presented the preliminary findings of the desk review and described how the evaluation would be carried out, addressing methodological aspects, timelines and a tentative agenda of site visits and meetings.

³ The evaluation questions and targeted respondent groups are appended to this report (Appendix D "Evaluation Matrix")

⁴ A detailed list of evaluation meetings and site visits is attached as Appendix C.

34. Country Mission (February- March 2019): A three-week mission was organized to visit the project sites and interview national stakeholders. The evaluators met with the national project coordinators and Director of Environment, Division of Environment in the Vice President's Office. Meetings were also held with some of the line ministry representatives serving on the joint Project Steering Committee. In addition, the evaluators were able to visit practically all of the AF and LDCF project sites where adaptation interventions were implemented. The site visits enabled the evaluators to inspect the rehabilitated infrastructure and mangrove areas, and interview the designated project focal points within the participating District and Municipal Councils, NGOs and community-based organizations, and local residents who were affected by the interventions.⁵ The confidentiality of respondents was respected unless agreed otherwise.

35. Analysis of data and formulation of the Terminal Evaluation Report (March - May 2019). The evaluators analyzed the data generated from the desk review, site visits, in-country stakeholder interviews and discussions with the UN Environment Task Manager. Tendencies in project performance that were relevant to the evaluation criteria and guiding questions were documented and systematized.⁶ Preliminary findings were documented in a PowerPoint presentation and shared with the project coordinators and UN Task Manager; the feedback received enabled the evaluators to adjust findings and clarify pending questions. This was followed by the elaboration of a joint Terminal Evaluation Report that analyzes the performance of both projects according to the evaluation criteria, and includes ratings that are based on the weighted criteria. A draft version of the report will be reviewed by the UN Environment Evaluation Office, the Climate Change Adaptation Unit and the project Task Manager, in addition to the national project coordinators, Steering Committee members, District and Municipal Council focal points, and participating NGOs and community-based representatives. The feedback that is received will be considered by the evaluators in editing the draft report and submitting the final joint Terminal Evaluation Report.

36. The evaluation was affected by methodological limitations. The selection of pilot sites was supported by meteorological data and measurements of rising sea levels that were documented in the National Adaptation Plan of Action (NAPA), corresponding district development plans, and the site assessments that were conducted by both projects during implementation. However, detailed vulnerability baselines for the pilot sites were not generated at the design stage and were contracted after the project approvals to an external firm in 2014. Although the scale of the specific interventions are documented, the data and tools that are needed to reliably measure or extrapolate impacts at the project sites are not available. Aside from plotting the restored mangrove sites, most of the participating district environmental departments are not using GIS tools, satellite images or spatial data to measure changes to the landscape, which limits the analysis of environmental impacts. Likewise, the actual number of beneficiaries in relation to the expected number has not been measured at most sites and impacts on local populations are estimated.

37. The analysis of the gender dimension is inadequate for both projects, particularly regarding the dissemination of energy-efficient cooking stoves (by the AF project) that was designed with an explicit gender focus. The distribution of *jiko* cooking stoves in three urban districts of Dar es Salaam (by the AF project) was expected to engage women's groups from the participating districts and reduce the time devoted to food preparation (a traditionally female role), while lowering local demand for charcoal. Although the cooking stoves were reportedly distributed to low-income households – surpassing the initial target - the evaluators were unable to contact

⁵ During the stakeholder meetings and interviews, the evaluation team leader was assisted by the national consultant (independent of the projects) who acted as interpreter at meetings where the interviewees did not speak English.

women's groups and cannot assess their participation or the impacts – social, environmental – that were generated by the stoves.

38. There are also timing issues. Most of the pilot interventions were completed recently and their full effects are not evident at this stage. A medium-term horizon is needed to assess their impacts on vulnerability - flooding and erosion, sea levels, vegetation cover and land use - over time. As a result, the assessments of outcome achievement or likelihood of impact tend to be qualitative and descriptive. The section of this report that addresses monitoring and reporting suggests the consideration of short-term proxy indicators that may serve to extrapolate impacts as they are consolidated over time, i.e. reductions in road or facility maintenance costs as a consequence of seawall construction/rehabilitation; frequency/level of flooding in vulnerable areas where seawalls and drainage improvements were implemented; land areas preserved or reclaimed through shoreline stabilization, mangrove planting and flood control; sampling of water salinity at wells and boreholes in coastal areas.

3. The Projects

3.1 Context

39. Tanzania is vulnerable to climate variability and change. According to the Stockholm Environment Institute (2010)[1], the economic cost of current climate variability is estimated to exceed 1% of the country's GDP. Communities living in the coastal zones of the country are particularly vulnerable to the impacts of climate variability and change. In these areas increasing temperatures and more erratic precipitation resulting in increased frequency and severity of floods and droughts are compounded with sea level rise (SLR). The integrity of coastal ecosystems in Tanzania seems to be questionable in a changing climate, as can be seen from the increasing accelerating beach erosion, the destruction of mangroves, and the submergence of small islands like Maziwe in Pangani and Fungu la Nyani in Rufiji. Likewise, increases of sea level rise had led to saltwater intrusion to Pangani river and thus lowered production of coconut crops and also destructed water project at Mkwajuni village.

40. Institutions at national and local levels and communities have limited capacity to manage these climate hazards, as they lack technical knowledge and tools for adaptation planning. As a result, climate variability is already affecting negatively community livelihoods, infrastructure and ecosystems. Climate projections predict significant changes in climate variables and substantive SLR. In order to reduce the vulnerability of coastal communities it is crucial to strengthen the enabling environment and invest in specific adaptation measures considering both the rehabilitation of ecosystem and infrastructure.

41. Urgent interventions for coastal protection and productivity were highlighted by the NAPA as well as through broad-based local consultations, as sea level rise and precipitation variability have put coastal communities, their livelihoods, natural infrastructure and ecosystems at risk. The coastal zone of Tanzania was selected as a priority area for adaptation investment in the NAPA and National Communications because it is home to the 75% country's industries and at least 32% of its national income, because at least 25% of the country's population depend on its resources, and because it represents an area where all aspects of vulnerability can be found – and addressed - simultaneously. The coastal zone is also home to some of the most ecologically fragile areas, such as mangroves, wetlands and reefs, which are vulnerable to climate change and human pressures but also represent opportunities for adaptation.

3.2 Objectives and Components

42. This section presents Objectives and Components for both AF and LDCF projects.

43. The objectives, components, outcomes and outputs of both projects are presented below. The causal pathways that link outputs and outcomes to expected results are reviewed under Section IV “Reconstructed Theory of Change.” In terms of the Adaptation Fund-project, it is worth to note that there were slight differences in the way outputs were formulated between the main body of the project document and the Results Framework. This section presents the outputs as phrased in the Results Frameworks.

3.2.1 Adaptation Fund Project

Table 1. “Implementation of Concrete Adaptation Measures to Reduce Vulnerability of Livelihoods and Economy of Coastal Communities of Tanzania” (Adaptation Fund)

<p><i>OBJECTIVE: To reduce the vulnerability of livelihoods, ecosystems, infrastructure and the economy in Tanzania</i></p>
<p><i>Component 1: Addressing climate change impacts on key infrastructure and settlements</i></p> <p><i>Outcome 1: Adverse impacts of sea level rise and floods on coastal infrastructure and settlements reduced.</i></p> <p><i>Outputs:</i></p> <p>1.1. Seawall raised or rehabilitated in areas showing particular damage.</p> <p>1.2 Effective storm and flood drainage systems in urban areas and near coastal communities.</p>
<p><i>Component 2: Ecosystems-Based Integrated Coastal Area Management (EBICAM)</i></p> <p><i>Outcome 2: Coastal ecosystems are rehabilitated and ICAM is implemented</i></p> <p><i>Outputs:</i></p> <p>2.1. Appropriate alternative energy (efficient cooking stoves, small solar panels) technology transferred to avoid deforestation, including training.</p> <p>2.2. Rehabilitate coastal ecosystems for climate resilience through Green Jobs program (modified in the 2017 PPR to read: “Mangrove rehabilitated through planting of resilient seedlings, dredging and creation of no-take buffer zones”).</p> <p>2.3. Degraded coral reefs rehabilitated and protected.</p> <p>2.4. Shoreline rehabilitated and stabilized using indigenous resilient trees and grasses.</p>
<p><i>Component 3: Knowledge, coastal monitoring and policy linkages</i></p> <p><i>Outcome 3: Knowledge of climate impacts and adaptation measures increased</i></p> <p><i>Outputs:</i></p> <p>Output 3.1. Performance of a baseline study based on coastal vulnerability.</p> <p>Output 3.2. Create and operate a national climate change observatory for ongoing coastal zone monitoring and scientific research.</p>

Output 3.3. Assessment of economic viability and practical feasibility of adaptation measures (w/ cost-benefit analysis)
Output 3.4. Lessons learned from the project outputs documented
Output 3.5. District level administration have capacity to adequately manage rehabilitated infrastructure
Output 3.6. One EBICAM Action Plan for the coastal region is approved.

The AF project objective and outcomes were aligned to the Adaptation Fund’s Results Framework. The stated project objective was consistent with AF Outcome 5: “Increased ecosystem resilience in response to climate change and variability induced stress” and the associated indicator of “ecosystem services and assets maintained or improved under climate change and variability induced stress.” Likewise, project outcomes were supportive of following AF outputs and indicators, as shown below (Table 2).

Table 2. Alignment of Project Outcomes to the Adaptation Fund Results Framework

Project Outcome	Project Outcome Indicator	AF Results Framework Output	AF Results Framework Output Indicator
1. Adverse impacts of sea level rise and floods on coastal infrastructures and settlements reduced	Kms of sea wall rehabilitated/ constructed	Output 4. Vulnerable physical, natural, and social assets strengthened in response to climate change impacts, including variability	4.1.2. No. of physical assets strengthened or constructed to withstand conditions resulting from climate variability and change (by asset types)
2. Coastal ecosystems are rehabilitated and ICAM is implemented.	-Area of mangrove under rehabilitation -% change in wood fuel use (disaggregated by gender) -Area of coral reefs under rehabilitation Kms of shoreline revegetated	Output 5. Vulnerable physical, natural, and social assets strengthened in response to climate change impacts, including variability	5.1.1. No. and type of natural resource assets created, maintained or improved to withstand conditions resulting from climate variability and change (by type of assets)
3. Knowledge of climate impacts and adaptation measures is increased.	A solid and validated project baseline study including with targets and indicators	Output 6. Targeted individual and community livelihood strategies strengthened in relation to climate	6.1.1. No. and type of adaptation assets (physical as well as knowledge) created in support of individual- or community-livelihood

3.2.2 “Developing Core Capacity to Address Adaptation to Climate Change in Productive Coastal Zones of Tanzania” (LCDF)

44. The Least Developed Country Fund’s project “Developing Core Capacity to Address Adaptation to Climate Change in Productive Coastal Zones of Tanzania” was designed parallel to the AF project. Both projects were intended to complement each other in reducing Tanzania’s coastal vulnerability to climate change, with the LDCF project focussing greater attention on capacity development and covering a broader geographic area that encompassed the coastal districts of Rufiji, Bagamoyo and Pangani in addition to various sites in Zanzibar.

Table 3. “Developing Core Capacity to Address Adaptation to Climate Change in Productive Coastal Zones of Tanzania”

<p><i>OBJECTIVE: To develop institutional capacities to manage climate change impacts through improved climate information, technical capacity and through the implementation of concrete adaptation measures and innovative solutions to reduce the vulnerability in key vulnerable areas, and learning.</i></p>
<p><i>Component 1:</i> Scientific/technical knowledge and capacities for climate change adaptation analysis</p> <p><i>Outcome 1:</i> Local level capacities and knowledge to effectively analyze the threats of climate change increased.</p> <p><i>Outputs:</i></p> <p>1.1. Climate change impact assessment capacity established for project sites (monitoring climate changes).</p> <p>1.2. Detailed participatory coastal vulnerability assessment for Rufiji, Bagamoyo and Pangani districts and Zanzibar.</p>
<p><i>Component 2:</i> Broadening stakeholder engagement for vulnerability reduction</p> <p><i>Outcome 2:</i> Enhanced government and public engagement in climate change adaptation activities</p> <p><i>Outputs:</i></p> <p>2.1. Public engagement in climate change adaptation activities enhanced.</p> <p>2.2. Student internship program established for interns to project sites.⁷</p>
<p><i>Component 3:</i> Priority adaptation interventions for resilient Integrated Coastal Zone Management</p> <p><i>Outcome 3:</i> Reduced vulnerability to climate change in coastal zones through adaptation interventions and pilot innovations</p> <p><i>Outputs:</i></p> <p>3.1 Mangroves are restored in pilot sites.</p> <p>3.2 Water resources are protected from sea level rise and erosion and coastal communities have access to safe water.</p> <p>3.3. Coastal infrastructure assets are protected.</p>

3.3 Stakeholders

45. Both projects were conceived as tools for implementing the National Action Programme for Adaptation (NAPA), under the direct supervision of the National Climate Change Steering Committee (through its technical sub-committee). The Government of Tanzania’s Vice President’s Office served as the designated national executing agency through its Department of Environment (DoE), and had primary responsibility for the implementation of activities and production of results.

46. Both projects sought the participation of diverse stakeholders, building vertical and horizontal linkages between DoE, line ministries, municipal and district councils, NGOs and

⁷ The project document mentions output 2.3 “Knowledge is integrated into university curriculum” but this was not included (or its progress monitored) in the Results Frameworks, annual PIRs or joint Final Project Report.

community groups. Partner line ministries, NGOs and community representatives met annually in sub-committees that carried advisory and oversight functions. The environmental directors from the participating District and Municipal Councils were the designated focal points for both projects at the pilot sites, and participated in training and capacity-building activities.

47. The projects articulated the following stakeholder groups:

- *Government line ministries:* Ministry of Tourism & Natural Resources, Ministry of Water and Irrigation, and Ministry of Transport, Works & Communication. These entities have coastal and infrastructure management mandates and were represented in the joint Project Steering Committee.
- *Local government:* District and Municipal Councils at the project sites of Dar es Salaam, Zanibar, Pangani, Rufiji, Kibiti, Bagamoyo, Kinondoni, Temeke and Ilala. The environmental departments attached to the Councils represented the main project partners at both sites.
- *NGOs:* Forum CC, JSEUMA, ZACEDY and Chawawami. Forum CC managed the second LDCF project component for enhancing public awareness. The other NGOs were responsible for managing the ecosystems restoration initiatives at the project sites, in collaboration with community organizations.
- *Academic Institutions:* University of Dar es Salaam, Mwalimu Nyerere Memorial Academy, and the Institute of Marine Studies. The University of Dar es Salaam's Department of Geography managed the student internship program and provided training on DIVA/GIS software, as did the Institute of Marine Studies. The Mwalimu Nyerere Memorial Academy campus was selected as a pilot site for the construction of a seawall.
- *Community-based organizations:* A number of community-based organizations at the various project sites were involved in registration and networking activities under the LDCF project. Other community organizations – such as the Bweni Beach Management Unit, Pangani West and East Beach Management Units, JUMKISA, Sheha Kilimani and the Bweni Women's Group participated as local partners in the implementation of local adaptation initiatives.

48. Both projects shared governance arrangements and engaged common government partners under a joint Project Steering Committee (Diagram 1). In retrospect, the absence of the Forestry Department (represented by the Ministry of Tourism and Natural Resources), Ministry of Lands and President's Office, Regional Administration and Local Government (PO-RALG) limited opportunities for cross-sector collaboration and the replication of adaptation interventions on a wider scale. Arrangements were made for the direct involvement of NGOs and community-based organizations in the implementation of adaptation interventions at the pilot sites, in particular for the restoration of vulnerable ecosystems. Forum CC, a national network of NGOs and community organizations, managed the component of the LDCF project that promoted public engagement in climate change adaptation. NGO and community focal points came together annually, parallel to the Steering Committee meetings, in order to share information and discuss implementation issues. The participation of women's groups was foreseen in pilot interventions supporting mangrove reforestation and energy efficiency in the Dar es Salaam area, under the AF project.

49. A comprehensive list of project stakeholders and their functions is presented below.

Table 4. Government Institutions and Functions

GOVERNMENT INSTITUTION	FUNCTION
VPO-Division of Environment	National Executing Agency
Ministry of Tourism and Natural Resources – Forestry	The MTNR served on the Tanzania National Climate Change Steering Committee, and was represented on the joint Project Steering Committee. It played a support role in adaptation interventions for mangrove reforestation, energy efficiency and coastal rehabilitation.
Ministry of Water and Irrigation	The MWI served on the Tanzania National Climate Change Steering Committee, and is represented on the joint project Steering Committee. It played a support role in adaptation interventions for water conservation.
Ministry of Works, Transport and Communication	The MWTC served on the Tanzania National Climate Change Steering Committee, and was represented on the joint project Steering Committee. It played a support role in adaptation - interventions and rehabilitation of coastal infrastructure.
Ministry of Lands, Water, Energy & Environment Zanzibar- Dept. of Environment	The MLEE’s Division of Environment was represented on the joint project Steering Committee, and supported LDCF adaptation interventions and project activities in Zanzibar.
Pangani District Council	Support and oversight of project activities in Pangani district.
Rufiji District Council	Support and oversight of project activities in Rufiji district
Kibiti District Council	Support and oversight of project activities in Kibiti district.
Bagamoyo District Council	Support and oversight of project activities in Bagamoyo district.
Dar es Salaam City Council	Support and oversight of project activities in Dar es Salaam.
Kinondoni Municipal Council	Support and oversight of project activities in Kinondoni municipality.
Temeke Municipal Council	Support and oversight of project activities in Temeke municipality.
Ilala Municipal Council	Support and oversight of project activities in Ilala municipality.
Dar es Salaam Regional Secretariat	Support and oversight of project activities in Dar es Salaam region.

Table 5. Non-government Stakeholders and Function

ORGANIZATION/COMMUNITY	FUNCTION
Mwalimu Nyerere Memorial Academy (MNMA)	Focal point for adaptation intervention
University of Dar es Salaam	Coordinator of GIS training activities and student internships
Institute of Marine Studies	Technical advice on mangrove restoration
Forum CC	Coordinator for CBO network development

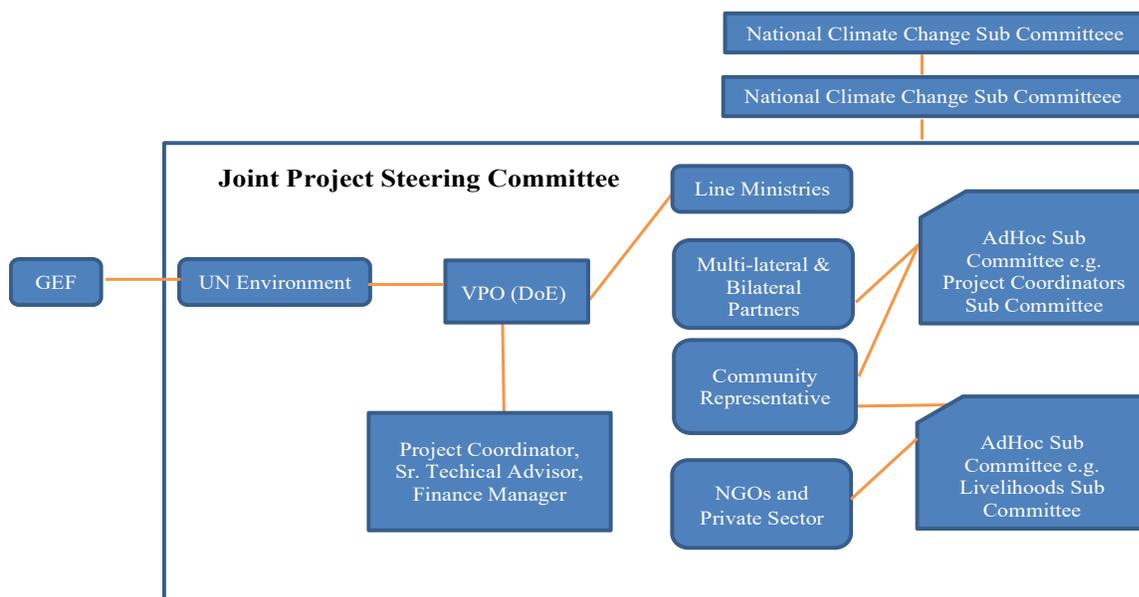
JUMKISA	CBO focal point for adaptation intervention
JSEUMA	NGO focal point for adaptation intervention
Kingani Secondary School	Focal point for RWH intervention
ZACEDY	NGO focal point for adaptation intervention
CHAWAWAMI	NGO focal point for adaptation intervention
Pangani Maghribi BMU	CBO focal point for adaptation intervention
Pangani Maghribi BMU	CBO focal point for adaptation intervention
Pangani Bweni BMU	CBO focal point for adaptation intervention
Kibiti kiomboni village	CBO focal point for adaptation intervention
Women & Environment Group – Mbweni	CBO focal point for adaptation intervention
Sheha Kilimani Residents	CBO focal point for adaptation intervention
Sheha Kisiwa Panza	CBO focal point for adaptation intervention
Bagamoyo Water Management Boards	CBO focal points for adaptation intervention

3.4 Project Implementation Structure and Partners

50. Both projects were intended as tools for implementing the National Action Programme for Adaptation (NAPA) under the direct supervision of the National Climate Change Steering Committee (through its technical sub-committee). The Government of Tanzania’s Vice President’s Office (VPO) was the designated national executing agency, through its Division of Environment (DoE), and had primary responsibility for the implementation of activities and production of results. Partner line ministries, donors, NGOs and community representatives were grouped into sub-committees with advisory and oversight functions. The participating District Councils assigned focal points, drawn from council management teams and environmental departments.

51. Both projects shared governance and oversight arrangements and, in many cases, liaised with common government and non-governmental partners. These partners and their focal points are identified under Section C “Stakeholders.” The main stakeholder groups were represented in the joint Project Steering Committee and associated sub-committees. The joint project governance and oversight arrangements are presented in the following diagram:

Diagram 1. Project Governance and Oversight Arrangements



3.5 Changes to Project Design During Implementation

52. For the AF project, Outcome 2 “Rehabilitate coastal ecosystems for climate resilience through Green Jobs program” was subsequently re-worded in annual PIRs and final project report to read “coastal and shoreline ecosystems are rehabilitated and ICAM is implemented.” This was not a substantive revision and was intended to highlight the promotion of integrated coastal management (as opposed to the creation of short-term employment).

53. The original design of the LDCF project document included a fourth outcome – “Substantive knowledge on how to reduce vulnerability to climate change increased” – with supporting outputs for the creation of a knowledge transfer and learning system with universities and research institutes (4.1), the integration of knowledge into university curriculum (4.2) and the publishing and dissemination of knowledge results. This outcome was subsequently removed from the final design and was not pursued the project.⁸ Although the approved project document (and first annual PIR report) included an output supporting the integration of knowledge into the university curriculum (Output 2.3), this was removed from subsequent PIR and is not addressed in the joint Final Project Report. While the Terminal Evaluation does not address this output, the field research conducted at the pilot sites (by university interns and graduate students of Dar es Salaam University) was documented and the findings shared at open-house academic events that were held in the summer.

54. Two of the initially selected LDCF project sites in Zanzibar were substituted for Sheha Kilimani and Kisakasaka (in response to tenure and land use conflict). The Results Frameworks of both projects were updated by the project coordinators in consultation with the joint Project Steering Committee, following the baseline assessment studies that were conducted by C4 EcoSolution. This updating exercise focused on the modification of indicators and feasibility of the targets proposed, considering their viability against the availability of funds and timeframes for their attainment. The revised indicators and targets were incorporated to subsequent progress

⁸ LDCF project document (re-submitted), pg. 20 (2011)

reports and are applied to the assessment of project performance in achieving outputs and outcomes.

3.6 Project Financing

55. The budget distribution of the AF and GEF/LDCF grants is presented below, by outcome and output. These represent the initial allocations that were approved in the project documents. The distribution of co-financing allocations by amount and source are additionally indicated for the LDCF project. Section E. "Financial Management" includes an analysis of project expenditures; likewise, annual and total expenditures for both projects are presented in Appendix E: Summary of Project Expenditures /Planned -Actual Co-financing by Budget Line."

56. The budgets are allocated as follows in the approved project documents:

Table 6. LDCF Project Financing at Design (US\$)

Outcomes	Outputs	LDCF – GEF	Co-financing
1. Local level capacities and knowledge to effectively analyze the threats and potential impacts of climate change increased	1.1 Climate change impact assessment capacity established for project sites. 1.2 Detailed participatory coastal vulnerability assessment for Rufiji, Bagamoyo, Pangani and Zanzibar	225,000	240,000
2. Government and public engagement in climate change adaptation activities is enhanced	2.1 Public engagement in climate change adaptation activities is enhanced 2.2 Student internship program established for interns to project sites 2.3 Knowledge is integrated into university curriculum	345,000	60,000
3. Vulnerability to climate change is reduced in the coastal zones through adaptation interventions and pilot innovations	3.1 Mangroves restored in pilot sites 3.2 Water resources are protected from sea level rise and erosion and coastal communities have access to safe water 3.3 Coastal infrastructure and assets are protected	2,476,300	67,000,357
4. Substantive knowledge on how to reduce vulnerability to climate change increased	4.1. Knowledge transfer and learning system with universities, research institutes established together with demonstration projects 4.2. Knowledge is integrated into university curriculum 4.3. Results published, made publicly available and disseminated	250,000	900,000

<i>Cash Co-financing</i>		
Zanzibar Administration	27,021,243	37.96%
Pangani District	1,746,000	2.45%
Rufiji District	1,389,114	1.95%
Bagamoyo District	36,804,000	51.70%
<i>Sub-total</i>	66,960,357	94.07%
<i>In-kind co-financing:</i>		
Zanzibar Administration	82,699	0.12%
Pangani District	0	
Rufiji District	285,442	0.40%
Bagamoyo District	500,000	0.70%
<i>Sub-total</i>	868,141	1.22%
Total	71,184,798	100.00%

Table 7. AF Project Financing at Design (US\$)

Outcomes	Outputs	AF Grant
Outcome 1 - Adverse impacts of SLR and floods on coastal infrastructures and settlements are reduced	Sea wall raised, rehabilitated and constructed along 1.335 km in areas showing particular damage in Dar es Salaam city center and in Kingamboni area.	3,337,500
	Effective storm and flood drainage systems in urban areas and near coastal communities.	200,000
Outcome 2 - Coastal and shoreline ecosystems are rehabilitated and ICAM is implemented	40 ha of mangroves rehabilitated through planting of resilient seedlings, dredging and the creation of no-take buffer zones.	35,000
	Appropriate alternative energy (efficient cookstoves, small solar) technology transferred to 3,000 households.	76,500
	2000 m2 of coral reef rehabilitation and protection	110,000
	Shoreline stabilized and reforested along the shore (1500m in 20m wide bands)	67,500
Outcome 3 - knowledge of climate impacts and adaptation measures is increased	Available knowledge, science and data on coastal vulnerability gathered	30,000
	One operational Climate Change Observatory for Tanzania for ongoing monitoring of CZM	90,000
	Economically viable, cost effective and technically feasible adaptation measures	15,000

	Policy briefing, awareness raising and capacity building for policymakers and district planners	90,000
	One Ecosystem Based Integrated Area Management (EBICAM) plan for coastal region	190,000
M&E		104,688
Project Execution Cost		270,000
Total Project Cost		4,616,188
Project Management Fee (8.5%)		392,376

4. Reconstructed Theory of Change

57. The Theory of Change (ToC) methodology adopted by UN Environment is applied to evaluations to better understand the change processes that are stimulated by projects, with modeling factors that include the analysis of causal pathways linking project outputs (goods and services delivered) to direct outcomes (changes resulting from the use of outputs) that in turn feed into the intermediate states that precede impact. At the time of the projects' design the ToC was not required, hence it was necessary to develop one for the purpose of this evaluation based on their respective Results Frameworks. A single Theory of Change model has been formulated for both projects, based on (i) the level of complementarity in project design, strategic vision and implementation approach, and (ii) the high incidence of cross-project linkages, and their effect on the causal pathways and likelihood of impact.

58. Both projects are similar in objectives, results statements and implementation approach. They aim to reduce Tanzania's coastal vulnerability to climate change through increased knowledge, capacity development and adaptation measures at pilot sites. The over-arching goal of all projects and programmes that are financed by the Adaptation Fund is to support "...concrete adaptation activities that reduce vulnerability and increase adaptive capacity to respond to the impacts of climate change, including variability at local and national levels."⁹ This is consistent with the project objective of reducing the vulnerability of livelihoods, ecosystems, infrastructure and the economy in Tanzania. The LDCF project goal is to increase the resilience of vulnerable mangrove and coral reef ecosystems to the impacts of climate change, with the immediate objective of improving institutional capacities to manage these impacts. The LDCF project implemented activities at five coastal pilot sites distributed across the mainland (including East Africa's largest mangrove forest) and Zanzibar; whereas AF project activities were centred at several coastal sites in the Dar es Salaam metropolitan area.

59. The first step of the ToC analysis is a review of the project results statements, to assess the appropriateness of outputs and outcomes, and the extent to which they articulate the causal

⁹ Agreement for the "Implementation of concrete adaptation measures to reduce vulnerability of livelihoods and economy of coastal communities of Tanzania" Project in Tanzania between the Adaptation Fund Board and United Nations Environment Programme (2012), pg. 2.

pathways that lead to the project objective and goal. In this regard, the results statements of both projects follow a logical progression that links knowledge generation and capacity building to the demonstration of local adaptation interventions that reduce vulnerability and are replicable within the broader policy context for integrated coastal management. While most outputs are logical and well-placed, the analysis of the results statements indicates the desirability of reconstructing some outcomes and outputs – and of adjusting the sequence of their delivery - to strengthen their relevance to the results statements and articulation along the project’s causal pathways (Table 8; Table 9).

60. The next level of analysis looks at output-to-outcome linkages and their positioning on the causal pathways that lead to the expected results and impact statements. In this regard, the results frameworks of both projects show a high incidence of output-outcome linkages across the project components as well as between the two projects. These linkages are connected on causal pathways that lead to the higher-level outcomes/results and intermediate states preceding impact. The causal pathways of both projects are very similar with high correspondence between outputs and their outcomes, between outcomes, and between those of both projects.

61. Several planned outcomes and deliverables are relevant and mutually supportive to both projects. Examples include the realization of baseline assessments for all project sites, the integrated management action plan for the coastal region (EBICAM), and the climate change monitoring observatory under the AF project; and the provision of GIS training for climate change monitoring for district governments by the LDCF project. In addition, the enhancing of public engagement through the creation of district-based CBO networks (an LDCF project outcome) has relevance for the AF project as well for future coastal adaptation projects and ICAM in general. The high levels of complementarity and linkages between both projects – and having the same national executing agency – raise opportunities for coordinated implementation and resource pooling.

62. As shown in Diagram 1, the progression of causal pathways for both projects follow a similar sequence that involves three successive thresholds or stages. Each of these stages contains outputs and outcomes that are important for both projects, and necessary to move up the causal pathways towards the intermediate stages that precede impact. They are summarized below:

Table 8. Reconstructed Results Statements:

Results Statement at Design	Reconstructed Results Statement	Comments
<p>Project Objective: <i>To reduce the vulnerability of livelihoods, ecosystems, infrastructure and the economy in Tanzania.</i></p> <p>Adaptation Fund Goal: <i>To reduce vulnerability and increase adaptive capacity to respond to the impacts of climate change, including variability at local and national levels.</i></p>	<p>Impact Statement: Vulnerability of livelihoods, ecosystems, infrastructure and ecosystems in Tanzania to climate change is reduced.</p>	<p>The impact statement has been reformulated from the project's objective and goal statements.</p>
	<p>Intermediate States</p> <ul style="list-style-type: none"> • Adverse impacts of SLR and floods on coastal infrastructure, settlements and ecosystems are reduced at the project sites. • Conditions are in place to apply adaptation measures beyond the pilot sites under the framework of ICAM/EBICAM. • Climate change monitoring and adaptation measures are increasingly incorporated to coastal district plans and relevant sector programs. 	<p>The intermediate states follow the achievement of outcomes, and precede the attainment of the project objective and goals. They represent the enabling conditions that need to be reached to fully generate the expected impacts for both projects.</p>
<p>Outcome 1. Adverse impacts of SLR and floods on coastal infrastructures and settlements are reduced</p>	<p>Reconstructed Outcome 1: The number of flooding events affecting coastal infrastructure and settlements is reduced in the Dar es Salaam metropolitan area.</p>	<p>The original outcome overlaps with the project objective and intermediate stage. The reconstructed outcome establishes the scale of intervention, which is the extended Dar es Salaam urban area.</p>

Output 1.1. Seawall raised, rehabilitated and constructed in areas showing particular damage.		The original output remains.
Output 1.2. Effective storm and flood drainage systems in urban areas and near coastal communities.	Storm and flood drainage systems in urban areas and near coastal communities effectively functioning	The statement reconstructed to include a verb
<u>Outcome 2.</u> Coastal and shoreline ecosystems are rehabilitated and ICAM is implemented	<u>Reconstructed Outcome 2.</u> The degradation of vulnerable mangrove and coral ecosystems are reduced through the implementation of pilot adaptation measures.	The original outcome statement repeats output level results. Since the outputs describe pilot interventions at the project sites, the reconstructed outcome reflects the broader result.
Output 2.1. Appropriate alternative energy (efficient cooking stoves, small solar panels) transferred, including training.		Original output statement retained.
Output 2.2. Mangrove rehabilitation with resilient seedlings, dredging and creation of no-take buffer zones.	<u>Reconstructed Output 2.2</u> Mangrove forest at project sites rehabilitated and protected	The original output is stated as a combination of activities. It has been reconstructed as a product, without changing its content or associated activities (planting of seedlings, dredging, creating buffer zones).
Output 2.3. Coral reef rehabilitated and protected in coastal sites.		Original output statement retained.
Output 2.4. Shoreline rehabilitated and stabilized using indigenous resilient trees and grasses.		Original output statement retained.

<p><u>Outcome 3.</u> Knowledge of climate impacts and adaptation measures is increased.</p>	<p><i>Reconstructed Outcome 3</i> District level administration has capacity to adequately manage rehabilitated infrastructure, monitor climate changes, and plan adaptation measures.</p>	
<p>Output 3.1. Performance of a baseline study based on coastal vulnerability.</p>	<p>Reconstructed Output 3.1. A baseline study on coastal vulnerability is implemented at the project sites and made available to the target audience.</p>	<p>The output is reconstructed to reflect the output (gains to the target audience.)</p>
<p>Output 3.2. A national climate change observatory for ongoing CZM monitoring and scientific research, created and operational.</p>		<p>Original output statement retained. The output is key at an early stage of the causal pathway to enable improved district-level monitoring and conditions for ICAM across the broader coastal region. It contributes towards the intermediate states of climate change monitoring and adaptation measures are increasingly incorporated to coastal district-level planning and relevant sector plans and programs,</p>
<p>Output 3.3. Assessment of economic viability and practical feasibility of adaptation measures (w/ cost-benefit analysis)</p>	<p>Output 3.3. Assessment of the economic viability and practical feasibility of adaptation measures made available for the target audience.</p>	<p>The output is reformulated to reflect gains to the beneficiaries through the socialization of findings with stakeholders at the project sites. The output feeds into the design of the pilot adaptation interventions. It is also relevant at a later stage for the design of the regional EBICAM Action Plan.</p>
<p>Output 3.4. Lessons learned from project outputs</p>	<p>Reconstructed Output 3.4. Effective adaptation interventions, best practices and lessons are documented, developed into policy briefs and operational tools, and disseminated to relevant stakeholder groups.</p>	<p>The reconstructed output emphasizes the dissemination of lessons and effective practices derived from the project – and in particular the pilot adaptation interventions - to a broader audience. This feeds into the design/approval of the Ecosystems Based Integrated Coastal Management Action Plan for Tanzania’s coastal region (output 3.7). It is complemented by reconstructed LDCF project output 1.4.</p>

Output 3.5. District level administration has the capacity to adequately manage rehabilitated infrastructure.	Reconstructed Output 3.5 District level administration at the pilot sites are trained and informed on the management of rehabilitated infrastructure.	The original output was worded as a result (outcome) The Output 3.5 has been reconstructed to reflect an output level result. The reconstructed output expands the scope of capacity building, consistent with outcome 3 and the project objective. It complements LDCF project output 1.1.
	Reconstructed Output 3.6 (new) District administrations and key stakeholders across Tanzania's coastal region have access to climate data, scientific research and a knowledge platform for climate change monitoring.	The reconstructed output is directed at the broader coastal region to enhance enabling conditions for ICAM and the reduction of coastal vulnerability on a national scale, as reflected in the project impact statement. It is supported by the clearinghouse function that is foreseen for the national climate change monitoring observatory (output 3.2)
	Reconstructed Output 3.7. One EBICAM Action Plan for the coastal region is approved.	This output is fundamental to enable the application of ICAM and replication of adaptation measures for the broader coastal region (as reflected in the project impact statement). It is placed at a high level of the causal pathway and connects directly to the intermediate states that precede the project objective.

Table 9. Reconstructed Results Statement: Developing Core Capacity to Address Adaptation to Climate Change in Productive Coastal Zones of Tanzania (Least Developed Countries Fund)

Results Statement at Design	Reconstructed Results Statement	Comments
<i>Project Objective: To develop institutional capacities to manage climate change impacts through improved climate information, technical capacity and through the implementation of concrete adaptation measures and innovative solutions to reduce the vulnerability in key vulnerable areas, and learning.</i>	The vulnerability of key ecosystems to the impacts of climate change is reduced, improving their resilience to climate change.	The impact statement has been reformulated from the objective and goal statements.

Project Goal: *To increase the resilience of vulnerable mangrove and coral reef ecosystems to the impacts of climate change.*

Intermediate States

- Reduced vulnerability of key coastal ecosystems to climate change is reduced through concrete adaptation measures.
- Improved monitoring of climate change impacts and planning of adaptation measures are applied to district environmental and development plans.

The intermediate states follow the achievement of outcomes, and precede the attainment of the project objective and goals. They provide the enabling conditions for generating the expected impacts of both projects.

Outcome 1. Local level capacities and knowledge to effectively analyze the threats and potential impacts of climate change are increased.

Original outcome statement retained.

Output 1.1. Climate change impact assessment capacity established for project sites (monitoring climate changes)/

Reconstructed Output 1.1. District level stakeholders are trained in climate change impact assessments and monitoring.

The original output is stated at the outcome level and replicates the first project outcome. The statement has been reconstructed to reflect the immediate gains to the stakeholders. This complements AF project reconstructed output 3.5.

Output 1.2. Detailed participatory coastal vulnerability assessment for Rufiji, Bagamoyo, Pangani and Zanzibar.

Output 1.2. Detailed participatory coastal vulnerability assessments are conducted for Rufiji, Bagamoyo, Pangani and Zanzibar.

Statement reconstructed to include a verb.

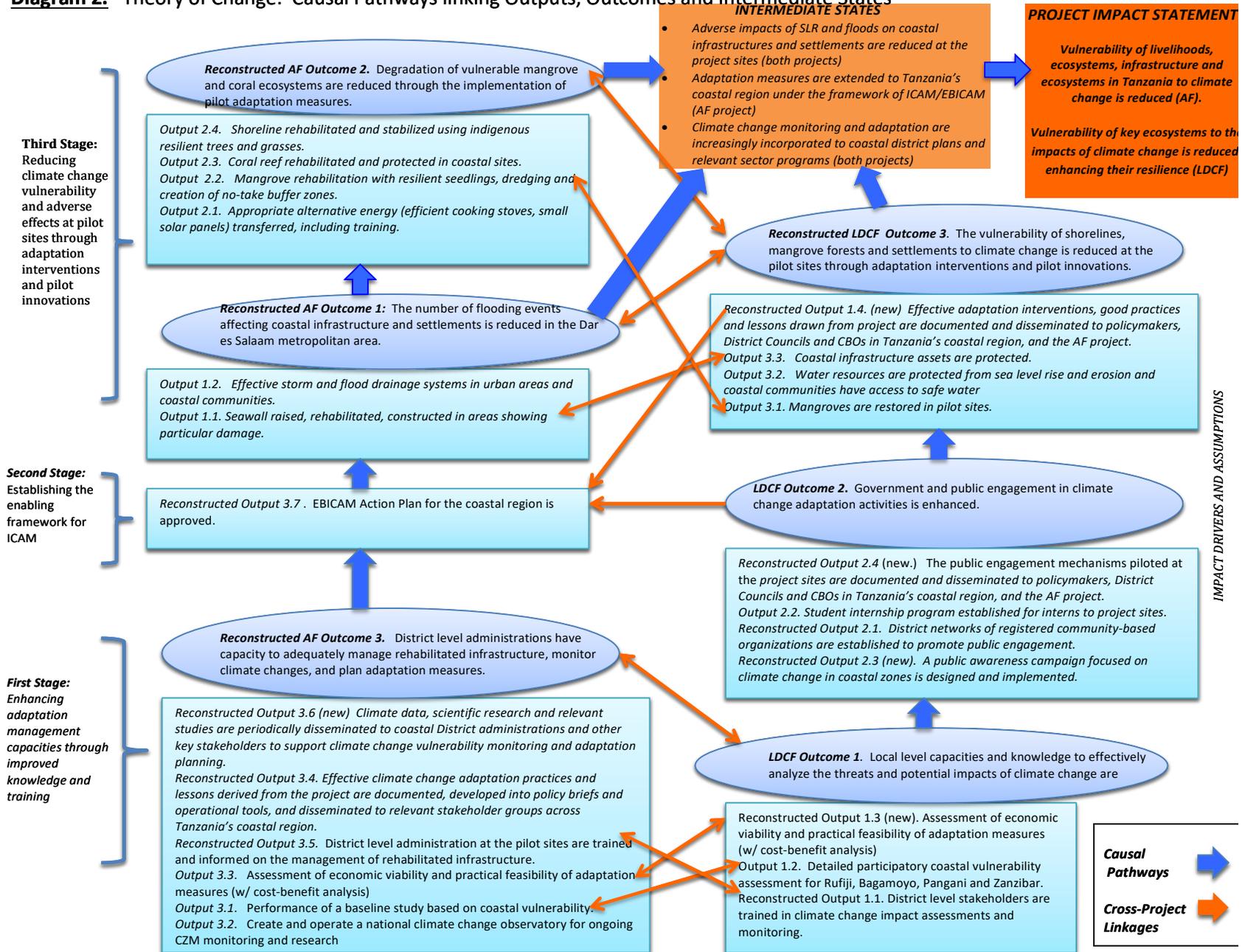
Reconstructed Output 1.3 (new). Assessment of economic viability and practical feasibility of adaptation measures (w/ cost-benefit analysis) made available to target audiences.

The reconstructed output is introduced to ensure adequate feasibility analysis and design of adaptation measures at the pilot sites. The assessments are shared with stakeholders at the project sites for their knowledge gain. This complements AF output 3.3 and could be implemented jointly.

	Reconstructed Output 1.4. (new) Effective adaptation interventions, good practices and lessons drawn from the pilot sites are documented and disseminated to policymakers, District Councils and CBOs in Tanzania's coastal region, and the AF project.	The project impact statement does not foresee reduced coastal vulnerability to climate change on a national scale. However, the experiences and best practices drawn from the pilot adaptation interventions (under Outcome 3) can offer inputs for building awareness and promote ICAM for the broader coastal region. The reconstructed output strengthens cross-project linkages by supporting the dissemination of best practices and lessons to a wider audience (AF output 3.4), hence contributing to the development of a regional EBICAM Action Plan (AF output 3.7).
<i>Outcome 2.</i> Government and public engagement in climate change adaptation activities is enhanced.		Original outcome statement retained.
Output 2.1. Public engagement in climate change adaptation activities enhanced	Reconstructed Output 2.1. District networks of community-based organizations are established to promote public engagement.	The original output 2.1 duplicates the outcome statement. It has been reconstructed to reflect the actual output /product that is expected.
Output 2.2. Student internship program established for interns to project sites.		Original output statement retained.
	<i>Reconstructed Output 2.3 (new).</i> Public awareness on climate change enhanced.	A public awareness campaign was initially included as a activity for output 2.1, and has been reconstructed as an output statement. Enhanced public awareness (as a result of the campaign) is an enabling output that enhances conditions for public engagement.
	Reconstructed Output 2.4. (new) The public engagement mechanisms piloted at the project sites are documented and disseminated to policymakers, District Councils and CBOs in Tanzania's coastal region, and the AF project.	The reconstructed output is suggested to disseminate the experiences of CBO registration and networking that were piloted at the project sites to a broader audience to encourage their replication on a wider scale.
<i>Outcome 3.</i> Vulnerability to climate change is reduced in the coastal zones	<i>Reconstructed Outcome 3:</i> The vulnerability of shorelines, mangrove	The original outcome statement duplicates the project goal and impact statement. It has been reconstructed

through adaptation interventions and pilot innovations.	forests and settlements to climate change is reduced at pilot sites.	to reflect outcome-level achievement, based on the associated outputs.
Output 3.1. Mangroves are restored in pilot sites.		Original output statement retained.
Output 3.2. Water resources are protected from sea level rise and erosion and coastal communities have access to safe water.		Original output statement retained.
Output 3.3. Coastal infrastructure assets are protected.		Original output statement retained.

Diagram 2. Theory of Change: Causal Pathways linking Outputs, Outcomes and Intermediate States



63. *First Stage:* Enhancing adaptation management capacities through improved knowledge and training. The first stage of the causal pathways addresses basic information and capacity needs that are important to move forward on the causal pathways. This stage articulates outputs associated with the third AF project outcome (knowledge of climate impacts and adaptation measures increased) with those of the LDCF project's third outcome (local capacities and knowledge to effectively analyze the threats of climate change increased). The knowledge generated from the site assessments, baseline studies and training activities improve preparedness for implementing pilot adaptation measures and applying integrated coastal management at a higher level of the pathways.

64. Fundamental outputs at this stage that enable the progression of the critical pathways and subsequent outputs are reconstructed AF output 3.5. "District level administration at the pilot sites are trained and informed on the management of rehabilitated infrastructure", AF output 3.2 "create and operate a national climate change observatory for ongoing CZM monitoring and scientific research", and LDCF output 1.1 'Climate change impact assessment capacity established for project sites (monitoring climate changes)".

65. The development of local capacities to monitor vulnerability and plan adaptation measures is critical to the objectives and results statements of both projects. Capacity development is also linked to the national climate change observatory that provides a knowledge platform and information clearinghouse for district governments and relevant stakeholders (benefiting the LDCF project as well). A functional observatory is key to disseminate updated climate data, research and organize knowledge exchanges for district monitoring (reconstructed AF output 3.6), which in turn enables the extension of vulnerability monitoring and adaptation interventions under the proposed EBICAM framework (AF output 3.7).

66. *Second Stage:* Establishing the implementation framework and enabling conditions for integrated coastal area management. This stage is driven by the second LDCF project outcome, which envisions enhanced government and public engagement in adaptation activities. While having engagement mechanisms for the pilot adaptation interventions of both projects is important, they are particularly relevant for the AF initiative that seeks to influence policy levels and promote integrated coastal management across the coastal region. For this reason, the development of public engagement modalities under the second outcome of the LDCF project is transversally connected to the AF project. The achievement of the results statement at this stage is likely to be more effective if the engagement mechanisms are documented and disseminated to government and non-governmental stakeholders to encourage their replication (reconstructed LDCF output 2.4), The transfer of engagement mechanisms documentation complements the documentation of effective adaptation interventions, best practices and lessons from the AF project (reconstructed AF output 3.4); while both outputs contribute towards the determination of implementation arrangements for the regional EBICAM Action Plan (AF output 3.7).

67. *Third Stage:* Reducing climate change vulnerability and adverse effects in coastal zones through adaptation interventions and pilot innovations. The availability of improved knowledge, public engagement mechanisms and a framework for ICAM are key to effectively implement pilot adaptation measures for the rehabilitation of coastal infrastructure and ecosystems. The associated deliverables (LDCF outputs 3.1-3, AF outputs 1.1-2 and 2.1-4) feed directly into the third LDCF outcome ("vulnerability of shorelines, mangrove forests and settlements to climate change is reduced at the pilot sites through adaptation interventions and pilot innovations") as well as the first and second AF project outcomes. These three direct outcomes are highly placed on the causal pathways and connect directly to the intermediate states.

68. Impacts associated with the project objective and longer-term goal are often not manifested during the project lifetime. In order to achieve the expected impacts, the achievement

of project outcomes tend to culminate in intermediate stages that enable the achievement of the project objective and longer-term goal. In this regard, both projects would reach the following intermediate states that enable the intended impacts:

- Adverse impacts of SLR and floods on coastal infrastructures and settlements are reduced at the project sites (both projects)
- Climate change monitoring and adaptation are increasingly incorporated to coastal district plans and relevant sector programs (both projects)
- Adaptation measures are extended to Tanzania's coastal region under the framework of ICAM/EBICAM (AF project)

69. Performance and the attainment of results are affected by impact drivers that can be influenced, and by assumptions that are often outside the project's control. The following drivers and assumptions were identified:

Impact Drivers

- The Vice President's Office, Division of Environment, Steering Committee members and district partners are able to coordinate activities effectively, ensuring satisfactory project execution and delivery.
- Both projects are complementary in their design and approach, and can be jointly implemented as an integrated program to build linkages, pool resources and generate synergies.
- As direct beneficiaries, district/municipal councils and local stakeholders (beach management units, local water boards, community-based organizations and women's groups) are motivated to support adaptation interventions that are implemented at the project sites and apply integrated coastal management.
- Adaptation interventions are relevant to the mandates of the Ministry of Water, Ministry of Natural Resources & Tourism, Ministry of Construction and Ministry of Lands.
- The hierarchical position and over-arching mandate of the VPO encourages commitment and cooperation by government ministries and district/municipal councils.
- Public awareness of climate change vulnerability in affected coastal areas is translated into national ownership and commitment.
- District and local stakeholders (beach management units, community organizations, women's organizations, local residents) are motivated to support adaptation interventions that are implemented in their jurisdiction and benefit them.

Assumptions

- There are no extreme climatic events (tropical storms, floods, droughts) that delay the timely implementation of adaptation interventions.
- Central and district government partners have the human and financial resources to designate project focal points and provide adequate co-financing/in-kind support.
- Government administrative and procurement systems are adequate to enable the timely execution of project activities and delivery of expected results.
- Climate change monitoring capacities are in place at the District level to enable the mainstreaming of ICAM for Tanzania's coastal region.
- The programme framework and implementation arrangements for the regional Ecosystems-Based Integrated Management Program are in place.
- Central and district government resources are available to replicate adaptation interventions and implement ICAM/EBICAM, i.e. through the Medium-Term Expenditure Framework

70. The analysis of causal pathways suggests a progression of outputs and outcomes that differs somewhat from the sequence reflected in the original Results Framework. There are also high levels of cross-project linkages that indicate a strong potential for collaboration and synergies at different stages of the pathways, as shown in Diagram 2.

5. Evaluation Findings

5.1 Relevance

5.1.1 Alignment to UN Environment Medium-Term Strategy and Programme of Work

71. Both projects have supported UN Environment’s mandate and were relevant to UN Environment’s 2010-2013 Medium Term Strategy (MTS), which included climate change adaptation as one of six crosscutting thematic priorities. The climate change adaptation objective sought to strengthen the ability of countries to integrate climate change responses into their national development processes. This was expected to contribute to a series of Expected Accomplishments (EAs), of which (i) adaptation planning, financing and cost-effective preventative actions are increasingly incorporated into national development processes, and (ii) increased carbon sequestration occurs through improved land use, reduced deforestation and reduced land degradation, had direct relevance to both projects. Within these accomplishments, project activities have contributed to PoW Outputs (1.a2) “resilience of key vulnerable ecosystems increased through effective adaptation measures”, and (1.a4) “national policies and capacities for integrated vulnerability assessments strengthened.”

72. In addition, the projects have indirectly supported the MTS objective of Ecosystems Management, which aimed to promote an ecosystem-based approach to enhance human wellbeing. The EA’s for this thematic priority included (i) country and regional capacities to use ecosystem management tools, and (ii) the realignment of environmental programmes and policies.

73. This was reflected in the vulnerability assessment and GIS training activities that were expected to improve district-level vulnerability assessment and adaptation planning capabilities, and in the financing of site interventions that supported mangrove restoration, coral rehabilitation and the reduction of shoreline erosion. There was also intent on the part of the AF project to influence policies through the approval of a regional Ecosystem-Based Integrated Coastal Area Management Plan (EBICAM).

5.1.2 Alignment to UN Environment/ Adaptation Fund/GEF Strategic Priorities

74. Both projects supported the objectives and mandates of the main donors. The Adaptation Fund was established to finance adaptation projects and programmes in developing countries that are parties to the Kyoto Protocol, and are particularly vulnerable to the adverse effects of climate change. Since 2010, the Adaptation Fund has committed US\$ 564 million, including supporting 84 concrete adaptation projects with about 6 million direct beneficiaries.

75. The Least Developed Countries Fund (LDCF) is operated by the Global Environment Fund (GEF) and was established under the UN Framework Convention on Climate Change (UNFCCC) to assist LDCs in implementing national adaptation programmes of action (NAPAs).

As of 2015, the Fund supported 140 projects and programs in 46 of the least developed countries, with a total portfolio value exceeding USD 1 billion.

76. The Global Environment Facility (GEF) is an operating entity of the financial mechanism of the UNFCCC, and has invested approximately US\$ 3 billion in financing climate change mitigation, adaptation and enabling activities since its inception in 1991. Climate change adaptation is central to the strategic objectives of UN Environment and GEF, as reflected in its inclusion as a GEF IV Focal Area. At the time of the project approvals, climate change adaptation was included as a focal area under the GEF-5 Replenishment with the aim of supporting developing countries in implementing transformational shifts towards low emission and climate-resilient development pathways. Under the GEF-5 programme cycle, support was focused on the strategic objectives of (i) promoting innovation and technology transfer for sustainable energy breakthroughs, (ii) demonstrating mitigation options with systemic impacts; and (iii) mainstreaming mitigation concerns into sustainable development strategies.

5.1.3 Relevance to Regional, Sub-regional and National Environmental Priorities

77. The magnitude and immediacy of climate change threats underscore the relevance of adaptation policies and measures that seek to protect ecosystems, populations and economic activities. In this respect, both projects were very supportive of local, national and global priorities. Both were conceived as instruments to implement Tanzania's National Adaptation Program of Action (NAPA), which outlines the national adaptation policy framework and serves as a key reference document for UNFCCC and the donor community. The NAPA highlights temperature measurements from 21 meteorological stations in the country that show steady increases in temperature over the past 30 years, leading to periodic inland drought and significant drops of water level at Lake Victoria and Lake Tanganyika, combined with excessive precipitation, rising sea levels and flooding on the coast.



78. The NAPA identifies the locations that are most vulnerable to climate threats. These include all of the LDCF project sites: "...The intrusion of sea water into water wells along the coast of Bagamoyo district and the inundation of seawater at Pangani district, off the Indian Ocean shores, are yet another evidence of the threats of climate change... The Rufiji River is expected to experience an increase in river flow by 5- 11%...Floods on Rufiji and Pangani Rivers would cause damage to major hydropower stations and human settlements found along these river basins in the country".¹⁰ The existing seawalls at the mouth of the Pangani River that protected the district capital and adjacent land had been built more than a century ago and were in a state of advanced deterioration. The LDCF project selected sites on islands of Zanzibar that, according to the NAPA, have experienced the highest variances of rainfall in recent years. The adaptation interventions that were implemented by both projects were relevant to local livelihoods and economic activity because they protect urban and rural settlements, agricultural lands and local ecosystems from seasonal floods and rising sea levels and land degradation.

79. The AF project was oriented towards vulnerable sites in the Dar es Salaam metropolitan area where urban infrastructure, neighborhoods and economic activities were at risk. Adaptation interventions were implemented at locations that are highlighted in district and municipal environmental plans - Ilala, Temeke and Kinondoni among others - and by pre-feasibility studies of surface water drainage systems conducted by the World Bank-funded Dar es Salaam Metropolitan Development Program (DMDP). Virtually all of the district and municipal council officials that were interviewed by the evaluators consider that the adaptation interventions implemented under both projects have addressed priority sites with high levels of climate change vulnerability.

80. Both projects were indirectly relevant to sector plans for infrastructure maintenance, water services, drainage and natural resource management. These included the National Mangrove Management Plan that is led by the Tanzania Forest Service (TFS). The distribution of energy-efficient cooking stoves by the AF project supported Tanzania's Climate Change Gender Action Plan (ccGAP) lowering the time devoted by women to fuel wood collection and cooking (and lowering charcoal demand).

81. In global terms, both projects have supported national implementation of the UNFCCC through adaptation interventions at vulnerable sites. They have indirect relevance to the UN Conventions on Biological Diversity (CBD) and Desertification (UNCCD) by supporting mangrove restoration and shoreline rehabilitation. This was particularly evident in the Rufiji Delta, a RAMSAR conservation site that contains East Africa's largest mangrove forest, yet faces environmental degradation from illegal farming and logging.

82. On a regional level, both projects have indirectly supported the Programme on Climate Change Adaptation and Mitigation in Eastern and Southern Africa, a joint initiative of the Common

"Before the project, sea water reached our residents and started to affect our buildings, and particularly our crops. "

- Representative of the Sheha Kilimani residents association, Zanzibar

"Before the LDCF project the farmlands of about 500 families were very much affected by salt water from the sea tide, and areas that were used for agriculture activities were lost."

- A member of JSEUMA, Kisiwa Panza, Zanzibar

"We were much affected by floods especially during the heavy rains since water from river stream destroyed people's house and blocked their way."

¹⁰ National Adaptation Programme of Action (2007), pp. 5, 15.

Market for Eastern and Southern Africa (COMESA), East African Community (EAC) and Southern African Development Commission (SADC). The programme has the purpose of increasing investments in climate resilient and carbon efficient agriculture within member states to generate impacts on forestry, land use and energy practices, through the implementation of successful adaptation and mitigation actions.

83. South-south cooperation was not contemplated for either project, aside from the exposure to adaptation activities and climate financing in Kenya under a LDCF project study tour, and the contracting of a South African company to conduct the baseline vulnerability studies at the sites of both projects.

5.1.4 Complementarity with Existing Interventions

84. The AF and LDCF projects were complementary in their design, objectives and implementation approach. Conceived together with similar intended implementation timelines (November 2012 to October 2017), the availability of funding led to the 'two project approach' with the Adaptation Fund project focused on rehabilitation of coastal protection infrastructures and some capacity building, while the Least Development Countries Fund Project sought to strengthening institutional capacities of NGOs and academic organizations and included support to inter-ministerial and district-level authorities in integrating adaptation concerns in local planning, thereby sustaining the Adaptation Fund interventions. The geographic scope of both projects was also delineated to avoid overlap: In terms of field activities AF project focuses on Dar es Salaam, and LDCF on other coastal areas of Tanzania.

85. Both projects aimed to reduce the Tanzania's vulnerability against climatic extremes and rising water levels associated with climate change processes, with particular attention to coastal areas. They supported the implementation of the Tanzania's National Climate Change Adaptation Strategy and are jointly supervised by the National Climate Change Committee. They shared execution arrangements, steering committees and overlap in their institutional arrangements. The project components followed a logical progression, with vulnerability assessments, knowledge generation and capacity development feeding into concrete adaptation interventions in support of mangrove reforestation, water management, energy efficiency and infrastructure rehabilitation, applying an Integrated Coastal Area Management (ICAM) approach. In this regard, both projects aimed to demonstrate the benefits of integrated coastal management with on-site demonstrations that are suitable for replication and up scaling.

86. Likewise, both projects shared execution arrangements within the VPO-DoE and worked with common partners under a joint Project Steering Committee. The National Project Coordinators worked in the same office, communicated regularly and were very familiar with the other's projects. There was spatial balance in the geographic distribution of activities, with the AF project focusing on the Dar es Salaam metropolitan area and the LDCF project targeting vulnerable coastal settlements and ecosystems at different sites on the mainland, Zanzibar and Pemba.

87. Project deliverables were mutually supportive. The LDCF project sought to create local networks of community organizations as a mechanism for public engagement that had direct relevance – and applicability - to the AF project and future adaptation initiatives. The AF project foresaw the replication and up scaling of effective adaptation interventions to policy levels, through an ecosystems-based integrated coastal management plan (EBICAM); and a climate change monitoring observatory with clearinghouse functions that would serve as a knowledge platform and support vulnerability monitoring and adaptation planning at district levels. These complementarities provided enabling conditions for joint planning, coordination and the pooling of resources between both initiatives under an integrated programme modality, rather than being

duplicative. However, the deliverables of each project were implemented separately, for which reason the Theory of Change analysis introduced reconstructed outputs address internal design gaps.

88. There are also complementarities between the AF project and Dar es Salaam Metropolitan Development Project (DMDP), which implements surface water drainage improvements and infrastructure development with a US\$ 300 million loan from the World Bank. DMDP investments in improved drainage systems for Temeke and Ilala Districts have indirectly supported the drainage canals that were constructed by the AF project. Baseline drainage studies that were conducted by the DMDP have helped to target AF intervention sites.

89. Although comparatively recent in its approval and implementation (which started in 2017) the LDCF-GEF “Ecosystems-based Adaptation for Rural Resilience” project (EBARR) is a follow-up initiative that aims to increase resilience to climate change in inland rural communities of Tanzania by strengthening ecosystem resilience and diversifying livelihoods. Although the different timeline and geographic scope of the EBARR initiative precluded the development of operational linkages with the AF or LDCF projects, which were implemented at an earlier stage and focused on vulnerable coastal areas, they are complementary in their thematic focus. Several of the findings and lessons of this evaluation are also relevant for the EBARR project.

Evaluation Rating for Relevance:

AF Project: *Highly Satisfactory (HS)* on the basis of its high relevance to UN Environment, AF and government priorities and policies. The pilot sites are highly vulnerable to climate change and several adaptation interventions were prioritized in District/Municipal Council development plans.

LDCF Project: *Highly Satisfactory (HS)* on the basis of its high relevance to UN Environment, GEF-LDCF and government priorities and policies. The pilot sites are highly vulnerable to climate change and are listed in the National Action Plan for Adaptation (NAPA), including a RAMSAR site that is East Africa’s largest mangrove ecosystem. Several adaptation interventions are prioritized in district and municipal development plans.

5.2 Quality of Project Design

5.2.1 Design Strengths

90. The most outstanding design feature of both projects is the high degree of complementarity between their implementation approaches and execution arrangements. Both projects are based on three thematic components that follow a logical progression, linking vulnerability assessments and knowledge generation to capacity building and public engagement, which in turn feed into the implementation of adaptation interventions at coastal sites to rehabilitate degraded infrastructure and ecosystems. The analysis of causal pathways under the Theory of Change model (Section IV), indicated high levels of articulation between the outputs and outcomes of each project, in addition to a high degree of cross-project linkages. Indeed, various project deliverables and outcomes were found to be mutually supportive in their design: Examples include the integrated coastal area management plan (EBICAM) and climate change observatory that were foreseen by the AF project; and DIVA/GIS training to strengthen district vulnerability monitoring capabilities, and the creation of local CBO networks as a mechanism for enhancing public engagement (under the LDCF project). The complementarities of both projects were additionally reflected in their geographic distribution – the AF project was focused on the

Dar es Salaam metropolitan area, while the LDCF project worked at several coastal district locations and the islands of Unguja and Pemba (Zanzibar).

91. Both projects supported policy implementation and were initially conceived as mechanisms for implementing Tanzania's National Adaptation Program of Action (NAPA). All of the LDCF project sites were prioritized by the NAPA in terms of their vulnerability to climate threats; whereas the AF project focused on vulnerable coastal sites in the Dar es Salaam metropolitan area that were highlighted by district and municipal environmental plans. The demonstration of effective adaptation practices at the project sites were intended to have a demonstrational effect, with the aim of promoting their replication and up scaling at the district levels and on a regional scale in the broader context of integrated coastal area management (ICAM).

92. The AF and LDCF projects complemented each other's design to a great extent. When viewed as an integrated initiative, their combined design appeared to be more comprehensive. For example, the AF project document did not include a strong capacity building element or address the need for public engagement mechanisms, despite proposing the up scaling of adaptation interventions under a broader integrated coastal area management framework. To address the gap, the Theory of Change analysis suggested two reconstructed outputs for the AF project that would support the socialization of vulnerability assessments and integrated coastal management, and give greater attention to implementation arrangements and stakeholder responsibilities for implementing ICAM on a broader scale. However, these aspects were included in the LDCF project, which addressed both issues under the first and second components.

93. Project design was inclusive. The institutional frameworks and coordination arrangements for both projects were designed to build linkages (horizontally and vertically) between different stakeholders. Different stakeholders - central and district governments, community organizations, NGOs, academia – were articulated at different levels, generating opportunities for cross-sector coordination and the application of an interdisciplinary focus to adaptation management. The joint Project Steering Committee engaged the participation of line ministries, local governments and NGOs in project planning, supervision and oversight. The District and Municipal Council environmental officers were designated as the project focal points at the various sites. NGOs and community organizations were contracted to lead the implementation of ecosystems restoration initiatives. The institutional arrangements enabled effective communications between the VPO-DoE, Zanzibar's Environmental Authority, district environmental departments and local communities; this would encourage local ownership and commitment in the implementation of adaptation interventions.

94. The high levels of complementarity and cross-project linkages generated conditions for their coordinated implementation under an integrated "programme approach" modality. To some extent this was achieved: Both projects shared execution arrangements within the VPO-DoE and worked with common partners under a joint Project Steering Committee. The National Project Coordinators worked in the same office, communicated regularly and were well informed of the status of both projects. However, both projects were implemented as separate initiatives and cross-project collaboration on mutually beneficial outputs or results was difficult to operationalize in practice.

5.2.2 Design Weaknesses

95. Although SMART indicators are applied to the outputs of both projects, the corresponding outcome indicators simply aggregate the output targets and do not address the results that are expected from these products. Project design was weakened by under-budgeting as well as an under-estimation of timelines for delivering key outputs. The number and scale of the proposed

adaptation interventions, as initially designed, were over-dimensioned in relation to the available budget resources. The Mid-Term Review (MTR) report noted that "...the number of measures and sites included in the project documents was too big, with some measures with low priority based on these criteria".¹¹ Some of the intervention budgets underestimated the scale of investment that was actually needed - affecting the scale of seawall construction at Pangani, the number of boreholes in Bagamoyo, the area of restored mangroves in the Rufiji Delta, and the extension of drainage canals at the Dar es Salaam sites. This was influenced by the lack of detailed engineering studies and costing for the proposed interventions at the project design stage, and by rising costs (and vulnerability) during the extended period that transpired between the initial budgeting and actual implementation of site interventions. Likewise, project activities were not realistic in their timing since the suitability of government procurement procedures was not assessed at the design stage. Output indicators and targets were subsequently adjusted to available funds and timeframes, following the completion of site baseline studies in 2015.

96. Some risks were understated and assumptions made that have not held. Both project documents included the required sections on risks and assumptions. However, most risks were assigned low level of probability, and (understandably) did not anticipate the disruptive effects of extreme weather events and security problems that delayed the planned interventions in Bagamoyo and Rufiji. Although both situations responded to unanticipated developments that were outside the control of the LDCF project (that worked at these locations), they lowered the project's ability to deliver on schedule and meet timelines that were already ambitious in relation to expected deliverables. Likewise, the assessment of government operational capacity did not adequately consider the administrative difficulties associated with the procurement system that was selected.

Evaluation Rating for Project Design

AF Project: Moderately Satisfactory (MS). The project proposed an integrated approach combining baseline assessment, monitoring, pilot interventions, dissemination and the policy links for replication under a regional ICAM framework. Institutional arrangements linked the DoE to line ministries, local governments, community organizations and NGOs. SMART indicators were used to measure output delivery. However, outcome indicators were based on output targets and not expected changes to the baseline situation. The viability of the government procurement system was not adequately assessed at the design stage. Some of the planned interventions were under-budgeted in relation to actual cost.

LDCF Project: Moderately Satisfactory (MS). The project proposed an integrated approach to climate change adaptation that combined baseline vulnerability assessments, training, public engagement and pilot adaptation measures at vulnerable coastal sites. Institutional arrangements linked DoE to line ministries, local governments, community organizations and NGOs. Timelines for outputs were sometimes insufficient given the geographic dispersion of sites. The efficiency of the government procurement system was not adequately assessed at the design stage. Some interventions were under-budgeted.

¹¹ *Mid-Term Review of the UNEP Projects, Executive Summary, pg. 1*

5.3 Nature of External Context

97. Project performance was affected by external factors, some of which were identified as risks in the project documents, or as external assumptions by the Theory of Change analysis. These include the following:

- The implementation of LDCF site activities in the Rufiji Delta were delayed for practically one year due to security problems.
- The drilling of boreholes in Bagamoyo – again by the LDCF project - was delayed due to heavy rains and could not be completed on schedule.
- The slow online process for the legal registration of community-based organizations delayed the development of local CBO networks under the LDCF project, absorbing time and resources that were initially earmarked for applied capacity building on adaptation topics and project management. As a result, the development of public engagement mechanism had not been completed at most sites and remained in progress (with continuing support from ForumCC and the participating district-level environment departments).¹²
- The inefficient and slow-moving government procurement system undermined the timeliness and efficiency of output delivery for both projects, for most of the approved project period.

Evaluation Ratings for Nature of External Context:

AF Project: Favorable (F). Extreme climatic events or security issues did not significantly affect project implementation. Economic conditions were generally stable (the Temeke drainage canal collapsed following completion due to heavy rains, requiring reconstruction under a different design - and the project benefited from a favorable political context. The likelihood of impact and post-project sustainability is weakened by the turnover of government counterpart staff and focal points within the District and Municipal Councils.

LDCF Project: Moderately Unfavorable (MU). Project implementation was affected at several locations by extreme weather events (Bagamoyo), extended security problems (Rufiji) and deteriorated infrastructure that raised intervention costs (Pangani). Economic conditions were generally stable and the project benefited from a favorable political context. The likelihood of impact and post-project sustainability is weakened by the turnover of government counterpart staff and focal points within District and Municipal Councils, generally low capacity levels among partner CBOs, and the transfer of district responsibilities with regards to the Rufiji delta.

5.4 Effectiveness

5.4.1 Delivery of Outputs

98. The levels of achievement of outputs that were programmed by both projects are assessed in the following text. The performance indicators for several outputs were adjusted from their original design by the joint Project Steering Committee and respective donors, in response to the findings of site assessments and budget limitations. The delivery of each project output is

¹² This statement is based on the findings of the evaluation mission, which took place during the first quarter of 2019. According to the LDCF Project Director, local networks were subsequently established in all project sites (as of November 2019).

rated in the following tables, followed by commentaries that summarize the progress achieved and intervening factors.

99. Both projects were able to deliver most of their planned outputs either fully or to a considerable extent, often overcoming extended delays and under-budgeting. They were most effective in the delivery of site interventions supporting infrastructure rehabilitation and ecosystem restoration, with comparatively lower achievement levels for outputs that addressed capacity development, coastal monitoring, the enhancement of public engagement and planning-policy linkages.



protects a high-density urban residential area from seasonal floods and untreated liquid waste

100. As noted, most of the pilot adaptation interventions that were implemented by the LDCF project were fully delivered and have met performance targets that in several cases were adjusted (reducing the scale of intervention). At some sites, targets were surpassed as reflected in the production and planting of mangrove seedlings in Zanzibar. In several locations (Kilimani, Kisiwa Panza, Kisakasaka) the construction of seawalls and groynes, combined with the restoration of coastal mangroves, are clearly protecting coastal settlements and farmland from rising sea levels.

101. Less progress has been achieved in creating district networks of community-based organizations as a means to enhance public engagement in adaptation initiatives. Although the number of CBOs registered surpassed initial targets, the creation of networks is at an incipient stage at most sites and engagement mechanisms were not operational at the time of the evaluation mission.¹³ This was influenced by slow legal registration processes and inconsistent CBO capacity levels, as well as by the costs and the logistical challenges of working in geographically dispersed areas. Nor have district or municipal government capacities for vulnerability monitoring or adaptation planning been established at the pilot sites of both projects, although training workshops were held for district technical officers; opportunities for applied on-site training were limited by budget and staffing constraints. The site vulnerability assessments and maps that were generated by external contractors offer an important input (and stimulus) for district-level adaptation planning, although their utility will decline over time.



Mangrove seedlings for planting at Kilimani, Zanzibar

102. Outputs addressing training and capacity building were delivered as planned, yet have had limited effect on local monitoring and assessment capabilities. According to most of the interviewed participants, these limitations underscored the need for a more operational, “hands on” approach, i.e. focusing the GIS training on satellite images of the pilot districts to improve its operational relevance (and generate a consistent cross-district baseline). The lack of applied training activities at the project sites was influenced by budgetary factors - available project resources were sufficient for indoor training, yet opportunities for on-site training were outside the project plans or budget possibilities.

¹³ CBO networks have been subsequently created at the project sites (as of November 2019) according to the Project Director.



The drainage canal and footbridges at Mtoni Bustani, Temeke district the threat of flooding, providing safety to adjacent homes and businesses, and facilitating pedestrian traffic.

103. In practice, the main capacity benefits generated by both projects were derived from the direct participation of district and municipal focal points, NGOs and (in particular) community organizations in implementing pilot adaptation interventions at the project sites. Similarly, the field research that was conducted at the project sites by student interns from the University of Dar es Salaam (and subsequently published) has improved the knowledge and research skills of the participants and, indirectly, the Faculty of Geography that led this initiative as well (although the internships are unlikely to be continued or integrated to the curricula without external funding).

104. The AF project planned a larger number of outputs compared to the LDCF project. These combined site interventions for infrastructure and ecosystems rehabilitation with policy links as reflected in the approval of a regional plan for integrated coastal management (EBICAM) and a monitoring observatory with clearinghouse functions. While the implementation of adaptation interventions has been generally satisfactory despite delays, outputs related to EBICAM and coastal monitoring were not achieved.

105. The main outputs at the high end of the causal pathways were delivered. Seawalls and drainage canals were constructed and are protecting communities and coastal land from rising sea levels and seasonal floods. The restored mangrove sites will help to contain high tides, as well as support biodiversity and artisanal fishing. The distribution of fuel-efficient cook stoves doubled the initial target and should lower demand for charcoal in three municipalities. Training was delivered, although with limited effect on local climate change monitoring capabilities.

Table 10. Achievement of Outputs: Implementation of Concrete Adaptation Measures to reduce Vulnerability of Livelihoods and Economy of Coastal Communities of Tanzania” (Adaptation Fund) ¹⁴

Output	Level of Achievement	Comments
1.1. Seawall raised, rehabilitated, constructed in areas showing particular damage	<i>Achieved</i>	The revised target of 1,400 linear meters of constructed/rehabilitated seawall was achieved. A 950m seawall was constructed on Obama Rd. with stair access, guardrails, benches, lighting and public toilet. In addition, a 500m seawall with similar facilities was built at Mwalimu Nyerere Memorial Academy in Kigamboni. The combined seawalls exceed the initial targets in extension, and are already protecting both sites from rising high tides. As noted in the ToC analysis, this output is highly placed on the project’s causal pathway and is key the achievement of its outcome, which feeds into the intermediate states that precede the expected impacts.
1.2 Storm and flood drainage systems in urban areas and near coastal communities effectively functioning	<i>Achieved</i>	The revised target of 2,300m of cleaned/rehabilitated drainage was fully achieved exceeded at some sites. Two extensions of drainage canals were constructed at Buguruni Malapa in Ilala municipality (475m), and Mtoni Bustani in Temeke district (575m). An addition 2,275 m. of drainage canal were cleaned in Ilala and Temeke municipalities, with 800 m. of landscape backfill in addition to footbridges and security lighting. The drainage improvements are directly benefitting 1,500 – 2,000 households and small businesses in adjacent areas, and annual floods have ceased since their construction. The initial construction of the Temeke canal collapsed shortly after completion due to heavy rains and inadequate design (gabions were positioned above vertical concrete slabs that rested on sandy soils) but was rebuilt with an improved design, without additional cost to the project. This output is also highly placed on the project’s causal pathway and was essential to the achievement of its outcome, which feeds into the intermediate states preceding impact.
2.1 Appropriate alternative energy (efficient cooking stoves, small solar panels) transferred, including training	<i>Achieved</i>	The initial target of stoves was exceeded by double due to lowered unit costs: 3,000 fuel-efficient jiko cooking stoves were distributed to low-income households in Ilala, Kinondoni and Temeke through the Tanzania Social Action Fund (TASAF) with the participation of local ward and neighborhood mtaa representatives. Training was also given on their use. Although the output was designed to have a gender impact (as well as lower local demand for charcoal), women’s groups do not appear to have directly participated in this initiative. The evaluators were unable to organize interviews with community implementers or a sample of recipient families, and it is difficult to determine the level of impact with the available information (although baseline data exists with a register of participating families and their daily charcoal utilization. Nevertheless, this is an important output that has reportedly exceeded expectations and is likely to have generated tangible benefits at the household level, while contributing to lowering environmental pressures on nearby mangrove forests. It is located at a high level of the project’s main causal

¹⁴ Effectiveness is evaluated against the reconstructed results framework as developed in the Theory of Change section, according to UN Environment evaluation guidelines.

		pathway and (with the other outputs) is important to the achievement of the second outcome, which is directly connected to the intermediate states preceding the expected impacts (Diagram 1).
2.2 Mangrove forest at project sites rehabilitated and protected	<i>Partially achieved</i>	Most of this output was delivered: 40 ha. of mangrove seedlings were planted at Mbweni, Kinondoni municipality and at Tung Songani and Pembanmrazi in Temeke district. Planting targets were met although plant mortality rates have been high at Mbweni (+50%) due to untreated liquid waste and cattle encroachment. Efforts are underway to replant mangroves at this site, away from the drainage area. Mangrove survival rates were higher at the other sites. Dredging was conducted at the Pangani River site to reduce siltation and lower water levels. At the time of the evaluation, none of the project sites had been formally designated as “no-take” buffer zones (through agreement with the Tanzania Forest Service). This output is also highly placed on the ToC causal pathway and feeds into the (medium term) restoration of vulnerable shorelines and coastal forest, which feeds directly into the project outcome and contributes to the attainment of the intermediate states that precede the expected impacts.
2.3 Coral reef rehabilitated and protected in coastal sites	<i>Achieved</i>	Targets for the area of coral rehabilitation were surpassed. A contracted NGO and technical specialist have rehabilitated 3,000 m2 of coral reef at the Sinda and Mwakatunde island marine reserves off the Dar es Salaam coastline. This was achieved through the transplanting and grafting of bleaching-resistant corals brought from other locations. The evaluators were not able to visit the sites. However, the reported delivery of this output is again important for achieving the second outcome, contributing towards the attainment of the intermediate states.
2.4 Shoreline rehabilitated and stabilized using indigenous resilient trees and grasses	<i>Partially achieved</i>	The output was limited in its delivery, partially due to the late completion of several interventions. The target of planting 56,430 square meters with Indigenous trees and grasses was not met. <i>Casuarina</i> were planted along the Obama Rd. seawall, and <i>leucaena</i> at the Mwalimu Nyerere Memorial Academy site. However, further plantings of these trees and deep-rooting grasses (such as. vetiver) are still needed at the project sites and the MNMA in particular to stabilize soils against encroaching erosion. Native trees and grasses are also needed along the slopes that descend to the Ilala and Temeke drainage canals. The DoE has informed that there will be additional planting at MNMA after an agreement is reached with the Fisheries Ministry that owns the adjacent plot from where most of the erosion is spreading.
3.1 A baseline study on coastal vulnerability is implemented at the project sites and made available to the target audience	<i>Achieved</i>	Baseline studies on coastal vulnerability were conducted in 2014 by C4 EcoSolutions (South Africa) for both projects. The study assessed all project sites except the Rufiji Delta (due to security concerns), leading to adjustments in the design of intervention outputs and their indicators. The site studies include household data and information on land cover, vegetation health and the dimensions of infrastructure rehabilitation sites. Coastal vulnerability levels were mapped according to the level of threat. Earlier baseline studies on surface water drainage in Dar es Salaam (prepared by the World Bank-funded DMDP project) were also used. As noted in the ToC analysis, this output is situated at the lower level of the causal pathway and has had an important enabling effect for the design of the adaptation interventions, and provides a useful resource for district-level vulnerability monitoring.

<p>3.2 A national climate change observatory for ongoing CZM monitoring and scientific research created and operational</p>	<p><i>Partially achieved</i></p>	<p>There was limited progress towards this output. A consultant formulated a draft plan for the creation of a Climate Change Observatory of Tanzania (CCOT), which was discussed at a workshop. Members were designated and a field visit was organized to the project sites. Although the CCOT was presumably created, it is not functional. There is no evidence of an operational national climate change observatory that conducts scientific research, disseminates monitoring data or serves as an information clearinghouse. This output is also situated at the lower level of the causal pathway, given its catalytic support in enabling vulnerability monitoring at the district level and the future programming of coastal adaptation measures within the ICAM framework. The low level of output delivery is a limiting factor to the consolidation of policy linkages and a programmatic framework for ecosystems-based integrated coastal management at the higher end of the causal pathway.</p>
<p>3.3 Assessment of economic viability and practical feasibility of adaptation measures made available to the target audience</p>	<p><i>Achieved</i></p>	<p>Feasibility studies and EIAs were not budgeted for during project design, which in some cases led to the under-budgeting of adaptation interventions. More detailed design and feasibility analysis were conducted by UNOPS and the DoE two years after the project's beginning, but do not appear to have included cost-benefit analyses.</p>
<p>3.4 Best practices and lessons are documented, developed into policy briefs and operational tools, and disseminated to relevant stakeholder groups</p> <p>3.5 District level administration at the pilot sites are trained and informed on the management of rehabilitated infrastructure</p>	<p><i>Achieved</i></p> <p><i>Achieved</i></p>	<p>Lessons learned based on project experiences were documented and shared at two workshops held in Dar es Salaam, where they were used as inputs for the formulation of draft policy briefs on coral restoration, sustainable fishing in coral reefs and mangrove planting among others.</p> <p>There were existing capacities within the Dar es Salaam City Council and participating District and Municipal Councils for the maintenance of infrastructure within their jurisdictions. Training was provided to district and municipal environmental directors on how to budget for infrastructure rehabilitation. The output was delivered as planned, yet has not had significant effect on local government capacities according to interviewed participants. The achievement of this output was also influenced by turnovers of trained staff within participating local governments. Most of the district and municipal focal points consider that funding is the main challenge for the continued rehabilitation of infrastructure rather than tendering bids or managing procurement processes. Several felt that training on climate change monitoring and the use of GIS software, applied to the pilot sites, would have been more relevant to their operational needs.</p> <p>The reconstructed ToC output expands this output to include capacity for monitoring climate change impacts and adaptation planning. The reconstructed output is highly placed on the project causal pathway, benefitting from the training provided and the exposure to concrete adaptation interventions on the ground. The reconstructed output was only partially achieved, representing a limiting factor for the full attainment of this outcome and intermediate states that follow.</p>

<p>3.6 One EBICAM Action Plan for the coastal region is approved</p>	<p><i>Not achieved</i></p>	<p>The EBICAM Action Plan has not been designed or approved, although meetings were held to discuss its formulation. In retrospect, the EBICAM deliverable was unrealistic considering the time and resources that were made available. There was insufficient time to document/disseminate the project experiences and feed these into a broader Plan that could be approved for the extended coastal region. Efforts were instead focused on the development of draft policy briefs based the project lessons under output 3.4. However, this has not led to the formulation or approval of a tangible plan or policy decision. As a result, the framework for up-scaling ICAM and adaptation planning is lacking. According to the project coordinator, the approach was modified to integrate ICAM within district-level plans and budgets – through the Medium-Term Expenditure Framework - rather than pursue a larger regional plan. This change was not reflected in a project revision. Nor have the evaluators found evidence of strengthened ICAM components within district plans, beyond the attention that was already given (a situation that is also influenced by staff and budget realities). This output is placed at the higher end of the project’s causal pathway, and its delivery was key to create conditions for the replication of adaptation practices and ICAM on a broader scale.</p>
<p><u>OVERALL RATING OF OUTPUT ACHIEVEMENT:</u></p>		<p><i>Moderately Satisfactory (MS)</i>. Eight outputs from the Results Framework were fully delivered, with three exceeding their targets. Three outputs were mostly or partially achieved, and one output (3.6) was not produced. The percentage of fully achieved outputs (66%) falls within the Moderately Satisfactory performance rating according to UNEP evaluation guidelines. The overall rating is influenced by the lower delivery of outputs supporting shoreline stabilization with native vegetation, the national climate change observatory, and the EBICAM Action Plan.</p>

Table 11. Achievement of Outputs: Developing Core Capacity to Address Adaptation in Tanzania - Least Developed Countries Fund

Output	Level of Achievement	Commentary
<p>1.1 District level stakeholders are trained in climate change impact assessments and monitoring</p>	<p><i>Partially Achieved.</i></p>	<p>Training was provided on the use of DIVA/GIS software for climate change vulnerability monitoring, by the University of Dar es Salaam’s Department of Geography and Zanzibar’s Institute of Marine Science. The training included the distribution of a user manual. The revised targets were met– 140 local government representatives were trained on integrated coastal management and vulnerability, whereas 80 district technical staff received training on coastal modeling. However, this has had limited impact on assessment or planning capabilities at the project sites. Interviewed participants considered the training on climate change assessment to be general in content with less operational relevance. GIS training was based on the satellite image of an inland location (Morogoro) instead of the project sites (for which satellite images are available in Dar es Salaam). Zanzibari participants were given a brief (two session) overview of</p>

		<p>DIVA/GIS that relied on a slide show. DIVA/GIS software is considered incompatible with the Q-GIS open source software that is commonly used in Tanzania. Several of the participating district and municipal environmental departments lack the hardware to use GIS programs. The main gains in climate change impact assessment capabilities derived from the participation of local government staff in the baseline studies and the availability of this data.</p> <p>This output is strategically situated on the project's causal pathway and feeds the first outcome, which is directly connected to the intermediate states that precede the expected impacts. Its partial delivery has bearing on the achievement levels for both the first outcome and the project objective. The level of output achievement was influenced by the limited progress that was reached in establishing a national climate change monitoring observatory with research and information clearinghouse functions (an AF project output that is linked by a cross-project pathway)</p>
<p>1.2 Detailed participatory coastal vulnerability assessments conducted for Rufiji, Bagamoyo, Pangani districts and Zanzibar</p>	<p><i>Achieved</i></p>	<p>This output was complementary to output 1.3 of the AF project. C4 Eco Solutions conducted a joint baseline study on coastal vulnerability for both projects in 2014, assessing conditions at all project sites except Rufiji (due to security concerns) and adjusting output indicators. Household data and information on land use, vegetation cover and the present state of intervention sites were documented. Vulnerability levels have been mapped for each site. Earlier coastal vulnerability assessments undertaken by the USAID-supported Pwani project at several sites have also contributed to this output. This output is situated at the lower level of the causal pathway; the assessments have supported the final design of pilot adaptation interventions at a higher stage of the causal pathway, while offering a useful resource for district-level vulnerability monitoring.</p>
<p>1.3 Assessment of economic viability and practical feasibility of adaptation measures made available to target audience</p>	<p><i>Achieved.</i></p>	<p>This additional output was introduced under the Theory of Change analysis to ensure the adequate feasibility analysis and design of adaptation measures, and to ensure their socialization with stakeholders at the project sites for their knowledge gain (complementing AF output 3.3). Although this is a new output that was not part of the approved results framework and therefore is not rated, it was largely achieved through the final design of the adaptation measures and sharing of plans with the relevant District and Municipal Councils. The output also benefited from the availability of prior assessments studies of ground drainage for some of the project sites (Ilala, Temeke) by the DMDP project.</p>

<p>1.4 Effective adaptation interventions, good practices and lessons drawn from the pilot sites are documented and disseminated to policymakers, District Councils and CBOs in Tanzania's coastal region, and the AF project</p>	<p><i>Partially Achieved</i></p>	<p>This additional output was introduced under the ToC analysis to strengthen cross-project linkages by supporting the dissemination of best practices and lessons drawn from the project sites to a wider audience (AF output 3.4), hence contributing to the development of a regional EBICAM Action Plan (AF output 3.7). It is a new output was not foreseen in the project results framework and therefore is not considered in the overall rating of achievement. In practice there was little emphasis on documentation and dissemination, as the project's design did not contemplate replication or policy links (unlike the AF project). This has limited the project's potential to influence policymaking or build policy linkages. For both projects, the late completion of several initiatives left less time to document case studies, systematize good practices and disseminate them to a larger audience.</p>
<p>2.1 Public engagement in climate change adaptation activities enhanced.</p>	<p><i>Achieved</i></p>	<p>The Tanzania Civil Society Forum on Climate Change (ForumCC) was contracted to raise awareness on CC among community organizations at the project sites, and establish five CBO sub-networks (one at each site) to improve public engagement. A total of 91 community groups were identified at the inception stage, of which 54 were selected for registration. By the end of the project a total of 38 CBOs had been registered or were in process of registration (11 in Bagamoyo, 11 in Rufiji, 12 in Pangani, 2 in Pemba and 2 in Unguja), exceeding the targeted 25 registrations. However, full output delivery was undermined by the geographic dispersion of CBOs, local capacity levels, and a time-consuming CBO registration processes that in some cases remain in progress. Registrations were additionally delayed by the lack of identification cards for CBO members (a frequent occurrence) and the suspension of project activities in the Rufiji Delta due to security problems. At the time of the evaluation mission in March 2019, the five CBO networks were at different stages of formation, with several in process of being launched. As of November 2019, the networks have been established at all project sites according to the DoE. Hence the output is considered to have been achieved, albeit after the project's termination.</p> <p>Training was provided on CBO networking to 109 participants. However, less attention was given to training on adaptation approaches or project formulation and budget management, which are considered essential by participants to enable their effective engagement. Despite the progress that has been achieved the mechanisms for enhanced public engagement are not in place at most sites at present. Full achievement will require the completion of ongoing registration processes, launching of district networks, and providing training on core adaptation issues and the project cycle.</p> <p>There was consistent participation on the part of district environmental director, NGOs and CBOs in the planning and implementation of adaptation interventions, in particular for ecosystems restoration. Community engagement was most effective when CBOs had established capacities and prior experience with climate change adaptation initiatives, i.e. JUMKIZA in Kisakasaka and Pangani's Beach Management Units. However, these examples are site-specific and the planned framework for future</p>

		<p>CBO engagement is not operational at present.</p> <p>This output is strategically situated at higher end of the causal pathway and is key to achieving the first outcome that connects directly to the intermediate states that precede expected impacts. Because its wording replicates that of the outcome, it was reconstructed to focus on the demonstration of engagement mechanisms at the project sites. Its partial delivery affects the full achievement of the second outcome and intermediate states that precede the project objective.</p>
2.2 Student internship program established for interns to project sites	<i>Achieved</i>	<p>In collaboration with the University of Dar es Salaam's Department of Geography, 29 undergraduate and 12 graduate students performed field research at the project sites and documented their findings. On-campus summer courses on climate change were also offered by the Dept. of Geography and attended by 208 students. The fieldwork opportunities were highly beneficial from an academic perspective, feeding into the Climate Change courses that are offered by Dar es Salaam University's Dept. of Geography and Institute for Resource Assessment (IRA). The research reports are university property and were presented at an on-campus event, yet have not been shared with district environmental directors or other local stakeholders (nor was this foreseen). In this regard, an opportunity was missed to enhance local knowledge and use the research findings for adaptation planning purposes. A permanent internship program has not been established, and continued external funding is required to sustain the internships and field research. In this sense, the program is not "established". However, the indicators for his output are based on the number of student reports produced each year, and not the continuity of the programme.</p>
2.3 Public awareness on climate change enhanced	<i>Achieved</i>	<p>A public awareness campaign was initially included as an activity for output 2.1, and was subsequently reconstructed as an additional output under the Theory of Change. Although achieved, it was not part of the original output framework and therefore is not considered in the rating. A multi-media public awareness campaign was implemented by ForumCC at the project sites, targeting community-based organizations and civil society. There was already awareness of the impacts of climate change among coastal settlements that experience their effects on security and livelihoods. Nevertheless, public awareness of climate change and its impacts have been enhanced at the project sites as a result of the campaign.</p>
3.1 Mangroves restored in pilot sites	<i>Achieved</i>	<p>Targets for mangrove restoration in Zanzibar (encompassing 1,245 ha.) were met and exceeded at some sites (Kisiwa Panza, Kisakasaka). A mangrove nursery was also established in Zanzibar. At Kisiwa Panza island (Zanzibar), mangrove planting exceeded planned targets and was combined with row plantings of casuarina trees to prevent coastal erosion. Approximately 27 ha. of mangrove seedlings were also planted on the islands of Tumbe, Ukele and Bwawani, achieving planned targets. A total of 5,704 mangrove seedlings were planted in Pangani district; 2,000 of these were planted at alternative locations (Bweni, Mashariki) in response to construction delays at the north bank seawall and the risk of missing the rainy season. The planned mangrove restoration area in the Rufiji Delta was downscaled from 3,000 ha to 1,000 ha due to security problems that were outside the project's control; and in</p>

		<p>Pangani, where 2 ha. of mangrove were not planted along the south bank seawall (which wasn't rehabilitated given budget limitations).</p> <p>Adaptive management was effectively applied at the pilot sites. Direct planting of mangrove seed was replaced by the transplanting of mangrove seedlings with improve survival rates, and different mangrove species and tree spacings were applied. At some sites (Pangani, Kisiwa Panza, Kisakasaka) participating NGOs and CBOs planted mangroves without remuneration to coincide with the rainy season. Restored mangrove areas are being patrolled by NGOs and CBOs, at some sites (Pangani, Kisiwa Panza, Kisakasaka) through agreements with the Department of Environment and Tanzania Forest Service</p> <p>This output is strategically placed at a higher level of the project's causal pathway and feeds directly into the third outcome that is directly connected to the intermediate states. As a result, its achievement is key to enable reductions in coastal ecosystems vulnerability over the medium term.</p>
<p>3.2 Water resources protected from sea level rise and erosion and coastal communities have access to safe water</p>	<p><i>Achieved</i></p>	<p>Initial output targets were downscaled from 17 to 10 boreholes and 6 to 2 rainwater harvesting sites, in response to budget restrictions and a costly surveying phase that required 3 successive studies to identify drilling locations that were not affected by ground water salinization. The revised targets have been met: 10 boreholes with water tanks and pumps were installed at prioritized locations in Bagamoyo's peri-urban and rural areas. Each water tank holds 15,000 liters and is intended to assist the daily domestic water needs of 1,000 persons, benefitting an estimated 10,000 persons that previously had to travel greater distances or purchase water from cistern trucks. The facilities are managed by community-based Water Boards that were established and registered prior to the project. In addition to the 10 boreholes that were drilled, another 7 sites were surveyed that can be drilled in the future by Bagamoyo's Water Department or the Dar-es-Salaam Water & Sanitation Authority (DAWASA).</p> <p>Rainwater harvesting systems are operating at two public schools (Kingani and Matipwili Secondary Schools) in the Bagamoyo area. The evaluators visited Kingani Secondary School (852 students including 200 boarders), where rainwater is being collected from corrugated roofs and channeled into 9 tanks that hold 8,000 liters each. This is considered to have significantly improved the supply of non-saline water, particularly during the dry season, with financial savings from lower electricity bills since less water has to be pumped from boreholes during the rainy seasons. An additional 7 RWH systems with tanks were installed at Matipwili Secondary School. According to the school principal, other schools have taken note of the benefits and have shown interest in using this system.</p> <p>This output is strategically placed at a higher level of the project's causal pathway and feeds directly into the third outcome that connects to the intermediate states. The availability of safe water sources for coastal settlements and institutions, combined with the planting of mangroves, has reduced the vulnerability of coastal settlements and institutions to climate change and rising water salinity.</p>

<p>3.3 Coastal infrastructure assets are protected</p>	<p><i>Partially Achieved</i></p>	<p>At end of the project, 860 meters of Pangani Town’s 100-year old north shore seawall has been reconstructed, protecting major portions of Pangani town (population 15,000) from rising sea levels. According to the DoE the seawall was since extended to 950 m. with government funds, reaching the planned target. The new seawall is very well designed and landscaped. In addition to protecting most of Pangani town (total population 15,000) from rising tides, the wall’s adjacent area includes lighting, park benches and a public toilet. However, the planned rehabilitation of 660 m. of collapsed seawall along the southern bank – a highly vulnerable area with approximately 800 residents – was not implemented due to cost factors. The reconstruction of the south seawall continues to be a local priority. Two 50 m. segments of seawall were constructed at the island of Kisiwa Panza (Zanzibar), protecting a village of approximately 300 residents from high tides that entered 300 meters inland. This action has had immediate impact by containing periodic floods and enabling the recuperation of 3 ha. of land that is now cultivated with coconut, cassava and bananas. Five 100 m. groyne have been constructed along a 538 m. stretch of coastline in Kilimani (Unguja island) and are protecting nearby crops and households from flooding.</p>
<p>OVERALL RATING OF OUTPUT ACHIEVEMENT:</p>		<p><i>Moderately Satisfactory (MS)</i>. Four outputs from the project Results Framework were fully achieved and three outputs were mostly or partly achieved. With the additional achievement of unprogrammed outputs that were identified by the Theory of Change analysis, the level of fully achieved outputs (64%) reaches a Moderately Satisfactory performance rating.</p>

5.4.2 Achievement of Direct Outcomes

106. The similarities in the design of both projects were reflected in complementary implementation approaches and institutional arrangements. Each project consisted of three components with associated outcomes that addressed information and knowledge generation (through assessment and research), capacity building and training (in the case of the LDCF project to improve public engagement), and support for infrastructure and ecosystems rehabilitation at vulnerable coastal sites. The attainment of outcomes was directly influenced by the delivery of outputs associated with these components. The strong complementarities in design, implementation approach and institutional arrangements have contributed to similar performance in terms of outcome achievement.



Groynes prevent high tide currents from approaching households and crops at Kilimani, Zanzibar

107. The evaluation assessment indicates moderately satisfactory to satisfactory levels of outcome achievement in most cases for both projects, based on the indicators contained in the Results Framework. The evaluators additionally note the contribution of both projects to the implementation of the National Adaptation Plan of Action's (NAPA) as an indirect outcome. Indeed, both projects were designed as instruments for executing the NAPA, and have reduced vulnerability to climate change at coastal sites that are prioritized in the Action Plan. Both projects were successful in reducing the vulnerability of coastal settlements, infrastructure and ecosystems to climate change at selected project sites, corresponding to the first AF project outcome and third LDCF outcome. The reduction of vulnerability was directly connected to the project objectives and represents the most important – and lasting – achievement in both cases. Several interventions were reduced in scale due to under-budgeting and

rising costs over the seven years that transpired between project formulation and actual implementation.

108. The projects did not establish an appropriate method for measuring the actual number of beneficiaries, and consequently reliable data on this is not available. However, based on the available evidence, the evaluation estimates that the seawalls, drainage canals and restored mangrove areas are effectively protecting thousands of residents in rural settlements and urban neighborhoods, in addition to farmlands and coastal ecosystems, from rising sea levels and seasonal flooding: An estimated 1,500 urban households in Dar es Salaam are now protected from annual floods as a result of the drainage improvements made by the AF project, whereas the rehabilitated seawalls are protecting hundreds of students and faculty at Nyerere Memorial Academy - as well as pedestrian and vehicular traffic along 1.5 km of Obama Rd. – from rising sea levels. Similarly, the construction of seawalls by the LDCF project has contained the threat of rising tides in Pangani town (with a population exceeding 8,000 residents) while protecting hundreds of village residents on the island of Kisiwa Panza in Zanzibar. Over the medium term, the rehabilitation of degraded mangrove sites is expected to benefit approximately 3,000 residents at coastal sites of Pangani District (as the planted trees mature) and more than 5,600 residents on the islands of Unguja, Pemba, Kisiwa Panza and Tumbe in Zanzibar, while protecting several hundred families that seasonally occupy the Rufiji Delta. The total number of beneficiaries of the LDCF project's support for ecosystem and infrastructure rehabilitation, based on site observation and stakeholder interviews, could encompass up to 20,000 persons. This is below the number

that was estimated by the project¹⁵ and considers reductions in the scale of mangrove planting and seawall rehabilitation in the Rufiji Delta and Pangani District. The 1,000 ha. that were planted with mangroves under the Rufiji intervention are likely to protect several hundred families once the trees mature. Likewise, the south bank seawall at Pangani could not be rehabilitated due to budget limitations and several hundred residents continue to be highly vulnerable to flooding. With the inclusion of the borehole drilling and rainwater harvesting initiatives that were implemented in Bagamoyo, the evaluators estimate that the total number of LDCF project beneficiaries is likely to reach or exceed 30,000 (based on the district water department's statement that the new water tanks are serving up to 10,000 residents). In the case of the AF project, the estimation of direct beneficiaries should additionally include the 3,000 families that received cooking stoves and the residents near the restored coastal mangrove sites, in addition to the 1,500 households that are now protected by drainage improvements. If the average household were assumed to consist of 5 persons, this would bring the total number of beneficiaries of the AF project to approximately 28,000 persons (without including the pedestrian and vehicular traffic on Obama Road). However, the tools and timelines needed to reliably measure the number of beneficiaries from the various interventions – household surveys, GIS data on residential and other land uses in floodplain areas – are not available.

109. Baseline assessments have contributed to the design of site interventions by integrating data on vegetation, land use, climatic trends and coastal vulnerability. Likewise, training on adaptation management, vulnerability modeling and GIS mapping was provided. Although knowledge was improved by the assessments, this has not led to more established vulnerability monitoring and adaptation management capacities within District and Municipal Councils or community-based organizations (as foreseen by the third AF project outcome and first LDCF project outcome).

110. To a large extent, this occurred because much of the training offered by both projects was general in content and not focused on the actual coastal sites, lowering its operational utility for district and municipal environmental focal points. Under the AF project, the national climate change observatory (CCOT) was conformed and a meeting was held to exchange project experiences. However, the observatory has not yet become operational in terms of the core research, information clearinghouse and dissemination functions that were foreseen. In retrospect, the process of establishing a functional national mechanism required timelines and levels of commitment that surpassed those available through the project, and will require continued attention to achieve full functionality. The main capacity benefits for environmental focal points and community-based organizations were generated from their participation in the implementation of adaptation interventions, in particular those supporting mangrove restoration.

111. CBOs have been registered at the LDCF project sites and training was provided on the creation of networks (under the second outcome). However, a framework for enhancing public engagement has not been consolidated. At the time of the evaluation mission (March 2019) local CBO networks were at different stages of formation and were not functional at most sites with the exception of Pangani, largely due to extended and time-consuming registration processes. However, local CBO networks have since been established at all project sites according to the

¹⁵ The joint project Final Completion Report (December 2018) states that 31,552 persons in Rufiji District benefited from the LDCF mangrove rehabilitation, with an additional 15,000 persons benefiting from project interventions in Pangani town. The evaluators consider that the actual number of beneficiaries is considerably lower in both cases: Only one-third of the planned rehabilitation area in the Rufiji Delta was implemented due to security issues, benefitting a smaller population of seasonal farmers and villages within the Delta that is unlikely to exceed a couple of hundred families. Likewise, the rehabilitation of the north bank seawall is expected to benefit most of the town's 8,000 residents, whereas the planned reconstruction of the south bank seawall did not take place. The evaluators note that a reliable estimation of project beneficiaries would require the use of alternative instruments, i.e. household surveys in the target areas, analysis of GIS images mapping the location of households within floodplain areas, that were not available.

DoE. There is a continuing demand for applied training on adaptation management and the project cycle (proposal design, budgeting, management).

112. Several of the adaptation measures that were implemented by both projects are already generating tangible benefits for hundreds of urban and rural families by protecting homes, public facilities and livelihoods from rising sea levels, periodic flooding and land degradation. The following examples convey the short-term impact of these measures:

- An estimated 1,500 low-income households in neighborhoods of Dar es Salaam are now protected from flooding and the health risks associated with untreated wastewater and industrial effluent. Interviewed residents of Ilala and Temeke municipalities confirm that their areas have not experienced flooding since the drainage canals were completed by the AF project.
- The seawall that was constructed by the AF project on Obama and Ocean Road in downtown Dar es Salaam is effectively preventing sea currents from reaching a high-traffic artery (fishing boats used to drift into the avenue). A well-transited urban road is now protected, and almost one kilometer of high-value beachfront was reclaimed as a public space that is now used for recreation.



The seawalls at the Pangani River's north bank and Obama Rd. in Dar es Salaam are examples of good design that integrate protection and functional use.

- The LDCF project rebuilt a 860 m. length of seawall on the north shore of the Pangani River that is protecting adjacent neighborhoods of Pangani town, the district capital (population 15,000). The design of the seawall – which includes a walkway with benches, security lighting and landscaping – has created a new public space that connects to the main ferry landing and has commercial potential. According to the DoE, the reconstruction was subsequently extended to 950 m. of seawall with government funding.
- On the island of Kisiwa Panza (Zanzibar), the LDCF project constructed two 25-meter seawalls that contain high tides that used to advance 300 m. from the shoreline. This intervention was combined with the planting of 800,000 mangrove seedlings (doubling the initial target) and deep-rooting casuarina trees. The interventions are protecting approximately 100 families in Madvini and Kitunga Ndegeni villages from periodic flooding and have enabled the reclamation of 3 ha of land that are now cultivated with rice, banana and cassava. The expanded cultivation area and crop yield has improved local food security while generating a marketable surplus with income generation potential.

- At Kilimani village on Unguja island (Zanzibar) approximately 60 households and communal farmlands are protected from rising sea levels by the construction of five groynes (measuring approximately 100 m. each) that break incoming currents along a 538 m. stretch of beach, and by the planting of mangrove seedlings to create a coastal buffer zone.



The combination of seawall construction and mangrove planting have contained rising sea levels on Kisiwa Panza island and enabled the recuperation of arable land for agriculture.

- The drilling of boreholes and installation of water tanks has improved access to potable water for an estimated 10,000 residents of Bagamoyo's peri-urban areas. Likewise, the demonstration of rainwater harvesting at a public secondary school is generating financial savings of approximately US\$ 100/month from lower utility bills, as less ground water is pumped during the rainy season.

113. The following tables assess the level of achievement of project outcomes based on their indicators:

Table 12. Achievement of Outcomes: “Implementation of Concrete Adaptation Measures to reduce Vulnerability of Livelihoods and Economy of Coastal Communities of Tanzania” (Adaptation Fund)

Outcome	Achievement Rating	Comments
<p>1. The number of flooding events affecting coastal infrastructure and settlements is reduced in the Dar es Salaam metropolitan area.</p>	<p><i>Achieved</i></p>	<p>Adverse impacts of sea level rise and floods have been reduced at project sites within the Dar es Salaam metropolitan area. The outcome indicators were met, protecting an estimated 1,500 households and hundreds of students from annual flooding events. Almost a kilometer and a half of seawalls have been rehabilitated or were constructed in areas threatened by rising sea levels (Obama Rd., Mwalimu Nyerere Memorial Academy). Over 2,400 linear meters of storm and flood drainage have been rehabilitated or cleaned in vulnerable areas of Kinondoni, Ilapa, Temeke municipalities, which have not had flooding since their construction.</p> <p>As a result, the vulnerability of targeted infrastructure and settlements to climate change has been tangibly reduced. This is a fundamental outcome that is highly placed on the project’s causal pathway, and contributes towards the attainment of the intermediate states.</p>
<p>2. The degradation of vulnerable mangrove and coral ecosystems are reduced through the implementation of pilot adaptation measures.</p>	<p><i>Achieved.</i></p>	<p>The outcome was achieved according to the most of the associated output indicators. However, the rehabilitation of coastal systems requires continued attention by the DoE, local governments and community organizations. The target of rehabilitating 40 hec. of mangrove area was reached, and the targets for the area of rehabilitated coral reef and distribution of cooking stoves were exceeded. Coastal ecosystems are in process of rehabilitation at pilot sites through the planting of mangroves seedlings (Kinondoni, Ilala), the rehabilitation of protected coral reefs (Sinda and Mwakatunde marine reserves), and the distribution of energy-efficient cooking stoves (Kinondoni, Ilala, Temeke) to reduce charcoal demand.</p> <p>On the other hand, the outcome is presently at an incipient stage of development and further action is needed to ensure its consolidation. Although the mangrove planting targets were met, some sites have been affected by high plant mortality and re-planting is foreseen by the DoE and local governments. There are continuing threats from untreated wastewater, effluent and human/cattle encroachment. The declaration of “no take” conservation zones at the pilot sites was pending at the time of the evaluators visit. This outcome was driven by the commitment (and perseverance against delays) of local government and community organizations. Likewise, the assumption that local stakeholders would fully support and engage in project activities that benefited their jurisdictions was correct.</p>
<p>3. District level administration has capacity to adequately manage</p>	<p><i>Partially Achieved</i></p>	<p>Knowledge of climate change impacts and adaptation measures did increase at the pilot sites as a result of the baseline studies conducted for both projects, and through the participation of District and Municipal Councils, NGOs and community stakeholders in pilot adaptation interventions. The baseline assessments provide inputs for adaptation planning by District and Municipal Councils. Lessons learned have been</p>

<p>rehabilitated infrastructure, monitor climate changes, and plan adaptation measures.</p>		<p>documented, providing the basis for draft policy briefs. Yet this has not generated the climate change monitoring capabilities that need to be in place for integrated coastal area management as envisioned by the project. Climate change impacts are not being monitored with spatial images, mapping or GIS data at district or municipal government levels. District administration has the capacity to adequately maintain the rehabilitated seawalls and drainage canals, in coordination with the Ministry of Construction and other government agencies. However, local government capacities to monitor climate change impacts or plan adaptation measures have not improved over pre-project levels. Expertise in the management of rehabilitated mangrove or coral ecosystems lies more with NGOs and specialized academic institutions.</p> <p>The partial achievement of this outcome is influenced by the limited operational utility of the training that was given and by the status of the Climate Change Observatory for Tanzania (CCOT), which is not fully operational and is not exercising clearinghouse functions in support of coastal monitoring. An operating CCOT was fundamental to enable ecosystems-based ICAM for Tanzania’s extended coastal region. The mechanism for achieving this – the Ecosystems-Based Action Plan (EBICAM) - did not materialize, and the policy briefs that were produced have not had effect on policy or program decisions.</p>
<p><u>OVERALL RATING OF OUTCOME ACHIEVEMENT:</u></p>		<p><i>Moderately Satisfactory (MS)</i>. The direct outcomes that are most important to attain the intermediate states were largely achieved. These include outcomes of reduced infrastructure and ecosystems vulnerability to climate change. However, the outcome of rehabilitated coastal ecosystems is at an incipient stage at most sites and will require continued attention over the medium term. Knowledge of climate impacts has increased at the pilot sites, yet below expected levels given the lack of monitoring and clearinghouse functions. There was limited progress in building policy linkages or creating a framework to extend EBICAM to Tanzania’s coastal region. These factors undermined the full achievement of the third outcome. The advances that were made towards the three project outcomes are unlikely to enable the national impact foreseen in the project objective and impact statement.</p> <p>The main assumptions regarding the progression from outputs to direct outcomes have held to a large extent. The assumption that local governments and community organizations would fully engage in adaptation measures to lower climate change vulnerability in their jurisdictions was correct. However, the enabling policy and planning framework for implementing integrated coastal area management is not in place, as reflected in the non-delivery of the EBICAM Action Plan and the incipient status of the CCOT. Several of the impact drivers supporting the transition of outputs to outcomes are in place: Local awareness of increased climate change vulnerability offers a key incentive for stakeholder participation at the pilot sites. Likewise, the designation of the Vice President’s Office (to which the DoE is attached) as national executing agency was key to enhancing the project’s political status; the hierarchical position and over-arching mandate of the VPO encouraged commitment and cooperation on the part of the participating line ministries and District/Municipal Councils.</p>

Table 13. Achievement of Outcomes: “Developing Core Capacity to Address Adaptation in Tanzania” (Least Developed Countries Fund)

Outcome	Achievement Rating	Comments
<p>1. Local level capacities and knowledge to effectively analyse the threats of climate change increased</p>	<p><i>Partially Achieved</i></p>	<p>Knowledge has been generated at the project sites through the baseline vulnerability assessments and mapping, which offer tools for analysing climate change threats. The revised targets were met: 140 local government representatives were trained on integrated coastal management and vulnerability, whereas 80 district technical staff received training on coastal modeling. However, local capacities to analyze climate change threats have not noticeably improved over pre-project levels. DIVA/GIS is not being applied by any of the interviewed participants, and there no indications that the project has influenced the manner in which environmental planning or monitoring is conducted. Most felt that their capacity to monitor climate change impacts had not improved over existing levels. An opportunity was missed to focus the training on generating time-consistent GIS baselines at the project sites, to assist climate change monitoring and adaptation planning. At some sites, potential capacity gains were also weakened by staff turnover and the unavailability of adequate hardware.</p> <p>On the other hand, participating community-based organizations, NGOs and district/municipal focal points did expand their knowledge of concrete adaptation measures through their involvement in the pilot interventions. There were examples of effective adaptive management in programming site activities and in testing different mangrove varieties and spacing.</p>
<p>2. Government and public engagement in climate change adaptation activities is enhanced</p>	<p><i>Partially Achieved</i></p>	<p>Public engagement in climate change adaptation measures were enhanced at the pilot sites, primarily through their participation in the pilot interventions. There was also progress towards the creation of district CBO networks as the proposed mechanism for engagement. Although the registration of 54 CBOs at the different pilot sites exceeded the initial target, the mechanisms for their engagement have not been established at most sites. The establishment of CBO networks has not been completed in most cases, and will require continued support beyond the project.</p> <p>Climate change awareness materials were produced and distributed. However, Interviewed CBO representatives highlight the need for training on concrete adaptation approaches, proposal writing and basic project management to engage more effectively with local government and donors. A validated framework for public engagement that can be replicated on a broader geographic scale will require follow-up support on the part of Forum CC or other partners.</p> <p>This achievement of this outcome was important to both projects. The Theory of Change analysis places this outcome at an intermediate stage of the causal pathway, potential contributions to shaping implementation arrangements for the pilot adaptation interventions of both projects and for broader integrated coastal management under the EBICAMAction Plan. The Theory of Change places this</p>

		outcome at an intermediate level that is nurtured by the knowledge improvements of the first outcome, while supporting the reduction of climate change vulnerability that is foreseen by the third outcome.
3. The vulnerability of shorelines, mangrove forests and settlements to climate change is reduced at pilot sites.	<i>Achieved</i>	<p>Vulnerability to climate change has been reduced at the coastal sites where adaptation interventions were implemented. The construction of seawalls, groynes and mangrove restoration initiatives (by both projects) are protecting the project sites from rising tides and flooding. Targets for mangrove planting areas and number of plants were met or surpassed at several sites. Over 2,300 hectares of mangroves were planted at the pilot sites, in addition to the planting of more than 5,000 mangrove seedlings at different locations of Pangani District. This compensated the reduced scale of mangrove rehabilitation in the Rufiji Delta. As noted earlier, the rehabilitation of degraded mangrove sites is at an incipient stage, and the consolidation of this outcome will require continued support and monitoring on the part of VPO-DoE, local governments and community organizations over the medium term.</p> <p>There are already indications of reduced vulnerability in the cessation of annual floods that threatened crops and households, and the recuperation of arable land for farming. Likewise, charcoal consumption has been reduced for three thousand urban households with the energy efficient cook stoves. The restored mangrove areas are likely to increasingly reduce vulnerability over the medium-term as planted seedlings continue to develop. Access to potable drinking water has been improved for an estimated 10,000 persons in coastal areas of Bagamoyo district threatened by increased salinization. Because most of the pilot interventions were completed within the last two years, a reliable assessment of impact will require spatial analysis and site visits beyond the project term.</p> <p>Some interventions were adjusted in scale due to cost factors, security concerns and the increased deterioration of pilot sites over time, i.e. Pangani, Bagamoyo, Rufiji. Some sites remain vulnerable (i.e. Rufiji Delta, south shoreline of the Pangani River) and will require continued support over time to change this situation.</p> <p>This outcome is placed at the higher end on the projects results hierarchy, applying the Theory of Change model, and feeds directly into the intermediate states that precede the realization of the project objective and impact statement.</p>
<u>OVERALL RATING OF OUTCOME ACHIEVEMENT:</u>		<i>Moderately Satisfactory (MS).</i> Two of three outcomes were achieved, although the rehabilitation of coastal ecosystems will require a medium-term commitment on the part of DoE, local government and community organizations beyond the project term. The direct outcome of reduced vulnerability to SLR at the pilot sites was achieved. This outcome is situated at the higher end of the causal pathway and connects to the intermediate states and project objective. Likewise, there is a high likelihood that the targeted coastal sites will be rehabilitated as the mangrove plantings reach maturity; at present this

	<p>outcome is at an incipient stage. The outcome of enhanced public engagement at the project sites was partially achieved through the registration of community organizations and creation of district networks, with less progress towards the development of monitoring capabilities (influenced by the lack of application of the training that was given). The level of outcome achievement is moderately satisfactory according to the evaluation guidelines. However, continued assistance and mentoring are needed to consolidate the public engagement mechanisms and establish CBO networks at most of the project sites. This could have implications for the eventual attainment of the project objective.</p>
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114. The impact drivers and external assumptions identified in the Theory of Change have played a role in shaping outcomes of both projects. Their effects on performance and the level of outcome achievement are summarized in the following tables:

Table 14. Review of Impact Drivers and External Assumptions

Impact Drivers	Effect on Performance and Results
The Vice President’s Office, Division of Environment, Steering Committee members and district partners are able to coordinate activities effectively, ensuring satisfactory project execution and delivery.	Although the national project coordinators devoted considerable effort to the execution of both projects, effectiveness and efficiency were undermined by slow procurement and implementation delays for much of the approved project periods. The support of a full-time Project Management Unit, externally contracted procurement services ¹⁶ and more consistent technical oversight might have improved this aspect.
Both projects are complementary in their design and approach, and can be jointly implemented as an integrated program to build linkages, pool resources and generate synergies.	The projects shared common execution arrangements – Steering Committee, administrative arrangements, technical oversight support, a joint MTR and Terminal Evaluation – and the national coordinators communicated regularly. However, each project was implemented separately with limited collaboration on deliverables of mutual interest.
As direct beneficiaries, district/municipal councils and local stakeholders (beach management units, local water boards, community-based organizations and women’s groups) are motivated to support adaptation interventions that are implemented at the project sites and apply integrated coastal management.	This was a major driver. There was consistent commitment and ownership by district environmental focal points, NGOs and CBOs despite the extended implementation delays and shortfalls in co-financing.
Line ministries on the Joint Project Steering Committee also serve on the National Climate Change Sub-Committee. Several adaptation interventions are relevant to the mandates of the Ministry of Water, Ministry of Natural Resources & Tourism, Ministry of Construction and Ministry of Lands.	Joint Project Steering Committee members have supported project coordination and oversight, advising the VPO-DoE on specific interventions within their competency. However, this driver would have been strengthened with the inclusion of the Tanzania Forest Service and Office of the President’s Regional Administration and Local Government (PO-RALG) in the PSC.
Both projects have a high political profile. They are executed by the Vice President’s Office and are important vehicles for implementing the National Climate Change Adaptation Action Plan. The hierarchical position and over-arching mandate of the VPO should encourage commitment and cooperation by government ministries and district/municipal councils.	The executive position of the VPO-DoE has been an important driver for coordination with line ministries and district-level environment departments.
There is public awareness of climate change vulnerability in affected coastal areas, which can be	Local awareness of climate change was an important driver of ownership and commitment at sites where participating NGOs and CBOs had prior exposure to adaptation

¹⁶ UNOPS was subsequently contracted to provide this service in 2015.

built on to develop national ownership and commitment.	measures (i.e. Kilimani, Kisakasaka, Pemba, Beach Management Units in Pangani). Conversely, CC awareness was lower among recently established CBOs in the Rufiji Delta and other sites.
District and local stakeholders (beach management units, community organizations, women's organizations, local residents) are motivated to support adaptation interventions that are implemented in their jurisdiction and benefit them.	This has been a strong driver, as reflected in the consistent engagement of CBOs at most sites (in spite of the implementation delays).
External Assumptions	Effect on Performance and Results
There is an enabling policy and planning framework for the implementation of ICAM/EBICAM.	This assumption was misplaced. The enabling frameworks were not in place, as reflected in the absence of an updated National Mangrove Management Plan or inclusion of adaptation components within sector plans. The proposed EBICAM Plan might have filled this vacuum, had it been approved.
There are no extreme climatic events (tropical storms, floods, droughts) that delay the timely implementation of adaptation interventions.	Climatic risks were identified in the project document yet assigned low probabilities. The implementation of project activities underwent extended delays at the Bagamoyo site due to heavy rains. Adaptation interventions were delayed (and downscaled) in the Rufiji Delta due to unanticipated security problems.
Central and district government partners have the human and financial resources to designate project focal points and provide adequate co-financing/in-kind support.	The assumption was partially erroneous. There were shortfalls in LDCF project co-financing (cash and in-kind) on the part of the VPO-DoE, some District Councils and the Zanzibar Authority, that had effect on the scale of activity and impact. This may have been influenced by the commitment of unrealistically high levels of co-financing (exceeding 95% of the total project costs) in the project document. The AF project did not require co-financing.
Government administrative and procurement systems are adequate to enable the timely execution of project activities and delivery of expected results.	The assumption was erroneous. Slow procurement undermined output delivery and efficiency levels of both projects for most of the approved implementation period. This improved with the contracting of UNOPS in 2015 to assume procurement services.
Central and district government resources are available to replicate adaptation interventions and implement ICAM/EBICAM, i.e. through the Medium-Term Expenditure Framework	This did not appear likely at the time of the evaluation mission. Interviewed district and municipal government officials have noted that replication and up-scaling are restricted by the limited availability of local funding for adaptation interventions. Continued adaptation measures will depend largely on central government transfers and financial support from parallel programs and donors. However, post-project monitoring is needed to assess the availability/allocation of District Council funds for scaling up adaptation interventions.

5.4.3 Likelihood of Impact

115. It is often not possible to measure actual impact of a project due to data and resource limitations, and the timing of the evaluation. To assess the likelihood of impact, UN Environment

evaluations often rely on a theoretical approach based on the intervention's Theory of Change (TOC) called Likelihood of Impact Assessment (LIA). This analysis considers:

- Assessment of the internal logic of the project.
- Assessment of effectiveness.
- Verification of drivers and assumptions.
- The likelihood of impact in relation to the project impact statement, considering the previous steps.

116. The impact statement of each project is formulated in the Theory of Change section, drawing from the project objectives and goals. The Adaptation Fund project had the objective of reducing the vulnerability of livelihoods, ecosystems, infrastructure and economy to climate change in Tanzania; and the overarching Adaptation Fund goal of reducing vulnerability and increasing adaptive capacity to respond to the impacts of climate change, including variability at local and national levels. The impact statement of the LDCF project builds on the immediate objective of developing institutional capacities to manage climate change impacts through improved climate information, technical capacity, concrete adaptation measures and innovative solutions; and the project goal of increased resilience of vulnerable mangrove and coral reef ecosystems to the impacts of climate change.

117. The assessment of likelihood of impact is based on the following project statements:

- ✓ The vulnerability of livelihoods, ecosystems, infrastructure and ecosystems in Tanzania to climate change is reduced (Adaptation Fund project)
- ✓ The vulnerability of key ecosystems to the impacts of climate change is reduced, improving their resilience to climate change (LDCF project)



The Ilala drainage canal prevents floods that used to reach adjacent dwellings (reinforced with barriers of loose stone and rubble).

118. The projects were complementary in their design, implementation strategy, drivers and assumptions. As a result, it is not surprising that both projects share a moderate likelihood of impact, based on criteria used in the rating matrix tables below. This rating considers the following:

119. *A high likelihood of reduced vulnerability at the project sites and key ecosystems where adaptation interventions were implemented.* Several of the adaptation measures that were implemented by both projects are already generating tangible benefits by protecting settlements, public facilities and shorelines from rising sea levels, floods and land degradation. The interventions have a high demonstration value and offer successful case studies that could be replicated or up-scaled across the coastal region. There are indications that adaptation measures are being applied at other vulnerable sites by parallel projects, including a follow-up LDCF project for the resilience of inland ecosystems to climate change.

120. A moderately low likelihood of reducing vulnerability to climate change for the broader coastal region or on a national scale, in the absence of an articulated framework or monitoring and information clearinghouse mechanisms.

“The drainage system benefits us a lot because before the construction when rain came it reached to the homes and people were unable to go cross the river...the project helps to control the overflow of water and remove floods to our areas”.

- A resident of Mtoni, Temeke District

“Immediately after the construction of sea walls, seawater inundations were prevented. Families have reclaimed their farming areas and are continuing with cultivation activities. This year there were yields, which help to increase their income and reduce poverty.

- Representative of JSEUMA, Kisiwa Panza (Zanzibar)

Despite the progress achieved in attaining some of the intermediate states, several project drivers and assumptions are not in place. The likelihood that adaptation interventions will be implemented by District or Municipal Councils is low in most cases due to budgetary limitations that restrict the capacity of local governments to fund adaptation interventions internally.

121. As a result there is a high dependence on central government transfers and external funding. The disbursed co-financing to the LDCF project from the district partners was almost US\$ 25 million below the committed levels, an indication of financial realities on the ground. The likelihood of national impact is also affected by the absence of a broader program framework for this to happen, as reflected in lack of an approved EBICAM Action Plan or updated National Mangrove Management Plan. The climate change monitoring capacities and clearinghouse support that

are needed to enable ICAM are not in place.

Table 15. Likelihood of Impact - Rating Matrix: “Implementation of concrete adaptation measures to reduce vulnerability of livelihoods and economy of coastal communities of Tanzania” (Adaptation Fund).

Criteria	Rating	Comments
Drivers to support transition from outputs to direct outcomes	Likely (5)	<i>Most of the drivers are in place. The VPO-DoE is strategically placed to engage line ministries, local government and local stakeholders in climate change adaptation. As direct beneficiaries, District and Municipal Councils, NGOs and community organizations in vulnerable areas are motivated to collaborate on measures that reduce the threat of climate change. Although a framework for EBICAM is lacking, the national adaptation plan NAPA continues to be a driver for reaching the direct outcomes and intermediate states.</i>
Assumptions for the change process from outputs to direct outcomes	Unlikely (2)	<i>Several of the assumptions that influenced the project’s logic do not hold. The enabling framework for regional ICAM is not in place. Many local governments lack the budgetary resources to invest in adaptation measures and rely on central government transfers or external funding. Government procurement systems have not demonstrated the efficiency needed to implement adaptation measures in a timely manner.</i>
Proportion of direct outcomes fully or partially achieved.	Moderately Satisfactory (4)	<i>Two of three direct outcomes were fully (outcome 1) or mostly (outcome 2) achieved in relation to their indicators.</i>
Which outcomes? (the most important to attain intermediate states / impact or others)	Satisfactory (5)	<i>The most important direct outcomes for attaining the intermediate states were largely achieved: The number of flooding events affecting coastal infrastructure and settlements was reduced in the Dar es Salaam metropolitan area. The degradation of vulnerable mangrove and coral ecosystems has been reduced through the pilot adaptation measures</i>
Level of direct outcome achievement	Moderately Satisfactory (4)	<i>Two of three direct outcomes – those most important for achieving the intermediate states and impact statement – were fully (first outcome) or mostly (second outcome) achieved.</i>
Drivers to support transition from direct outcome(s) to intermediate states	Moderately Likely (4)	<i>The commitment of district-level stakeholders to support adaptation initiatives that lower their vulnerability is likely to continue. There is public awareness of climate change at vulnerable coastal sites. Climate change adaptation will continue to represent a national environmental policy priority.</i>

		<i>However, inter-ministerial collaboration has not been a key project driver and needs to be strengthened to achieve the intermediate states.</i>
Assumptions for the change process from direct outcomes to intermediate states	Unlikely (2)	<i>The frameworks for regional EBICAM and coastal monitoring/clearinghouse support are not in place. The National Mangrove Management Plan is outdated and not being implemented. Most local governments lack the budgetary resources to directly implement adaptation interventions without central government or external support. Government procurement systems have not demonstrated the efficiency needed to implement adaptation measures in a timely manner.</i>
Proportion of Intermediate states achieved	Satisfactory (5)	<i>One of three intermediate state has been reached, and another is partially achieved.</i>
Level of Intermediate state achievement	Satisfactory (5)	<p><i>One of the intermediate states has been achieved, while another has been partly attained:</i></p> <p><i>IS.1 There is reduced vulnerability of infrastructure, settlements, livelihoods and ecosystems in the Dar es Salaam metropolitan area. The construction of seawalls and drainage canals are already generating tangible benefits for hundreds of urban and rural families by protecting homes, public facilities and livelihoods from rising sea levels, periodic floods and land degradation. Threatened mangrove and coral reef sites are in process of being restored. Some of the mangrove sites are still threatened by human intervention and contaminated drainage; the declaration of no-take conservation zones is pending (remedial actions are planned). (Achieved)</i></p> <p><i>IS.2 The program and monitoring frameworks that are needed to replicate adaptation measures and enable ICAM in Tanzania is not in place at present. A regional Action Plan was not approved and the national climate change observatory is not fully operational. The National Mangrove Management Plan is not functional at present. Policy briefs were prepared but this has not influenced policy or program decisions thus far. (Not Achieved)</i></p> <p><i>IS.3 Recent trends indicate an increase in the awareness and attention being given to climate change threats in Tanzania. It is likely that district plans will increasingly include climate adaptation measures as impacts on settlements and ecosystems continue over time. This is particularly likely within the Zanzibar Authority, where district plans are required to address climate change adaptation. There are other climate change adaptation initiatives in Tanzania, including the follow-up EBICARR project, funded by the LDCF that aims to improve resilience to climate change at vulnerable inland locations (Partially Achieved)</i></p>
Drivers to support transition from intermediate states to impact	Likely (5)	<i>The continued commitment of coastal district government and community stakeholders to climate change adaptation is highly likely in the face of continued threats. Increased attention to adaptation measures in district plans is also likely for the same reason. Although local government budgetary resources are limited, funding gaps are likely to be filled to some extent by central government transfers and external funding. Climate change adaptation projects – including the LDCF-supported EBICARR initiative for inland ecosystems resilience) are likely to reduce the vulnerability of key ecosystems</i>

		<i>beyond the pilot sites. However, the conditions for increased monitoring of climate change threats at the district level are not in place.</i>
Assumptions for the change process from intermediate states to impact	Moderately Unlikely (3)	<i>District plans are likely to continue address climate change adaptation, to the extent that there is continued or increased vulnerability. Climate change adaptation projects – including the LDCF-supported EBICARR initiative for inland ecosystems resilience) are likely to reduce the vulnerability of key ecosystems at other sites as well. However, other assumptions are not in place: Most local governments do not have the budgetary resources to finance adaptation measures on the scale that is needed, without support from central government or external donors. The program framework for implementing ICAM on a national scale are not in place: the EBICAM Action Plan was not approved.</i>
Likelihood of Impact	Moderately Likely (4.0)	<i>Those direct outcomes that are the most important to attain intermediate states were fully (outcome 1) and mostly (outcome 2) achieved. The drivers to support transition from outputs to direct outcome(s) and impacts are partially in place. One of the intermediate states - reduced vulnerability of infrastructure, settlements, livelihoods and ecosystems in the Dar es Salaam metropolitan area – has been achieved. However, key assumptions that support the transition from intermediate states to impact do not hold. This lowers the likelihood of generating impacts for the greater coastal region or on a national scale. As a result, the assessment of impact likelihood is rated at the lower end of the ML scale.</i>

Table 16. Likelihood of Impact - Rating Matrix: “Developing Core Capacity to Address Adaptation to Climate Change in Productive Coastal Zones of Tanzania” (Least Developed Countries Fund)

Criteria	Rating	Comments
Drivers to support transition from outputs to direct outcomes	Highly Likely (6)	<i>Most of the drivers are in place. The VPO-DoE is strategically placed to engage line ministries, local government and local stakeholders in climate change adaptation. As direct beneficiaries, District and Municipal Councils, NGOs and community organizations in vulnerable areas are motivated to collaborate on measures that reduce the threat of climate change. Local commitment is likely to be enhanced at the project sites by the registration of community organizations and creation of district networks as mechanisms for public engagement. There are likely increased public awareness at the project sites as a result of the campaign that was implemented. The engagement of line ministries with relevant mandates needs to be strengthened as a driver.</i>
Assumptions for the change process from outputs to direct outcomes	Unlikely (2)	<i>Some of the assumptions that influenced the project’s logic and design do not hold. Many local governments lack the budgetary resources to invest in adaptation measures and rely on central government transfers or external funding. District-level capacities to monitor the impacts of climate change are not in place. Government procurement systems have not demonstrated the efficiency needed to implement adaptation measures in a timely manner.</i>
Proportion of direct outcomes fully or partially achieved.	Satisfactory (5)	<i>Two of three outcomes were fully or mostly reached according to their indicators. The direct outcome of reduced vulnerability of ecosystems was achieved. The outcome of enhanced public engagement was partially achieved with the registration of community organizations, a public awareness campaign, and the (ongoing) creation of district CBO networks. There was limited progress towards establishing local capacities to monitor the impacts of climate change.</i>
Which outcomes? (the most important to attain intermediate states / impact or others)	Satisfactory (5)	<i>The most important direct outcomes for attaining the intermediate states were largely achieved. The vulnerability of shorelines, mangrove forests and settlements to climate change has been reduced at pilot sites. This is situated at the higher end of the causal pathway and connects to the intermediate states, project objective and goal. The partial achievement of the outcome of enhanced public engagement at the project sites contributes to one of the intermediate states and is directly connected to the project objective.</i>

Level of direct outcome achievement	Satisfactory (5)	<i>One of three direct outcomes was fully reached. The vulnerability of shorelines, mangrove forests and settlements to climate change has been reduced at pilot sites. Outcome targets were met or exceeded at most sites. The establishment of public engagement mechanisms (outcome 2) has advanced: CBO registration targets were exceeded and district networks are being established at the project sites.</i>
Drivers to support transition from direct outcome(s) to intermediate states	Moderately Likely (5)	<i>The commitment of district-level stakeholders to support adaptation initiatives that lower their vulnerability is likely to continue. There is public awareness of climate change at vulnerable coastal sites. A mechanism for public engagement has been developed at the pilot sites that could potentially be extended. Climate change adaptation will continue to represent a national environmental policy priority. These are important drivers for reaching the intermediate states. Conversely, local capacities to monitor climate change impacts are not in place to drive the transition.</i>
Assumptions for the change process from direct outcomes to intermediate states	Unlikely (2)	<i>The project was focused on key vulnerable ecosystems and did not foresee impacts for the coastal regions or the country as a whole. However, several assumptions do not hold. The assumption of low climatic risk is undermined by the extreme climate events that affected some sites. It cannot be assumed that most local governments will have the budgetary means to replicate or expand adaptation interventions without central government or external support. Government procurement systems have not demonstrated the efficiency that is needed to implement adaptation measures in a timely manner.</i>
Proportion of Intermediate states achieved	Satisfactory (5)	<i>One of two intermediate state has been achieved.</i>
Level of Intermediate state achievement	Satisfactory (5)	<i>IS1. The intermediate state of reduced vulnerability of key coastal ecosystems to climate change through the implementation of adaptation measures is in place at vulnerable sites and ecosystems that are prioritized in the NAPA. Several adaptation measures are already generating tangible benefits in flood prevention, shoreline protection and land reclamation. (Achieved) IS2. The intermediate state of increased monitoring of climate change impacts has not been achieved, beyond the availability of improved data from the district baseline assessments. This is reinforced by the limited application of the training that was received. On the other hand, district-level adaptation planning is being sustained – especially within the Zanzibar Administration – and is likely to increase to the extent that climate change continues to threaten coastal ecosystems and shorelines. (Partially Achieved)</i>
Drivers to support transition from intermediate states to impact	Moderately Likely (4)	<i>The continued commitment of coastal district government and community stakeholders to climate change adaptation is highly likely in the face of continued threats. Climate change adaptation will continue to represent a national and international policy priority, generating opportunities for new initiatives. Increased attention to adaptation measures in district plans is also likely for the same reason. Although local government resources are limited, there are parallel adaptation project initiatives that are likely to reduce the vulnerability of key ecosystems in other parts of the county to climate change.</i>

		<i>However, the capacities that are needed to enable increased monitoring of climate change threats at the district level are not in place.</i>
Assumptions for the change process from intermediate states to impact	Moderately Unlikely (3)	<i>Some assumptions do not hold. Government procurement systems have not demonstrated efficiency in supporting local adaptation interventions. Most local governments lack the budgetary resources needed to effectively address climate change threats and implement adaptation measures, and rely on central government transfers or external funding. Extreme climate events are likely to occur on an intermittent basis as foreseen and may have effect on vulnerability levels and the timely implementation of adaptation measures.</i>
Likelihood of Impact	Moderately Likely (4.27)	<i>The likelihood of impact is moderately likely based on the evaluation criteria. The direct outcome that is most important to attain the intermediate states was fully achieved, whereas the other direct outcomes were partially achieved. It is highly likely that the vulnerability of key ecosystems to climate change will be reduced through the interventions of this project and other initiatives, improving their resilience. A contributing factor to this rating is that impacts are focused on targeted ecosystems/sites that are comparatively within the project's control, and not the broader geographic or policy context. One of the intermediate states as been partially achieved through the implementation of adaptation interventions. Most of the impact drivers that were identified in the Theory of Change analysis are in place; however, several assumptions that support the transition from intermediate states to impact do not hold.</i>

122. The likelihood of generating impacts for the extended coastal region or nationally is additionally challenged by external factors that include human interventions - deforestation, incompatible land uses, drainage of untreated effluent - on a scale that is often beyond the project's ability to influence in a meaningful way. An illustrative example was found in the Rufiji Delta, an extended geographic area that constitutes a regional ecosystem. The restoration of 1,000 ha. of degraded mangrove forest is unlikely to have impact on the vulnerability of the larger ecosystem, unless it is replicated on a broader scale. A more comprehensive and longer-term approach is needed to address the broader conservation and land use issues that require policy decisions, institutional coordination and sustained support for alternative livelihoods.

5.4.3.1 Likelihood of Impact-level Results based on the Adaptation Fund's Core Indicators

123. This assessment is relevant to the "Implementation of Concrete Adaptation Measures to Reduce Vulnerability of Livelihoods and Economy of Coastal Communities of Tanzania" project. The Adaptation Fund requires that project/program objectives and indicators be aligned to the Fund's Strategic Results Framework. This includes two impact-level results and five core indicators that enable the AF to aggregate quantitative indicators for a diverse portfolio that encompasses water resource management, coastal management, disaster risk reduction, rural development and food security (among others). To assess impacts and demonstrate the added value of its support, the AF Board approved two impact-level results and five associated indicators to track under these impacts. While not all indicators will apply to AF-funded projects or programmes, at least one of the core outcome indicators should be embedded and monitored.

124. The AF impact-level results and their core indicators are listed below, with a statement on the likelihood of impact:

Table 17. Likelihood of Impact for Adaptation Fund Impact-Level Results and Core Indicators

Impact-Level Results	Core Indicators	Likelihood of Impact	Comments
Increased adaptive capacity of communities to respond to the impacts of climate change	<ul style="list-style-type: none"> Number of beneficiaries (direct and indirect) 	Highly Likely	<ul style="list-style-type: none"> Drainage improvements are protecting low-income urban residents in Ilala and Temeke Districts from seasonal floods. The number of beneficiaries has not been quantified yet is likely to encompass more than 800 households and small businesses within the flooding area. Faculty and students at the Mwalimu Nyerere Memorial Academy (MNMA) have benefited from the seawall, which contains rising high tides that used to reach the constructed area.
	<ul style="list-style-type: none"> Number of Early Warning Systems 	Highly Unlikely	This indicator was not relevant.
	<ul style="list-style-type: none"> Increased income, or 	Moderately Likely	While impacts on income were not significant aspects of project design, both projects may have contributed to income

	avoided decrease in income		savings through reduced charcoal usage in three municipalities (AF project) and added income from the expansion of reclaimed agricultural land (LDCF project). ¹⁷
	<ul style="list-style-type: none"> Assets produced, developed, improved, or strengthened 	Highly Likely	<ul style="list-style-type: none"> The rehabilitation of seawalls at Obama/Ocean Dr. and MNMA are protecting a major access road and university campus from rising sea levels. An estimated 800+ low-income households and small businesses are now protected from flooding at the Ilala and Temeke District sites.
Increased ecosystem resilience in response to climate change-induced stresses	<ul style="list-style-type: none"> Natural assets protected or rehabilitated 	Likely	Three coastal sites in Kinondoni municipality were replanted with mangroves. This is expected to strengthen the resilience of coastal forest at the project locations. However, some of the replanted areas are vulnerable to the drainage of untreated effluent and cattle encroachment, and will require continued monitoring.

5.5 Financial Management

125. Project finances were handled in a correct manner and no irregularities were reported or raised with the evaluators, aside from some reporting difficulties that are addressed below. Annual audits were prepared for the 2013-2017 period, and as of November 2019 were being completed for 2018-19. The audits that were available to the evaluators (2014 and 2015) during the evaluation data gathering period indicate that accounting records and financial statements were prepared correctly. The audit reports also state that the systems for the internal control and procurement of goods and services were in accordance with the 2014 Public Procurement Act and 2001 Public Finance Act for these periods.

126. Adaptive management was effectively applied to project finances. Budgets were revised annually and in some revisions, there were transfers of funds between budget lines to respond to evolving circumstances. UN Environment agreed to advance the final 3% of the project budgets, prior to the receipt of the final financial and project report, to facilitate the completion of activities and payments. The Vice President’s Office approved an additional cash disbursement that had not been planned, to enable the final stage of seawall construction on the north bank of the Pangani River.

127. However, there were some delays in the submission of quarterly and annual financial reports from both projects. According to the assigned UN Environment fund management staff, there have been recurrent challenges with inaccurate expenditure reports due to amendments in the accounting methodology applied by the Government of Tanzania. This has led to back-and-forth delays in the editing and final clearance of these reports, which in turn have had repercussions on the timeliness of budgetary replenishments. Delays have also been reported in

¹⁷ Income benefits are likely in Kisiwa Panza, Zanzibar where the adaptation interventions of the LDCF project have led to the reclamation of approximately 3 ha. of farmland that is presently under cultivation.

the receipt of certified annual audit reports; at the time of the evaluation (March 2019) the project had generated reports for the 2013-2017 period.

128. As noted in the assessment of efficiency, there were low levels of project expenditure during the first half of the project terms (encompassing the 2012-2014 period) due to excessively slow government procurement processes. Financial delivery improved for both projects with the contracting of UNOPS in 2015 to manage procurement and manage adaptation interventions at the project sites. Nevertheless, a two-year extension was required by both projects to deliver pending outputs and complete their technical and administrative closure. By December 2018, the AF project had reported total expenditures of US\$ 4,424,603 against the approved project budget of US\$ 5,008,564; whereas the LDCF project reported expenditures of US\$ 3,106,642 in relation to the total budget of US\$ 3,216,357. The remaining balance was expended by the end of the extension period in March 2019.

129. The distribution of expenditures across components during the project implementation periods followed the initial budget distribution. In the case of both projects, the largest share of funds was spent on the adaptation interventions at the pilot sites. The following tables break down project expenditures, as presented in the joint Final Completion Report.

Table 17. Project Expenditures by Project Component and Outputs

LDCF Project Component	Expected Concrete Outputs	Targets	Amount (US\$)
<i>Component 1 – Scientific and Technical knowledge and capacities for climate change adaptation analysis</i>	Climate change impact assessment capacity established for project sites (monitoring climate changes)	<ul style="list-style-type: none"> • 100 people trained in Integrated Coastal Zone Management and vulnerability • 100 people trained in coastal modeling 	225,000
	Detailed participatory coastal vulnerability assessment for Rufiji, Bagamoyo and Pangani districts and Zanzibar	<ul style="list-style-type: none"> • >2 coastal vulnerability models and 1 map • >5 local participatory vulnerability assessments available 	
<i>Component 2 - Broadening Stakeholder Engagement for Vulnerability Reduction</i>	Public engagement in climate change adaptation activities is enhanced	<ul style="list-style-type: none"> • >10 new civil-society organizations working on coastal adaptation issues • Coastal communities demonstrate sound understanding of coastal vulnerability and climate change 	345,000
	Student internship program established for interns to project sites Knowledge is integrated into university curriculum	<ul style="list-style-type: none"> • >3 students per term enrolled in internship program • 1 curriculum assessment including recommendations on integration of climate change produced • >3 pilot courses per semester delivered and 60 students per semester enrolled 	
<i>Component 3 -</i>	Mangroves are restored in pilot sites		2,476,300

Priority adaptation interventions for resilient Integrated Coastal Zone Management	<p>Water resources are protected from sea level rise and erosion and coastal communities have access to safe water</p> <p>Coastal infrastructure and assets are protected</p>	<ul style="list-style-type: none"> • 3000 ha rehabilitated mangroves in Rufiji, 10 ha in Pangani, and 460 ha in Zanzibar • >4 mangrove management associations operational • >18 salinized wells in Bagamoyo district relocated to safe locations • >20 % increase in year-round water availability • >100 people trained on water conservation, management and recycling • 476 meters of seawall in Pangani, 119 m in Bwawani, and 50 m in Kisiwa Panza upgraded to climate change standards • 14 dikes and spillways in Tumble and 16 in Ukele 	
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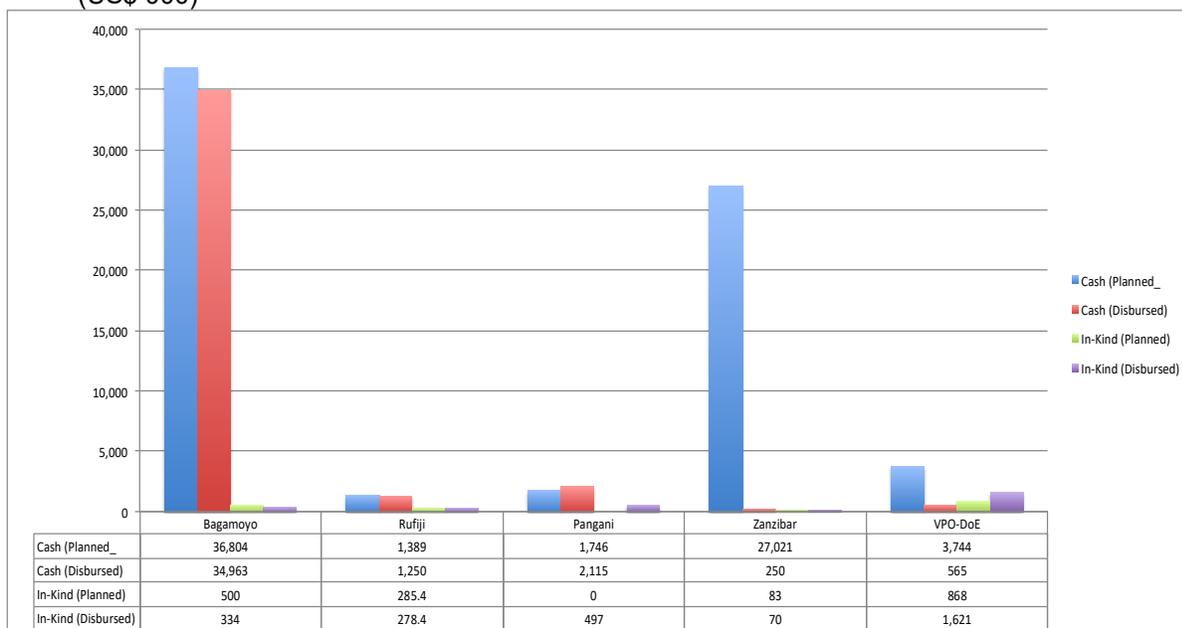
AF PROJECT Component	Expected Concrete Outputs	Targets	Amount (US\$)
<i>Component 1 - Addressing climate change impacts on key infrastructure and settlements</i>	Sea wall raised, rehabilitated and constructed along 1,335 km in areas showing particular damage in Dar es Salaam city center and in Kingamboni area	A 50% reduction in the number of urban flooding events in Dar es Salaam city center during severe rainfall and storms through the rehabilitation of drainage systems	3,537,500
<i>Component 2 - Ecosystem-Based Integrated Coastal Area Management (EBICAM)</i>	40 ha of mangroves rehabilitated through planting of resilient seedlings, dredging and the creation of no-take buffer zones.	2,000 m ² of coral reef rehabilitation and protection in coastal sites, leading to a 75% annual growth rate in coverage and health.	89,000
	Appropriate alternative energy (efficient cook stoves, small solar) technology transferred to 3,000 households in support of sustainable mangrove regeneration including through training	Shoreline stabilized and reforested along the shore (1,500m in 20m wide bands) using indigenous resilient trees and grasses	
<i>Component 3 - Knowledge, coastal monitoring and policy linkages</i>	<p>Available knowledge, science and data on coastal vulnerability Gathered</p> <p>One operational Climate Change Observatory for Tanzania for ongoing monitoring of CZM and</p>	One Ecosystem Based Integrated Area Management (EBICAM) plan for the coastal region approved	415,000

	<p>coastal environmental status and scientific research</p> <p>Economically viable, cost effective and technically feasible adaptation measures identified for replication and up-scaling (i.e. through undertaking cost-benefit analyses).</p> <p>Policy briefing, awareness raising and technical capacity building for policymakers and district-level planners based on project outputs, lessons and challenges, including increased capacity to manage and maintain resilient infrastructure</p>		
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Source: Project Completion Report, Vice President’s Office (December 2018)

130. Significant amounts of co-financing (cash and in-kind) were committed by the Vice President’s Office, District Councils and Zanzibar Authority to the LDCF project. The combined co-financing that was planned reached US\$ 67,828,498, representing more than 95% of the total project cost. A significant share of this has not been disbursed according to UN Environment expenditure records, including a deficit of and US\$ 26 million in cash co-financing from the Zanzibar Authority, US\$ 1 million from Rufiji-Kibiti districts, and US\$ 3.2 million from VPO-DoE. In-kind contributions were not fully met by Bagamoyo and Rufiji-Kibiti districts, or by the Zanzibar authority. This is likely to have had effect on the scale of some of the interventions that were implemented at the district level, and underscores the limited availability of resources to replicate and expand adaptation initiatives. Only in Pangani district were cash co-financing commitments surpassed, due to the disbursement of additional co-financing by VPO-DoE to enable the final stage of seawall construction on the north bank. In-kind contributions were exceeded in the case of the Pangani District Council and the VPO-DoE, with shortfalls from the other contributors.

Chart 1. LDCF Project: Committed and Disbursed Co-financing – December 2018 (Cash and In-Kind) (US\$ 000)



Source: LDCF Co-finance Report (UN Environment) April, 2019

131. Both projects were required to submit the following financial reports in accordance with UN Environment guidelines:

- Quarterly expenditure reports
- Annual independent audits.
- Annual co-financing reports (applicable to the LDCF project only).
- An Inventory Report on non-expendable equipment.
- Final audit and financial report (at the end of the project)

132. Expenditure reporting has been problematic according to UN Environment staff responsible for the financial management of both projects. This was attributed to differences in the accounting systems used by the Government of Tanzania and UN Environment, requiring recurrent revisions to the data and lots of “back and forth” communications before reports were approved. As noted, there have been delays in the submission of certified independent annual audit reports for the 2018-2019 period.

Table 17. Financial Management Table

Financial management components:		Rating	Evidence/ Comments
1. Completeness of project financial information ¹⁸ :			
Provision of key documents to the evaluator (based on the responses to A-G below)			
A.	Co-financing and Project Cost's tables at design (by budget lines)	S	These are included in the project documents. The AF project did not require co-financing.
B.	Revisions to the budget	S	Annual revisions were made to re-program unspent budget lines into subsequent years, and transfer funds between budget lines.
C.	All relevant project legal agreements (e.g. SSFA, PCA, ICA)	S	In place. The AF project document is preceded by an AF-UNEP Agreement.
D.	Proof of fund transfers	S	Documented.
E.	Proof of co-financing (cash and in-kind)	MU	Actual co-financing contributions are known yet fall below the committed amounts at some sites (at times considerably).
F.	A summary report on the project's expenditures during the life of the project (by budget lines, project components and/or annual level)	S	At the time of the evaluation, the final quarterly expenditure report for the extended implementation period (12/2018) was available, with cumulative totals of expenditure. The joint Project Completion Report includes the final budget breakdown by components.
G.	Copies of any completed audits and management responses (where applicable)	U	There were delays in the submission of some annual audits reports. Audit reports are available from 2013-2017. The 2018-2019 audit report is being finalized by auditors (as of November 2019).
H.	Any other financial information that was required for this project (list): Annual Expenses by outcome	U	Annual expenses by outcome were not reported.

¹⁸ See also document "Criterion Rating Description", Update 04.04.2018 for reference

Any gaps in terms of financial information that could be indicative of shortcomings in the project's compliance ¹⁹ with the UN Environment or donor rules		The non-availability of annual audit reports for the project period 2013-14 should be confirmed.
Project Manager, Task Manager and Fund Management Officer responsiveness to financial requests during the evaluation process	S	All have been responsive.
2. Communication between finance and project management staff		
Project Manager and/or Task Manager's level of awareness of the project's financial status.	S	Both were supportive in providing financial information and discussing budgetary issues. A comprehensive online file with expenditure reports, audits and financial data was made available to the evaluators.
Fund Management Officer's knowledge of project progress/status when disbursements are done.	S	Most of the interaction was with the Task Manager and supporting UN Environment finance officer. Both have conveyed detailed knowledge of the project.
Level of addressing and resolving financial management issues among Fund Management Officer and Project Manager/Task Manager.	MU	There were consistent problems with delayed procurement and low delivery for most of the approved project period. This was subsequently resolved with the contracting of UNOPS.
Contact/communication between by Fund Management Officer, Project Manager/Task Manager during the preparation of financial and progress reports.	MU	According to interviewed UN Environment staff, there were communications difficulties that affected the submission and clearance of quarterly expenditure reports.
OVERALL RATING:	Moderately Satisfactory (MS)	Rating is based on the following values: HS (6), S (5), MS (4), MU (3), U (2), HU (i)

¹⁹ Compliance with financial systems is not assessed specifically in the evaluation. Nevertheless, if the evaluation identifies gaps in the financial data, or raises other concerns of a compliance nature, a recommendation should be given to cover the topic in an upcoming audit, or similar financial oversight exercise

Evaluation Rating for Financial Management

Moderately Satisfactory (MS) for both projects, which shared financial management and administrative arrangements within DoE. The rating is influenced by the satisfactory performance levels on the part of the UN Environment Task and Finance Managers. Expenditures were reported quarterly and cumulatively by budget line with totals. Annual budget revisions were approved to re-program unspent funds and adjust allocations between budget lines. Co-financing commitments to the LDCF project were reported by budget line and contributions reported, with actual contributions falling below committed amounts (significantly at some sites). The interviewed UN Environment Task Manager and financial officer demonstrated detailed knowledge of project finances and budget delivery. There were problems with the preparation of the quarterly expenditure reports that affected their timely submission and approval. The required annual joint project audit reports were submitted only for the 2013-2014 period.

5.6 Efficiency

5.6.1 Timeliness and Cost Effectiveness

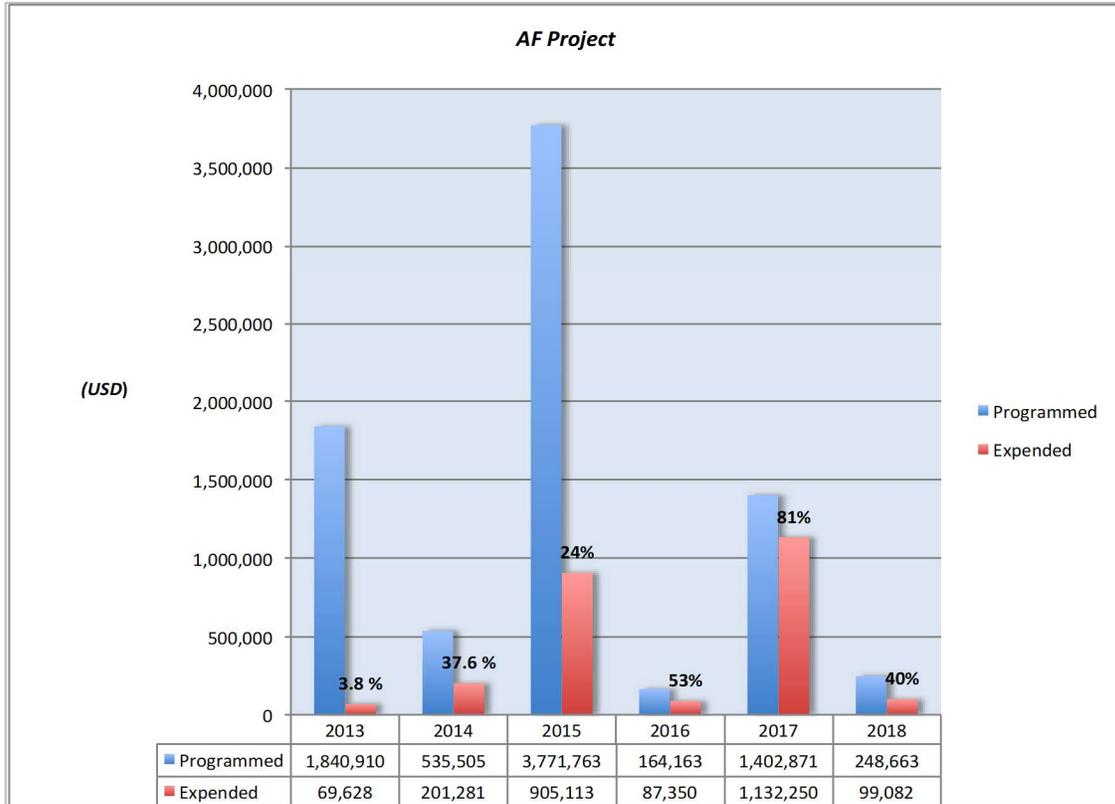
133. Efficiency was one of the weaker aspects of project performance. Both projects went through a prolonged review and approval process that lasted three years (from their initial submittal in 2009 to formal approval in 2012). Their implementation was undermined by slow output delivery and low budget expenditures, which in turn were exacerbated by an inefficient government procurement system that led to recurrent delays in the processing of contracts and acquisition of goods and services. For example, the Chief Technical Advisor worked without a contract for 9 months until its renewal was processed. Inefficiency was also reflected in low budget delivery levels (actual vs. programmed expenditure) for both projects, during the first three years of implementation when project expenditures reached 4% - 37% of the allocated annual budgets. There were improvements in project expenditure levels for the 2016-2018 period that resulted from the contracting of UNOPS to manage procurement, and the increased volume of disbursements for adaptation interventions that were implemented at the project sites.

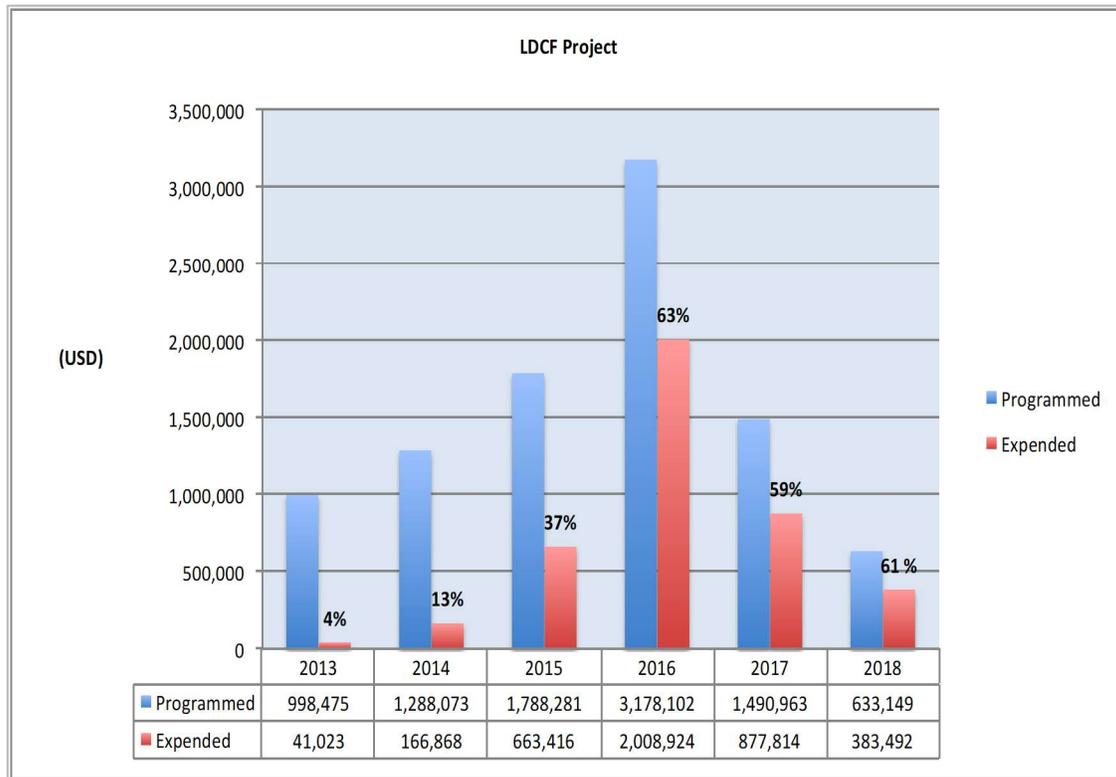
134. The efficiency of government procurement systems was not considered at the design stage, which contributed to low output delivery and expenditure for most the approved project periods. Procurement delays would affect the implementation of vulnerability assessments and adaptation interventions. The upgrading of drainage systems (Ilala), construction of seawalls (Pangani and Kisiwa districts), drilling of boreholes and rainwater harvesting (Bagamoyo district) were implemented behind schedule. The combination of slow procurement and extended implementation delays would lead to the approval of two-year extensions to complete pending activities and close both projects.

135. At the time of the Mid-Term Review in 2015, it was evident that neither project was positioned to deliver the expected outputs within the approved five-year period. Shortly thereafter, a two-year extension was approved for both projects by UN Environment, the Adaptation Fund and Least Developed Countries Fund. The extensions have enabled both projects to deliver most of their outputs and spend the accumulated balance (unspent funds were re-programmed through consecutive years with annual budget revisions). By December 2018, the AF project had reported

total expenditures of US\$ 4,424,602.98 against cash advances of US\$ 4,502,303.45; whereas the LDCF project reported expenditures of US\$ 3,106,642.34 against cumulative advances of US\$ 3,216,353.56. Both projects were able to spend over 95% of the approved budgets by the end of the extension period.

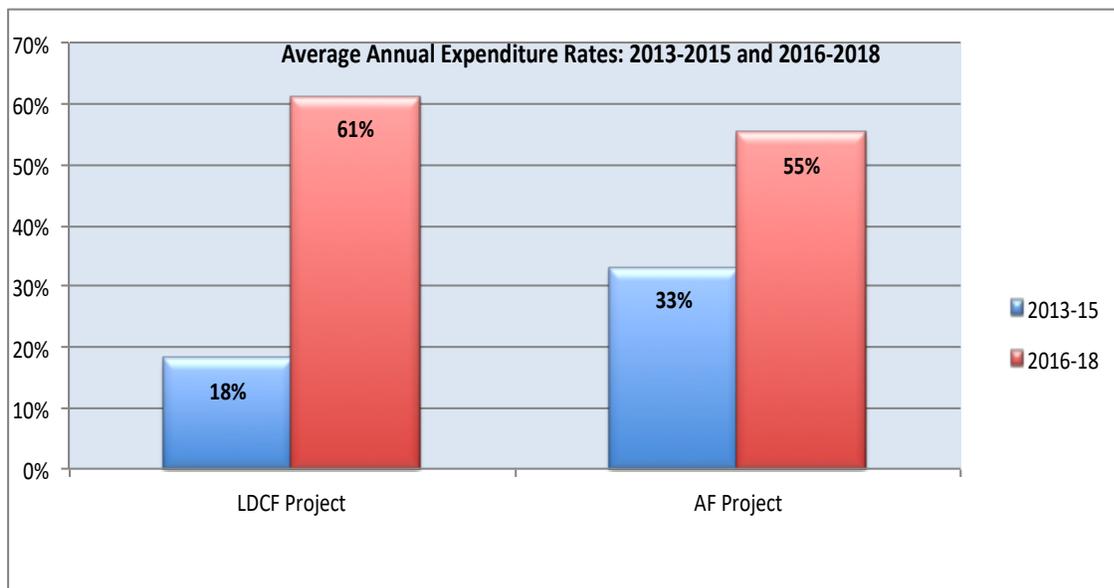
Chart 2. Actual vs. Programmed Expenditures: 2013 – 2018





Source: Quarterly Project Expenditure Reports 2013-2018

Chart 3. Average Annual Expenditure Rates: 2013-2015 and 2016-2018



Source: Based on Quarterly Project Expenditure Reports 2013-2018

136. Time or cost-saving mechanisms were not applied, nor were they feasible under the circumstances given the combination of implementation delays, low budget expenditures and late or reduced co-financing disbursements. There was cost-efficiency in the shared contracting of

vulnerability assessment and feasibility studies for both projects, and in the elaboration of a joint Final Project Report. The evaluators would also like to acknowledge (i) UN Environment's decision to advance the final 3% of the project budgets prior to the receipt of the final financial and project report, in order to facilitate the completion of activities and payments; and (ii) the approval of an additional cash disbursement of US\$ 565,000 by the Vice-Presidents Office that enabled the final stage of seawall construction on the north bank of the Pangani River.

5.7 Monitoring and Reporting

5.7.1 Monitoring Design and Budgeting

137. UN Environment and donor requirements for monitoring and evaluation were met. Both of the approved project documents have attached budgeted monitoring and evaluation (M&E) plans. Likewise, indicators are included for measuring the achievement of outcomes and outputs in the Results Frameworks (pending baseline data in the case of the AF project). While internal monitoring arrangements were arranged and costed separately for each project, joint mid-term and terminal project evaluations were scheduled for both projects. This arrangement improved the cost-effectiveness of the evaluations, while enhancing the comparability of findings.

138. The M&E plan for the AF project encompasses the (i) development of measurable indicators from the baseline assessments, (ii) annual audits, (iii) external mid-term and final evaluations, and (iv) internal project monitoring (inception meetings, field visits and Steering Committee meetings) for an allocated sum of US\$ 184,688. In addition, the third project component supported monitoring through the "...stocktaking and monitoring of various project indicators, as well as the creation of a Climate Change Observatory that will function as a clearing house for information related to project themes."²⁰

139. The LDCF monitoring plan is comparatively more detailed and covers the main M&E activities w– inception workshop, measurement of means of verification of project progress and results, the preparation of annual Project Implementation Review (PIR) reports and periodic project status reports, external evaluations and annual site visits – with a breakdowns by cost and responsible parties. The M&E budget totaled US\$ 115,000 with the cost of external evaluations shared with the AF project.

140. Outcome and output indicators are included In the Results Frameworks of both projects. They conform to SMART guidelines (Specific, Measurable, Achievable, Relevant and Time-Bound) for the most part and are quantifiable. Output indicators for awareness raising, reduced vulnerability and access to alternative/efficient energy sources are disaggregated by gender. Outcome/output baselines and targets are incorporated to the LDCF Results Framework in the project document, whereas measurable indicators and targets were developed for the AF project following the baseline assessments that were planned during the inception period. The output indicators and targets of both projects were updated in consultation with the joint Project Steering Committee, following the baseline assessment studies that were conducted by C4 EcoSolution in 2014. The revised indicators and targets were incorporated to subsequent progress reports, and are applied to the assessment of output and outcome achievement.

141. The project monitoring and evaluation framework do not enable the measurement of longer-term impacts on climate change vulnerability and ecosystems/infrastructure resilience.

²⁰ Agreement for The "Implementation of concrete adaptation measures to reduce vulnerability of livelihoods and economy of coastal communities of Tanzania" project in Tanzania between the Adaptation Fund Board and United Nations Environment Programme" (2012), prg. 41.

Outcome indicators replicate their associated output targets to a large extent, rather than focusing on the changes that the pilot interventions or number of trainees might contribute to baseline situations. The monitoring of impact is also affected by time and budget factors: Likewise, the effects of recently-completed seawalls, drainage canals or mangrove plantings on surrounding ecosystems are often incremental and unlikely to be manifested in full during the project lifetime. Ex-post monitoring is necessary to measure their influence on rising sea levels, periodic flooding, deforestation, and shoreline or coral reef degradation. This requires spatial analysis to measure change to shoreline levels, land use, groundwater drainage and vegetative cover (among other indicators) over time. Unfortunately, this is not feasible in the absence of an extended M&E budget or an operational climate change observatory that support the tracking of indicators.

142. In the absence of longer-term monitoring arrangements, the assessment of the effects of the pilot adaptation interventions on ecosystems vulnerability to climate change may benefit from proxy indicators such as those listed below:

- Reductions in road or facility maintenance costs as a consequence of seawall construction/rehabilitation (Obama/Ocean Rd, Mwalimu Nyerere Memorial Academy).
- Frequency and level of flooding in vulnerable areas where seawalls and drainage canals were constructed or rehabilitated (Ilala, Temeke, Kinondoni, Pangani).
- The land area preserved or reclaimed for productive use, resulting from interventions in shoreline stabilization and flood control (Kilimani, Kisiwa Panza).
- Gender surveys to document the impact of energy-efficient stoves on the charcoal consumption and time devoted to cooking chores (Ilala, Temeke, Kinondoni).
- Sampling of water salinity levels, drawn from wells and boreholes in vulnerable coastal areas (Bagamoyo).

Evaluation Rating of Monitoring Design and Budgeting

AF Project: Satisfactory (S). The project document includes a monitoring plan that is budgeted by activity. The monitoring plan contained provisions for site visits and monitoring by the project team. Preliminary SMART indicators were introduced for outcomes and outputs, and adjusted following baseline assessments at the project sites. Several indicators are disaggregated by gender, yet this information was not collected or reported. The outcome indicators are summaries of output targets and do not reflect the changes to the baseline situation that are expected as a result. The project's design included a monitoring component that supported the creation of a national climate change observatory with coastal monitoring, research and clearinghouse functions. Annual Project Performance Reports (PPRs) were foreseen (and submitted) that assessed progress according to project milestones rather than the outputs and outcomes of the approved Results Framework. This made the tracking of project deliverables more difficult to monitor, lowering the comparability of monitoring findings between projects.

LDCF Project: Satisfactory (S). The project document includes a detailed monitoring plan that is budgeted by activity and assigns responsibilities. The monitoring plan has provisions for site visits and monitoring by the project team. SMART indicators were introduced and adjusted following baseline assessments at the project sites. Several indicators are disaggregated by gender, yet this information has not been collected or reported. The outcome indicators are summaries of output targets and do not reflect the changes to the baseline situation that are expected as a result. Annual Project Implementation Review (PIR) reports were foreseen that assess progress towards the achievement of outputs and outcomes contained in the project Results Framework.

5.7.2 Monitoring of Project Implementation

143. Project monitoring was entrusted to UN Environment in its capacity as international implementing agency. Implementation was also monitored by the project coordinators (or assigned DoE staff), who conducted periodic site visits and scheduled annual meetings with district and municipal focal points to discuss progress and aspects needing adjustment.

144. In general, project monitoring has been satisfactory. Monitoring by UN Environment was based on annual visits of the project Task Manager, who attended Project Steering Committee meetings and visited the project sites. UN Environment has a small country office in Dar es Salaam (the AF project site) which played a limited role in supporting monitoring and oversight; the UNEP officer did attend some of the joint Project Steering Committee meetings in representation of the Task Manager. However, country offices do not have M&E specialists under the UNEP model and project monitoring responsibilities are assigned to the implementing Technical Unit. Nevertheless, the evaluators feel that the strategic importance and combined budget of both projects (approaching US\$ 8 million) might have justified a more robust monitoring approach with some level of support from the Country Office, for example attending Steering Committee meetings or visiting sites not covered by the Task Manager. This could have improved the level of quality assurance for the design and implementation of some training modules and site interventions, i.e. the Rufiji Delta, especially for the geographically-dispersed LDCF project. The evaluators acknowledge that the establishment of monitoring roles transcends individual projects, and suggest that the issue may merit discussion at corporate decision-making levels.

145. The pilot sites of both projects were visited twice a year on average by the national project coordinators or assigned DoE staff persons. This often exceeded the planned schedule of yearly visits. The visits were organized in collaboration with the district or municipal environmental officials, and served to monitor progress and discuss emergent issues on the ground. Interviewed district and municipal focal points considered the monitoring visits to be beneficial, by enabling direct communication with the project teams on specific implementation and budget matters. Site visits were combined with annual encounters of local government and NGO focal points from the project sites with the project coordinators. The externally-based Chief Technical Advisor prepared

Evaluation Rating of Monitoring Implementation

AF Project: Satisfactory. Both UN Environment and the project have met their monitoring obligations. The project sites were visited twice a year on average by the project coordinator or assigned DoE staff. Monitoring data was collected regularly in accordance with the monitoring plan. The monitoring data documented in the Project Performance Reports (PPRs) was shared with the UN Environment Task Manager and analyzed. Although gender-sensitive monitoring was foreseen, gender data is not collected in the annual monitoring reports. Progress towards project milestones was reported annually. Steering committee partners were informed of project activities and in some cases offered guidance. One of the project components supported coastal monitoring and was expected to provide data on project indicators (through the CCOT), yet this did not materialize.

LDCF Project: Satisfactory. Both UN Environment and the project have met their monitoring obligations. The project sites were visited twice a year on average by the project coordinator or assigned DoE staff. Monitoring data was collected regularly in accordance with the monitoring plan. Progress towards outcomes and outputs was assessed annually and reported. The monitoring data documented in the annual Project Implementation Review (PIR) reports was shared with the UN Environment Task Manager and analyzed. Steering committee partners were informed of project activities and in some cases offered guidance. Although gender-sensitive monitoring was foreseen, gender data is not collected in the annual monitoring reports.

mission reports following his visits to Tanzania that also provided assessments of the progress achieved and flagged issues requiring attention by the project coordinators. These practices are considered to have contributed to adaptive management for both projects, and to adjustments in the implementation of activities at the pilot sites.

5.7.3 Project Reporting

146. The quality and consistency of project reporting varied. Annual and semester progress reports were prepared by each project in accordance with the guidelines, using different formats. The AF project prepared annual Project Performance Reports (PPRs), while the LDCF project prepared annual Project Implementation Review (PIR) reports that are required for GEF projects, and the UN Environment's Semi-Annual Progress Reports. There were differences in the monitoring and reporting formats used by each project that were at odds with the integrative approach applied to their design and execution arrangements: The PPRs do not assess progress towards outcomes and outputs as they appear in the approved Results Framework, focusing instead on project milestones that do not convey a clear idea of the level of achievement for specific deliverables. The rationale for applying different monitoring formats is based on the required donor reporting requirements, albeit weakening the consistency of the monitoring effort and the comparability of findings between projects.

147. The joint Final Project Report is comprehensive and conveys the implementation experience of both projects as well as the results that were generated. Both projects included gender-disaggregated indicators for relevant outcomes and outputs, yet this data was not collected for the monitoring reports. The joint Final Project Report also included numbers of beneficiaries, but since the projects did not establish a mechanism to monitor the number of beneficiaries, the numbers seem to be based on estimates and appear in cases to be under- or overestimated.

Evaluation Rating of Monitoring Reporting

AF Project: Moderately Unsatisfactory. Monitoring reports applied UN Environment guidelines and were submitted according to schedule. The indicators of some outputs are disaggregated by gender, yet this data was not collected in the annual Project Progress Reports (PPRs). The PPR reporting format assesses progress towards milestones and not outcomes or outputs as they appear in the Results Framework. The reporting format weakens the monitoring of specific project deliverables and the comparability of findings between projects.

LDCF Project: Satisfactory. Monitoring reports apply UN Environment guidelines and were submitted according to schedule. The indicators of some outputs are disaggregated by gender, yet this data was not collected in the annual Project Implementation Review (PIR) reports. The PIRs provide clear assessments of progress towards outputs and outcomes, based on their indicators. There is evidence of collaboration and communication with the UN Environment, Task Manager with regards to reported monitoring findings. ^[1]_{SEP}

5.8 Sustainability

5.8.1 Socio-Political Sustainability

147. The sustainability of adaptation policies and programme frameworks on a national or regional scale is unlikely. The main vehicles for building policy linkages and extending ICAM on

a broader scale - the Ecosystem-based Integrated Coastal Area Management (EBICAM) Action Plan and national Climate Change Observatory for Tanzania (CCOT) – have not been realized under the AF project, generating a policy void. Likewise, the National Mangrove Adaptation Plan that covers the management of extended coastal ecosystems (by the Tanzania Forest Service) has expired several years ago and is not operational. Given these factors, policy continuity on a national scale – or specifically for Tanzania’s coastal region – continues to rely on the 2007 National Adaptation Plan of Action (NAPA) that sets out the national policy framework for climate change adaptation, and therefore plays an important role in shaping the design and programming of future adaptation initiatives.²¹ Given the magnitude of climate change threats and continuing need for adaptation policies, it is highly likely that the NAPA will be extended over time and periodically updated.

148. Policy continuity is more likely within the district and municipal development plan that contain an environmental chapter that addresses adaptation-relevant issues such as drainage, coastal erosion and environmental education among others. The Kinondoni municipal development plan foresees the construction of a drainage system to handle the effluent of a nearby cement plant (which has agreed to co-finance its construction). This will have positive impact on restored mangrove sites that are presently affected by contaminated liquid waste. The Zanzibar Authority requires that district plans address climate change adaptation in their environmental sections. Pemba’s Environmental Plan identifies 120 sites that are vulnerable to rising sea levels, and proposes continued mangrove planting and the construction of dykes and groynes to contain floods and excess rains. However, environmental policy implementation at local levels is restricted by a limited revenue base and dependence on central government transfers, parliamentary approvals and external funding.

149. The continued threats of climate change to ecosystems, communities and livelihoods are likely to generate increased social awareness and raise expectations for policy responses and concrete measures. Community-based organizations that were registered with assistance from the LDCF project are better positioned to participate in adaptation activities. However, the intended mechanisms for public engagement have not been consolidated. The district CBO networks are at different stages of development and will require continued assistance in most cases to become operational (and sustainable over time).

²¹ The updated NAPA process is currently underway in Tanzania with UNDP support.

Evaluation rating of Socio-political Sustainability

AF Project: Moderately Unsatisfactory (MU). There is fairly strong ownership and interest among local government and other stakeholders but it does not reach the levels that have the power to sustain the project outcomes. The expected development of policy linkages for extending ICAM to Tanzania's coastal region were not achieved. The sustainability of the associated outcome is highly dependent on social/political factors outside the project's control. Policy continuity is more likely at district levels, where development plans include environmental chapters that address climate change threats and propose adaptation measures. Awareness raising activities were focused on local stakeholders. Social awareness is likely to be sustained over time, yet the mechanisms for public participation in adaptation initiatives have not been fully consolidated (by the LDCF project),

LDCF Project: Moderately Unsatisfactory (MU). The project did not include a policy component in its design and was not expected to influence national policy frameworks beyond piloting public engagement mechanisms with networks of community organizations. The CBO networks are at different stages of consolidation and most require continued assistance to reach a level that can be sustained. While local governments have demonstrated ownership and supported project activities, this has not influenced the levels that have power to sustain project outcomes. The lack of an approved National Mangrove Management Plan (a mandate of Tanzania's Forest Service) is a disabling factor for policy sustainability. Policy continuity is more likely at district levels, where development plans include address environmental sections that address assess climate threats and propose adaptation measures. Sustainable management plans for restored mangrove sites were envisioned at the district level, yet prepared in Rufiji only. Social awareness is likely to be sustained over time, yet the mechanisms for public participation have not been fully consolidated and require continued assistance to reach achieve levels that can be sustained.

5.8.2 Financial Sustainability

150. Costs associated with the maintenance of rehabilitated coastal infrastructure and ecosystems are likely to be low and financially viable over the short/medium term. The seawalls and drainage canals constructed by both projects were designed to have a 100-year lifespan; it is very likely that the financial costs required for their operation and maintenance will be met by the Dar es Salaam City Council and participating District and Municipal Councils. Likewise, modest financial outlays are required to ensure the monitoring and protection of restored mangrove sites; the planted mangrove seedlings have a 20-year growth cycle and reproduce rapidly under stable conditions; at most sites, continued monitoring will be conducted by the local community organization and contracted NGO with internal resources.

151. On the other hand, the likelihood of future funding for new adaptation activities through the District Council Medium-Term Expenditure Frameworks (MTEF) is low due to limited local government revenues²² and dependence on central government transfers or external donors. The Dar es Salaam Metropolitan Development Project (DMDP) is presently implementing surface water drainage improvements in the Dar es Salaam metropolitan area, with a US\$ 300 million loan from the World Bank. In Bagamoyo district, continued funding for water services depends to a large extent on the National Water and Sanitation Supply Development Programme that is being implemented by the Dar es Salaam Water and Sanitation Authority (DAWASA) with World Bank funding. Further mangrove restorations will depend on the availability of funding from other donors and projects, i.e. EU and CARE.

²² Resource constraints at local government levels were reflected in the difficulties of District Councils and the Zanzibar Administration in meeting their co-financing commitments to the LDCF project.

152. The approval of legislation for the introduction of PES (payment for environmental services) mechanisms is essential to sustain domestic financing for adaptation initiatives. District environmental focal points, NGO and CBO representatives have been exposed to PES mechanisms in Kenya, under a study tour that was organized by the LDCF project. However, a functional PES framework is presently lacking in Tanzania and there is need to promote greater awareness on this issue at central government and parliamentary levels.

Evaluation rating of Financial Sustainability

AF Project: Satisfactory (S). Project outcomes for reduced infrastructure and ecosystems vulnerability to climate change do not require further financial inputs, aside from minimum maintenance of newly constructed infrastructure and replanted mangrove areas. District Councils are in a position to absorb these costs through their Medium-Term Expenditure Frameworks, in collaboration with the Ministries of Construction and Tourism, Natural Resources and Environment. However, local government revenues are for the most part insufficient to replicate adaptation measures or ICAM without external funding support.

LDCF Project: Satisfactory (S). Project outcomes for reduced infrastructure and ecosystems vulnerability do not require further financial inputs aside from minimum maintenance of newly constructed infrastructure and replanted mangrove areas. District Councils are in a position to absorb these costs through their Medium-Term Expenditure Frameworks, in collaboration with the Ministries of Construction and Tourism, Natural Resources and Environment. NGOs and community groups will continue to monitor protected mangrove areas with their own resources. However, local government revenues are for the most part insufficient to replicate adaptation measures without external funding support. Project outcome for enhanced government and public engagement in climate change activities will require continued technical support and mentoring to consolidate CBO networks; this may require a modest outlay of funds that have not yet been secured.

5.8.3 Sustainability of Institutional Framework

153. The likelihood of institutional sustainability is high among the local governments and NGOs that participated in the implementation of adaptation interventions. As noted, District and Municipal Councils have established environmental mandates as well as jurisdiction over the sites where adaptation interventions were implemented. In Zanzibar, district environmental departments are required to have a climate change focal point in their staff and incorporate adaptation measures within their plans. The District Councils in particular represent the main local government partner for the implementation of adaptation measures and environmental initiatives in general.

154. The development plans of the District and Municipal Councils that participated in the AF and LDCF projects include proposed drainage improvements, tree planting, environmental education and other relevant activities. The Councils are also responsible for the operation and maintenance for public infrastructure, including the seawalls and drainage canals that were constructed with project support.

155. The institutional sustainability of community organizations that were registered with support from the LDCF project is moderately high. The legal registration process has been completed or is in process of being completed for most of the 54 CBOs that have participated. The formalization of community organizations with approved by-laws and nominated executives has bearing on their institutional sustainability.

156. The sustainability of the registered CBOs will ultimately depend on their capacity to develop proposals, access funds and manage adaptation activities. At present, there are considerable capacity differences between CBOs at the different project sites that have direct influence on institutional sustainability - ranging from the established Beach Management Units (Pangani), Water Management Boards (Bagamoyo) and capable CBOs such as Wanawake Mazingira (Mbweni) and Jumkisa (Kisakasaka), to incipient groups that require further technical guidance and training to move forward.

157. Several NGOs were contracted by the LDCF project to implement adaptation interventions at some sites, in collaboration with local community organizations. The NGOs that were contracted to implement adaptation interventions in Zanzibar - ZACEDY at Ufungo, JSEUMA at Pemba and Kisiwa Panza - are established entities that have prior experience in mangrove restoration and are involved in parallel environmental initiatives. Both intend to continue monitoring the mangrove sites after the project has finalized. At Kisakasaka, the local CBO (JUMKISA) is negotiating an agreement with the Tanzania Forest Service to declare - and manage - a mangrove conservation zone. The development of local CBO networks under the second component of the LDCF project was contracted to ForumCC, a national network of NGOs that has a broad membership base, qualified staff with implementation experience, and relations with international donors and the environmental community. In all cases, the likelihood of institutional sustainability is high.

“How will we continue to protect mangroves after the project is finished? What will our incentive be?”

- A member of Mjenejea, a registered CBO in the Rufiji Delta

“After two years we will have to move because the trees will have grown.”

- Interviewed rice farmer at a mangrove restoration site in the Rufiji Delta

Evaluation Rating of Institutional Sustainability

AF Project: Satisfactory (S) The sustainability of outcomes requires institutional support, particularly at district levels where partnerships were established with District and Municipal Councils, NGOs and community organizations to implement pilot interventions. Local governments are in themselves sustainable, as are NGOs and community organizations with prior exposure to adaptation activities. Environmental protection is a core function of local government and is addressed in district and municipal development plans. Most local governments have capacity to manage rehabilitated infrastructure and ecosystems, as do NGOs contracted for their restoration. Institutional capacities to monitor the climate change impacts have not been consolidated. An exit strategy wasn't applied.

LDCF Project: Satisfactory (S). Project outcomes for reduced infrastructure and ecosystems vulnerability do not require further financial inputs aside from minimum maintenance of newly constructed infrastructure and replanted mangrove areas. District Councils are in a position to absorb these costs through their Medium-Term Expenditure Frameworks, in collaboration with the Ministries of Construction and Tourism, Natural Resources and Environment. NGOs and community groups will continue to monitor protected mangrove areas with their own resources. However, local government revenues are for the most part insufficient to replicate adaptation measures without external funding support. Project outcome for enhanced government and public engagement in climate change activities will require continued technical support and mentoring to consolidate CBO networks; this may require a modest outlay of funds that have not yet been secured. An exit strategy wasn't applied.

5.9 Factors Affecting Performance

5.9.1 Preparation and Readiness

158. The evaluation findings indicate that the levels of preparation and readiness were not optimal for either project, starting from the design stage. Both project budgets were approved with preliminary cost estimates for pilot adaptation interventions, and were adjusted after the baseline assessments and more detailed design were available. Costs also increased due to increased deterioration at some sites over the extended period between budgeting and actual implementation. As a result, some of the interventions were reduced in scale or unable to meet their targets. A contributing factor to the budget problems of the LDCF project was the shortfall in government co-financing. Co-financing commitments to the LDCF project were not met, with significant deficits in some cases that affected the scale of intervention.

159. Provisions for technical oversight were insufficient for the combined scale of the two projects. The project arrangements included the shared recruitment of a part-time Chief Technical Advisor (CTA) to support project planning and implementation. The STA position was budgeted for eight months over the five-year project implementation period. An average of two oversight missions were conducted each year that were followed by mission reports with a situation analysis and recommendations for the project coordinators. The intermittent availability of senior technical advice and oversight was inadequate for the needs of two projects with geographically dispersed activities and combined budgets exceeding US\$ 8 million.

160. The level of preparation within the VPO-DoE was affected by national elections and a change of government with staff turnovers. The execution of both projects was assigned senior

DoE officials with parallel responsibilities, who were recruited as national project coordinators.²³ This arrangement was intended to enhance ownership and institutional memory, yet brought trade-offs in terms of effectiveness. The project coordinators were highly capable professionals who devoted considerable time and effort to their projects, yet the circumstances did not allow for the intensive, full-time engagement that was needed for initiatives of this magnitude. The alternative of establishing a compact joint project management unit within DoE staffed by externally recruited specialists might have better served project oversight needs, in the absence of a permanent Chief Technical Advisor.

161. Project delivery and administrative efficiency were severely undermined by an inefficient government procurement system that led to extensive delays in the contracting of goods and services and undermined the implementation of both projects during the first three years of their implementation.

162. There were adequate levels of preparedness among the environmental focal points at the District and Municipal Councils. Interviewed environmental officers have shown a clear understanding of the vulnerability issues affecting their jurisdiction.²⁴ Several district and municipal development plans propose drainage improvements, mangrove reforestation and environmental education activities. The LDCF project benefited from the experience of NGOs that implemented mangrove restoration initiatives. Preparedness levels were understandably inconsistent among community-based organizations with different levels of capacity and exposure to projects or adaptation activities. Yet there were consistently high levels of knowledge and commitment by the Beach Management Units in Pangani District, JUMKISA in Kisakasa village (Zanzibar) and Wanawake Mazingira, a women's group in Mbweni that replanted mangrove areas without remuneration. Several of the community organizations that were recently registered by the LDCF project have little experience and are less prepared to engage in adaptation activities.

²³ The AF project coordinator is Tanzania's lead focal point and negotiator to the UNFCCC. The LDCF coordinator is the DoE's chief economist.

²⁴ District environmental departments in Zanzibar are required to include a climate change specialist on their staff.

Evaluation Rating for Preparation and Readiness

AF Project: Moderately Unsatisfactory (MU) Project budgets were approved with preliminary cost estimates for the pilot adaptation interventions that required adjustment. Provisions for technical oversight were insufficient for the combined scale of the two projects. The project arrangements included the shared recruitment of a part-time Senior Technical Advisor (STA) to support project planning and implementation. There were national elections and staff turnover within the VPO-DoE. The decision to use the government system for procurement of goods and services undermined contributed to very low levels of expenditure and delivery for much of the project period.

LDCF Project: Moderately Unsatisfactory (MU) Project budgets were approved with preliminary cost estimates for the pilot adaptation interventions, that required adjustment. Provisions for technical oversight were insufficient for the combined scale of the two projects. The project arrangements included the shared recruitment of a part-time Senior Technical Advisor (STA) to support project planning and implementation. There were national elections and staff turnover within the VPO-DoE. The decision to use the government system for procurement of goods and services undermined contributed to very low levels of expenditure and delivery for much of the project period. There were inconsistent capacity levels among the community organizations participating in the creation of district networks.

5.9.2 Quality of Project Management and Supervision

163. Project management has been effective for the most part. The AF and LDCF project coordinator posts were occupied by highly senior, highly qualified DoE staff who devoted considerable effort to moving their projects forward. Part-time consultants were also hired to advise in various technical aspects. However, the designation of internal staff with parallel responsibilities (which were reduced during their tenure with the projects) did not enable the intensive, full-time engagement that was needed for initiatives of this magnitude. This was reinforced by the limited availability of advice and oversight from the Chief Technical Advisor (who visited both projects on a periodic basis).

164. Adaptive management has been effectively applied in response to emergent problems and changing circumstances, as described in the following examples:

- The revision of performance indicators and targets for project deliverables that were affected by budget limitations (i.e. infrastructure rehabilitation) or external circumstances (climatic events, security concerns), adjusting expectations to more realistic levels. The revisions were proposed by the project coordinators and approved by the joint Steering Committee and UN Environment in 2017.
- The substitution of project locations affected by land use conflicts (Mvumoni Ununio in Dar es Salaam's Kinondoni municipality, Bawani in Zanzibar) with more viable sites (Mbweni, Kisakasaka) for the implementation of mangrove restoration initiatives.
- The number of LDCF intervention sites in Zanzibar was increased (from five to six) following the decision to establish separate coordination arrangements with Unguja and Pemba islands in order to facilitate smooth management of the project.
- The contracting of UNOPS in 2015 to provide procurement services for both projects, leading to significant improvements in output delivery and expenditure levels.

- The approval of additional cash contribution equivalent to US\$ 565,000 by the Government of Tanzania to enable the final stage of construction of the seawall on the north bank of the Pangani River.
- The initiative of Pangani's Beach Management Units in planting excess mangrove seedlings that could not be planted along the south bank seawall, in other vulnerable coastal locations (without receiving remuneration).
- Different mangrove varieties and planting techniques were tested on-site by NGOs and CBOs at various sites, with the guidance of a mangrove specialist from Zanzibar's Institute for Marine Science.²⁵ Likewise, the direct planting of mangrove seeds was found to have high dieback rates due to excessive exposure to sunlight (and small crabs); this led to the establishment of mangrove nurseries and transplanting of 3-4 month seedlings with improved survival rates. Different spacing of mangrove seedlings (between 2 and 0.5 m) were applied at the project sites based on the soil type and degree of sun exposure.
- UN Environment agreed to waiver guidelines that retained the disbursement of the final 3% of the project budgets until the final expenditure and project reports were approved. This decision helped both projects cover budgetary deficits during the final implementation stages and complete activities.

Evaluation Rating of Project Management and Supervision

AF Project: Satisfactory (S). A joint Project Steering Committee discussed relevant issues and advised some of the pilot interventions. The implementation structures were well managed and working relations developed between the main project partners (DoE, local governments and at some sites NGOS and community groups). A highly qualified project coordinator was designated within DoE who dedicated considerable time and effort to the project, in spite of managing parallel responsibilities. Local government focal points and contracted NGOs demonstrated capacity to engage effectively in project activities. There were regular communications with UN Environment's Task Manager. The limited presence of the Senior Technical Advisor may have lowered the levels of technical oversight and quality assurance.

LDCF Project: Satisfactory (S). A joint Project Steering Committee discussed relevant issues and advised some of the pilot interventions. The implementation structures were well managed despite the dispersed project locations and constructive working relations have developed between project partners (local governments, NGOS, community organizations) at the project sites. A highly qualified project coordinator was designated within the DoE who has dedicated considerable time and effort to the project, in spite of parallel responsibilities. Local government focal points and NGOs demonstrated the capacity to engage effectively in project activities. There were regular communications with UN Environment's Task Manager. The limited presence of the Senior Technical Advisor may have affected technical oversight and quality assurance.

165. Both projects had very low rates of expenditure and output delivery for much of the approved periods. This was affected by slow government procurement processes and were not

²⁵ These included *avicennia marina*, *C. tagal* and *b. gymnorrhiza* varieties. In Zanzibar, the evaluators were informed of the different varieties that were used by their indigenous names. For example, the *muchu* mangrove was introduced from other sites for coastal planting given its resistance to water salinity, while other local varieties (*mizinzi*, *mkundaa*, *magondi*) were planted at inland locations due to their tolerance of soils with lower sand content.

a consequence of poor management. Consistent technical oversight was not available to ensure quality assurance in the design and implementation of some of the project initiatives. As noted earlier, a Chief Technical Advisor (CTA) was recruited on a part-time basis – 32 weeks over five years - to support both projects. Under these circumstances the STA was able to conduct two short-term visits annually on average that were largely absorbed by debriefings on the current status of the projects, with limited opportunity for -depth strategic planning or incidence in the design of training modules and site interventions. This affected the LDCF project in particular, given the geographic dispersion of activities that involved a broader range of actors.

5.9.3 Stakeholder Cooperation and Participation

166. Both projects were receptive to stakeholder participation in their design and implementation. This was reflected in the counterpart arrangements with District and Municipal Councils at the project sites, under which the local government environmental officers were the designated project focal points and participated in the implementation of baseline assessments and concrete adaptation interventions. Many of the pilot interventions of both projects were identified through consultations with local governments; and in several cases these measures supported environmental priorities from the district development plans.

167. Most of the interviewed local government focal points of both projects expressed satisfaction with their level of participation. District and municipal environment officers, NGOs and CBOs were generally satisfied with the level of communications with the project coordinators and VPO-DoE. Although focal points for the Temeke and Ilala Municipal Councils weren't consulted in the design of seawalls and drainage canals, municipal engineers participated in supervising their construction.²⁶ Community organizations participated actively in mangrove rehabilitation and shoreline protection activities at the project sites. In Mbwani (Kinondoni municipality) Wanawake Mazingira, a local women's group, led the germination and planting of mangrove seedlings in their locality. Staff at Mwalimu Nyerere Memorial Academy were consulted for the rehabilitation of the campus seawall; a wheelchair access ramp was added to the seawall area at their request. On the other hand, the evaluators did not find indications of involvement by local women's groups in the distribution of energy-efficient cooking stoves in Temeke, Ilala and Kinondoni municipalities, which was implemented through local ward councilors and *mtaa*-level representatives (approach used by Tanzania's social development fund). The construction of infrastructure improvements was largely driven by engineering concerns with less scope for community participation; however, their need was evident, and the interventions were supported locally.

²⁶ The Temeke District Council focal point to the AF project had expressed concerns on the deficient design of the Mtoni Bustani drainage canal to the contractor, but was told that the design could not be modified as it appeared in the bidding document. The canal collapsed shortly after completion due to heavy rains and subsequently had to be rebuilt (with improved design).

168. Community participation and commitment were high at most of the project sites, in spite of slow implementation and delays. This was reflected in the levels of engagement of JUMKISA, a registered community organization from Kisakasaka (Zanzibar) and the Beach Management Units of Pangani district. JUMKISA exceeded the mangrove planting target and is in process of approving an agreement with the Tanzania Forest Service to declare a mangrove conservation zone and assist in its monitoring. In Kisiwa Panza, JSEUMA, the contracted NGO, and local community groups doubled the target of mangrove planting through voluntary work.

"We were not consulted during the project implementation but the project benefits us a lot because the construction of the drainage system become one of the important tools to control floods, especially during the rainy season."

- Resident of Malapa Ilala, Dar es Salaam

Evaluation Rating of Stakeholder Cooperation and Participation

AF Project: Satisfactory (S) The project coordinated activities with District and Municipal Councils through their environment directors, who represented the main focal points. This was important to promote local government ownership of the pilot adaptation measures. However, stakeholder participation was inconsistent. Infrastructure rehabilitations were designed by UNOPS and contracted to a private company; local government focal points, were informed of their progress. NGOs and community groups directly implemented the ecosystems rehabilitation initiatives. District and municipal focal points met with the project team and Steering Committee members to discuss implementation issues and share experiences.

LDCF Project: Highly Satisfactory (HS) The project coordinated activities with District and Municipal Councils through their environment directors, who represented the main focal points. This was important to promote local government ownership of the pilot adaptation measures. There was consistent local government, NGO and community participation in ecosystems rehabilitation interventions at the pilot sites, and to a lesser degree in infrastructure rehabilitations that were contracted to a private company. NGOs and CBOs continue to monitor some of the replanted mangrove sites. Efforts were made to enhance public engagement through awareness raising and networking between community-based organizations.

5.9.4 Human Rights and Gender Equity

169. Neither of the projects directly address human rights issues, which are not mentioned in the project documents. Protecting human settlements from flooding and improving access to potable water support universal rights to shelter and clean water. From this perspective, both projects have indirectly supported basic human needs. Reduced vulnerability to climate change carries indirect gender benefits by protecting family households. Women have participated in the mangrove planting and ecosystems restoration interventions, and were remunerated for their work through the "green jobs" modality. There are references to gender in the project documents and gender-disaggregated indicators are included in their results frameworks.

170. The distribution of fuel-efficient cook stoves to low-income families (under the AF project) aimed to enhance gender equity by lowering charcoal consumption and cooking time. Women's groups were expected to have a direct role in implementing this initiative, although this does not appear to have occurred in practice. Impacts on gender are not being monitored by either project.

5.9.5 Country Ownership and Driven-ness

Evaluation Rating of Human Rights and Gender Equity

AF Project: Satisfactory (S). There were indirect gender benefits and human rights considerations in the protection of coastal settlements and households from floods and rising sea levels, and in the distribution of energy-efficient cooking stoves to low-income households. A women's group led the restoration of mangrove areas at one of the sites. Several output indicators are disaggregated by gender in the Results Framework.

LDCF Project: Moderately Satisfactory (MS). There were gender considerations and indirect benefits in the protection of coastal settlements and households from floods and rising sea levels, and the registration of local community organizations to enhance local participation. Several of the output indicators are disaggregated by gender in the project Results Framework

171. Country ownership was reflected in project design and implementation arrangements. Both projects were executed by the Office of the Vice-President through the Department of Environment, and were therefore well positioned to engage a range of stakeholders. They have provided platforms for strengthening VPOP-DoE linkages with government line ministries, District and Municipal Councils, universities, NGOs and community-based organizations at the pilot sites.

172. National ownership was built into project design. The VPO -DoE was consistently inclined to execute both projects internally, in order to integrate them with the core DoE activities and build institutional memory. Placing the project within the executing agency was considered a cost-effective option to recruiting an external team, due to the high number of consultants that were foreseen in the project budgets. The decision to contract goods and services through the government procurement system additionally strengthened ownership by relying on public institutions and administrative processes.

173. The joint Project Steering Committee (PSC) has been supportive to both projects. The reports of the PSC meetings make reference to work plans, budgets and implementation issues. Committee members have advised the project coordinators on technical aspects of the adaptation interventions. The Ministries of Water, Works and Natural Resources and Tourism gave guidance to both projects for planning interventions in Bagamoyo and the Rufiji Delta. The Tanzania Forest Service, which is attached to the Ministry of Natural Resources and Tourism (a PSC member), is expected to monitor the restored mangrove sites when patrolling the larger Delta. District Council focal points have benefited from the opportunity to interact directly with the DoE and line ministries on climate change-related issues.

174. However, the level of country ownership was partially undermined by co-financing and institutional factors. The evaluation assessment of country ownership for the LDCF project was influenced by the gap between committed and disbursed co-financing by some of the main project partners. The initial co-financing expectations were high: Central and district government co-financing contribution (cash and in-kind) of US\$ 71,184,798 were approved for the LDCF project, representing more than 95% of the total project cost.²⁷ However, the amounts that were disbursed

²⁷ The Adaptation Fund did not require country co-financing for its project.

have been significantly lower, with shortfalls of US\$ 3.159 million in cash co-financing from the Government of Tanzania and US\$ 25.5 million in cash and in-kind contributions from the District Councils and Zanzibar administration. The failure to meet co-financing commitments has undoubtedly been a limiting factor to LDCF project implementation and impact, and reflects on the resource limitations that limit the ability of local governments to implement adaptation measures. Parallel resources have not been leveraged beyond those that were already committed

Evaluation Rating of Country Ownership:

AF Project: Moderately Unsatisfactory (MS). The VPO-DoE and participating District and Municipal Councils assumed leadership in driving the adaptation interventions at the project sites, and endorsing project results. Line ministries represented on the joint Project Steering Committee provided guidance to the delivery of adaptation interventions within their mandates. Government co-financing was not required or provided. However, the direct involvement of the Office of the President's Regional Administration and Local Government (PO-RALG) and the Tanzania Forest Service in the joint Steering Committee was desirable to enhance country ownership and achieve higher level results, i.e. climate change monitoring through the CCOT, an approved EBICAM Action Plan, adopted policy briefs and the development of policy linkages to reach the intermediate states. The combined factors indicate a MU rating according to UN Environment's evaluation guidelines.

LDCF Project: Moderately Satisfactory (MS). The VPO-DoE and participating District Councils assumed leadership in driving the adaptation interventions at the project sites and committing co-financing contributions that exceeded the grant amount, and endorsing project results. Line ministries represented on the joint Project Steering Committee have provided guidance to adaptation interventions that were within their mandates. An important project component was driven a national NGO network. Additional funds were secured by VPO-DoE on short notice to complete the construction of a new seawall in Pangani. However, there were significant shortfalls in actual co-financing disbursements by some District Councils and the Zanzibar Administration that affected the scale of pilot interventions. The direct participation of the Tanzania Forest Service and Office of the President's Regional Administration and Local Government (PO-RALG) in the joint Steering Committee was desirable to achieve higher results in the rehabilitation of mangrove ecosystems at several sites and the consolidation of public engagement mechanisms, enhancing the achievement of intermediate states. The combined factors indicate a MS rating according to UN Environment's evaluation guidelines.

in the project document.²⁸ In terms of institutional participation, both projects would have benefitted from the direct involvement of the Office of the President's Regional Administration and Local Government (PO-RALG) and Tanzania Forest Service in the joint Steering Committee and execution of relevant components to achieve higher level results, i.e. climate change monitoring through the CCOT, an approved EBICAM Action Plan, adopted policy briefs, replication of public participation mechanisms, and the development of policy linkages to reach the intermediate states. The combined factors indicate a MS rating according to UN Environment's evaluation guidelines.

²⁸ Although co-financing commitments were not fully met, the VPO approved a cash contribution that was not programmed to enable the final stage of seawall construction on the Pangani River (north bank).

5.9.6 Communication and Public Awareness

175. Both projects included awareness-raising and communications activities with different focus groups as part of their implementation strategies.

176. Under the AF project, awareness-related activities were directed at environmental focal points in participating District and Municipal Councils to improve their knowledge and strengthen local government capabilities for vulnerability monitoring assessment. The creation of a coastal Climate Change Monitoring Observatory (CCOT) with research and clearinghouse functions was foreseen as knowledge sharing platform for the dissemination of data on climate change vulnerability, articulating central government agencies, local government and other stakeholders. Participating institutions have been nominated for the CCOT and two workshops were held to exchange project experiences. However, the Observatory does not appear to be operational and is not fulfilling its role as clearinghouse – for example, by generating and disseminating data to assist adaptation planning at district or municipal governments, inform policy or raise public awareness.²⁹

177. Another potential knowledge platform was foreseen through the approval of a regional Ecosystems-Based Integrated Coastal Area Management Plan (EBICAM) that would have provided a framework for disseminating best practices and engaging government and non-governmental actors in adaptation management. Unfortunately, the Plan has not materialized and an important opportunity for reaching a broader audience was not realized. A workshop was held to exchange experiences and discuss the preparation of policy briefs based on project case studies; this approach was directed at a more compact audience (policymakers, legislators) and will require continuity beyond the project term.

178. Awareness-raising by the AF project was aimed at improving the knowledge and capacity of local government partners, and not directed at changing public attitudes or influencing civil society behavior. Community awareness activities have not accompanied the infrastructure rehabilitations that were implemented in Temeke and Ilala Districts, nor were local residents consulted on their design. This is understandable to the extent that the construction of seawalls and drainage canals were driven by climatic factors and engineering design rather than social consultations,³⁰ and were contracted to DEZO private construction company.

179. Training workshops have communicated knowledge on climate change vulnerability and adaptation, and a vulnerability assessment manual distributed. However, the interviewed participants felt that the content tended to be general in content and covered issues that were not new. Most do not feel that the training has tangibly strengthened their technical knowledge, although the vulnerability assessment manual provides a useful reference document for adaptation planning.

180. The LDCF project has been more receptive to public awareness and communications approaches, due to the involvement of NGOs and community-based organizations at geographically dispersed coastal sites. Public awareness was raised through the participation of vulnerable communities in ecosystems rehabilitation activities, and by the creation of local networks of community-based organizations for improving public engagement. This has been a challenging endeavor given the geographic dispersion of CBOs, low baseline capacities and the slow registration processes. The registration of 34 community organizations at the four sites (Rufiji, Bagamoyo, Pangani and Zanzibar) has improved the likelihood for networking and communications between them. However, functional networks are not in place at most sites and

²⁹ None of the project focal points from the District or Municipal Councils were aware of its existence.

³⁰ Awareness-raising was probably not necessary in either district. The need for improved drainage was a long-standing priority for residents in these areas, who were exposed to seasonal flooding until the canals were built.

more time is needed to demonstrate a mechanism for public engagement that is effective and replicable.

181. Awareness of climate change adaptation has improved for CBOs that lacked prior knowledge or exposure. At all of the sites, interviewed CBO representatives recognized the need for training on adaptation approaches and basic proposal design, to be functional and participate effectively in future initiatives.

182. Student interns and graduate students from the University of Dar es Salaam's Department of Geography conducted field research on the impacts of climate change at several project sites. This has generated a body of information that can be of used for district environmental planning and public awareness activities. Although some of the research papers were presented at open symposiums on Dar es Salaam University campus, the findings haven't been shared at the project sites.

Evaluation Rating for Communication and Public Awareness

AF Project: Moderately Unsatisfactory (MU). Public awareness activities were not a significant aspect of the project's design or implementation. Policy briefs and project lessons were shared with the Project Steering Committee and government representatives at two workshop events. The findings derived from the baseline assessments were not communicated with a wider audience. The national climate change observatory (CCOT) was expected to provide a knowledge platform and assume information clearinghouse functions to assist district-level monitoring, yet this has not been operationalized. Communications and public awareness efforts have not driven change towards results beyond outputs.

LDCF Project: Moderately Satisfactory (MS). Public awareness and communications were an important aspect of the project's second outcome, which sought to enhance public engagement mechanisms. An awareness campaign was implemented at the project sites, and improved communications and coordination was sought through the creation of district-based CBO networks. Communications and public awareness had a moderate effect on driving change towards results beyond the outputs.

6. Conclusions, Lessons Learned and Recommendations

6.1 Conclusions

183. *Conclusion #1: The AF and LDCF projects have successfully reduced the vulnerability of coastal human settlements, infrastructure and ecosystems to climate change threats at the project sites.* These are important achievements that were accomplished through the rehabilitation of coastal infrastructure and ecosystems at vulnerable sites. The construction of seawalls and drainage canals, and the planting of mangroves in degraded areas are having a direct effect on human security and livelihoods, by protecting (and reclaiming) farmland and communities from floods, rising sea levels and shoreline degradation. Both projects have implemented drainage improvements that are benefitting hundreds of low-income urban and rural households in Dar es Salaam, Pangani and Zanzibar. The rehabilitation of infrastructure and degraded coastal ecosystems are likely to generate long-term environmental and socio-economic benefits.

184. *Conclusion #2: The total number of beneficiaries of each project has not been quantified and is based on estimates, despite evidence of improvements linked to the pilot interventions and the likelihood of impact at several project sites.* Project indicators were often based on the physical delivery of interventions rather than their expected impact or the number of persons benefitting. Consequently, the instruments and timelines needed to document the scale of direct/indirect beneficiaries – conducting household surveys in target areas; interpreting GIS data on land use or the distribution of human settlements within floodplain areas - were not applied. Other variables for consideration in this respect included the flows of vehicular/pedestrian traffic in the proximity of seawalls, the effects of reclaimed farmland and lowered charcoal consumption on family income, and the contribution of rehabilitated coral and mangrove areas to ecosystem

185. As a result, aggregated quantifications of beneficiaries are not available and the evaluators are not able to confirm estimates to this effect. The joint project Final Completion Report (December 2018) states that 31,552 persons in Rufiji District benefited from the LDCF mangrove rehabilitation, with an additional 15,000 beneficiaries of project interventions in Pangani town. The evaluators consider that the actual number of beneficiaries is considerably lower in both cases: Only one-third of the planned rehabilitation area in the Rufiji Delta was actually implemented due to security issues, benefitting a smaller number of seasonal farmers and villages within the Delta that is unlikely to exceed a couple of hundred families. The rehabilitation of Pangani's north bank seawall is expected to benefit most of the town's 8,000 residents, whereas the planned reconstruction of the south bank seawall (that protects a smaller population) did not take place. On the other hand, the number of families benefitting from the water boreholes and tanks that were installed in Bagamoyo district have surpassed project estimations according to interviewed district officials. The evaluators consider that the total number of direct/indirect LDCF project beneficiaries may approximate 30,000 persons based on site observations and stakeholder interviews. In the case of the AF project, the statement that approximately 1,500 households benefited from the drainage improvements appears to be feasible although on-site surveys or GIS data are needed to confirm this.

186. *Conclusion #3: Both projects have shown high levels of complementarity in their design and implementation approach.* The causal pathways that emerged from the Theory of Change analysis follow a logical progression. Vulnerability assessment and knowledge generation are linked to capacity building and the development of public engagement mechanisms, which in turn feed into the design and demonstration of concrete adaptation interventions with the involvement of local stakeholders. The interventions, in turn, have a catalytic effect by generating inputs for the up scaling and replication of adaptation measures within the broader context of ecosystems-based coastal management.

187. Both projects shared execution arrangements within the VPO-DoE and worked with common partners under a joint Project Steering Committee. The National Project Coordinators worked in the same office, communicated regularly and were very familiar with the other's projects. There was spatial balance in the geographic distribution of activities, with the AF project focusing on the Dar es Salaam metropolitan area and the LDCF project targeting vulnerable coastal settlements and ecosystems at different sites on the mainland, Zanzibar and Pemba.

188. Project deliverables were mutually supportive. The LDCF project sought to create local networks of community organizations as a mechanism for public engagement that had direct relevance – and applicability - to the AF project and future adaptation initiatives. The AF project foresaw the replication and up scaling of effective adaptation interventions to policy levels, through a regional planning framework for ecosystems-based integrated coastal management (EBICAM); and a climate monitoring observatory with clearinghouse functions that would serve

as a knowledge platform and support vulnerability monitoring and adaptation planning at district levels.

189. *Conclusion #4: The project implementation approaches have strengthened linkages (horizontally and vertically) between different stakeholders.* There was consistent engagement and cooperation on the part of the District and Municipal Council environmental officers, NGOs and community organizations for the implementation of adaptation initiatives (particularly in the case of mangrove restoration). Local expectations and commitment have generally been high in spite of extended implementation delays; at some sites, NGOs and community organizations continued to manage mangrove nurseries and plant seedlings without remuneration, in response to delays in payment. There were effective communications between the Division of Environment within the Vice-President's Office and Zanzibar's Ministry of Land Administration, with district environmental officers, and between the district offices and communities. Most of the adaptation interventions that were implemented by both projects were drawn from district development plans or consultations with affected communities.

190. These factors enhanced the relevance of project activities and encouraged collaboration between different stakeholders. All of the ecosystem restoration activities (and some of the infrastructure rehabilitations) were implemented with the involvement of local NGOs and community organizations. The joint Project Steering Committee has contributed to strengthened linkages between the VPO-DoE and line ministries, and between these and district government, NGOs and community organizations. Although this collaboration is unlikely to continue beyond the project term in most cases, the links were established and a viable framework was demonstrated that can be reactivated for future adaptation projects.

191. *Conclusion #5: Output delivery and budget expenditure levels were low and undermined by delays for most of the approved project periods.* This was influenced by several factors: (i) An extended three-year gap between project design and approval (2009-2012), (ii) the under-budgeting of some adaptation interventions that were exacerbated by increased vulnerability (and rising costs) over time, and in particular (iii) an excessively slow procurement system that set implementation behind schedule for most of the approved project term. Project activities were also set back at some sites by extreme weather conditions and security problems. The limited progress that had been achieved at the time of the Mid-Term Review led to the extension of both projects by two years to complete activities and close operationally. Project delivery improved considerably during the extension period (2016-2018) due to higher levels of disbursement for the various adaptation interventions at the project sites, and the contracting of UNOPS to manage procurement services for construction activities.

192. *Conclusion #6: The training and policy-related components were least effective.* Both projects included training and policy-related outputs in their design that were strategically positioned on the causal pathways and critically important to achieving planned outcomes and intermediate states. These included the establishment of district and municipal capacities to monitor climate change vulnerability and plan adaptation measures, and the replication/up scaling of successful interventions across the broader coastal region. However, the training modules that were offered have had little effect on technical capacities at the district level. Interviewed participants felt that the training that was offered was often general in content and failed to address their operational needs (an exception is the vulnerability assessment manual). In particular, the DIVA/GIS training that was provided under the LDCF project was considered unsuited to the needs and expectations of district environmental departments. GIS applications were demonstrated with inland satellite images that were unrelated to the coastal project sites, or through slide presentations that were brief and lacked depth. An opportunity was missed to apply the training and knowledge gained to the project sites, in order to generate consistent and comparable baselines and mappings of coastal vulnerability. The participation of district and

community actors in ecosystem restoration initiatives, and the field research conducted by student interns and thesis candidates from the University of Dar es Salaam, have had a greater impact in building local capacities.

193. The LDCF project sought to enhance mechanisms for public engagement by establishing local networks of community-based organizations. Community organizations were successfully registered at the project sites, yet the local networks aren't functional at practically all sites and further training on adaptation approaches and project management is needed. With exception of the Beach Management Units and more active community organizations, most still lack the capacity to formulate or manage adaptation initiatives. The evaluators noted that most members of the community organization— many of them farmers or devoted to fishing - understood the threats of climate change from personal experience and probably did not need awareness-raising; greater interest was expressed in learning how to implement adaptation measures and formulating proposals.

194. The AF project sought to develop a regional programmatic framework for the wider application of adaptation measures, in the context of integrated coastal area management. The design and approval of an ecosystems-based coastal management plan was foreseen but did not materialize; policy briefs of project case studies were prepared but there are no indications that they have had effect on policy or budget decisions. A climate change monitoring observatory and knowledge platform was foreseen yet is not operational. These limitations lower the ability of local government to monitor climate change vulnerability over time or replication interventions on a wider scale.

195. *Conclusion #7: The coastal planning and policy frameworks that are needed to replicate adaptation interventions on a broader scale were not in place.* Many of the adaptation interventions have high demonstration value and were expected to feed into the broader coastal management framework. However, the enabling policy conditions for this to happen were not in place, and neither project has been able to catalyze a framework for sustained adaptation management. The National Mangrove Management Plan expired several years ago and has not been updated by the Tanzania Forest Service. The proposed EBICAM Plan did not materialize, nor is Climate Change Monitoring Observatory functional at present. The evaluators have not found evidence that adaptation interventions supported by either project are being replicated in sector plans for fisheries, public works or local government administration. Although the District and Municipal Councils are considered to be the main channels for the replication, their revenue base is limited and most are not in a position to implement interventions without external financing.

196. *Conclusion #8: The engagement of universities and research institutes in training and field research has not led to the establishment of a learning network or knowledge transfer mechanisms.* This was initially contemplated as an outcome for the AF project that was subsequently removed and is not assessed in progress reports. The involvement of Dar es Salaam University's Geography Department and Institute for Resource Assessment (IRA) was beneficial for the participating students who are interested in resource management and GIS mapping. The LDCF project offered student interns and graduate students a first opportunity for fieldwork on climate change related issues. The various studies have been documented and are the property of the University. Although there were expectations that this pilot experience would have led to sustained networking and knowledge dissemination on climate change, there are no plans or budgetary provisions for this to happen. There were capacity benefits for the participating students and therefore the geography department and Institute for Resource Assessment (IRA) as well. However, the devolution of the field research findings to stakeholders at the project sites has been lacking. The published studies were presented at an open event on the university campus, but haven't been shared with local governments or affected stakeholders at the project districts. Knowledge transfer in this context was essentially limited to the technical advice provided

by a recognized mangrove specialist (attached to Zanzibar's Institute of Marine Science) to NGOs and community organizations, for mangrove restoration initiatives.

197. *Conclusion #8: The design complementarities and shared causal pathways of both projects were reflected in common execution and institutional arrangements, with less collaboration for the delivery of outputs of mutual relevance.* The Theory of Change analysis of impact pathways shows high levels of cross-project linkages. There were outputs and outcomes of mutual interest and benefit that included a coastal monitoring observatory and information clearinghouse, a model for public engagement and the approval of a regional integrated coastal area management plan. Project linkages and causal pathways have had influence on the achievement of results and likelihood of impact. The successful implementation of adaptation interventions at the project sites benefited from the earlier site assessments and engagement of local actors. On the other hand, the limited progress in generating the EBICAM Plan or establishing an operational monitoring framework, have repercussion on district capacities for vulnerability monitoring, and the likelihood of replicating good practices. Having an approved regional plan for integrated coastal area management, and a validated model for public engagement, would have provided the policy and operational frameworks for replicating and up scaling adaptation interventions. Unfortunately, the slow implementation that affected most of the approved implementation period also disrupted the synchronization of output delivery by both projects.

198. *Conclusion #9: Project implementation and efficiency were weakened by external factors outside of the projects control.* The timely implementation of project activities was undermined by externalities that were site-specific as well as systemic. This has affected LDCF project in particular, as reflected in the postponement of site interventions in the Rufiji Delta and Bagamoyo District due to security problems and heavy rains. The creation of CBO networks at was not concluded, in part due to the logistical challenges of working in geographically dispersion locations, and slow online registration processes that were further complicated by connectivity problems and missing documentation. The effectiveness of the LDCF project was additionally weakened by deficits in co-financing by the DoE and local government partners; this may have been influenced by the commitment of unrealistic co-financing amounts at the design stage.

199. Adaptation interventions were subject to rising costs and increased vulnerability levels at project sites over the six years that transpired between their budgeting and actual implementation. Likewise, project expenditures and output delivery were undermined by slow procurement for most of the approved implementation period. The combined factors lowered the ability of both projects to deliver on schedule and meet timelines that were already compacted (in relation to expected deliverables).

200. The following tables present the project performance ratings, based on the evaluation criteria that is applied by UN Environment's Evaluation Office.

Table 18. “Implementation of Concrete Adaptation Measures to Reduce Vulnerability of Livelihoods and Economy of Coastal Communities of Tanzania” (Adaptation Fund): Project Performance Ratings

Criterion	Summary Assessment	Rating
A. Strategic Relevance	See comments below.	Highly Satisfactory (5.7)
1. Alignment to MTS and POW	The project is aligned to the Climate Change Adaptation Sub-programme within UN Environment’s Medium-Term Strategy, and the following Programmes of Work: (3a) Adaptation planning, financing and cost-effective preventative actions incorporated into national development processes. (3d) Increased carbon sequestration occurs through improved land use, reduced deforestation and reduced land degradation. (1.a2) Resilience of key vulnerable ecosystems increased through effective adaptation measures. (1.a4) National policies and capacities for integrated vulnerability assessments strengthened.	Highly Satisfactory (6)
2. Alignment to UN Environment /Donor/GEF Strategic Priorities	Climate change adaptation is a UN Environment sub-programme within the MTS and represents a focal area under GEF IV. Climate change adaptation is central to the overarching goal and outcomes of the Adaptation Fund.	Highly Satisfactory (6)
3. Relevance to Regional, Sub-regional and National Environmental Priorities	The adaptation interventions target vulnerable coastal infrastructure and ecosystems in the Dar es Salaam metropolitan area that are prioritized in district and municipal development plans, and in previous assessments conducted by the World Bank-supported Dar es Salaam Metropolitan Development Project (DMDP). The vulnerability of the Dar es Salaam urban area to the threats of climate change is documented in the National Adaptation Plan of Action (NAPA).	Highly Satisfactory (6)
4. Complementarity with Existing Interventions	The adaptation interventions target vulnerable coastal infrastructure and ecosystems in the Dar es Salaam metropolitan area that are prioritized in district and municipal development plans, and in previous assessments conducted by the World Bank-supported Dar es Salaam Metropolitan Development Project (DMDP). The vulnerability of the Dar es Salaam urban area to the threats of climate change is documented in the National Adaptation Plan of Action (NAPA). There are high levels of complementarity with UN Environment-LDCF project “Developing Core Capacity to Address Adaptation to Climate Change in Productive Coastal Zones of Tanzania” and the Dar es Salaam Metropolitan Development Project (DMDP) that is supported by the World Bank.	Satisfactory (5)
B. Quality of Project Design	Both projects are complementary in design and envision a logical progression of results linking information and capacity improvements to the implementation of pilot adaptation initiatives and the building of policy links for their replication on a wider scale (i.e. draft policy briefs, national coastal monitoring and an approved EBICAM Action Plan). Outputs and outcomes are presented with SMART indicators that are measurable and in some	Moderately Satisfactory (4)

	cases disaggregated by gender. Outcome indicators are based on qualitative and quantitative indicators that aggregate the output targets. The costs of constructing or rehabilitating coastal infrastructure rehabilitations were based on preliminary estimates that were subsequently adjusted following more detailed design studies. In some cases, increased costs led to the revision of targets. .	
C. Nature of External Context	Project implementation was not significantly affected by extreme climatic events, aside from heavy rains that led to the collapse of the Temeke drainage canal (which was subsequently rebuilt). Economic conditions were generally adequate and the project benefited from a favorable political context. The likelihood of impact and post-project sustainability is weakened by the turnover of local government focal points and trainees.	Favourable (5)
D. Effectiveness	See comments below.	Moderately Satisfactory (4)
1. Delivery of Outputs	Half of the outputs were fully delivered and in some cases exceeded their targets. The remaining outputs were achieved at different levels or (in one case) not produced. Key outputs situated at high levels of the causal pathway - i.e. the rehabilitation of coastal infrastructure and ecosystems - were fully achieved. However, there was limited progress towards outputs that were essential to build policy linkages and enable coastal monitoring and ICAM on a broader scale (i.e. the national climate change observatory and approved EBICAM Action Plan).	Moderately Satisfactory (4)
2. Achievement of Direct Outcomes	Two of three outcomes were achieved for the most part, according to performance indicators that were focused on pilot interventions at the project sites and not the broader coastal region. The direct outcomes that are most important for reaching the intermediate states - reduced vulnerability of infrastructure and settlements to climate change; and rehabilitation of coastal ecosystems - were attained at the pilot sites, although the actual rehabilitation of deteriorated ecosystems may involve a medium-term period. Knowledge of climate impacts has increased at the pilot sites, although less than expected given the lack of regular clearinghouse functions by Climate Change Monitoring Observatory (CCOT). The policy links and broader programme framework that are needed to extend EBICAM to Tanzania's coastal region, as reflected in the third outcome and project objective, are not in place.	Moderately Satisfactory (4)
2. Likelihood of impact	There is a moderate likelihood that the project impact statement will be achieved. Two direct outcomes that connect to the intermediate states were reached in full or partially, based on their indicators. The reduction of climate change threats to coastal infrastructure and ecosystems at the project sites supports the Adaptation Fund goal, which addresses both the local and national contexts. The intermediate state of reduced adverse impacts of rising sea levels and floods on coastal infrastructure, settlements and infrastructure has been largely achieved in the Dar es Salaam metropolitan area. Key impact drivers are in place that link outputs to outcomes and outcomes to the intermediate states: The continued commitment of coastal district government and community stakeholders to	Moderately Likely (4)

	<p>climate change adaptation is highly likely in the face of continued threats. Increased attention to adaptation measures in district plans is also likely for the same reason. Several parallel project initiatives are supporting climate change adaptation at different locations of Tanzania, including the LDCF-funded EBICARR project that works at inland areas. Collectively they are likely to contribute to the intermediate state of reduced vulnerability to the threats of climate change on a broader scale.</p> <p>Conversely, the likelihood of achieving the other two intermediate states is lower. This is influenced by the limited delivery of key outputs on the causal pathways, and by assumptions that have not held in practice: The conditions are not in place to apply adaptation measures on a broader scale under the ICAM framework, in the absence of an approved regional program framework and national climate change observatory. The District and Municipal Councils are the main conduits for achieving the national impact that is envisioned, yet, most do not have sufficient financial resources to implement concrete adaptation interventions and require support from the central government or external donors. It is unlikely that the intermediate state of increased climate change monitoring will be achieved, although adaptation measures are likely to be increasingly incorporated to district plans and sector programs in response to continuing threats.</p>	
E. Financial Management	Both projects shared internal financial management and administrative arrangements within DoE. The MS rating provided is influenced by satisfactory communications and performance on the part of the UN Environment Task and Finance Managers.	Moderately Satisfactory (4)
1. Completeness of Project Financial Information	Project expenditure reports with disaggregated quarterly and cumulative data were submitted. Co-financing commitments/disbursements have been documented. There were difficulties in the preparation of some reports that required adjustment and delayed their approval. Only two of the required annual project audit reports have been made available to UN Environment.	Moderately Unsatisfactory (3)
2. Communication between Finance and Project Management	There has been communication between the project management and financial staff. UN Environment's Fund Manager and financial staff have provided guidance on aspects of financial reporting.	Satisfactory (5)
F. Efficiency	There was very low delivery of programmed expenditures and outputs for most of the project period, requiring a no-cost extension of the implementation period. Efficiency levels improved over the remaining term, with most outputs being delivered and the budget spent by the end of the extension period. Project activities were generally well sequenced in their design yet were often delayed in their execution, particularly at the project sites. This disrupted the project causal pathways, and affected the timeliness and impact of some interventions.	Moderately Unsatisfactory (3)
G. Monitoring and Reporting	See comments below.	Satisfactory (4.7)
1. Monitoring Design and Budgeting	The project document includes a monitoring plan that is budgeted by activity, with provisions for site visits and monitoring by the project team. SMART indicators are	Satisfactory (5)

	included for project outputs but not outcomes, and adjusted following the baseline assessments of project sites. Several indicators are disaggregated by gender but the data was not collected. The outcomes do not have indicators and are based on summaries of output targets that do not reflect the changes to the baseline situation that are expected as a result. The project's design included a monitoring component that supported the creation of a national climate change observatory with coastal monitoring, research and clearinghouse functions	
2. Monitoring of Project Implementation	Both UN Environment and the project have met their monitoring obligations. The project sites were visited twice a year on average by the project coordinator or assigned DoE staff. Monitoring data was collected regularly in accordance with the monitoring plan. The monitoring data documented in the Project Performance Reports (PPRs) was shared with the UN Environment Task Manager and analyzed. Gender-sensitive monitoring was foreseen yet gender data is not presented in the annual monitoring reports. Progress towards project milestones was reported annually. Steering committee partners were informed of project activities and in some cases have offered guidance.	Satisfactory (5)
3. Project Reporting	Project Performance Reports (PPRs) were prepared annually and represented the main monitoring document. Progress was reported towards milestones and not outputs and outcomes (or their indicators). This made the tracking of project deliverables more difficult to monitor, and lowered the comparability of monitoring findings between projects. Gender disaggregated indicators were not reported.	Moderately Unsatisfactory (3)
H. Sustainability	See comments below.	Moderately Unlikely ³¹ (3.0)
1. Socio-political Sustainability	There is fairly strong ownership and interest among local government and community stakeholders but it does not reach the levels that have the power to sustain the project outcomes. The development of policy linkages for applying ICAM on a broader scale has not advanced significantly. The sustainability of ICAM practices are highly dependent on policy and budgetary factors that are outside the project's control. Policy continuity is more likely at district levels, where development plans include environmental chapters that address climate change threats and propose adaptation measures. Social awareness is likely to be sustained over time, yet mechanisms for public participation have not been fully consolidated and require continued support to be sustained over time.	Moderately Unlikely (3)
2. Financial Sustainability	Project outcomes for reduced infrastructure and ecosystems vulnerability to climate change do not require further financial inputs aside from minimum maintenance of newly constructed infrastructure and replanted mangrove areas. District Councils are in a position to absorb these costs through their Medium-Term Expenditure Frameworks in	Likely (5)

³¹ The lower sustainability rating is applied for the overall rating according to UN Environment Guidelines.

	collaboration with the Ministries of Construction and Tourism, Natural Resources and Environment. However, local government revenues are insufficient to replicate adaptation measures or apply ICAM without external funding.	
3. Institutional Sustainability	The sustainability of project outcomes is dependent on institutional support, particularly at the district level where partnership arrangements were established with District and Municipal Councils, NGOs and community organizations to implement pilot adaptation interventions. The local governments are in themselves sustainable, as are some of the NGOs and community organizations with prior experience and exposure to adaptation activities. Environmental protection is a core function of local government in Tanzania and a required component for district and municipal development plans. Most participating local governments have capacity to manage the rehabilitated infrastructure and ecosystems, as do the NGOs contracted for the restoration of ecosystems. Institutional capacities to monitor the climate change impacts have not significantly improved as a result of the project, and an exit strategy was not applied. However, the above observations moderately strong mechanisms to sustain reduced climate change vulnerability at the pilot sites.	Likely (5)
I. Factors Affecting Performance		Moderately Satisfactory (4.0)
1. Preparation and Readiness	Project budgets were approved with preliminary cost estimates for the pilot adaptation interventions, that required adjustment. Provisions for technical oversight were insufficient for the combined scale of the two projects. The project arrangements included the shared recruitment of a part-time Chief Technical Advisor (CTA) to support project planning and implementation. There were national elections and staff turnover within the VPO-DoE. The decision to use the government system for procurement of goods and services undermined contributed to very low levels of expenditure and delivery for much of the project period.	Moderately Unsatisfactory (3)
2. Quality of Project management and Supervision	A joint Project Steering Committee was established and met periodically to discuss relevant issues, in some cases giving advice on pilot adaptation activities at the pilot sites. The implementation arrangements were well managed and work relations were developed with the main project partners (local government focal points, NGOS, community groups) at the project sites. A qualified project coordinator was designated from senior DoE levels who dedicated considerable time and effort to the project, in spite of managing parallel responsibilities (as the country's lead climate change negotiator). Adaptive management has been effectively applied in response to changing circumstances, Local government focal points and NGOs demonstrated the capacity to participate constructively in project activities. There were regular communications with the UN Environment Task Manager. The limited presence of the Chief Technical Advisor is likely to have lowered the level of technical oversight and quality assurance.	Satisfactory (5)

3. Stakeholder Participation and Cooperation	The project coordinated activities with District and Municipal Councils, through their environment directors who represented the main focal points. This has been important to promote local government ownership of the adaptation measures that were implemented at the pilot sites. However, stakeholder participation was inconsistent. The design and construction of seawalls or drainage canals were contracted externally and did not directly involve district or municipal focal points, who were informed and accompanied the interventions. NGOs and community groups directly implemented the rehabilitation of mangrove sites and coral reefs ecosystem initiatives. There were encounters of government focal points with the project team and Steering Committee members to discuss implementation issues and share experiences.	Satisfactory (5)
4. Responsiveness to Human Rights and Gender Equity	There are indirect gender benefits and human rights considerations in the protection of coastal settlements from floods and rising sea levels, and in the distribution of energy-efficient cooking stoves to low-income households. A women's group led the restoration of mangroves at one of the sites (Mbweni). Several output indicators are disaggregated by gender in the logframe.	Satisfactory (5)
5. Country Ownership and Driven-ness	The VPO-DoE and participating District and Municipal Councils assumed leadership in driving the adaptation interventions at the project sites, and endorsing project results. Line ministries represented on the joint Project Steering Committee provided guidance to the delivery of adaptation interventions within their mandates. Government co-financing was not required or provided. However, the direct involvement of the Office of the President's Regional Administration and Local Government (PO-RALG) and the Tanzania Forest Service in the joint Steering Committee would have been desirable to enhance country ownership and achieve higher level results, i.e. climate change monitoring through the CCOT, an approved EBICAM Action Plan, adopted policy briefs and the development of policy linkages to reach the intermediate states. The combined factors indicate a MS rating according to UN Environment's evaluation guidelines.	Moderately Satisfactory (4)
6. Communication and Public Awareness	Public awareness activities were not a significant aspect of the project's design or implementation. The findings derived from the baseline assessments were not communicated with a wider audience. The national climate change observatory (CCOT) was expected to provide a knowledge platform and information clearinghouse to assist district-level monitoring, but this is not operational. Policy briefs and project lessons were shared with the Project Steering Committee and government representatives at two workshop events. Communications and public awareness efforts have not driven change towards results beyond outputs.	Moderately Unsatisfactory (3)
Overall Project Rating	The overall project performance rating is moderately satisfactory, based on the evaluation criteria.	Moderately Satisfactory (4.17)

Table 19. “Developing Core Capacity to Address Adaptation to Climate Change in Productive Coastal Zones of Tanzania” (Least Developed Countries Fund): Project Performance Ratings

Criterion	Summary Assessment	Rating
A. Strategic Relevance	See comments below.	Highly Satisfactory (5.7)
1. Alignment to MTS and POW	The project is aligned to the Climate Change Adaptation Sub-programme within UN Environment’s Medium-Term Strategy, and the following Programmes of Work: (3a) Adaptation planning, financing and cost-effective preventative actions incorporated into national development processes. (3d) Increased carbon sequestration occurs through improved land use, reduced deforestation and reduced land degradation. (1.a2) Resilience of key vulnerable ecosystems increased through effective adaptation measures. (1.a4) National policies and capacities for integrated vulnerability assessments strengthened.	Highly Satisfactory (6)
2. Alignment to UN Environment /Donor/GEF Strategic Priorities	Climate change adaptation is a UN Environment sub-programme within the MTS and represents a focal area under GEF IV. Climate change adaptation is central to the overarching goal and outcomes of the Adaptation Fund.	Highly Satisfactory (6)
3. Relevance to Regional, Sub-regional and National Environmental Priorities	The pilot sites are highly vulnerable to climate change and are prioritized in the National Action Plan for Adaptation (NAPA). The Rufiji Delta is East Africa’s largest mangrove forest and a designated RAMSAR site. The infrastructure and ecosystem rehabilitation interventions were prioritized in the corresponding district and municipal development plans.	Highly Satisfactory (6)
4. Complementarity with Existing Interventions	There are high levels of complementarity with UN Environment-LDCF project “Developing Core Capacity to Address Adaptation to Climate Change in Productive Coastal Zones of Tanzania.” The project complemented mangrove restoration initiatives in the Rufiji Delta that were implemented by the EU and CARE.	Satisfactory (5)

B. Quality of Project Design	The project proposed an integrated approach to climate change adaptation that combines baseline vulnerability assessments, training, the development of mechanisms for public engagement, and the pilot implementation of adaptation measures in districts that are prioritized in the NAPA. Institutional arrangements linked central and local government, community organizations and NGOs in the implementation of pilot adaptation initiatives. The efficiency of the government procurement system was not adequately assessed (contributing to significant delays for much of the project period). Allocated timelines were in some cases insufficient to deliver the expected products and results on schedule. Some of the proposed interventions were under budgeted.	Moderately Satisfactory (4)
C. Nature of External Context	Project implementation was affected by extreme climatic events at some sites, i.e. Bagamoyo and Pangani. Implementation activities were suspended in the Rufiji Delta for an extended period due to security concerns unrelated to the project. There were deficits in cash co-financing contributions from some of the District Councils (Bagamoyo, Zanzibar) that affected the scale of activity. The project benefited from a favorable political context. The likelihood of impact and post-project sustainability is affected at some sites by the turnover of local government focal points and trainees.	Moderately Unfavorable (3)
D. Effectiveness	See comments below.	Moderately Satisfactory (4)
3. Delivery of Outputs	Moderately Satisfactory (MS). Four outputs were fully achieved, and three outputs were mostly or partly achieved. The percentage of fully achieved outputs (60%) falls within the moderately satisfactory level of output achievement according to UN Environment evaluation guidelines.	Moderately Satisfactory (4)
2. Achievement of Direct Outcomes	The direct outcome of reduced vulnerability at the project sites was achieved. This outcome is situated at the higher end of the causal pathway and connects to the intermediate states and project objective. Outcomes of local capacities for monitoring climate change impact and enhanced public engagement mechanisms were partly reached. Although the level of outcome achievement indicates moderately satisfactory performance based on evaluation guidelines, the partial advance towards the enhancement of public engagement mechanisms (the establishment of CBO networks remains in progress at most sites) could affect the full attainment of the immediate objective.	Moderately Satisfactory (4)
4. Likelihood of impact	There is a moderate likelihood of achieving the project impact statement, which focuses on key ecosystems and does not encompass the entire coastal region or country as a whole. Two of three outcomes were achieved for the most part (one fully) and one of two intermediate states is being reached. The third project outcome – the vulnerability of shorelines, mangrove forests and settlements to climate change is reduced at pilot sites – was fully achieved, with considerable progress towards the second outcome of enhanced government and public engagement. There is a high likelihood of reduced ecosystems	Moderately Likely (4)

	<p>vulnerability to climate change and, in the medium term, improved resilience at most of the project sites due to the adaptation interventions. Key coastal ecosystems and settled areas that are prioritized in the National Adaptation Plan of Action (NAPA) are now protected from rising sea levels, flooding and shoreline degradation. This contributes directly to the intermediate state of reduced vulnerability of key coastal ecosystems to climate change through concrete adaptation measures.</p> <p>Several drivers are in place for reducing the vulnerability of key ecosystems. Local government are committed to adaptation interventions that lower the level of threat and can offer a supportive planning framework. Conditions for public engagement have been enhanced at the project sites, although continued support is needed to consolidate district CBO networks. There are parallel project initiatives that are supporting adaptation measures in different locations of the country. On the other hand, some of the key assumptions do not hold: District government budgets are in most cases insufficient to fund concrete adaptation interventions and many depend on central government transfers or external financing for their implementation. Local capacities are not in place to achieve the intermediate state of Improved monitoring of climate change impacts, although the planning of adaptation measures within district plans is likely to increase in response to continued threats.</p>	
E. Financial Management	Both projects shared internal financial management and administrative arrangements within DoE. The MS rating provided is influenced by satisfactory communications and performance on the part of the UN Environment Task and Finance Managers.	Moderately Satisfactory (4)
1. Completeness of Project Financial Information	Project expenditure reports with disaggregated quarterly and cumulative data were submitted. Co-financing commitments/disbursements have been documented. There were difficulties in the preparation of some reports that required adjustment and delayed their approval. Several of the required annual audit reports were delayed in their submission.	Moderately Unsatisfactory (3)
2. Communication between Finance and Project Management	There has been communication between the project management and financial staff. UN Environment's Fund Manager and financial staff have provided guidance on aspects of financial reporting.	Satisfactory (5)
F. Efficiency	There was very low delivery of programmed expenditures and outputs for most of the project period, requiring a no-cost extension of the implementation period. Efficiency levels improved over the remaining term, with most outputs being delivered and the budget spent by the end of the extension period. Project activities were generally well sequenced in their design yet were often delayed in their execution, particularly at the project sites. This disrupted the project causal pathways, and affected the timeliness and impact of some interventions.	Moderately Unsatisfactory (3)
G. Monitoring and Reporting	See comments below.	Satisfactory (5)
1. Monitoring Design and Budgeting	The project document includes a detailed monitoring plan that is budgeted by activity and assigns responsibilities. The monitoring plan has provisions for site visits and monitoring by the project team. SMART indicators were introduced and adjusted following baseline	Satisfactory (5)

	assessments at the project sites. Several indicators are disaggregated by gender, yet this information has not been collected or reported. The outcome indicators are summaries of output targets and do not reflect the changes to the baseline situation that are expected as a result. Annual Project Implementation Review (PIR) reports were foreseen that assess progress towards the achievement of outputs and outcomes contained in the project Results Framework.	
2. Monitoring of Project Implementation	Both UN Environment and the project have met their monitoring obligations. The project sites were visited twice a year on average by the project coordinator or assigned DoE staff. Monitoring data was collected regularly in accordance with the monitoring plan. The monitoring data documented in the Project Performance Reports (PPRs) was shared with the UN Environment Task Manager and analyzed. Gender-sensitive monitoring was foreseen yet gender data is not presented in the annual monitoring reports. Progress towards project milestones was reported annually. Steering committee partners were informed of project activities and in some cases have offered guidance.	Satisfactory (5)
3. Project Reporting	Monitoring reports (Project Implementation Reports/PIRs) were submitted on schedule and provided detailed assessments of progress towards outputs and outcomes, based on their indicators. The indicators of some outputs were disaggregated by gender, yet this data is not documented in the PIRs. There has been regular communication with the UN Environment Task Manager with regards to reported monitoring findings.	Satisfactory (5)
H. Sustainability	See comments below.	Moderately Unlikely ³² (3)
1. Socio-political Sustainability	The project did not include a policy component in its design and was not expected to influence national policy frameworks beyond generating public engagement mechanisms through district-based networks of community-based organizations. The CBO networks are at different stages of consolidation and most will require continued assistance in order to reach a level of consolidation that can be sustained. While participating local governments have demonstrated ownership and supported project activities, this has not influenced the levels that have the power to sustain project outcomes. In particular, the lack of an approved National Mangrove Management Plan (a mandate of Tanzania's Forest Service) is a disabling factor for policy sustainability. Policy continuity is more likely at district levels, where development plans are required to address environmental issues that assess climate threats and propose adaptation measures. Sustainable management plans for restored mangrove sites were envisioned at the district level, yet were prepared in Rufiji only. Social awareness is likely to be sustained and increase over time, yet the mechanisms for public participation have not been fully consolidated and require continued assistance to reach achieve a level of momentum that can be sustained.	Moderately Unlikely (3)

³² The lower sustainability rating is applied according to UN Environment evaluation guidelines.

2. Financial Sustainability	Project outcomes for reduced infrastructure and ecosystems vulnerability do not require further financial inputs aside from minimum maintenance of newly constructed infrastructure and replanted mangrove areas. District Councils are in a position to absorb these costs through their Medium-Term Expenditure Frameworks, in collaboration with the Ministries of Construction and Tourism, Natural Resources and Environment. NGOs and community groups will continue to monitor protected mangrove areas with their own resources. The project outcome for enhanced government and public engagement in climate change activities will need continued technical support and mentoring to consolidate the emergent CBO networks; this may require a modest outlay of funds.	Likely (5)
3. Institutional Sustainability	The sustainability of project outcomes are dependent on institutional support, particularly at the district level where partnership arrangements were established with District and Municipal Councils, NGOs and community organizations to implement pilot adaptation interventions. The local governments are in themselves sustainable, as are most of the NGOs and community organizations that have prior experience and exposure to adaptation activities. Environmental protection is a core function of local government in Tanzania and a required component for district and municipal development plans. Most participating local governments have capacity to manage rehabilitated infrastructure and ecosystems, as do the NGOs contracted for the restoration of ecosystems; several NGOs intend to monitor the growth of the restored mangrove areas beyond the project term. The environmental mandates of local government, combined with the registration of community-based organizations and creation of CBO networks, offer moderately strong mechanisms for sustaining project outcomes of reduced climate change vulnerability and better public engagement at the project sites. However, the sustainability of the project's capacity outcomes are weakened by limited progress that was achieved in improving climate change monitoring capabilities at the district level.	Likely (5)
I. Factors Affecting Performance	See comments below.	Moderately Satisfactory (4.5)
1. Preparation and Readiness	Project budgets were approved with preliminary cost estimates for the pilot adaptation interventions that required adjustment. Provisions for technical oversight were insufficient for the combined scale of the two projects. The project arrangements included the shared recruitment of a part-time Chief Technical Advisor (CTA) to support project planning and implementation. There were national elections and staff turnover within the VPO-DoE. The decision to use the government system for procurement of goods and services undermined contributed to very low levels of expenditure and delivery for much of the project period. There were inconsistent capacity levels among the community organizations participating in the creation of district networks.	Moderately Unsatisfactory (3)
2. Quality of Project management and Supervision	A joint Project Steering Committee was established and met periodically, discussing relevant issues and providing oversight to activities at some of the pilot sites. The implementation structures have been well managed and constructive working relations	Satisfactory (5)

	were developed with the main project partners (local government focal points, NGOs, community groups) at the project sites. A highly qualified project coordinator was designated within the DoE who has dedicated considerable time and effort to the project, in spite of managing parallel responsibilities (as DoE senior economist). Local government focal points, participating NGOs and several community organizations demonstrated the capacity to engage effectively in project activities. There were regular communications with the UN Environment Task Manager. The limited availability of the Chief Technical Advisor lowered the level of technical oversight and quality assurance.	
3. Stakeholder Participation and Cooperation	The project coordinated activities with District and Municipal Councils, through their environment directors who represented the main focal points. This has been important to promote local government ownership of the adaptation measures that were implemented at the pilot sites. There was consistent local government, NGO and community participation in the ecosystems rehabilitation interventions that were implemented at the pilot sites, and to a lesser degree in the construction of seawalls and groynes (which were contracted to a private company). NGOs and CBOs continue to monitor the restored mangrove areas at some sites. One of the project components was devoted to enhancing public engagement in climate change adaptation through awareness raising and the networking between community-based organizations.	Satisfactory (5)
4. Responsiveness to Human Rights and Gender Equity	There are indirect gender benefits and human rights considerations in the protection of coastal settlements from floods and rising sea levels, and in the distribution of energy-efficient cooking stoves to low-income households. A women's group led the restoration of mangroves at one of the sites (Mweni). Several output indicators are disaggregated by gender in the Results Framework.	Satisfactory (5)
5. Country Ownership and Driven-ness	The VPO-DoE and participating District Councils assumed leadership in driving the adaptation interventions at the project sites and committing co-financing contributions that exceeded the grant amount, and endorsing project results. Line ministries represented on the joint Project Steering Committee have provided guidance to adaptation interventions that were within their mandates. An important project component was driven a national NGO network. Additional funds were secured by VPO-DoE on short notice to complete the construction of a new seawall in Pangani. However, there were significant shortfalls in actual co-financing disbursements by some District Councils and the Zanzibar Administration that affected the scale of pilot interventions. The direct participation of the Tanzania Forest Service and Office of the President's Regional Administration and Local Government (PO-RALG) in the joint Steering Committee was desirable to achieve higher results in the rehabilitation of mangrove ecosystems at several sites, and enhance the achievement of intermediate states. The combined factors indicate a MS rating according to UN Environment's evaluation guidelines.	Moderately Satisfactory (4)
6. Communication and Public Awareness	The VPO-DoE and participating District and Municipal Councils assumed leadership in driving the implementation of adaptation interventions at the project sites, committing co-financing contributions that exceeded the grant amount, and endorsing project results.	Satisfactory (5)

	Additional cash funds were secured by VPO-DoE to complete seawall construction in Pangani. Line ministries represented on the joint Project Steering Committee provided guidance to adaptation interventions that were within their mandates. Awareness-raising campaigns were implemented with the aim of promoting greater stakeholder engagement in climate change adaptation.	
Overall Project Rating	The overall project performance rating is moderately satisfactory, based on the evaluation criteria.	Moderately Satisfactory (4.02)

Rating Scale: Highly Satisfactory or Likely (HS, HL): 6; Satisfactory or Likely (S,L): 5; Moderately Satisfactory or Likely (MS, ML): 4; Moderately Unsatisfactory or Unlikely (MU): 3, Unsatisfactory or Unlikely (U): 2; Highly Unsatisfactory or Unlikely (HU)

6.2 Lessons

201. *Lesson #1: Monitoring plans should be extended beyond the project cycle and the mechanisms for tracking the medium-term impacts of adaptation interventions should be in place.* The evaluation findings indicate that project monitoring frameworks were aligned to the project cycle rather than natural processes, and therefore failed to capture changes in environmental indicators such as forest or vegetation cover, surface drainage and land use over the medium term. Ecosystem changes are incremental and may not be evident during the project lifetime; however, ex-post monitoring is restricted by the closure of project budgets a year after implementation activities are completed. These factors undermine a reliable measurement of the effectiveness of ecosystems rehabilitation measures and their effect on resilience to climate change.

202. *Lesson #2: The replication of adaptation interventions and the extension of ICAM is undermined by limited local government budgets and the lack of climate financing mechanisms.* The evaluation findings indicate that district and municipal government revenues are often insufficient to finance concrete adaptation measures under the Medium-Term Expenditure Framework (MTEF). In such cases, there is a continuing reliance on central government allocations or external donor funding to respond to climate change threats. The budget limitations that are faced at the district level affect the likelihood of achieving a key intermediate state that precedes the impact statements of both projects. An emergent lesson is that climate financing alternatives need to be explored to enable more consistent and integrated local responses to the threats of climate change. Options that merit consideration is the emergence of carbon finance markets and payment for ecosystem service (PES) mechanisms; district focal points and CBO representatives were exposed to PES schemes in Kenya by the LDCF project. The DoE can build on this exposure by assessing the viability of PES or other climate finance mechanisms to facilitate adaptation measures on a larger scale.

203. *Lesson #3: Human intervention and land use have direct influence on climate change vulnerability and required greater attention at some of the project sites.* Both projects were designed with an environmental focus that aimed to mitigate the threats of climate change to coastal infrastructure and ecosystems. However, the resilience of the project sites to climate change continues to be threatened by anthropogenic factors despite the adaptation measures that were implemented. Untreated sewage and industrial effluent are jeopardizing the survival of mangrove sites in the Dar es Salaam metropolitan area. Likewise, the conservation of mangroves in the Rufiji Delta is threatened by illegal logging, charcoal production and inappropriate land use. The mitigation of these threats would have required a more comprehensive approach with greater involvement by non-forestry sectors (i.e. planning, agriculture, fisheries, tourism).

204. *Lesson #4: Project execution arrangements were not always supportive of efficiency or effectiveness.* Both projects were executed by the Vice President's Office's Division of Environment and entrusted to senior DoE staff with parallel responsibilities. Both were assisted by DoE's technical staff and administrative personnel. Project contracts and the acquisition of goods and services were processed through the government's procurement system. While these arrangements have encouraged country ownership, they were not always efficient. The assigning of internal DoE staff to both projects was preferred over external recruitment in order to build internal capacity and institutional memory; there were however trade-offs to this arrangement that influenced the level of delivery and technical oversight. Both projects have also relied to a large extent on short-term external consultants for implementing the various components. Project implementation might have benefitted from a

full-time joint project management unit within the DoE, staffed by externally recruited specialists supervised by the DoE-appointed Project Directors.³³

Although district environmental focal points and other participants received training on DIVA/GIS for vulnerability mapping and monitoring under the LDCF project, this has not had an effect on district capacities and was not being applied at any of the sites at the time of the evaluation mission (some District Councils have mapped the pilot areas and restored mangrove sites on spatial images). The project budgets did not include the funds for the field training or application of GIS. The consideration of on-site training for vulnerability monitoring and adaptation planning at the design and budgeting stage would have had a stronger demonstration effect and offered practical exposure to participants. The contracting of procurement services to an external provider (such as UNOPS) from the beginning would have raised output delivery and expenditure considerably, improving the efficiency of both projects.

205. **Lesson #5:** More consistent technical oversight would have enhanced quality assurance for both projects. Project funds were considered insufficient to fund full-time technical oversight, and both projects allocated resources for part-time support from a part-time Chief Technical Advisor who visited the country twice a year on average. A more consistent presence and level of engagement might have improved the formulation of intervention strategies in the Rufiji Delta, or improved the design and operational utility of training modules to the needs of participants. However, full-time technical oversight would also have generated high costs to the projects; hence the internal decision was taken to instead hire part-time consultants to compliment the role (and intermittent presence) of the Chief Technical Advisor. The UN Environment Country Office in Dar es Salaam offered a potential source of monitoring support that could have complemented the annual missions of the Task Manager. However, the evaluators were informed that such arrangements are uncommon and would have required prior consensus at the executive level.

206. **Lesson #6:** *The execution arrangements of both projects were not optimal for ensuring efficiency or effectiveness.* The government execution modality is an important driver of country ownership, yet the operational arrangements need to be pragmatic and based on the best option available. A realistic assessment of preparedness was needed at the design stage to ensure adequate execution arrangements for both projects, more so considering their relevance to UN Environment's strategic mandate and global positioning on climate change issues. Optional arrangements that are consistent with the government execution modality could have been considered. For example, establishing a joint project management unit within the DoE with externally recruited specialists, fully dedicated to project implementation, who would report to the National Project Coordinator or Director (enabling the latter to focus on strategic coordination and program/policy linkages). Likewise, there was need to consider expedited procurement processes to ensure that 'demonstration' projects such as these have the maximum chances of effective implementation and influencing the usual way of planning and resource allocation; in retrospect, procurement and administrative services may be more efficient when contracted to external providers (as was the case with UNOPS). More consistent senior technical advice and oversight was needed than was made available, in support of quality assurance and adaptive management.

6.3 Recommendations

207. The following recommendations are based on evaluation conclusions and lessons that address the status of project results and the present situation at the project sites. They are

³³ The DoE has noted that external recruitment of project staff is not preferred by the Government, since it does not build internal capacity and institutional memory is lost when the project is closed and recruited project staff leave the office.

directed at UN Environment, which has the responsibility of communicating these recommendations (with the other evaluation findings) to the Government of Tanzania for consideration.

208. The following recommendations are proposed for consideration by VPO-DoE:

209. *Recommendation #1:* An immediate recommendation is the need to complete and consolidate site adaptation interventions that were planned but not fully implemented. Although most of the work that was planned at the various project sites was completed (and in some cases exceeded), there are pending aspects that require attention. These include:

- The construction of a new seawall on the south bank of the Pangani River (across from Pangani Town). This increasingly vulnerable site has a collapsed seawall and drainage system, exposing local residents to rising sea levels and flooding.
- Continued mangrove planting at the Mbwani site in Dar es Salaam, or perhaps in adjacent areas that are not exposed to the liquid waste and effluent that drain through this location.
- The seawall area at the Mwalimu Nyerere Memorial Academy urgently requires the planting of native grasses and trees for soil stabilization; as do the slopes surrounding the drainage canals at Temeke and Ilala Districts. Vetiver grass, *leucanea* and intermittent *casuarina* trees are recommended for this purpose; all are leguminous species that are native to the region and improve soils through nitrogen fixation.³⁴



Pangani's south bank seawall is severely deteriorated and places households at risk.



Grasses and trees need to be planted at several AF project sites to stabilize soils against erosion and protect rehabilitated infrastructure.

- Local CBO networks are at an incipient stage of development and will require further training and accompaniment before they are able to engage effectively in adaptation initiatives. The continuing need for training on vulnerability/adaptation issues and the preparation of project proposals was highlighted by various interviewees.
- seven (7) boreholes sites that were identified by LDCF-funded groundwater surveys could not be drilled due to budget limitations. However, their locations are mapped and can be drilled by the DAWASA water authority or parallel programs for the water sector.
- The inadequate drainage of sewage and industrial effluent at some coastal sites in the Dar es Salaam metropolitan area, is part of a broader problem that affects the resilience of coastal ecosystems. Remedial actions require levels of investment and institutional involvement that were outside the possibilities of either project. There is need to plan future improvements in surface water drainage and wastewater treatment in coordination with

³⁴ According to the joint Final Project Report, the Vice-President's Office has recently signed a MOU with Ilala municipality to plant trees and grasses; discussions are planned with the Ministry of Fisheries to contain the erosion that threatens the adjacent seawall at the Mwalimu Nyerere Memorial Academy.

parallel initiatives and donors that are better placed to finance the investment, i.e. through the Dar es Salaam Metropolitan Development Program (DMDP) and Dar es Salaam Water and Sewage Authority (DAWASA).

- The 3,000 energy-efficient cooking stoves that were distributed to low-income families doubled the initial target and are expected to have an impact on charcoal consumption, reducing environmental stress and benefitting women by reducing the time devoted to cooking chores. Gender and environmental impacts should be documented through interviews with sample groups of beneficiary families in the participating districts.
- *Future climate change adaptation initiatives in the Rufiji Delta should be part of a larger strategy that addresses the broader threats and is more inclusive institutionally.* The challenges faced in the Delta (East Africa's largest mangrove forest and a RAMSAR site) are multi-tiered and complex, and exceed the capabilities of single stand-alone projects. A cross-thematic approach is needed that lasts longer and is more inclusive – influencing land use, planning and budgeting;³⁵ and leveraging support for mangrove conservation and sustainable livelihoods (beyond the scale of the LDCF project). However, the framework for this to happen needs to be created.



Deep-rooting Vetiver grass is resistant to seawater and is planted in hedgerows. Their root systems reach 2 meters.

210. *Recommendation #2: Ecosystems-based Integrated Coastal Area Management (EBICAM) is needed on a broader scale to reduce coastal vulnerability beyond the pilot sites.* The DoE should resume consultations towards the proposed EBICAM Plan with line ministries, coastal District Councils, NGOs and the donor community, building on the advances of both projects. The broader vision calls for greater institutional inclusiveness. The Tanzania Forest Service needs to be directly involved in the programming of coastal mangrove rehabilitation. Incorporating adaptation measures to an updated National Mangrove Management Plan could trigger interventions on a wider scale. Another important entity is the Regional Administration and Local Government Authority (of the President's Office) that oversees local government development planning and training. Improving surface water drainage or wastewater treatment in vulnerable areas will require negotiating with the industrial enterprises, hospitals and other entities that discharge contaminated wastes that drain towards the coastal mangrove areas. Applying EBICAM on a broader scale will require external support over the medium-term, which is likely to exceed the duration allowed for most donor-supported projects. For this reason, VPO-DoE might consider donors such as the Global Climate Fund (GCF) the support the scaling-up of promising initiatives, to discuss a follow-on project.

211. *Recommendation #3: Non-climate drivers that affect the resilience of coastal ecosystems to climate change should be addressed in the design of adaptation initiatives.* Ecosystems resilience is indirectly influenced by biodiversity, land use, economic activity and policy variables. Although project steering committees often bring the main government actors together, operationalizing collaboration on the ground is more challenging. Mangrove forests in the Dar es Salaam area are still threatened by surface drainage of untreated liquid waste and effluent. Coastal adaptation management also must also address "inland" threats that aggravate vulnerability such as human encroachment, inadequate drainage and waste disposal, or extractive activities. Addressing the non-climate threats that influence coastal vulnerability is likely to tend projects towards a broader, watershed-based approach that may require more time and resources.

212. *Recommendation #4: Climate financing is needed to ensure continued adaptation interventions over time.* District and Municipal Councils for the most part do not have the

³⁵ In similar situations, governments have sometimes decided to grant occupancy certificates to families settled on public lands to provide limited tenure security, as an incentive for their cooperation in its management.

financial resources that are needed to replicate or expand adaptation interventions. Climate financing options such as Payment for Ecosystem Services (PES) can provide incentives for continued community engagement in adaptation measures, in lieu of continued donor funding. District focal points, NGOs and community representatives were exposed to PES activities in Kenya through a study tour that was organized by the LDCF project. A logical next step on the part of VPO-DoE would be to assess the viability of PES legislation for Tanzania through consultations with government policy-makers, the environmental community and the private sector.

185. *Recommendation #5:* A final workshop involving VPO/DoE and the main partners of both projects should be programmed to disseminate the findings of the joint Terminal Evaluation, discuss actions that raise the likelihood of post-project sustainability, and feed the various lessons into the design and implementation of subsequent projects.

186. The following recommendations are for consideration by UN Environment:³⁶

187. *Recommendation #6:* *Projects that support physical construction or rehabilitation of infrastructure should incorporate engineering and feasibility studies the design stage, to ensure realistic costing and avoid budget shortfalls.* Adaptation interventions by both projects were affected at some sites by cost overruns and could not be completed as planned (at other sites the targets were exceeded). In such cases, the planned interventions were under-budgeted at design and/or their cost had increased over the extended period between their initial budgeting and actual implementation. These experiences indicate that reliable estimations of construction and rehabilitation costs are necessary at the design stage (as are budgetary provisions to cover the inevitable contingencies). The costs of these studies should be financed by the national executing agency, or alternatively covered by project preparation grants such as the PPG assistance that is available for GEF projects.

188. *Recommendation #7:* *The availability of monitoring and oversight support by UN Environment Country Offices should be considered and incorporated to project monitoring plans when feasible.* This is corporate issue that transcends this evaluation, yet is relevant to the issue of quality assurance and UNEP's responsiveness to emergent challenges. Project monitoring and oversight are not core functions of the regional or country offices and are assigned to a UNEP Task Manager associated to the implementing Technical Unit. In countries where UN Environment has a direct presence, staying informed of the general project situation – and calling attention to substantive issues as they develop – could assist the monitoring visits of the Task Managers (who are responsible for a number of projects). This is particularly important when the magnitude of the projects and importance of the donors justify a more consistent approach.

189. *Recommendation #8:* *Baseline vulnerability assessments should be documented at the design or inception stages with GIS formats, to monitor changes to baseline variables over time.* Tracking the effects of adaptation measures on ecosystems may require monitoring changes in surface water drainage, shoreline sea levels, vegetation cover or land use (or other indicators). Yet projects usually lack the mechanisms or budget for monitoring the rehabilitation of ecosystems over time – or beyond the implementation period. Impact evaluations of projects are not conducted and their actual effects on vulnerability to climate change are often unknown. The use of shorter-term proxy indicators that signal intermediate impacts or outcome development may need to be built into the monitoring plan. Likewise, UN Environment and its project partners can benefit from the application of spatial analysis with GIS programs, using open source software that enables tracking changes to biophysical

³⁶ Both projects have finished their implementation and in the process of administrative closure. A follow-up project has not been proposed (to the knowledge of the evaluators). This leaves little scope for making project-specific recommendations that UN Environment can follow up on. These recommendations are intended to improve design and effectiveness of adaptation initiatives that are supported by UN Environment, based on the project experiences and lessons.

baseline scenarios over time. This should be done at the design or inception stages to generate pre-implementation baselines that can be transferred to the national partners responsible for monitoring climate change impacts.

Annex I. List of Documents Consulted

- Agreement between Adaptation Fund and UNEP: Implementation of Concrete Adaptation Measures to Reduce Vulnerability of Livelihoods and Economy of Coastal Communities of Tanzania: Agreement, Project Document & Appendices)(2012)
- Implementation of Concrete Adaptation Measures to Reduce Vulnerability of Livelihoods and Economy of Coastal Communities of Tanzania: Project Performance Reports (2015-2018)
- Developing core capacity to address adaptation to climate change in productive coastal zones of Tanzania: Project Document and appendices.
- Developing core capacity to address adaptation to climate change in productive coastal zones of Tanzania: Project Implementation Review (PIR) Reports (2014-2018)
- Final Completion Report: “Developing Core Capacity to Address Adaptation in Tanzania” and “Implementation of concrete adaptation measures to reduce vulnerability of livelihoods and economy of coastal communities of Tanzania” (Vice-President’s Office, 2018)
- Mid-term Review of the UN Environment projects “Implementation of concrete adaptation measures to reduce vulnerability of livelihoods and economy of coastal communities of Tanzania” (funded by the Adaptation Fund) and “Developing core capacity to address adaptation to climate change in productive coastal zones of Tanzania” (funded by the Least Developed Countries Fund), Jon Garcia/Baastel (2016)
- Independent Audit of “Developing Core Capacity to Address Adaptation in Tanzania” and “Implementation of concrete adaptation measures to reduce vulnerability of livelihoods and economy of coastal communities of Tanzania” (2015)
- AF and LDCF Summary of Financial Data 2013-2018 - Excel Sheet (2018)
- Second PCA Key Figures – Excel Sheet (2018)
- AF Project Beneficiary Reports (for Adaptation Interventions)
- AF Project Annual Work Plans 2013-2018
- AF Project Annual Activity Plan for 2018 - PCA Amendment (2018)
- AF and LDCF Project Quarterly and Consolidated Expenditure Reports
- Request for Extension of Project Cooperation Agreement (PCA) for Adaptation Fund and LDCF funded projects in Tanzania (2018)
- AF and LDCF Annual Budget Revisions 2013-2018
- Second PCA for Tanzania AF Project (2018)
- AF and LDCF Draft Terminal Report (2019)
- Developing Core Capacity to Address Adaptation to Climate Change in Productive Coastal Zones of Tanzania: Project Document & Appendices
- Developing Core Capacity to Address Adaptation to Climate Change in Productive Coastal Zones of Tanzania: Project Implementation Review (PIR) reports 2014-2018
- LDCF Project Beneficiary Reports (on the adaptation Interventions)
- LDCF Project Annual Workplans: 2013-2018
- Minutes of joint Project Steering Committee Meetings: 2014-2018
- Training Manual for Dynamic Interactive Vulnerability Assessment and Coastal Zone Simulation Model for selected Districts in Tanzania (Institute of Marine Sciences, 2016)
- Terminal Evaluation Terms of Reference (UN ENVIRONMENT, 2019)

Annex II. Country Agenda and List of Individuals Consulted

Date	Location	Institution	Person
18-Feb-19	Dodoma Region	VPO-DOE	Eng. Ladislaus Kyaruz
			Margareth Richard
18-Feb-19			Mr. Freddy Manyika, AF Project Coordinator Mr. Cletus Shengena, LDCF Project Coordinator
19-Feb-19		MNRT-Forestry	Magdalena Muya
		Ministry of Water and Irrigation	Ms. Grace Z. Nsanya
		Ministry of Works, Transport and Communication	Eng. Melania Sangeu
		VPOP-DOE	Freddy Manyika, Cletus Shengena and other executing members
20th Feb	Dar es salaam	Dar es Salaam City Council	Eng. Chionda Kawawa
20th Feb	Dar es salaam	Ilala Municipal Council	Mr. Enock H. Tumbo
			Churchil Mujuni
			Samuel Nkomola
			Nation Marwe
20th Feb	Dar es salaam	Mwalimu Nyerere Memorial Academy	Ms. Mkumbo Ukende
20th Feb	Dar es salaam	Kinondoni Municipal Council	Mr. Mohamed Msangi
21st Feb	Dar es salaam	Temeke Municipal Council	Mr. Mtogori Chacha
21st Feb	Dar es salaam	UNEP National Office	Ms. Clara Makenya
21st Feb	Dar es salaam	UNOPS	Anthony Gakuru Muchiri
22nd Feb	Dar es salaam	National Environment Management	Prof. Richard Kangalawe
22nd Feb		Ranki Fishermen Organisation	Mohammed Said Mohidin
22nd Feb	Dar es salaam	SUNARE (national NGO)	Dr. Leonard Chauka
22nd Feb	Dar es salaam	Department of Geograph-University of Dar es Salaam	Dr. Mwanukuzi
22nd Feb	Dar es salaam	FORUMCC	Ms. Rebecca Muna

25 - 26 Feb	Pwani Region	Kibiti District Council	Fazal Issa
			Gideon Zakayo
			Ms. A, Ndadayo
27 - 28 Feb	Tanga Region	Pangani District Council	Mr. Twahir Y. Mkongo
			Daudi Mlahagwa
		Beach Management Unit- Pangani East	Kaisi Mangasala
		Beach Management Unit- Pangani West	Frank Baya
		Pangani'Coastal'Cultural'	Leonard'Sekibaha
		BMU'U'Member'P/Magharibi	Idrisa Sudi
		BMU'U'Member'P/Magharibi	Rashidi'Lenadi
		BMU'U'Pangani'East	Shufaa'Bakar
		BMU'U'Pangani'East	Salimu Jumanni
		BMU'U'Pangani'East	Rabia'Bakari
		BMU'U'Bweni'(Pangani'West)	Jabiri Zumo
		BMU'U'Bweni'(Pangani'West)	Mwanamisi Shabani
		BMU'U'Bweni'(Pangani'West)	Juma Mihambo
			Chausiku Hosseni 0'786'448395
			Beach Management Unit-Bweni
1-Mar	Pwani Region	Bagamoyo District Council	Ms. Fatuma O. Latu
			Lucy Michael
			Jabiri Kayilla
		Mlingotini	Xtaifa*Mtoro*
		Mlingotini	Ramadhani*Salum
		Mlingotini	Ahmada*M.*Gogo
		Kaole Bagamoyo Secondary School (Sekondra Kitongoti)	Mussa B. Athuman
			Hamad .O.Urari
			Hamza P.Luhuza
		Bagamoyo Town Kingani*Secondary*School	Method Kunambi
		Bagamoyo Town Kingani*Secondary*School	Sylolian Stephen
			Eng. Jason
2- 6 March	Zanzibar		Farhat Ali Mbarouk

	Sheha Mjaja
	Mwalim K.H. Mwalim
Bwawani	Mwanajuma Ngwali Ahmed
Bwawani	Mohamed Makame
Bwawani	Mohamed Omar
Kilimani	Jawal Khamis Juma
Kilimani	Khalid Ali Kombo
Kilimani	Ahmed Said Mbarak
	Jaina Khatibu Ame

Online interviews/meetings (skype, e-mail)

- Mara Jasmin Baviera, Project Task Manager, UN Environment
- Lars Christiansen, former Project Task Manager, UN Environment
- Sharon Kerosi, Project Fund Management Assistant, UN Environment
- Bwiza Wameyo-Odemba, Project Fund Management Officer, UN Environment Office

Annex III. Evaluation Matrix

EVALUATION CRITERIA & GUIDING QUESTIONS	TARGETED RESPONDENTS / FOCUS GROUP	INDICATORS	INFORMATION SOURCES
A. Strategic Relevance			
1. To what extent were the projects objectives and implementation strategies consistent with sub-regional and national environmental priorities?	VPO, DoE, Steering Committee members	Alignment with policy priorities and actions of the National Climate Change Adaptation Action Plan.	Policy documents, stakeholder interviews
2. To what extent were the projects objectives and implementation approaches consistent with the strategic priorities of UN Environment's Medium Term Strategy and the GEF focal areas?	UN ENVIRONMENT Task Manager	Project design and implementation approach.	Project documents and UN ENVIRONMENT MTS, stakeholder interviews
3. Was there complementarity with parallel interventions?	Project coordinators, VPO - DoE focal points, Steering Committee members, district focal points	Evidence of collaboration and share implementation arrangements between the AF and LDCF projects, as well as others	Project documents, PIRs and Final Report, stakeholder interviews
B. Quality of Project Design			
4. Are the projects design based on a realistic assessment of trends associated with climate change?	Project coordinators, VPO- DoE focal points, Steering Committee members	Review of project document and logical framework. Respondent perceptions of project design and their effect on performance. Timely implementation with adequate budget allocations.	Project documents, PIRs and Final Report. Stakeholder interviews.
5. Are the project objectives and deliverables realistic in terms of the allocated timelines and resources?	Project coordinators, VPO- DoE focal points, Steering Committee members	Timeliness of implementation and output delivery. Adequate resources to deliver planned outputs, in particular for adaptation interventions at project sites.	MTR, PIRs, Final Report and budget revisions. Stakeholder interviews.
6. Are adequate implementation and stakeholder coordination mechanisms outlined?	Project coordinators, district focal points, community representatives at project sites	Timely implementation and output delivery, particularly for adaptation interventions at project sites. Evidence of consultations with affected residents and vulnerable groups during the design/implementation of adaptation interventions.	Stakeholder interviews, MTR, PIRs, Final Report
7. To what extent are the projects design responsive to human rights, gender and indigenous rights?	Project coordinators, district focal points, community representatives at project sites	Human rights and/or gender issues are incorporated to project design and logical frameworks. CBOs and women's groups have participated in planning and implementing adaptation interventions.	Stakeholder interviews with women's groups and community organizations. PIRs, Final Report

C. Nature of External Context

8. To what extent was project performance affected by conflict, natural disasters, political upheaval and/or an unfavorable operating environment?	Project coordinators, district focal points, community representatives at project sites	Timely implementation and output delivery. Influence of climatic extremes on implementation of adaptation interventions. Scheduling of national/sub-national elections during projects implementation.	Stakeholder interviews, PIRs Final Report
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D. Effectiveness

9. To what extent were the planned outputs achieved?	Project coordinators, SC members, district focal points, community representatives at project sites	Full delivery of planned outputs listed in the project logical frameworks.	Stakeholder interviews, PIRs Final Report
10. To what extent were the projects direct outcomes and objectives attained?	VPO-DoE, project coordinators, SC members	Delivery of key outputs enable projects to reach outcomes and intermediate states preceding impact.	Same as above
11. What is the likelihood that the intended impact will be achieved? Are any unintended negative effects anticipated?	VPO-DoE, project coordinators, SC members	Key outcomes and intermediate states preceding impact have been reached or are in process of being attained.	Same as above.

E. Financial Management

12. Were reported expenditures and financial information complete? How adequate were communications between the project management and ONE financial staff	Project coordinators, UN ENVIRONMENT Task Manager and UNON Financial Management Officer (FMO)	Financial reports are submitted on schedule and accepted. Budget replenishments are authorized. Evidence of administrative irregularities and/or interrupted procurement/disbursement processes.	Stakeholder interviews, PIRs, audits
13. Were there irregularities in procurement, use of financial resources and human resource management, and the measures taken to correct/prevent such irregularities?	Project coordinators, UN ENVIRONMENT Task Manager and UNON Financial Management Officer (FMO)	Financial reports are submitted on schedule and accepted. Budget replenishments are authorized. Evidence of administrative irregularities and/or interrupted procurement/disbursement processes.	Stakeholder interviews, PIRs, audits

F. Efficiency

14. Did the project apply any time or cost-saving mechanisms in order to achieve results within the approved timeframe and budget?	Project coordinators, UN ENVIRONMENT Task Manager and UNON Financial Management Officer (FMO)	Timeliness of project implementation and output delivery, within approved budgets. Cost-benefit analysis is used to prioritize adaptation interventions. Periodic revisions are approved to adjust budgets and reprogram unspent funds.	Same as above, budget revisions.
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15. Were outputs delivered on schedule? Did the project face any obstacles (financial, administrative, managerial) and to what extent has this affected output delivery and overall efficiency?	Same as above.	Timeliness of output delivery in relation to programmed schedule and causal pathways.	Same as above.
16. Were the required progress and financial reports prepared in a satisfactory manner and submitted on schedule?	Same as above.	Progress (PPRs; PIRs) and financial reports are submitted every 6 and 12 months, and are accepted by UN ENVIRONMENT and UNON.	Interviews with Project Task Manager and Financial Management Officer (FMO).
17. Were AF and LDCF funds and government co-financing made available in full and disbursed according to the project agreements?	Same as above.	Timeliness of AF and LDCF disbursements. Availability of co-financing (cash and in-kind).	Interviews with project coordinators and administrators, and with the FMO.

G. Monitoring and Reporting

18. Did the project's design include a viable and budgeted M&E plan with measurable indicators? Were M&E responsibilities clearly defined? Were the data sources and data collection instruments appropriate?	UN ENVIRONMENT Task Manger, Project Coordinators	Project document includes monitoring plan and budget line. Measurable indicators and targets are included in the logical frameworks.	Project document, stakeholder interviews.
19. Was the frequency of monitoring activities specified and adequate? To what extent were different project stakeholders and users involved in monitoring?	Same as above, SC members, district focal points	Evidence of monitoring visits and level of stakeholder engagement. Project conducts monitoring activities periodically with input of project participants. The monitoring approach is considered methodologically appropriate by the evaluator and most respondents.	Stakeholder interviews, monitoring reports
20. Have monitoring findings influenced adaptive management and contributed to resolving implementation problems?		Respondent perceptions, evidence of technical/management decisions based on monitoring findings	Same as above, MTR, Final Report.

H. Sustainability

21. Are project-supported capacity development efforts are likely to be sustained? Are ICAM and adaptation interventions likely to be continued and replicated in coastal areas?	VPO and DoE focal points, project coordinators, SC members, district focal points.	Future adaptation interventions are budgeted under the government's Medium Term Expenditure Framework (MTEF). There is further government and donor support for adaptation interventions in benefit of vulnerable communities and coastal infrastructure. ICAM is disseminated to a wider audience by DoE and universities.	Stakeholder interviews, Final Report, review of MET (if available).
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1. Socio-political: To what extent do social or political factors support the continuation and further development of project direct outcomes?	Same as above.	Respondent perceptions, capacity and commitment of SC members with adaptation functions, district committees and local organizations in vulnerable areas.	Stakeholder interviews, Final Report
2. Financial: To what extent is the continuity of project results and their impact dependent on continued financial support? Will adequate financial resources be made available to ensure the continuity of programs, plans, agreements, monitoring systems etc. that were prepared and agreed upon under the project?	Same as above.	Respondent perceptions, government funds (MTEF) and donor support earmarked for ICAM and additional adaptation measures. Adaptation measures are included in district development plans and budgets.	Stakeholder interviews, Final Report.
3. Institutional: To what extent is the sustenance of the results and progress towards outcomes and impact dependent on national institutional frameworks and governance? To what extent are institutional governance structures and capacities in place to sustain processes, policies, agreements and legal/regulatory aspects that were supported by the project?	Same as above.	Steering Committee or thematic sub-committee members continue to meet on climate change-related issues. District and municipal committees continue to address climate change vulnerability issues. The National Climate Change Steering Committee has stronger working relations with line ministries, district governments and vulnerable coastal communities. . .	Stakeholder interviews, Final Report
4. Catalytic Role & Replication: Has the project had a catalytic role in promoting institutional change, changes in behavior, policy changes, new opportunities or follow-up support?	Same as above.	Respondent perceptions, continued implementation of ICAM and adaptation interventions that are aligned to the National Climate Change Adaptation Action Plan. Plans for follow-up national and/or donor support initiatives.	Stakeholder interviews, Final Report

1. Factors affecting Project Performance

<u>Preparation and Readiness:</u>			
1. Were appropriate measures taken to address weaknesses in project design or respond to changes that took place between project approval, securing of funds and project activation?	VPO, project coordinators, SC members, UN ENVIRONMENT Task Manager	Respondent perceptions. Evidence of adaptive management through budget and work plan revisions, and application of MTR recommendations.	Stakeholder interviews, PIRs, MTR and Final Report
2. To what extent were the VPPO, DoE and main partners prepared to assume project execution? What factors have influenced the levels of preparation and readiness?	VPO and DoE focal points, project coordinators, district and community-based focal points	Respondent perceptions. Output and financial delivery trends. Assessment of baseline institutional capacities and gaps for adaptation management.	Stakeholder interviews, PIRs, Final Report
3. Were adequate project execution and management arrangements in place? Were partnerships for project execution identified negotiated	Same as above.	Partnership agreements and co-execution of project components with national institutions and stakeholders – line ministries, universities,	Same as above.

and implemented? Were counterpart resources (funding, staff) available as planned?		district councils, vulnerable communities and their organizations.	
<u>Quality of Project Management and Implementation:</u>			
1. To what extent were the project implementation mechanisms outlined in the project document effective in delivering project outputs and outcomes? Were adaptations made to the approaches originally proposed?	VPO and DoE, project coordinators, SC members and district/community focal points. UN ENVIRONMENT Task Manager.	Output and financial delivery trends, revisions to initial log frames and results frameworks, application of MTR recommendations. Respondent perceptions.	Stakeholder interviews, MTR, consolidated expenditure reports, PIRs and Final Report.
2. How effective and efficient was project management by the project team and national executing agency? How well has the project team adjusted project execution to changes during the project lifetime?	VPO and DoE, project coordinators, SC members and district/community focal points. UN ENVIRONMENT Task Manager.	Respondent perceptions, adjustments to project design and implementation work plans.	Same as above.
3. To what extent did the joint Project Steering Committee and its subcommittees provide guidance and contribute to effective project implementation?	Project coordinators, SC members, UN ENVIRONMENT Task Manager	Respondent perceptions, minutes of SC meetings, role of SC in approval of work plans, revisions and recruitments.	Same as above.
4. Identify any operational and political / institutional problems and constraints that influenced implementation, and how the project partners tried to overcome these problems.	VPO and DoE, project coordinators, SC members and district/community focal points. UN ENVIRONMENT Task Manager.	Respondent perceptions. Adaptive management reflected in adjustments to project design, work plans and budget lines. Assessment by the MTR.	Stakeholder interviews, MTR, PIRs, Final Report
<u>Stakeholder Cooperation and Participation:</u>			
1. What approaches were used to identify and engage stakeholders in project design and implementation?	VPO and DoE, project coordinators, SC members and district/community focal points.	Respondent perceptions, minutes of SC meetings, documented arrangements in project document.	Stakeholder interviews, project document, MTR, Final Report
2. To what extent have the VPO, DoE, project partners and stakeholders collaborated/interacted effectively during project design and implementation?	VPO and DoE, project coordinators, SC members and district/community focal points.	Same as above.	Same as above
3. Were mechanisms for awareness raising and public participation in adaptation designed, and if so, are they functional?		Same as above.	Same as above.
<u>Human rights and gender equity:</u>			
1. To what extent have project activities supported UN Environment's Policy and Strategy for Gender Equality and the Environment? To what extent have women's groups participated in the distribution of energy-efficient cook stoves, which was designed with a gender focus?	Project coordinators, SC members, and district - community focal points.	Respondent perceptions, particularly at the district and community levels.	Stakeholder interviews.
<u>Country Ownership and Driven-ness</u>			
1. To what degree have VPO and DoE assumed responsibility for the project and provided	VPO and DoE focal points, project coordinators, SC members	Stakeholder perceptions, delivery trends, availability of co-financing resources	Interviews, PIRs, Final Report

adequate support to project execution, including the cooperation received from the various public institutions involved and timeliness of counter-part funding?			
2. To what extent has the SC facilitated project performance?	Project coordinators, SC members, UN ENVIRONMENT Task Manager	Reports of SC meetings indicate influence on management decisions.	Reports of SC meetings.
3. Were additional resources – financial, in-kind – leveraged by the project, beyond those that were already committed prior to the project’s approval?	VPO and DoE, project coordinators, UNON FMO	Budget revisions, increased co-financing allocations	PIRs, expenditure reports, Final Report
<u>Communications and Public Awareness</u>			
1. How effective was the project in a) the communication of learning and experience sharing between project partners and interested groups and b) public awareness activities that were undertaken during the implementation of the project to influence attitudes or shape behavior among wider communities and civil society at large.	VPO and DoE, project coordinators, partners engaged in communication, dissemination and learning (NGOs, universities).	Respondent perceptions, changes in attitude (w/ baseline survey of focus groups), downloads or “hits” to project and National Climate Change Committee websites. Increased engagement of community beneficiaries and civil society at large in adaptation measures.	Stakeholder interviews, PIRs, Final Report
2. How effective have the project’s communications and public awareness activities been in institutionalizing public participation in adaptation management and implementation?	DoE, project coordinators, SC members, partners engaged in broadening public engagement under outcome.	Respondent perceptions, timeliness and acceptance of PIR and financial reports; timeliness of disbursements and administrative support services by UN ENVIRONMENT	Interviews, PIRs, Final Report
3. Has the project made arrangements for feedback mechanisms with stakeholders including gender and marginalized groups, and is there a platform for knowledge sharing?	Project coordinators, district focal points and community-based organizations representing gender and marginalized groups.	Respondent perceptions, reports on meetings with women’s organizations and CBOs.	Stakeholder interviews, agreements or MoUs with women’s groups, PIRs, Final Report.

Annex IV. Summary of Project Expenditure / Planned and Actual Co-financing by Budget Line

1. "Implementation of Concrete Adaptation Measures to Reduce Vulnerability of Livelihoods and Economy of Coastal Communities of Tanzania" (Adaptation Fund)

	2013 Programmed	Expended	2015 Programmed	Expended	2014 Programmed	Expended	2016 Programmed	Expended	2017 Programmed	Expended	2018 Programmed	Expended
Personnel	118,000	50,900.50	251,519	156,439	219,910	76,599.70	164,163.58	87,350.98	173,424.54	56,986.68	148,997.70	58,438.72
Subcontracts	1,668,750	0	3,352,350	692,811.09	118,000	12,589.57	1,956,415.20	816,664.72	1,095,348.12	1,046,884.60	37,992.52	997.00
Training	20,000	0	46,059.76	31,508.14	97,000	59,687.19	29,961.00	23,284.46	60,607.46	2,861.56	29,598.78	27,062.69
Equipment	29,250	10,268	68,000	11,752.75	90,813	47,411.93	51,000.00	484.44	33,817.13	9,295.95	20,147.66	6,026.19
Miscellan.	4,910	8,459.79	53,833.98	12,601.36	9,781.71	4,993.12	30,958.00	33,253.24	39,664.00	16,261.43	11,947.29	6,577.51
Total	1,840,910	69,62829.	3,771,762.74	905,112.59	535,504.71	201,281.51	2,232,497.78	961,037.54	1,402,871.25	1,132,250.22	284,663.95	99,082.11

Total Programmed Budget (US\$) 2013 - 2018	Total Expended Budget (US\$) 2013 - 2018	Ratio Programmed/ Expended Budget
4,616,188 ³⁷	4,424,602	1: 0.8

2. "Developing Core Capacity to Address Adaptation to Climate Change in Productive Coastal Zones of Tanzania" (Least Developed Countries Fund)

³⁷ The total budget included a management fee of US\$ 392,376

	2013		2014		2015		2016		2017		2018	
	Programmed	Expended	Programmed	Expended	Programmed	Expended	Programmed	Expended	Programmed	Expended	Programmed	Expended
Personnel	122,000	34,220.	164,750	65,4890.70	276,112.70	96,929.18	213,131.77	116,212.67	159,427.30	104,990.67	75,375	30,740.20
Subcontracts	788,475	-	853,300	4,604.50	1,363,730	531,564.63	2,846,696.60	1,778,497.79	1,194,870.58	1,778	428,175.77	349,606.74
Training	20,000	-	82,523	39,661.30	59,961	883	26,225	36,066.46	10,176.54	2,273.50	1,000	-
Equipment	55,000	249.40	93,000	39,448.59	53,551.41	11,110.58	76,385	53,109.94	85,976.28	-	84,000	-
Miscellan.	13,000	6,554.30	34,500	17,664.45	34,936.25	22,928.81	15,664	25,036.76	40,512.32	27,969.24	44,598.25	3,144.90
Total	998,475	41,023.70	1,228,073	166,868.54	1,788,28136.	663,416.20	3,178,102.	2,008,923.63	1,490,963.02	877,814.01	633,149.03	383,491.88

Total Programmed Budget (US\$)	Total Expended Budget (US\$)	Ratio Programmed/ Expended Budget
3,356,300	3,106,642	1: 0.9

LDCF Project Co-financing

	Committed In-Kind	Disbursed In-Kind	Committed Cash	Disbursed Cash
Bagamoyo	500,000	334,000	38,804,000	34,963,000
Rufiji	285,400	278,400	1,389,000	1,746,000
Pangani	0	497,000	1,746,000	2,115,000
Zanzibar	83,000	70,000	27,021,000	250,000
VPO-DoE	868,000	1,621	3,744,000	565,000

REPORT OF PLANNED AND ACTUAL CO-FINANCE BY BUDGET LINE									
Name: (Please prepare one worksheet per source of co-finance)		RUFJI							
Project title:									
Project number:		GFL-2328-pppp-nnnn							
Project executing partner:									
Project repl 2012-2018		US\$	US\$	US\$	US\$	US\$	US\$	US\$	US\$
From:		Prior Year	Cash Cofinance		In-kind Cofinance		Total for year		Cummulative
To:		Actual Total	Planned	Actual	Planned	Actual	Planned	Actual	Actual Total
UNEP BUDGET LINE*		A	B	C	D	E	F=B+D	G=C+E	H=A+G
1100	Project personnel				18,699.00	18,699.00	18,699.00	18,699.00	18,699.00
1200	Consultants		5,471,243.00	-	40,000.00	27,660.00	5,511,243.00	27,660.00	27,660.00
1300	Administrative support				-	-	-	-	-
1600	Travel on official business (above staff)				-	-	-	-	-
2100	Sub-contracts (UN entities)				-	-	-	-	-
2200	Sub-contracts (supporting organizations)		2,000,000.00	-	-	-	2,000,000.00	-	-
2300	Sub-contracts (commercial purposes)		17,550,000.00	249,999.00	-	-	17,550,000.00	249,999.00	249,999.00
3200	Group training (study tours, field trips, workshops, seminars, etc.)				-	-	-	-	-
3300	Meetings/conferences				-	-	-	-	-
4100	Expendable equipment		2,000,000.00	-	-	-	2,000,000.00	-	-
4200	Non-expendable equipment		-	-	-	-	-	-	-
4300	Premises (office rent, maintenance of premises, etc.)		-	-	24,000.00	24,000.00	24,000.00	24,000.00	24,000.00
5100	Operation and maintenance of equipment				-	-	-	-	-
5200	Reporting costs (publications, maps, newsletters, printing, etc.)				-	-	-	-	-
5300	Sundry (communications, postage, freight, clearance charges, etc.)				-	-	-	-	-
5400	Hospitality and entertainment				-	-	-	-	-
5500	Evaluation (consultants fees/travel/DSA, admin support, etc.)				-	-	-	-	-
TOTAL COSTS			27,021,243.00	249,999.00	82,699.00	70,359.00	27,103,942.00	320,358.00	320,358.00

Source: Quarterly Financial Reports

ANNEX VI. Brief Consultants' Biography

Hugo Navajas has conducted project evaluations for UN agencies, GEF and other clients in more than forty countries over the past twenty-five years. Most of these evaluations involved initiatives supporting environmental conservation and management, sustainable development and the implementation of multilateral environmental agreements (MEAs). Hugo also has prior experience in project formulation, project management, community development, and urban and regional planning. He has managed UNDP Country Cooperation Frameworks in Kenya and Honduras, served as interim Regional Director for Latin America for ICLEI (International Center of Local Environmental Initiative), and is on the Board of Directors of PROMETA, and NGO devoted to environmental conservation and sustainable development. Hugo is presently based in Tarija, Bolivia.

Fikirini Rajabu's main professional expertise is in planning and management, with more than 20 assignments over six years of working experience. He has worked with AGENDA and has prior work experience in project and office management, sustainable agricultural development and extension, and participatory project and programme planning. Fikirini has a Degree of Arts in Project Planning Management and Community Development from the University of Dodoma. He is currently based in Dar es Salaam, Tanzania.

ANNEX VI. Terminal Evaluation Terms of Reference

Section 1: PROJECT BACKGROUND AND OVERVIEW**1. Project General Information**

Table 1. Project summary: GEF SEC ID 4141: Developing Core Capacity to Address Adaptation to Climate Change in Productive Coastal Zones of Tanzania

GEF Project ID:	GEF SEC: 4141 (LDL/ PMS: 00522)		
Implementing Agency:	UN Environment	Executing Agency:	Ministry of Environment, Office of the Vice President, Tanzania
Sub-programme:	Climate Change – Adaptation subprogram	Expected Accomplishment(s):	
UN Environment approval date:		Programme of Work Output(s):	
GEF approval date:	12 Jan 2011	Project type:	Full Size Project
GEF Operational Programme #:	LDL (4C44)	Focal Area(s):	Climate Change Adaptation
		GEF Strategic Priority:	
Expected start date:	30 March 2012	Actual start date:	
Planned completion date:	30 March 2017	Actual completion date:	
Planned project budget at approval:		Actual total expenditures reported as of 28 Nov 2018:	US \$ 3,106,642
GEF grant allocation:	US \$ 3,356,300	GEF grant expenditures reported as of GEF amount balance to EA:	US \$ 99,946.55
Project Preparation Grant - GEF financing:		Project Preparation Grant - co-financing:	
Expected Medium-Size Project/Full-Size Project co-financing:	FSP	Secured Medium-Size Project/Full-Size Project co-financing:	US \$ 71,000
First disbursement:	US \$ 125,000.00	Date of financial closure:	
No. of revisions:		Date of last revision:	
No. of Steering Committee meetings:		Date of last/next Steering Committee meeting:	Last: Next:
Mid-term Review/ Evaluation (planned date):	March 2015	Mid-term Review/ Evaluation (actual date):	
Terminal Evaluation (planned date):	March 2017	Terminal Evaluation (actual date):	January 2018
Coverage - Country(ies):	Tanzania (national)	Coverage - Region(s):	Tanzania (national)
Dates of previous project phases:	-	Status of future project phases:	

Table 2. Project summary: “Implementation of Concrete Adaptation Measures to Reduce Vulnerability of Livelihoods and Economy of Coastal Communities of Tanzania”- Adaptation Fund Project

UN Environment PIMS ID:	AFB (2G48)		
Implementing Partners	Ministry of Environment, Office of the Vice President, Tanzania		
Sub-programme:	Climate Change – Adaptation subprogram	Expected Accomplishment(s):	
UN Environment approval date:		Programme of Work Output(s):	
Expected start date:	November 2012	Actual start date:	1 November 2012
Planned completion date:	March 2017	Actual completion date:	March 2019
Planned project budget at approval:	4,616,188.00 US\$ 5,008,564	Actual total expenditures reported as of 28 Nov 2018:	US\$ 4,390,351.82
AF approval: December 2011			
Planned Environment Fund allocation:		Actual Environment Fund expenditures reported as of [31.12.2018]:	US\$ 4,424,602
Planned Extra-Budgetary Financing:		Secured Extra-Budgetary Financing:	
Total Cash Advance as of 28 Nov 2018	US\$ 4,502,303	Actual Extra-Budgetary Financing expenditures reported as of [date]:	
First disbursement:	US\$ 125,000.00	Date of financial closure:	
No. of revisions:		Date of last revision:	
No. of Steering Committee meetings:		Date of last/next Steering Committee meeting:	Last: Next:
Mid-term Review/ Evaluation (planned date):		Mid-term Review/ Evaluation (actual date):	
Terminal Evaluation (planned date):		Terminal Evaluation (actual date):	January 2019
Coverage - Country(ies):	Tanzania	Coverage - Region(s):	East Africa
Dates of previous project phases:	None	Status of future project phases:	-

2. Project rationale

1. Tanzania is vulnerable to climate variability and change. According to the Stockholm Environment Institute (2010)^[1], the economic cost of current climate variability is estimated to exceed 1% of the country's GDP. Communities living in the coastal zones of the country are particularly vulnerable to the impacts of climate variability and change. In these areas increasing temperatures and more erratic precipitation resulting in increased frequency and severity of floods and droughts are compounded with sea level rise (SLR). The integrity of coastal ecosystems in Tanzania seems to be questionable in a changing climate, as can be seen from the increasing accelerating beach erosion, the destruction of mangroves, and the submergence of small islands like Maziwe in Pangani and Fungu la Nyani in Rufiji. Institutions at national and local levels and communities have limited capacity to manage these climate hazards, as they lack technical knowledge and tools for adaptation planning. As a result, climate variability is already affecting negatively community livelihoods, infrastructure and ecosystems. Climate projections predict significant changes in climate variables and substantive SLR. To reduce the vulnerability of coastal communities it is crucial to strengthen the enabling environment and invest in specific adaptation measures considering both the rehabilitation of ecosystem and infrastructure.
2. Urgent interventions for coastal protection and productivity have been determined through the NAPA as well as through broad-based local consultations, as sea level rise and precipitation variability have put coastal communities, their livelihoods, natural infrastructure and ecosystems at risk. The coastal zone of Tanzania was selected as a priority area for adaptation investment in the NAPA and National Communications because it is home to the 75% country's industries and at least 32% of its national income, because at least 25% of the country's population depend on its resources, and because it represents an area where all aspects of vulnerability can be found – and addressed – simultaneously. The coastal zone is also home to some of the most ecologically fragile areas, such

^[1] Stockholm Environment Institute (2010): The Economics of Climate Change in the United Republic of Tanzania.

as mangroves, wetlands and reefs, which are vulnerable to climate change and human pressures but also represent opportunities for adaptation.

3. To strengthen the enabling environment and invest in specific adaptation measures such as rehabilitation of coastal infrastructure and ecosystems (e.g. protection against floods, animal habitat, water filtration and supply), two complementary projects were planned. The Least Development Countries Fund (LDCF), project is called “Developing core capacity to address adaptation to climate change in productive coastal zones of Tanzania”, (LDCF Grant: US\$ 3,356,300) and the Adaptation Fund project is the “Implementation of concrete adaptation measures to reduce vulnerability of livelihoods and economy of coastal communities of Tanzania” (AF grant: US\$ 4,616,188) Conceived together with similar intended implementation timelines (November 2012 to October 2017), funding availability led to the 'two project approach' with the Adaptation Fund project focused on rehabilitation of coastal protection infrastructures and some capacity building, while the Least Development Countries Fund Project sought to strengthening institutional capacities of NGOs and academic organizations and included support to inter-ministerial and district-level authorities in integrating adaptation concerns in local planning, thereby sustaining the Adaptation Fund interventions. The geographic scope of both projects was also delineated to avoid overlap: In terms of field activities AF project focuses on Dar es Salaam, and LDCF on other coastal areas of Tanzania.
4. Specifically, the Least Development Countries Fund Project contributes to Knowledge Component 3 of the Adaptation Fund project by sharing LDCF studies with the Climate Change Observatory and the other national networks, and creating linkages between the LDCF supported internship program and GreenJobs program. While the LDCF project focuses on the enabling environment and includes concrete adaptation measures such as planting mangroves in Rufiji and relocating waterwells and boreholes (outcome 3), the AF project focuses on concrete adaptation measures such as reconstructing the sea wall and rehabilitating drainage systems and includes strategies to strengthen the enable environment (outcome 3). The Adaptation Fund project supports also the institution of the Climate Change network to house knowledge on climate change and adaptation studies, as well as finance the national Ecosystem Based Integrated Coastal Area Management Action Plan and technical assistance to districts to develop maintenance budgets and rehabilitation programs.

3. Project objectives and components

LDCF Project: “Developing core capacity to address adaptation to climate change in productive coastal zones of Tanzania”

5. Implemented in five districts of coastal Tanzania and Zanzibar (Pangani, Bagamoyo, Rufiji, Pemba-Unguja, the LDCF Coastal project aimed to work with local government administration, community-based organizations and the academic sector in efforts to build scientific and technical capacity and to broaden the stakeholder base for effective coastal adaptation engagement.
6. LDCF objective: “to develop institutional capacities to manage climate change impacts through improved climate information, technical capacity and through the implementation of concrete adaptation measures and innovative solutions to reduce the vulnerability in key vulnerable areas, and learning”. To deliver on the outputs and outcomes below, the project activities included training, awareness raising and tools for more effective planning and implementation among the stakeholders.

Table 3: Least Development Countries Fund (LDCF) Results Framework: Developing Core Capacity to Address Adaptation to Climate Change in Productive Coastal Zones of Tanzania

Component	Outcomes	Outputs
1. Scientific and Technical knowledge and capacities for climate change adaptation analysis	1.1 Local level capacities to effectively analyze the threats and potential impacts of climate change increased	Climate change impact assessment capacity established for project sites (monitoring climate changes)
		Detailed participatory coastal vulnerability assessment for Pangani districts and Rufiji, Bagamoyo and Zanzibar
2. Broadening stakeholder	2.1 Government and public engagement in climate change	Public engagement in climate change adaptation activities is enhanced

engagement for vulnerability reduction	adaptation activities is enhanced	Student internship program established for interns to project sites Knowledge is integrated into university curriculum
3. Priority adaptation interventions for resilient Integrated Coastal Zone Management	3.1 Vulnerability to climate change is reduced in the coastal zones through adaptation interventions and pilot innovations	Water resources are protected from sea level rise and erosion and coastal communities have access to safe water
		Mangroves are restored in pilot sites
		Coastal infrastructure and assets are protected

“Implementation of concrete adaptation measures to reduce vulnerability of livelihoods and economy of coastal communities of Tanzania”

7. The first Adaptation Fund Project in Tanzania, the project's objective is “to reduce the vulnerability of livelihoods, ecosystems, infrastructure and the economy in Tanzania”. The overall goal of the AF project is “to reduce the vulnerability of livelihoods, ecosystems, infrastructure and the economy in Tanzania”. The overall objective of the LDCF project is “to develop institutional capacities to manage climate change impacts through improved climate information, technical capacity and through the implementation of concrete adaptation measures and innovative solutions to reduce the vulnerability in key vulnerable areas, and learning”. Both projects implement inter-related activities to reach project objectives with three major components and corresponding outcomes and targets each.

Table 4: Adaptation Fund Project Results Framework: “Implementation of Concrete Adaptation Measures to Reduce Vulnerability of Livelihoods and Economy of Coastal Communities of Tanzania”

	AF Project Objective	AF Fund Outcome	
	Reduced Vulnerability of Livelihoods, ecosystems, infrastructure and economy in Tanzania	Outcome 5: Increased ecosystem resilience in response to climate change and variability induced stress	
AF Component	Project Outcome	AF Fund Outcome	Project Outputs
Component 1 - Addressing climate change impacts on key infrastructure and settlements	Adverse impacts of SLR and floods on coastal infrastructures and settlements are reduced	Output 4: Vulnerable physical, natural, and social assets strengthened in response to climate change impacts, including variability	Sea wall raised, rehabilitated and constructed along 1.335 km in areas showing particular damage in Dar es Salaam city center and in Kingamboni area
			Effective storm and flood drainage systems in urban areas and near coastal communities
Component 2 Ecosystem-Based Integrated Coastal Area Management (EBICAM)	Outcome 2 - Coastal and shoreline ecosystems are rehabilitated and ICAM is implemented		
Component 3 - Knowledge, coastal monitoring	Outcome 3 - knowledge of climate impacts and		Available knowledge, science and data on coastal vulnerability gathered

and policy linkages	adaptation measures is increased		One operational Climate Change Observatory for Tanzania for ongoing monitoring of CZM and Coastal environmental status and scientific research
			Economically viable, cost effective and technically feasible adaptation measures identified for replication and upscaling (i.e. through undertaking cost-benefit analyses)
			Policy briefing, awareness raising and technical capacity building for policymakers and district-level planners based on project outputs, lessons and challenges, including increased capacity to manage and maintain resilient infrastructure
			One Ecosystem Based Integrated Area Management (EBICAM) plan for the coastal region approved

4. Executing Arrangements

8. The projects share features in terms of implementation and execution to minimize duplication. The United Nations Environmental Programme (UNEP) is providing implementation support to both projects, as Global Environment Facility (GEF) Implementing Agency for the LDCF project and as Multilateral Implementing Agency of the AF for the AF project. The Tanzania Vice-President's Office (VPO) is the executing entity/organization for both projects. Finances were handled separately and there were separate Project Managers, but otherwise the two are implemented essentially as one with joint steering committee, joint mid-term review, joint technical discussions etc share project staff and institutional Memorandums of Understanding (MoU). Both projects are executed in collaboration with key line ministries and targeted provincial authorities and commune councils.
9. National Executing Agency, the Vice President's Office (Division of Environment). UNEP will work closely with the VPO and the Project Steering Committee (PSC) during project implementation. Overall, the project will be implemented with the support of several national government, local government and non-government partners. In the initial phase of the program, partnership will be sought with private sector or NGOs working in environmental rehabilitation in the priority sectors, and in particular with private sector providers involved in the AF and LDCF Coastal Zone Adaptation Projects. these companies will be encouraged to recruit Green Jobs³⁸ candidates.
10. The project will be supervised by the National Climate Change Technical Committee (NCCTC), which is comprised of sector environmental coordinators, senior environmental and representatives of relevant stakeholders, and chaired by the National Climate Change Focal Point. The NCCTC is itself supervised by the National Climate Change Steering Committee (NCCSC), a national-level

³⁸ The program will be jointly managed by the Tanzania Ministry of Education and Vocational Training and the Ministry of Labor, Employment and Youth Development. The Program will be comprised of the following service lines:

1. Development of public-private partnerships for placements in public interest works (sectors: Water, Agriculture, Reforestation, Marine ecosystem management)
2. Subsidies and tax abatements to private and public entities for recruitment Green Jobs candidates
3. Vocational training and diploma recognition services for Green Jobs candidates in the sectors of priority
4. Placement and coaching services for Green Job candidates
5. Entrepreneurship development

policy committee comprised of Directors and senior environmental officers from VPO-DOE and various ministries that meets quarterly. This is chaired by the Permanent Secretary-VPO responsible for environment and climate change issues.

11. The VPO- DOE will be the overall coordinator of the project (through the services of a Project Coordinator). In support of the national administration and accountable to UNEP and the VPO, a Senior Technical Advisor (STA) will be hired to provide technical guidance on the implementation of the project to the NPC.
12. The VPO-DOE as coordinating unit will undertake the following responsibilities for management of the project:
 - Coordinating between key line ministries and relevant departments in implementing
 - the various project components.
 - Coordinating between regional and national institutions and donors.
 - Preparing regular annual reports on its activities and outcomes of the project.
 - Providing advice and guidance on coastal zone management policies
 - Mobilizing additional partnerships and support for the project as necessary
13. The Project Management and Supervision structure for both the Adaptation Fund and LDCF project are the same, except that the GEF Project Steering Committee includes community representatives while the Adaptation Project has District and Municipal Representatives instead (Dar es Salaam City Council and Municipalities of Ilala, Temeke and Kinondoni).

Figure 1: GEF/ LDCF Management Structure

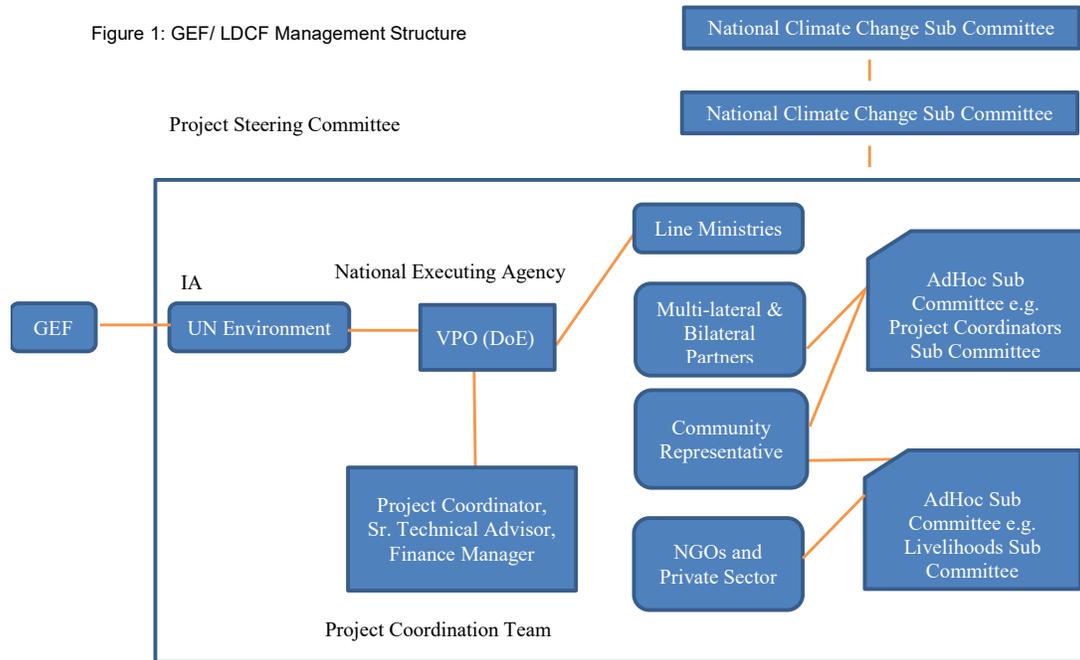
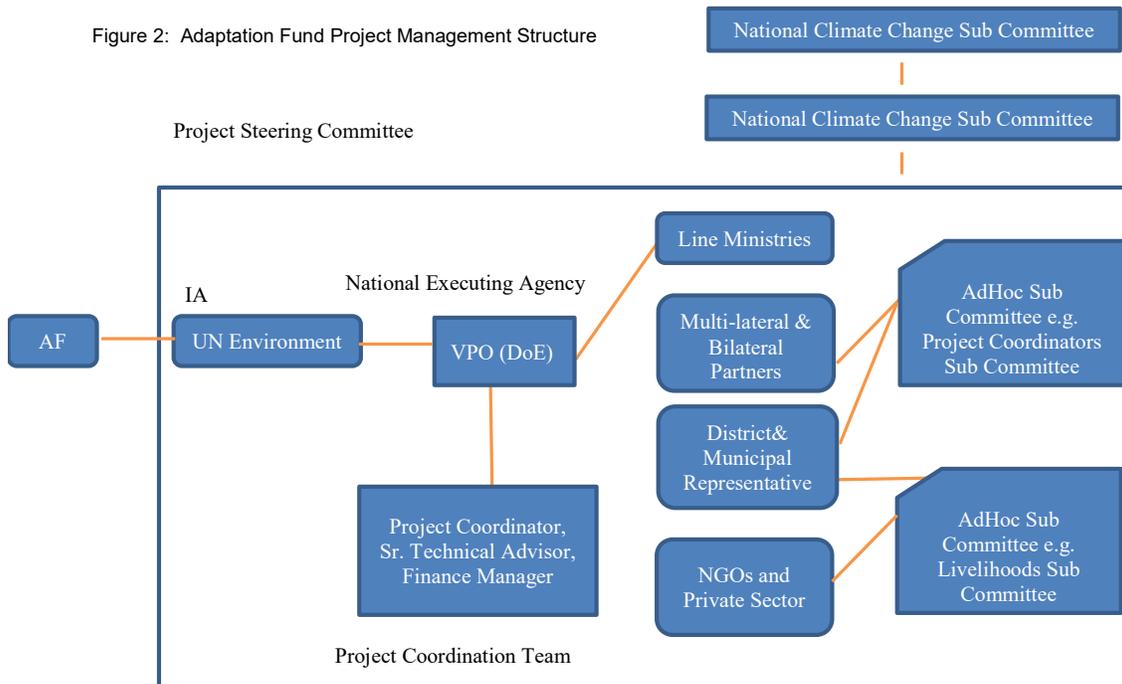


Figure 2: Adaptation Fund Project Management Structure



5. Project Cost and Financing

- The LDCF project has spent 2,921,465.45 against the GEF grant of US\$ 3,356,300 and Government of Tanzania cash co-financing of US\$ 565,000. The AF project spent 4,392,355.00

against an Adaptation Fund Grant of US\$ 5,008,564. The planned budget broke down by component at the project design phase (2012) for both projects is presented in tables 5 and 7 below.

Table 5: LDCF Project Budget at Design

LDCF – GEF Component	Outcome	Output	LDCF – GEF	Co-financing
1. Scientific & technical knowledge and capacities for climate change adaptation analysis	1.1 Local level capacities and knowledge to effectively analyse the threats and potential impacts of climate change increased	Climate change impact assessment capacity established for project sites (monitoring climate changes) Detailed participatory coastal vulnerability assessment for Rufiji, Bagamoyo and Pangani districts and Zanzibar	225,000	240,000
2. Broadening stakeholder engagement for vulnerability reduction	2.1 Government and public engagement in climate change adaptation activities is enhanced	Public engagement in climate change adaptation activities is enhanced Student internship program established for interns to project sites Knowledge is integrated into university curriculum	345,000	60,000
3. Priority adaptation interventions for resilient Integrated Coastal Zone Management	3.1 Vulnerability to climate change is reduced in the coastal zones through adaptation interventions and pilot innovations	Mangroves are restored in pilot sites Water resources are protected from sea level rise and erosion and coastal communities have access to safe water Coastal infrastructure and assets are protected	2,476,300	67,000,357
4. Knowledge Development and Learning	4. Substantive knowledge on how to reduce vulnerability to climate change increased	4.1. Knowledge transfer and learning system with universities, research institutes established together with demonstration projects 4.2. Knowledge is integrated into university curriculum 4.3. Results published, made publicly available and disseminated	250,000	900,000

Table 6: Cost of LDCF project US\$ %

Source	Amount	%
Cost to the LDCF	3,356,300	4.71%
Grant Co-financing ¹		
Zanzibar Administration	27,021,243	37.96%
Pangani District	1,746,000	2.45%
Rufiji District	1,389,114	1.95%
Bagamoyo District	36,804,000	51.70%
Sub-total	66,960,357	94.07%
In-kind co-financing		
Zanzibar Administration	82,699	0.12%
Pangani District	0	
Rufiji District	285,442	0.40%
Bagamoyo District	500,000	0.70%
Sub-total	868,141	1.22%
Total	71,184,798	100.00%

Table 7: Adaptation Fund Project Budget at Design

AF Component	Project Outcome	AF Fund Outcome	Project Outputs	Amount
Component 1 - Addressing climate change impacts on key infrastructure and settlements	Adverse impacts of SLR and floods on coastal infrastructures and settlements are reduced	Output 4: Vulnerable physical, natural, and social assets strengthened in response to climate change impacts, including variability	Sea wall raised, rehabilitated and constructed along 1.335 km in areas showing particular damage in Dar es Salaam city center and in Kingamboni area	3,337,500
			Effective storm and flood drainage systems in urban areas and near coastal communities	200,000
Subtotal Component 1				3,537,500
Component 2 - Ecosystem-Based Integrated Coastal Area Management (EBICAM)	Outcome 2 - Coastal and shoreline ecosystems are rehabilitated and ICAM is implemented		40 ha of mangroves rehabilitated through planting of resilient seedlings, dredging and the creation of no-take buffer zones	35,000
			Appropriate alternative energy (efficient cookstoves, small solar) technology transferred to 3,000 households in support of sustainable mangrove regeneration including through training	76,500
			2000 m2 of coral reef rehabilitation and protection in coastal sites, leading to a 75% annual growth rate in coverage and health	110,000
			Shoreline stabilized and reforested along the shore (1500m in 20m wide bands) using indigenous resilient trees and grasses	67,500
Subtotal Component 2				289,000

Component 3 - Knowledge, coastal monitoring and policy linkages	Outcome 3 - knowledge of climate impacts and adaptation measures is increased		Available knowledge, science and data on coastal vulnerability gathered	30,000
			One operational Climate Change Observatory for Tanzania for ongoing monitoring of CZM and Coastal environmental status and scientific research	90,000
			Economically viable, cost effective and technically feasible adaptation measures identified for replication and upscaling (i.e. through undertaking cost-benefit analyses)	15,000
			Policy briefing, awareness raising and technical capacity building for policymakers and district-level planners based on project outputs, lessons and challenges, including increased capacity to manage and maintain resilient infrastructure	90,000
			One Ecosystem Based Integrated Area Management (EBICAM) plan for the coastal region approved	190,000
Subtotal Component 3				415,000
5 a. M&E				104,688
5b. Project Exec. Cost				270,000
Total Project/Programme Cost				4,616,188
Project Cycle Management Fee charged by the Implementing Entity 8.5% of total project				392,376
Amount of Financing Requested				5,008,564

6. Implementation Issues

15. While the Mid-term review pointed out that the projects involved communities and focused on important public spaces, mentioned some areas for the project's attention:
 - Resettlement and reputational problems in Bwawani, and Stone Town, Zanzibar (For the LDCF) due to delayed implementation
 - day to day engagement at the local level could be more frequent
 - Regulatory front- little impact reported at Mid term
 - MTR review proposed reducing the number of sites and the scale of interventions to reflect the existing resource envelope.
 - LDCF Project: Finances for operations and maintenance of water wells constructed, as well as ensuring universal access to the water sources
 - Unclear how either projects components are being replicated, making it challenging to see the reduced vulnerability at the community levels
 - For both projects, working with the government to ensure reduced staff turnover
16. The project responded as follows:
 - Measures were also put in place to increase the efficiency of national procurement procedures and crucial activities were sub-contracted to UNOPS.
 - Regular monitoring of implementation and risk management plan
17. The final evaluation should query the extent to which these issues raised in the MTR were addressed.

Section 2. OBJECTIVE AND SCOPE OF THE EVALUATION

7. Key Evaluation principles

18. Evaluation findings and judgements should be based on sound evidence and analysis, clearly documented in the evaluation report. Information will be triangulated (i.e. verified from different sources) as far as possible, and when verification is not possible, the single source will be mentioned (whilst anonymity is still protected). Analysis leading to evaluative judgements should always be clearly spelled out.
19. The “Why?” Question. As this is a terminal evaluation and a follow-up project is likely [or similar interventions are envisaged for the future], particular attention should be given to learning from the experience. Therefore, the “Why?” question should be at the front of the consultants’ minds all through the evaluation exercise and is supported by the use of a theory of change approach. This means that the consultants need to go beyond the assessment of “what” the project performance was, and make a serious effort to provide a deeper understanding of “why” the performance was as it was. This should provide the basis for the lessons that can be drawn from the project.
20. Baselines and counterfactuals. In attempting to attribute any outcomes and impacts to the project intervention, the evaluators should consider the difference between what has happened with, and what would have happened without, the project. This implies that there should be consideration of the baseline conditions, trends and counterfactuals in relation to the intended project outcomes and impacts. It also means that there should be plausible evidence to attribute such outcomes and impacts to the actions of the project. Sometimes, adequate information on baseline conditions, trends or counterfactuals is lacking. In such cases this should be clearly highlighted by the evaluators, along with any simplifying assumptions that were taken to enable the evaluator to make informed judgements about project performance.
21. Communicating evaluation results. A key aim of the evaluation is to encourage reflection and learning by UN Environment staff and key project stakeholders. The consultant should consider how reflection and learning can be promoted, both through the evaluation process and in the communication of evaluation findings and key lessons. Clear and concise writing is required on all evaluation deliverables. Draft and final versions of the main evaluation report will be shared with key stakeholders by the Evaluation Manager. There may, however, be several intended audiences, each with different interests and needs regarding the report. The Evaluation Manager will plan with the consultant(s) which audiences to target and the easiest and clearest way to communicate the key evaluation findings and lessons to them. This may include some or all of the following; a webinar, conference calls with relevant stakeholders, the preparation of an evaluation brief or interactive presentation.

8. Objective of the Evaluation

22. In line with the UN Environment Evaluation Policy³⁹ and the UN Environment Programme Manual⁴⁰, the Terminal Evaluation (TE) is undertaken at completion of the project to assess project performance (in terms of relevance, effectiveness and efficiency), and determine outcomes and impacts (actual and potential) stemming from the project, including their sustainability. The evaluation has two primary purposes: (i) to provide evidence of results to meet accountability requirements, and (ii) to promote operational improvement, learning and knowledge sharing through results and lessons learned among UN Environment and [main project partners]. Therefore, the evaluation will identify lessons of operational relevance for future project formulation and implementation [especially for the second phase of the project, if applicable].

³⁹ <http://www.unep.org/eou/StandardsPolicyandPractices/UNEPEvaluationPolicy/tabid/3050/language/en-US/Default.aspx>

⁴⁰ http://www.unep.org/QAS/Documents/UNEP_Programme_Manual_May_2013.pdf . *This manual is under revision.*

9. Key Strategic Questions

23. In addition to the evaluation criteria outlined in Section 10 below, the evaluation will address the strategic questions listed below. These are questions of interest to UN Environment and to which the project is believed to be able to make a substantive contribution:
- (a) To what extent was vulnerability reduced in the surrounding areas of the two projects? (how is vulnerability defined) (Could look at alignment of, and achievement towards AF Outcome indicators for the project, “Implementation of Concrete Adaptation measures to Reduce Vulnerability of Livelihoods and Economy of Coastal Communities of Tanzania” e.g. How did the two projects work with the Green Jobs program to create jobs?)
 - (b) Given activities seem complementary, how did the two projects work together towards a common theory of change?
 - (c) To what extent has there been uptake of outcome 4.1: Knowledge transfer and learning system with universities, research institutes established together with demonstration projects” LDCF requires very specific education sector approach?
 - (d) For each project, what is status of pilot projects/ courses delivered and potential for replication/ scale up?

10. Evaluation Criteria

24. All evaluation criteria will be rated on a six-point scale. Sections A-I below, outline the scope of the criteria and a link to a table for recording the ratings is provided in Annex 1). A weightings table will be provided in excel format (link provided in Annex 1) to support the determination of an overall project rating. The set of evaluation criteria are grouped in nine categories: (A) Strategic Relevance; (B) Quality of Project Design; (C) Nature of External Context; (D) Effectiveness, which comprises assessments of the delivery of outputs, achievement of outcomes and likelihood of impact; (E) Financial Management; (F) Efficiency; (G) Monitoring and Reporting; (H) Sustainability; and (I) Factors Affecting Project Performance. The evaluation consultants can propose other evaluation criteria as deemed appropriate.

A. Strategic Relevance

25. The evaluation will assess, in line with the OECD/DAC definition of relevance, ‘the extent to which the activity is suited to the priorities and policies of the target group, recipient and donor’. The evaluation will include an assessment of the project’s relevance in relation to UN Environment’s mandate and its alignment with UN Environment’s policies and strategies at the time of project approval. Under strategic relevance an assessment of the complementarity of the project with other interventions addressing the needs of the same target groups will be made. This criterion comprises four elements:
- i. *Alignment to the UN Environment Medium Term Strategy⁴¹ (MTS) and Programme of Work (POW)*
26. The evaluation should assess the project’s alignment with the MTS and POW under which the project was approved and include, in its narrative, reflections on the scale and scope of any contributions made to the planned results reflected in the relevant MTS and POW.
- ii. *Alignment to UN Environment / Donor/GEF Strategic Priorities*
27. Donor, including GEF, strategic priorities will vary across interventions. UN Environment strategic priorities include the Bali Strategic Plan for Technology Support and Capacity Building⁴² (BSP) and South-South Cooperation (S-SC). The BSP relates to the capacity of governments to: comply with international agreements and obligations at the national level; promote, facilitate and finance

⁴¹ UN Environment’s Medium-Term Strategy (MTS) is a document that guides UN Environment’s programme planning over a four-year period. It identifies UN Environment’s thematic priorities, known as Sub-programmes (SP), and sets out the desired outcomes, known as Expected Accomplishments (EAs), of the Sub-programmes.

⁴² <http://www.unep.org/GC/GC23/documents/GC23-6-add-1.pdf>

environmentally sound technologies and to strengthen frameworks for developing coherent international environmental policies. S-SC is regarded as the exchange of resources, technology and knowledge between developing countries. GEF priorities are specified in published programming priorities and focal area strategies.

iii. *Relevance to Regional, Sub-regional and National Environmental Priorities*

28. The evaluation will assess the extent to which the intervention is suited, or responding to, the stated environmental concerns and needs of the countries, sub-regions or regions where it is being implemented. Examples may include: national or sub-national development plans, poverty reduction strategies or Nationally Appropriate Mitigation Action (NAMA) plans or regional agreements etc.

iv. *Complementarity with Existing Interventions*

29. An assessment will be made of how well the project, either at design stage or during the project mobilization, took account of ongoing and planned initiatives (under the same sub-programme, other UN Environment sub-programmes, or being implemented by other agencies) that address similar needs of the same target groups. The evaluation will consider if the project team, in collaboration with Regional Offices and Sub-Programme Coordinators, made efforts to ensure their own intervention was complementary to other interventions, optimized any synergies and avoided duplication of effort. Examples may include UN Development Assistance Frameworks or One UN programming. Linkages with other interventions should be described and instances where UN Environment's comparative advantage has been particularly well applied should be highlighted.

30. The Adaptation Fund project designs lists a number of projects that may have had a potential linkage with this project (Annex 2, Project Document) - to what extent "did this happen"? Particularly Green Jobs and AF program- on what areas did they partner? What were the results?

Factors affecting this criterion may include:

- Stakeholders' participation and cooperation
- Responsiveness to human rights and gender equity
- Country ownership and driven-ness

B. Quality of Project Design

31. The quality of project design is assessed using an agreed template during the evaluation inception phase, ratings are attributed to identified criteria and an overall Project Design Quality rating is established (www.unep.org/evaluation). This overall Project Design Quality rating is entered in the final evaluation ratings table as item B. In the Main Evaluation Report a summary of the project's strengths and weaknesses at design stage is included, while the complete Project Design Quality template is annexed in the Inception Report.

Factors affecting this criterion may include (at the design stage):

- Stakeholders participation and cooperation
- Responsiveness to human rights and gender equity

C. Nature of External Context

32. At evaluation inception stage a rating is established for the project's external operating context (considering the prevalence of conflict, natural disasters and political upheaval). This rating is entered in the final evaluation ratings table as item C. Where a project has been rated as facing either an Unfavourable or Highly Unfavourable external operating context, and/or a negative external event has occurred during project implementation, the ratings for Effectiveness, Efficiency and/or Sustainability may be increased at the discretion of the Evaluation Consultant and Evaluation Manager together. A justification for such an increase must be given.

D. Effectiveness

i. Delivery of Outputs

33. The evaluation will assess the project's success in producing the programmed outputs (products, capital goods and services resulting from the intervention) and achieving milestones as per the project design document (ProDoc). Any formal modifications/revisions made during project implementation will be considered part of the project design. Where the project outputs are inappropriately or inaccurately stated in the ProDoc, reformulations may be necessary in the reconstruction of the TOC. In such cases a table should be provided showing the original and the reformulation of the outputs for transparency. The delivery of outputs will be assessed in terms of both quantity and quality, and the assessment will consider their ownership by, and usefulness to, intended beneficiaries and the timeliness of their delivery. The evaluation will briefly explain the reasons behind the success or shortcomings of the project in delivering its programmed outputs and meeting expected quality standards.

Factors affecting this criterion may include:

- Preparation and readiness
- Quality of project management and supervision⁴³

i. Achievement of Direct Outcomes

34. The achievement of direct outcomes (short and medium-term effects of the intervention's outputs; a change of behaviour resulting from the use/application of outputs, which is not under the direct control of the intervention's direct actors) is assessed as performance against the direct outcomes as defined in the reconstructed⁴⁴ Theory of Change. These are the first-level outcomes expected to be achieved as an immediate result of project outputs. As in 1, above, a table can be used where substantive amendments to the formulation of direct outcomes is necessary. The evaluation should report evidence of attribution between UN Environment's intervention and the direct outcomes. In cases of normative work or where several actors are collaborating to achieve common outcomes, evidence of the nature and magnitude of UN Environment's 'substantive contribution' should be included and/or 'credible association' established between project efforts and the direct outcomes realised.

Factors affecting this criterion may include:

- Quality of project management and supervision
- Stakeholders' participation and cooperation
- Responsiveness to human rights and gender equity
- Communication and public awareness

ii. Likelihood of Impact

35. Based on the articulation of longer-term effects in the reconstructed TOC (i.e. from direct outcomes, via intermediate states, to impact), the evaluation will assess the likelihood of the intended, positive impacts becoming a reality. Project objectives or goals should be incorporated in the TOC, possibly as intermediate states or long-term impacts. The Evaluation Office's approach to the use of TOC in project evaluations is outlined in a guidance note available on the Evaluation Office website, <https://www.unenvironment.org/about-un-environment/evaluation> and is supported by an excel-based flow chart, 'Likelihood of Impact Assessment Decision Tree'. Essentially the approach follows a 'likelihood tree' from direct outcomes to impacts, taking account of whether the assumptions and drivers

⁴³ In some cases 'project management and supervision' will refer to the supervision and guidance provided by UN Environment to implementing partners and national governments while in others, specifically for GEF funded projects, it will refer to the project management performance of the executing agency and the technical backstopping provided by UN Environment.

⁴⁴ UN Environment staff are currently required to submit a Theory of Change with all submitted project designs. The level of 'reconstruction' needed during an evaluation will depend on the quality of this initial TOC, the time that has lapsed between project design and implementation (which may be related to securing and disbursing funds) and the level of any changes made to the project design. In the case of projects pre-dating 2013 the intervention logic is often represented in a logical framework and a TOC will need to be constructed in the inception stage of the evaluation.

identified in the reconstructed TOC held. Any unintended positive effects should also be identified and their causal linkages to the intended impact described.

36. The evaluation will also consider the likelihood that the intervention may lead, or contribute to, unintended negative effects. Some of these potential negative effects may have been identified in the project design as risks or as part of the analysis of Environmental, Social and Economic Safeguards.⁴⁵
37. The evaluation will consider the extent to which the project has played a catalytic role or has promoted scaling up and/or replication⁴⁶ as part of its Theory of Change and as factors that are likely to contribute to longer term impact.
38. Ultimately UN Environment and all its partners aim to bring about benefits to the environment and human well-being. Few projects are likely to have impact statements that reflect such long-term or broad-based changes. However, the evaluation will assess the likelihood of the project to make a substantive contribution to the high-level changes represented by UN Environment's Expected Accomplishments, the Sustainable Development Goals⁴⁷ and/or the high-level results prioritised by the funding partner.

Factors affecting this criterion may include:

- Quality of Project Management and Supervision (including adaptive management)
- Stakeholders participation and cooperation
- Responsiveness to human rights and gender equity
- Country ownership and driven-ness
- Communication and public awareness

E. Financial Management

39. Financial management will be assessed under two themes: completeness of financial information and communication between financial and project management staff. The evaluation will establish the actual spend across the life of the project of funds secured from all donors. This expenditure will be reported, where possible, at output level and will be compared with the approved budget. The evaluation will assess the level of communication between the Project/Task Manager and the Fund Management Officer as it relates to the effective delivery of the planned project and the needs of a responsive, adaptive management approach. The evaluation will verify the application of proper financial management standards and adherence to UN Environment's financial management policies. Any financial management issues that have affected the timely delivery of the project or the quality of its performance will be highlighted.

Factors affecting this criterion may include:

- Preparation and readiness
- Quality of project management and supervision

F. Efficiency

40. In keeping with the OECD/DAC definition of efficiency the evaluation will assess the extent to which the project delivered maximum results from the given resources. This will include an assessment of the cost-effectiveness and timeliness of project execution. Focusing on the translation of inputs into outputs, cost-effectiveness is the extent to which an intervention has achieved, or is expected to achieve, its results at the lowest possible cost. Timeliness refers to whether planned activities were delivered according to expected timeframes as well as whether events were sequenced efficiently. The evaluation will also assess to what extent any project extension could have been avoided through stronger project management and identify any negative impacts caused by project delays or extensions. The evaluation will describe any cost or time-saving measures put in place to maximise results within the secured

⁴⁵ Further information on Environmental, Social and Economic Safeguards (ESES) can be found at <http://www.unep.org/about/eses>

⁴⁶ *Scaling up* refers to approaches being adopted on a much larger scale, but in a very similar context. Scaling up is often the longer-term objective of pilot initiatives. *Replication* refers to approaches being repeated or lessons being explicitly applied in new/different contexts e.g. other geographic areas, different target group etc. Effective replication typically requires some form of revision or adaptation to the new context. It is possible to replicate at either the same or a different scale.

⁴⁷ A list of relevant SDGs is available on the EO website www.unep.org/evaluation

budget and agreed project timeframe and consider whether the project was implemented in the most efficient way compared to alternative interventions or approaches.

41. The evaluation will give special attention to efforts by the project teams to make use of/build upon pre-existing institutions, agreements and partnerships, data sources, synergies and complementarities with other initiatives, programmes and projects etc. to increase project efficiency. The evaluation will also consider the extent to which the management of the project minimised UN Environment's environmental footprint.
42. The factors underpinning the need for any project extensions will also be explored and discussed. As management or project support costs cannot be increased in cases of 'no cost extensions', such extensions represent an increase in unstated costs to implementing parties.

Factors affecting this criterion may include:

- Preparation and readiness (e.g. timeliness)
- Quality of project management and supervision
- Stakeholders participation and cooperation

G. Monitoring and Reporting

43. The evaluation will assess monitoring and reporting across three sub-categories: monitoring design and budgeting, monitoring implementation and project reporting.

i. Monitoring Design and Budgeting

39. Each project should be supported by a sound monitoring plan that is designed to track progress against SMART⁴⁸ indicators towards the delivery of the projects outputs and achievement of direct outcomes, including at a level disaggregated by gender, vulnerability or marginalisation. The evaluation will assess the quality of the design of the monitoring plan as well as the funds allocated for its implementation. The adequacy of resources for mid-term and terminal evaluation/review should be discussed if applicable.

ii. Monitoring of Project Implementation

40. The evaluation will assess whether the monitoring system was operational and facilitated the timely tracking of results and progress towards projects objectives throughout the project implementation period. This should include monitoring the representation and participation of disaggregated groups (including gendered, vulnerable and marginalised groups) in project activities. It will also consider how information generated by the monitoring system during project implementation was used to adapt and improve project execution, achievement of outcomes and ensure sustainability. The evaluation should confirm that funds allocated for monitoring were used to support this activity.

iii. Project Reporting

41. UN Environment has a centralised Project Information Management System (PIMS) in which project managers upload six-monthly status reports against agreed project milestones. This information will be provided to the Evaluation Consultant(s) by the Evaluation Manager. Some projects have additional requirements to report regularly to funding partners, which will be supplied by the project team (e.g. the Project Implementation Reviews and Tracking Tool for GEF-funded projects). The evaluation will assess the extent to which both UN Environment and donor reporting commitments have been fulfilled. Consideration will be given as to whether reporting has been carried out with respect to the effects of the initiative on disaggregated groups.

Factors affecting this criterion may include:

- Quality of project management and supervision

⁴⁸ SMART refers to indicators that are specific, measurable, assignable, realistic and time-specific.

- Responsiveness to human rights and gender equity (e.g. disaggregated indicators and data)

H. Sustainability

42. Sustainability is understood as the probability of direct outcomes being maintained and developed after the close of the intervention. The evaluation will identify and assess the key conditions or factors that are likely to undermine or contribute to the persistence of achieved direct outcomes (i.e. 'assumptions' and 'drivers'). Some factors of sustainability may be embedded in the project design and implementation approaches while others may be contextual circumstances or conditions that evolve over the life of the intervention. Where applicable an assessment of bio-physical factors that may affect the sustainability of direct outcomes may also be included.

i. Socio-political Sustainability

43. The evaluation will assess the extent to which social or political factors support the continuation and further development of project direct outcomes. It will consider the level of ownership, interest and commitment among government and other stakeholders to take the project achievements forwards. In particular the evaluation will consider whether individual capacity development efforts are likely to be sustained.

ii. Financial Sustainability

44. Some direct outcomes, once achieved, do not require further financial inputs, e.g. the adoption of a revised policy. However, in order to derive a benefit from this outcome further management action may still be needed e.g. to undertake actions to enforce the policy. Other direct outcomes may be dependent on a continuous flow of action that needs to be resourced for them to be maintained, e.g. continuation of a new resource management approach. The evaluation will assess the extent to which project outcomes are dependent on future funding for the benefits they bring to be sustained. Secured future funding is only relevant to financial sustainability where the direct outcomes of a project have been extended into a future project phase. Even where future funding has been secured, the question still remains as to whether the project outcomes are financially sustainable.

iii. Institutional Sustainability

45. The evaluation will assess the extent to which the sustainability of project outcomes (especially those relating to policies and laws) is dependent on issues relating to institutional frameworks and governance. It will consider whether institutional achievements such as governance structures and processes, policies, sub-regional agreements, legal and accountability frameworks etc. are robust enough to continue delivering the benefits associated with the project outcomes after project closure. In particular, the evaluation will consider whether institutional capacity development efforts are likely to be sustained.

Factors affecting this criterion may include:

- Stakeholders participation and cooperation
- Responsiveness to human rights and gender equity (e.g. where interventions are not inclusive, their sustainability may be undermined)
- Communication and public awareness
- Country ownership and driven-ness

I. Factors and Processes Affecting Project Performance

(These factors are rated in the ratings table, but are discussed within the Main Evaluation Report as cross-cutting themes as appropriate under the other evaluation criteria, above)

i. Preparation and Readiness

46. This criterion focuses on the inception or mobilisation stage of the project (i.e. the time between project approval and first disbursement). The evaluation will assess whether appropriate measures were

taken to either address weaknesses in the project design or respond to changes that took place between project approval, the securing of funds and project mobilisation. In particular the evaluation will consider the nature and quality of engagement with stakeholder groups by the project team, the confirmation of partner capacity and development of partnership agreements as well as initial staffing and financing arrangements. (*Project preparation is included in the template for the assessment of Project Design Quality*).

ii. Quality of Project Management and Supervision

47. In some cases 'project management and supervision' will refer to the supervision and guidance provided by UN Environment to implementing partners and national governments while in others, specifically for GEF funded projects, it will refer to the project management performance of the executing agency and the technical backstopping and supervision provided by UN Environment.
48. The evaluation will assess the effectiveness of project management with regard to: providing leadership towards achieving the planned outcomes; managing team structures; maintaining productive partner relationships (including Steering Groups etc.); communication and collaboration with UN Environment colleagues; risk management; use of problem-solving; project adaptation and overall project execution. Evidence of adaptive management should be highlighted.

iii. Stakeholder Participation and Cooperation

49. Here the term 'stakeholder' should be considered in a broad sense, encompassing all project partners, duty bearers with a role in delivering project outputs and target users of project outputs and any other collaborating agents external to UN Environment. The assessment will consider the quality and effectiveness of all forms of communication and consultation with stakeholders throughout the project life and the support given to maximise collaboration and coherence between various stakeholders, including sharing plans, pooling resources and exchanging learning and expertise. The inclusion and participation of all differentiated groups, including gender groups should be considered.

iv. Responsiveness to Human Rights and Gender Equity

50. The evaluation will ascertain to what extent the project has applied the UN Common Understanding on the human rights-based approach (HRBA) and the UN Declaration on the Rights of Indigenous People. Within this human rights context the evaluation will assess to what extent the intervention adheres to UN Environment's Policy and Strategy for Gender Equality and the Environment.
51. In particular, the evaluation will consider to what extent project design, implementation and monitoring have taken into consideration: (i) possible gender inequalities in access to, and the control over, natural resources; (ii) specific vulnerabilities of women and children to environmental degradation or disasters; and (iii) the role of women in mitigating or adapting to environmental changes and engaging in environmental protection and rehabilitation.

v. Country Ownership and Driven-ness

52. The evaluation will assess the quality and degree of engagement of government / public sector agencies in the project. While there is some overlap between Country Ownership and Institutional Sustainability, this criterion focuses primarily on the forward momentum of the intended projects results, ie. either a) moving forwards from outputs to direct outcomes or b) moving forward from direct outcomes towards intermediate states. The evaluation will consider the involvement not only of those directly involved in project execution and those participating in technical or leadership groups, but also those official representatives whose cooperation is needed for change to be embedded in their respective institutions and offices. This factor is concerned with the level of ownership generated by the project over outputs and outcomes and that is necessary for long term impact to be realised. This ownership should adequately represent the needs of interest of all gendered and marginalised groups.

vi. Communication and Public Awareness

53. The evaluation will assess the effectiveness of: a) communication of learning and experience sharing between project partners and interested groups arising from the project during its life and b) public awareness activities that were undertaken during the implementation of the project to influence attitudes or shape behaviour among wider communities and civil society at large. The evaluation should consider whether existing communication channels and networks were used effectively,

including meeting the differentiated needs of gendered or marginalised groups, and whether any feedback channels were established. Where knowledge sharing platforms have been established under a project the evaluation will comment on the sustainability of the communication channel under either socio-political, institutional or financial sustainability, as appropriate.

Section 3. EVALUATION APPROACH, METHODS AND DELIVERABLES

54. The Terminal Evaluation will be an in-depth evaluation using a participatory approach whereby key stakeholders are kept informed and consulted throughout the evaluation process. Both quantitative and qualitative evaluation methods will be used as appropriate to determine project achievements against the expected outputs, outcomes and impacts. It is highly recommended that the consultant(s) maintains close communication with the project team and promotes information exchange throughout the evaluation implementation phase in order to increase their (and other stakeholder) ownership of the evaluation findings. Where applicable, the consultant(s) should provide a geo-referenced map that demarcates the area covered by the project and, where possible, provide geo-reference photographs of key intervention sites (e.g. sites of habitat rehabilitation and protection, pollution treatment infrastructure, etc.)

The findings of the evaluation will be based on the following:

(a) A **desk review** of:

- Relevant background documentation;
- Project design documents (including minutes of the project design review meeting at approval); Annual Work Plans and Budgets or equivalent, revisions to the project (Project Document Supplement), the logical framework and its budget; Adaptation Project Environmental Impact Assessment Report, whistleblowing reports if any;
- Project reports such as six-monthly progress and financial reports, progress reports from collaborating partners, meeting minutes, relevant correspondence and including the Project Implementation Reviews and Tracking Tool etc.;
- Documentation on project outputs;
- Mid-Term Review of the project;
- Evaluations/reviews of similar projects.
- Shaping Climate-Resilient Development, The McKinsey Group, 2010.
- http://www.mckinsey.com/App_Media/Images/Page_Images/Offices/SocialSector/PDF/ECA_Shaping_Climate%20Resilient_Development.pdf

(b) **Interviews** (individual or in group) with:

- UN Environment Task Manager (TM);
- Project management team;
- UN Environment Fund Management Officer (FMO);
- Sub-Programme Coordinator;
- Project partners;
- Relevant resource persons.

(c) **Field visits** to:

AF project

- Ilala Municipality: Drainage system intervention area
- Temeke Municipality: seawall intervention area (Julius Nyerere Memorial Academy)
- Ilala Municipality: seawall intervention area (Obama Road)
- Kinondoni Municipality: Surrender Bridge mangrove intervention area

LDCF project

- Pangani District: entire intervention area
- Bagamoyo District: 4 water well intervention areas and one water harvesting intervention area
- Zanzibar: Bawawani mangrove intervention area and Kilimani mangrove and groins intervention area

55. The evaluation team will prepare:
- Inception Report: (see Annex 1 for links to all templates, tables and guidance notes) containing an assessment of project design quality, a draft reconstructed Theory of Change of the project, project stakeholder analysis, evaluation framework and a tentative evaluation schedule.
 - Preliminary Findings Note: typically in the form of a PowerPoint presentation, the sharing of preliminary findings is intended to support the participation of the project team, act as a means to ensure all information sources have been accessed and provide an opportunity to verify emerging findings. In the case of highly strategic project/portfolio evaluations or evaluations with an Evaluation Reference Group, the preliminary findings may be presented as a word document for review and comment.
 - Draft and Final Evaluation Report (1 report, 2 projects): (see links in Annex 1) containing an executive summary that can act as a stand-alone document; detailed analysis of the evaluation findings organised by evaluation criteria and supported with evidence; lessons learned and recommendations and an annotated ratings table. Where substantial differences in ratings criteria exist between the two projects, the report may reflect a separate ratings table per project. The plan may be adjusted during the inception phase.
 - Evaluation Bulletin: a 2-page summary of key evaluation findings for wider dissemination through the EOU website.
56. Review of the draft evaluation report. The evaluation team will submit a draft report to the Evaluation Manager and revise the draft in response to their comments and suggestions. Once a draft of adequate quality has been peer-reviewed and accepted, the Evaluation Manager will share the cleared draft report with the Project Manager, who will alert the Evaluation Manager in case the report contains any blatant factual errors. The Evaluation Manager will then forward revised draft report (corrected by the evaluation team where necessary) to other project stakeholders, for their review and comments. Stakeholders may provide feedback on any errors of fact and may highlight the significance of such errors in any conclusions as well as providing feedback on the proposed recommendations and lessons. Any comments or responses to draft reports will be sent to the Evaluation Manager for consolidation. The Evaluation Manager will provide all comments to the evaluation team for consideration in preparing the final report, along with guidance on areas of contradiction or issues requiring an institutional response.
57. Based on a careful review of the evidence collated by the evaluation consultants and the internal consistency of the report, the Evaluation Manager will provide an assessment of the ratings in the final evaluation report. Where there are differences of opinion between the evaluator and the Evaluation Manager on project ratings, both viewpoints will be clearly presented in the final report. The Evaluation Office ratings will be considered the final ratings for the project.
58. The Evaluation Manager will prepare a quality assessment of the first and final drafts of the main evaluation report, which acts as a tool for providing structured feedback to the evaluation consultants. The quality of the report will be assessed and rated against the criteria specified in template listed in Annex 1 and this assessment will be appended to the Final Evaluation Report.
59. At the end of the evaluation process, the Evaluation Office will prepare a Recommendations Implementation Plan in the format of a table, to be completed and updated at regular intervals by the Task Manager. The Evaluation Office will track compliance against this plan on a six-monthly basis.

11. The Evaluation Team

60. For this evaluation, the evaluation team will consist of a Team Leader and one Supporting Consultant who will work under the overall responsibility of the Evaluation Office represented by an Evaluation Manager Zahra Hassanali in consultation with the UN Environment Task Manager, Mara Baviera and Fund Management Officer Bwiza Odemba, and the Sub-programme Coordinators of the Climate Change – Adaptation subprogram, Jessica Troni. The consultants will liaise with the Evaluation Manager on any procedural and methodological matters related to the evaluation. It is, however, the consultants' individual responsibility to arrange for their visas and immunizations as well as to plan meetings with stakeholders, organize online surveys, obtain documentary evidence and any other logistical matters related to the assignment. The UN Environment Task Manager and project team will, where possible, provide logistical support (introductions, meetings etc.) allowing the consultants to conduct the evaluation as efficiently and independently as possible.

61. The Team Leader will be hired for 4 months spread over the period 15 Jan/2019 to 15 May/2019 and should have: an advanced university degree in environmental sciences, international development or other relevant political or social sciences area; a minimum of 10 years of technical / evaluation experience, including of evaluating large, regional or global programmes and using a Theory of Change approach; a broad understanding of assessing adaptation projects, knowledge of Swahili is desirable, along with excellent writing skills in English; team leadership experience and, where possible, knowledge of the UN system, specifically of the work of UN Environment.
62. The Supporting Consultant will be hired 4 months spread over the period 15 Jan/2019 to 15 May/2019 and should have: an undergraduate university degree in environmental sciences, international development or other relevant political or social sciences area; a minimum of 5 years of technical/data collection experience; a broad understanding of adaptation projects in Tanzanian community settings; proficiency in Swahili is required/desirable, along with excellent writing skills in English and, where possible, knowledge of the UN system, specifically of the work of UN Environment. Experience in managing partnerships, knowledge management and communication is desirable for all evaluation consultants.
63. The Team Leader will be responsible, in close consultation with the Evaluation Office of UN Environment, for overall management of the evaluation and timely delivery of its outputs, described above in Section 11 Evaluation Deliverables, above. The Supporting Consultant will make substantive and high-quality contributions to the evaluation process and outputs. Both consultants will ensure together that all evaluation criteria and questions are adequately covered.
64. Specifically Evaluation Team members will undertake the following:
Specific Responsibilities for Team Leader:
65. The Team Leader will be responsible, in close consultation with the Evaluation Manager, for overall management of the evaluation and timely delivery of its outputs, described above in Section 11 Evaluation Deliverables.

Specific Responsibilities for the Supporting Consultant:

66. The Supporting Consultant will make substantive and high-quality contributions to the evaluation process and outputs. Both consultants will ensure together that all evaluation criteria and questions are adequately covered.

In particular, the Supporting Consultant will focus on the activities below:

Translation: She/he will translate or interpret written, oral, Swahili text into English for others during assessment activities. Listen to speakers' statements to determine meanings and to prepare translations. Identify and resolve conflicts related to the meanings of words, concepts, practices, or behaviors. Translate messages simultaneously or consecutively into specified languages, orally or by using hand signs, maintaining message content, context, and style as much as possible. Adapt translations to assessment team members' cognitive and grade levels. Translate any document or discussion accurately; provide assessment team members with a grammatically correct, well-expressed final version of the translated text. Read written materials, such as legal documents, scientific works, or news reports, and rewrite material into specified languages. Ensure that the messages transmitted are properly understood by the addressee. Reproduce exactly the messages received. Point out verbally any significant changes made when translating from one language to another. Do not disclose sensitive content outside the assessment team.

Facilitation: Under the supervision of the team leader, liaise with local authorities to present the assessment team and the field activities. Assist the field team leader or administrator during staff meetings.

Analysing Data or Information: Identify the underlying principles, reasons, or facts of information by breaking down information or data into separate parts.

12. Schedule of the evaluation

68. The table below presents the tentative schedule for the evaluation.

Table 8. Tentative schedule for the evaluation

Milestone	Tentative Dates
Inception Phase	Jan 2019
Inception Report	20 Jan 2019

Evaluation Mission – Hugo: 4 Feb, 14, 15 Feb in Nairobi & 5-13 Feb in Dar-es-Salaam and Zanzibar	1-15 Feb 2019
Telephone interviews, surveys etc.	Jan – March 2019
PowerPoint/presentation on preliminary findings and recommendations	10 March 2019
Draft report to Evaluation Manager (and Peer Reviewer)	20 March 2019
Draft Report shared with UN Environment Project Manager and team	10 March 2019
Draft Report shared with wider group of stakeholders	10 March 2019
Final Report	30 March 2019
Final Report shared with all respondents	5 April 2019

13. Contractual Arrangements

69. Evaluation Consultants will be selected and recruited by the Evaluation Office of UN Environment under an individual Special Service Agreement (SSA) on a “fees only” basis (see below). By signing the service contract with UN Environment/UNON, the consultant(s) certify that they have not been associated with the design and implementation of the project in any way which may jeopardize their independence and impartiality towards project achievements and project partner performance. In addition, they will not have any future interests (within six months after completion of the contract) with the project’s executing or implementing units. All consultants are required to sign the Code of Conduct Agreement Form.
70. Fees will be paid on an instalment basis, paid on acceptance by the Evaluation Manager of expected key deliverables. The schedule of payment is as follows:

Table 9. Schedule of Payment for the Team Leader:

Deliverable	Percentage Payment
Approved Inception Report (as per annex document 7)	30%
Approved Draft Main Evaluation Report (as per annex document 13)	40%
Approved Final Main Evaluation Report	30%

Table 10. Schedule of Payment for the Support Consultant:

Deliverable	Percentage Payment
Approved Inception Report (as per annex document 7)	50%
Approved Draft Main Evaluation Report (as per annex document 13)	50%

71. Fees only contracts: Air tickets will be purchased by UN Environment and 75% of the Daily Subsistence Allowance for each authorised travel mission will be paid up front. Local in-country travel will only be reimbursed where agreed in advance with the Evaluation Manager and on the production of acceptable receipts. Terminal expenses and residual DSA entitlements (25%) will be paid after mission completion.
72. The consultants may be provided with access to UN Environment’s Programme Information Management System (PIMS) and if such access is granted, the consultants agree not to disclose information from that system to third parties beyond information required for, and included in, the evaluation report.
73. In case the consultants are not able to provide the deliverables in accordance with these guidelines, and in line with the expected quality standards by the UN Environment Evaluation Office, payment may be withheld at the discretion of the Director of the Evaluation Office until the consultants have improved the deliverables to meet UN Environment’s quality standards. If the consultant(s) fail to submit a satisfactory final product to UN Environment in a timely manner, i.e. before the end date of their contract, the Evaluation Office reserves the right to employ additional human resources to finalize the report, and to reduce the consultants’ fees by an amount equal to the additional costs borne by the Evaluation Office to bring the report up to standard.

ANNEX VII. Quality Assessment of the Evaluation Report

All UN Environment evaluations are subject to a quality assessment by the Evaluation Office. This is an assessment of the quality of the evaluation product (i.e. evaluation report) and is dependent on more than just the consultant's efforts and skills. Nevertheless, the quality assessment is used as a tool for providing structured feedback to evaluation consultants, especially at draft report stage. This guidance is provided to support consistency in assessment across different Evaluation Managers and to make the assessment process as transparent as possible.

	UN Environment Evaluation Office Comments	Final Report Rating
Substantive Report Quality Criteria		
Quality of the Executive Summary:		
<p>The Summary should be able to stand alone as an accurate summary of the main evaluation product. It should include a concise overview of the evaluation object; clear summary of the evaluation objectives and scope; overall evaluation rating of the project and key features of performance (strengths and weaknesses) against exceptional criteria (plus reference to where the evaluation ratings table can be found within the report); summary of the main findings of the exercise, including a synthesis of main conclusions (which include a summary response to key strategic evaluation questions), lessons learned and recommendations.</p>	<p>Final report: The Executive summary is well presented. It describes the overview of the projects and a clear summary of evaluation findings.</p>	5
<p>I. Introduction</p> <p>A brief introduction should be given identifying, where possible and relevant, the following: institutional context of the project (sub-programme, Division, regions/countries where implemented) and coverage of the evaluation; date of PRC approval and project document signature); results frameworks to which it contributes (e.g. Expected Accomplishment in POW); project duration and start/end dates; number of project phases (where appropriate); implementing partners; total secured budget and whether the project has been evaluated in the past (e.g. mid-term, part of a synthesis evaluation, evaluated by another agency etc.)</p> <p>Consider the extent to which the introduction includes a concise statement of the purpose of the evaluation and the key intended audience for the findings?</p>	<p>Final report: The section is clearly presented and contains all the required elements.</p>	6
<p>II. Evaluation Methods</p> <p>This section should include a description of how the <i>TOC at Evaluation</i>⁴⁹ was designed (who was involved etc.) and applied to the context of the project?</p> <p>A data collection section should include: a description of evaluation methods and information sources used, including the number and type of respondents; justification for methods used (e.g. qualitative/ quantitative; electronic/face-to-face); any selection criteria used to identify respondents, case studies or sites/countries visited; strategies used to increase stakeholder engagement and consultation; details of how data were verified (e.g. triangulation, review by stakeholders etc.).</p> <p>Methods to ensure that potentially excluded groups (excluded by gender, vulnerability or marginalisation) are reached and</p>	<p>Final report: Evaluation methods have been well described.</p>	5

⁴⁹ During the Inception Phase of the evaluation process a *TOC at Design* is created based on the information contained in the approved project documents (these may include either logical framework or a TOC or narrative descriptions). During the evaluation process this TOC is revised based on changes made during project intervention and becomes the *TOC at Evaluation*.

<p>their experiences captured effectively, should be made explicit in this section.</p> <p>The methods used to analyse data (e.g. scoring; coding; thematic analysis etc.) should be described.</p>		
<p>III. The Project</p> <p>This section should include:</p> <ul style="list-style-type: none"> • <i>Context</i>: Overview of the main issue that the project is trying to address, its root causes and consequences on the environment and human well-being (i.e. synopsis of the problem and situational analyses). • <i>Objectives and components</i>: Summary of the project's results hierarchy as stated in the ProDoc (or as officially revised) • <i>Stakeholders</i>: Description of groups of targeted stakeholders organised according to relevant common characteristics • <i>Project implementation structure and partners</i>: A description of the implementation structure with diagram and a list of key project partners • <i>Changes in design during implementation</i>: Any key events that affected the project's scope or parameters should be described in brief in chronological order • <i>Project financing</i>: Completed tables of: (a) budget at design and expenditure by components (b) planned and actual sources of funding/co-financing 	<p>Final report: The report provides a clear and comprehensive, yet concise description of the project.</p>	<p>6</p>
<p>IV. Theory of Change</p> <p>The TOC at Evaluation should be presented clearly in both diagrammatic and narrative forms. Clear articulation of each major causal pathway is expected, (starting from outputs to long term impact), including explanations of all drivers and assumptions as well as the expected roles of key actors.</p> <p>Where the project results as stated in the project design documents (or formal revisions of the project design) are not an accurate reflection of the project's intentions or do not follow OECD/DAC definitions of different results levels, project results may need to be re-phrased or reformulated. In such cases, a summary of the project's results hierarchy should be presented for: a) the results as stated in the approved/revised Prodoc logframe/TOC and b) as formulated in the TOC at Evaluation. <i>The two results hierarchies should be presented as a two column table to show clearly that, although wording and placement may have changed, the results 'goal posts' have not been 'moved'.</i></p>	<p>Final report: The ToC is well presented with a detailed narrative describing the logic of the projects.</p>	<p>5</p>
<p>V. Key Findings</p> <p>A. Strategic relevance:</p> <p>This section should include an assessment of the project's relevance in relation to UN Environment's mandate and its alignment with UN Environment's policies and strategies at the time of project approval. An assessment of the complementarity of the project with other interventions addressing the needs of the same target groups should be included. Consider the extent to which all four elements have been addressed:</p>	<p>Final report: The assessment of strategic relevance is well presented and includes all the required elements.</p>	<p>5</p>

<p>v. Alignment to the UN Environment Medium Term Strategy (MTS) and Programme of Work (POW)</p> <p>vi. Alignment to UN Environment/ Donor/GEF Strategic Priorities</p> <p>vii. Relevance to Regional, Sub-regional and National Environmental Priorities</p> <p>viii. Complementarity with Existing Interventions</p>		
<p>B. Quality of Project Design To what extent are the strength and weaknesses of the project design effectively <u>summarized</u>?</p>	<p>Final report: Quality of project design has been well assessed.</p>	<p>6</p>
<p>C. Nature of the External Context For projects where this is appropriate, key <u>external</u> features of the project's implementing context that limited the project's performance (e.g. conflict, natural disaster, political upheaval), and how they affected performance, should be described.</p>	<p>Final report: Nature of the external context has been well described.</p>	<p>5</p>
<p>D. Effectiveness</p> <p>(i) Outputs and Direct Outcomes: How well does the report present a well-reasoned, complete and evidence-based assessment of the a) delivery of outputs, and b) achievement of direct outcomes? How convincing is the discussion of attribution and contribution, as well as the constraints to attributing effects to the intervention.</p> <p>The effects of the intervention on differentiated groups, including those with specific needs due to gender, vulnerability or marginalisation, should be discussed explicitly.</p>	<p>Final report: The delivery of outputs and achievement of direct outcomes have been well assessed.</p>	<p>5</p>
<p>(ii) Likelihood of Impact: How well does the report present an integrated analysis, guided by the causal pathways represented by the TOC, of all evidence relating to likelihood of impact?</p> <p>How well are change processes explained and the roles of key actors, as well as drivers and assumptions, explicitly discussed?</p> <p>Any unintended negative effects of the project should be discussed under Effectiveness, especially negative effects on disadvantaged groups.</p>	<p>Final report: Likelihood of impact is well assessed and grounded on the ToC.</p>	<p>5</p>
<p>E. Financial Management This section should contain an integrated analysis of all dimensions evaluated under financial management and include a completed 'financial management' table. Consider how well the report addresses the following:</p> <ul style="list-style-type: none"> • <i>completeness</i> of financial information, including the actual project costs (total and per activity) and actual co-financing used • <i>communication</i> between financial and project management staff 	<p>Final report: Financial management has been well assessed. All the required elements have been included.</p>	<p>5</p>
<p>F. Efficiency To what extent, and how well, does the report present a well-reasoned, complete and evidence-based assessment of efficiency under the primary categories of cost-effectiveness and timeliness including:</p> <ul style="list-style-type: none"> • Implications of delays and no cost extensions 	<p>Final report: Efficiency has been well assessed. All the required elements have been included.</p>	<p>5</p>

<ul style="list-style-type: none"> • Time-saving measures put in place to maximise results within the secured budget and agreed project timeframe • Discussion of making use of/building on pre-existing institutions, agreements and partnerships, data sources, synergies and complementarities with other initiatives, programmes and projects etc. • The extent to which the management of the project minimised UN Environment's environmental footprint. 		
<p>G. Monitoring and Reporting How well does the report assess:</p> <ul style="list-style-type: none"> • Monitoring design and budgeting (<i>including SMART indicators, resources for MTE/R etc.</i>) • Monitoring of project implementation (<i>including use of monitoring data for adaptive management</i>) • Project reporting (<i>e.g. PIMS and donor report</i>) 	Final report: Monitoring and reporting have been well assessed. All the required elements have been included.	5
<p>H. Sustainability How well does the evaluation identify and assess the key conditions or factors that are likely to undermine or contribute to the persistence of achieved direct outcomes including:</p> <ul style="list-style-type: none"> • Socio-political Sustainability • Financial Sustainability • Institutional Sustainability 	Final report: Sustainability has been adequately assessed. Some aspects of the assessment could have been strengthened.	4
<p>I. Factors Affecting Performance These factors are not discussed in stand-alone sections but are integrated in criteria A-H as appropriate. Note that these are described in the Evaluation Criteria Ratings Matrix. To what extent, and how well, does the evaluation report cover the following cross-cutting themes:</p> <ul style="list-style-type: none"> • Preparation and readiness • Quality of project management and supervision⁵⁰ • Stakeholder participation and co-operation • Responsiveness to human rights and gender equity • Country ownership and driven-ness • Communication and public awareness 	Final report: All required factors affecting performance have been well assessed.	5
<p>VI. Conclusions and Recommendations</p> <p>i. Quality of the conclusions: The key strategic questions should be clearly and succinctly addressed within the conclusions section. It is expected that the conclusions will highlight the main strengths and weaknesses of the project, and connect them in a compelling story line. Human rights and gender dimensions of the intervention (e.g. how these dimensions were considered, addressed or impacted on) should be discussed explicitly. Conclusions, as well as lessons and recommendations, should be consistent with the evidence presented in the main body of the report.</p>	Final report: Conclusions are adequately presented.	4
<p>ii) Quality and utility of the lessons: Both positive and negative lessons are expected and duplication with recommendations should be avoided. Based on explicit evaluation findings, lessons should be rooted in real project experiences or derived from problems encountered and mistakes made that should be avoided in the future. Lessons</p>	Final report: The lessons have been adequately presented.	4

⁵⁰ In some cases 'project management and supervision' will refer to the supervision and guidance provided by UN Environment to implementing partners and national governments while in others, specifically for GEF funded projects, it will refer to the project management performance of the executing agency and the technical backstopping provided by UN Environment.

must have the potential for wider application and use and should briefly describe the context from which they are derived and those contexts in which they may be useful.		
<p>iii) Quality and utility of the recommendations: To what extent are the recommendations proposals for specific action to be taken by identified people/position-holders to resolve concrete problems affecting the project or the sustainability of its results? They should be feasible to implement within the timeframe and resources available (including local capacities) and specific in terms of who would do what and when.</p> <p>At least one recommendation relating to strengthening the human rights and gender dimensions of UN Environment interventions, should be given.</p> <p>Recommendations should represent a measurable performance target in order that the Evaluation Office can monitor and assess compliance with the recommendations.</p>	Final report: Recommendations have been adequately presented.	4
VII. Report Structure and Presentation Quality		
<p>i) Structure and completeness of the report: To what extent does the report follow the Evaluation Office guidelines? Are all requested Annexes included and complete?</p>	Final report: The report carefully follows Evaluation Office guidelines.	6
<p>ii) Quality of writing and formatting: Consider whether the report is well written (clear English language and grammar) with language that is adequate in quality and tone for an official document? Do visual aids, such as maps and graphs convey key information? Does the report follow Evaluation Office formatting guidelines?</p>	Final report: The report has been adequately formatted and written.	5
OVERALL REPORT QUALITY RATING		5.0 Satisfactory

A number rating 1-6 is used for each criterion: Highly Satisfactory = 6, Satisfactory = 5, Moderately Satisfactory = 4, Moderately Unsatisfactory = 3, Unsatisfactory = 2, Highly Unsatisfactory = 1. The overall quality of the evaluation report is calculated by taking the mean score of all rated quality criteria.

At the end of the evaluation, compliance of the evaluation process against the agreed standard procedures is assessed, based on the table below. *All questions with negative compliance must be explained further in the table below.*

Evaluation Process Quality Criteria	Compliance	
	Yes	No
Independence:		
1. Were the Terms of Reference drafted and finalised by the Evaluation Office?	x	
2. Were possible conflicts of interest of proposed Evaluation Consultant(s) appraised and addressed in the final selection?	x	
3. Was the final selection of the Evaluation Consultant(s) made by the Evaluation Office?	x	
4. Was the evaluator contracted directly by the Evaluation Office?	x	
5. Was the Evaluation Consultant given direct access to identified external stakeholders in order to adequately present and discuss the findings, as appropriate?	x	
6. Did the Evaluation Consultant raise any concerns about being unable to work freely and without interference or undue pressure from project staff or the Evaluation Office?		x
7. If Yes to Q6: Were these concerns resolved to the mutual satisfaction of both the Evaluation Consultant and the Evaluation Manager?		
Financial Management:		
8. Was the evaluation budget approved at project design available for the evaluation?	x	
9. Was the final evaluation budget agreed and approved by the Evaluation Office?	x	
10. Were the agreed evaluation funds readily available to support the payment of the evaluation contract throughout the payment process?	x	
Timeliness:		
11. If a Terminal Evaluation: Was the evaluation initiated within the period of six months before or after project operational completion? Or, if a Mid Term Evaluation: Was the evaluation initiated within a six-month period prior to the project's mid-point?	x	
12. Were all deadlines set in the Terms of Reference respected, as far as unforeseen circumstances allowed?	x	
13. Was the inception report delivered and reviewed/approved prior to commencing any travel?	x	
Project's engagement and support:		
14. Did the project team, Sub-Programme Coordinator and identified project stakeholders provide comments on the evaluation Terms of Reference?	x	
15. Did the project make available all required/requested documents?	x	
16. Did the project make all financial information (and audit reports if applicable) available in a timely manner and to an acceptable level of completeness?	x	
17. Was adequate support provided by the project to the evaluator(s) in planning and conducting evaluation missions?	x	
18. Was close communication between the Evaluation Consultant, Evaluation Office and project team maintained throughout the evaluation?	x	
19. Were evaluation findings, lessons and recommendations adequately discussed with the project team for ownership to be established?	x	
20. Did the project team, Sub-Programme Coordinator and any identified project stakeholders provide comments on the draft evaluation report?	x	
Quality assurance:		
21. Were the evaluation Terms of Reference, including the key evaluation questions, peer-reviewed?	x	
22. Was the TOC in the inception report peer-reviewed?	x	
23. Was the quality of the draft/cleared report checked by the Evaluation Manager and Peer Reviewer prior to dissemination to stakeholders for comments?	x	
24. Did the Evaluation Office complete an assessment of the quality of both the draft and final reports?	x	
Transparency:		
25. Was the draft evaluation report sent directly by the Evaluation Consultant to the Evaluation Office?	x	
26. Did the Evaluation Manager disseminate (or authorize dissemination) of the cleared draft report to the project team, Sub-Programme Coordinator and other key internal personnel (including the Reference Group where appropriate) to solicit formal	x	

comments?		
27. Did the Evaluation Manager disseminate (or authorize dissemination) appropriate drafts of the report to identified external stakeholders, including key partners and funders, to solicit formal comments?	x	
28. Were all stakeholder comments to the draft evaluation report sent directly to the Evaluation Office	x	
29. Did the Evaluation Consultant(s) respond adequately to all factual corrections and comments?	x	
30. Did the Evaluation Office share substantive comments and Evaluation Consultant responses with those who commented, as appropriate?	x	

Provide comments / explanations / mitigating circumstances below for any non-compliant process issues.

<u>Process Criterion Number</u>	<u>Evaluation Office Comments</u>