

**UNITED REPUBLIC OF TANZANIA**



**Vice President's Office**

**Project: Implementation of Concrete Adaptation Measures to Reduce Vulnerability of Livelihoods and Economy of Coastal Communities of Tanzania**

**And**

**Project: Developing Core Capacity to Address Adaptation to Climate Change in Productive Zones of Tanzania**

**Report of the**

**Inception workshop held on  
29-30 October 2012**

**Division of Environment  
October 2012**

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## 1. Introduction

Sea level rise (SLR) and erratic precipitation, caused by climate change, are increasingly affecting Tanzania's coastal zone and in particular its natural ecosystems, infrastructure, agriculture and community livelihoods. This vulnerability is superimposed to non-climate threats such as poverty; dependence on rain-fed agriculture; unsustainable use of natural resources; inadequate coordination of coastal development activities; and inadequacy of enforcement of policies. Expected climate change scenarios for Tanzania predict more significant impacts from Sea Level Rise and changes in precipitation patterns, and should the situation be left unattended, the damage from climate change in Tanzania will be significant. Key impacts of climate change in the coastal zone include: (a) degradation and destruction of coastal ecosystems, such as mangroves and coral reefs, that function both as buffers to sea level rise and increased storm activity leading to coastal erosion, and as important habitats for fish and other marine species providing an important food source for coastal populations; (b) coastal erosion (due to SLR and increased storm activity) leading to destruction of coastal infrastructure, (c) floods and droughts affecting coastal agriculture; and (d) saline water intrusions into coastal aquifers.

To address such vulnerabilities, two adaptation projects were developed and approved in December 2011 for implementation in Tanzania's coastal zone: "Developing Core Capacity to Address Adaptation to Climate Change in Productive Zones of Tanzania" funded by GEF through the Least Developed Countries Fund (US\$3.356 million) and the "Implementation of Concrete Adaptation Measures to Reduce Vulnerability of Livelihoods and Economy of Coastal Communities of Tanzania" funded by the Adaptation Fund (US\$5.008 million).

The LDCF project consists of the following outcomes, supported by on the ground activities implemented primarily in the Pangani, Rufiji and Bagamoyo Districts and in Zanzibar:

- Local level capacities and knowledge to effectively analyze the threats and potential impacts of climate change increased.
- Government and public engagement in climate change adaptation activities is enhanced.
- Vulnerability to climate change is reduced in the coastal zones through adaptation interventions and pilot innovation.

The AF project consists of the following outcomes, supported by on the ground activities implemented primarily in the vicinity of Dar es Salaam region:

- Adverse impacts of SLR and floods on coastal infrastructures and settlements are reduced.
- Coastal ecosystems are rehabilitated and Integrated Coastal Area Management is implemented.
- Knowledge of climate impacts and adaptation is increased.

Both projects are being implemented by the United Nations Environment Programme and executed by the Vice Presidents Office (Division of Environment) in close cooperation with Zanzibar, sectoral ministries and district authorities of Pangani, Rufiji and Bagamoyo district as well as the Dar es salaam city council. While the LDCF and AF projects will remain separate entities with unique activities, management structures and reporting requirements, it is expected that the two will be functionally integrated to the extent possible. As part of this integrated approach, one inception workshop was held to initiate the start of both projects.

The workshop took place from 29-30 October 2012 at Kiromo View Resort in Bagamoyo. It brought about 45 participants from different key ministries, institutions and organizations (Annex 2).

To-date the Government has already signed agreements with UNEP to implement the projects. To initiate the implementation including recruitment process, UNEP has made the first project funding installments. Recruitment of Senior Technical Advisor (STA) and a baseline specialist is being undertaken. Setting up of the projects management team has been done where the project

coordinators, assistant project coordinator and administration and financial assistant have been appointed.

## **2. Objectives of the workshop**

The objective of the workshop was to provide inputs that would lay the foundation for agreeing on key roles of various stakeholders during the implementation of the projects. Stakeholders were therefore expected to ensure they come up with a sound input that reflects the national interests and needs in addressing climate change through agreeing on action plans and procurement plans of both projects.

## **3. Organization of Work**

### **Opening**

The chairperson highlighted the genesis of the projects as well as the objective of the workshop. The opening speech was delivered by Mr. Richard Muyungi Assistant Director and National Climate Change Focal Point, Vice President's Office (Figure 1) on behalf of Mr. Sazi Salula, the Permanent Secretary, Vice President's Office who was invited to be the Guest of Honor but could not attend due to other equally important commitments. Mr. Muyungi expressed his gratitude and thanks to the Global Environment Facility and the Adaptation Fund Board whose support through UNEP is enabling the government to address the challenge of climate change in the Tanzania's coastal zone through the implementation of both projects. He highlighted some impacts such as prolonged droughts and heavy rains which lead to severe floods for instance the floods occurred in Dar es Salaam on December 2011. Sea level rise was mentioned to be a real problem and seems to have impact on coastal zone and in particular its natural ecosystems, fresh water availability, infrastructure, agriculture and community livelihoods in a manner that has never been experienced before. Intrusion of salt water to fresh water and destruction of coastal infrastructure

such as Pangani sea wall were also highlighted as a testimony to the phenomena.

He further highlighted that the government was looking forward to extract lessons learned and best practices towards a replication and up scaling strategy, and with a view to creating a qualitative increase in the country's capacity to adaptation to the impacts of climate change, with ultimate objective of reducing vulnerability and enhancing resilience. He concluded by wishing participants with fruitful deliberations and with the urge that the inception workshop should come up with the information that would help the government, communities and all stakeholders to deal with the inevitable challenges associated with climate change through implementation of the two projects. The full opening speech is provided in Annex 3.



Figure 1: Officiating the opening of the inception workshop

### **Presentation of the projects' briefs**

Eng. Ladislaus Kyaruzi, the AF project coordinator presented the Adaptation Fund project for the purpose of stimulating the discussion (see Annex 4 for detailed project brief). Generally the presentation covered the following areas:

- (i) Climate change threats in Tanzania
- (ii) Outcomes of the project
- (iii) Costs of the activities
- (iv) Implementation arrangements of the project

The second presentation on the brief of LDCF project was done by Mr. Cletus Shengena, the LDCF Assistant project coordinator (see Annex 5 for detailed project brief). Generally the presentation covered the following areas:

- (v) Project components
- (vi) Outcomes of the project
- (i) Costs of the activities
- (ii) Implementation arrangements of the project

Mr. Lars Christiansen, Task Manager of LDCF and AF projects from UNEP had an opportunity to brief the workshop on the general requirements of reporting and procurement during the projects implementation (see Annex 6 for detailed presentation). The areas that he covered include:

- (i) Roles of Implementing entity and Executing entity
- (ii) Introduction of UNEP Project Management Team
- (iii) Technical Reporting
- (iv) Financial Reporting
- (v) Budget revision
- (vi) Cash Advance
- (vii) Procurement requirements

### **4. Group discussions**

After presentation participants were able to share their views and experiences on what should be taken into account to achieve the intended goal. To ensure more inputs, participants were divided into four groups so as to have intensive

discussions on the project design and implementation arrangement. After group discussions, comments were provided particularly on the action plans and procurement plans through group presentations. Groups also proposed the way forward for the quick and smooth implementation of the projects. The inputs emanating from the four groups were based on the four lead questions which were designed with a focus on the best ways to involve key stakeholders during projects implementation; focusing also on the possibility of having future projects that can be supported by LDCF and AF. The groups also looked at synergies of the projects with other activities that might have occurred after the design of the projects; and improvement of the action plans and the first year procurement plans. The lead questions were as follows:

- (i) How best can the two projects be implemented involving all key stakeholders within the already agreed framework?
- (ii) What are other projects and /or activities in the project areas that are being implemented that can complement this project?
- (iii) Are there any other areas of intervention or gaps you may wish to be addressed for any future similar projects?
- (iv) What are your recommendations to the action plans and procurement plans of the projects?

Discussions came out with the following recommendations;

1. Involvement of all key stakeholders should fall within the already agreed framework. The following should be observed:
  - As much as possible projects should align with existing projects which call for employment creation, gender mainstreaming etc.
  - While executing the projects, the Vice President's Office (VPO) should encourage the private sector to undertake similar activities in other areas not included in the projects.
  - As the resources seems to be limited, projects activities should be concentrated at the beginning of the projects cycles particularly concrete visible adaptation activities such seawall rehabilitation and



construction in Pangani, Zanzibar and Dar es Salaam (Ocean Road and Kigamboni).

- Collaborate with other development partners who are doing similar activities. e.g. UNIDO, UNDP, AFDB, Ministry of Energy and Minerals in order to put more resources.
- Projects should create more green jobs.
- On coral reef, VPO has to link with ongoing initiatives. Such as the National Environment Management Council's (NEMC) established coral reef Task Force and other activities undertaken by other nongovernmental actors in this area,
- Before the commencement of the projects, rapid assessment of appropriate/current/emerging technologies for sea shore rehabilitation, taking into account aesthetic values should be undertaken.
- For the similar activities (e.g. Mangrove rehabilitation wall construction), key stakeholders should be brought together to create synergies.
- Stakeholders roles and responsibilities should be well defined and be informed accordingly
- There should be Focal Person from District Level who should be coordinating all the daily activities concerning the LDCF project. The same should be applied to Dar es salaam City Council.
- To ensure ownership by the district authorities where the projects will be implemented council Management Team meetings may be held. Members of the team may include heads from departments responsible for works, environment and economics/education, health and water.
- Reporting System of the project implementation should fall within the Local Government Authority reporting procedures, which are of Quarterly nature (in three months) starting in July.

- Procurement procedures should follow the Tanzania Government Procurement requirements and procedure with the participation of UNEP as appropriate .
- There should be a Monitoring and Supervision team at district levels for LDCF project and city council for AF project from different sectors including NGO's and CBO's.
- Ensure involving local community around the project areas to execute some activities e.g. Mangrove planting which is very important for project ownership.
- Ensure the use of competent national institutions both private and government for the consultancy work whenever possible to ensure national ownership and capacity building as much as possible
- Awareness raising and capacity building at district and grassroots levels is key. All climate change projects should encompass training and awareness components. The design of LDCF projects which will be implemented in districts of Bagamoyo, Pangani, Rufiji and Zanzibar took note of this concern and was integrated in section 3.11: Public awareness, communications and mainstreaming strategy.

The activities in the project areas that are being implemented that can complement the projects are:

- Tanzania Coastal Management Partnership
- Youth groups
- Communities groups
- Africa Adaptation Project in Zanzibar
- Rural electrification
- Marine and Coastal Environment Management Project  
This is dealing with facilitating sustainable fishing and other related activities to Coastal zone communities in order to avoid unsustainable fishing and unsustainable mangrove harvesting.

- RUMAKI: This also deals with facilitating sustainable fishing and other related activities to Coastal zone communities in order to avoid unsustainable fishing and mangrove harvesting.
- Beekeeping projects – Zanzibar and Pangani.
- Mangrove planting – Pangani ( CCIAM – PROJECT- Climate Change Impacts, Adaptation and Mitigation)
- Fish farming and Crab fattening project - Pangani

Any future similar projects should focus on the following:

- Consider other areas of Dar es Salaam with similar problems.
- Enhance early warning system for more effective Disaster and Risk Management.
- Rehabilitate nearby forest/ecosystems to minimize pressure on mangroves.
- Promote alternative livelihood activities.
- For the future projects, design parameters should consider addressing the serious and eminent effects of climate change i.e. floods, drought

## **5. Detailed Work Plans**

As part of the working group sessions, each group worked on revising the project work plans on the basis of the respective result frameworks. ***See separate files for the detailed work plans of both LDCF and AF projects (Annexes 8 and 9.).***

## **6. Detailed budgets of the projects**

The detailed budgets of the projects are provided in Annex 10.

## **7. Recommendations on projects' first year procurement plans**

Furthermore, groups worked on finalizing the preparation of the projects' first year procurement plans on the basis of the project's budget and disbursement

schedule. Annex 7 provides the first year procurement plans as reviewed and agreed during the workshop.

## **8. Roles and responsibilities of stakeholders**

To ensure sustainability of both projects, it was recommended to engage various stakeholders at different stages during the implementation of the projects. Specifically, the workshop adopted the roles and responsibilities of various stakeholders as provided in Annex 11.

To coordinate the project activities and these stakeholders and taking into consideration the importance of synergies, there shall be one Project Steering Committee (PSC), one administration and financial assistant and a Senior Technical Advisor (STA) who will be hired to provide technical guidance on the implementation of both projects. Day-to-day activities shall be the role of the project coordinators. The adaptation fund project shall have a project coordinator and the LDCF project shall have a project coordinator and an assistant project coordinator due to its nature. To ensure enhancement of capacity building and synergies with other ongoing initiatives, project coordinators, assistant project coordinator and administration and financial assistant shall come from the existing staff of government.

The National Climate Change Technical Committee (NCCTC) will supervise the implementation of both projects. The committee shall have a role to report to the National Climate Change Steering Committee (NCCSC).

## **9. Conclusion**

The Vice President's Office took note of the many good and interesting suggestions emerged from the inception workshop and will do its best to accommodate the views expressed in the further implementation of the projects.

The workshop was concluded by thanking the participants for spending their valuable time participating in the workshop and providing the much needed inputs.

## Annexes

### Annex 1: Workshop schedule

#### DAY 1

| <i>TIME</i>   | <i>EVENT</i>                            | <i>RESIPONSIBLE PERSON</i> |
|---------------|---|----------------------------|
| 8:30 – 10:00  | Registration                            | Secretariat                |
| 10:00– 10:20  | Introduction                            | ALL                        |
| 10:20 -10:40  | Opening the Workshop                    | Guest of Honor             |
| 10:40 – 11:00 | <b>GROUP PHOTO/TEA</b>                  | ALL                        |
| 11:00– 11:20  | Project Brief-AF                        | L. Kyaruzi                 |
| 11:20 – 11:40 | Discussions                             | All                        |
| 11:40– 12:10  | Project Brief -LDCF                     | C. Shengena                |
| 12:10 – 12:30 | Discussions                             | All                        |
| 12:30 – 14:00 | <b>LUNCH</b>                            | ALL                        |
| 14:00– 14:30  | Reporting requirements/procurements etc | UNEP                       |
| 14:30 – 15:00 | Discussions                             | All                        |
| 14:30 – 17:00 | Group Work                              | Groups                     |
| 17:00 – 17:20 | Tea/coffee break                        | All                        |
| 17:20         | <b>END OF DAY ONE</b>                   | Chairperson                |

#### DAY 2

| <i>TIME</i>   | <i>EVENT</i>                     | <i>RESIPONSIBLE PERSON</i> |
|---------------|----------------------------------|----------------------------|
| 8:30 – 09:00  | Registration                     | Secretariat                |
| 09:20 -09:40  | Day 1 wrap up                    | Secretariat                |
| 09:40 – 11:20 | Group Work                       | Groups                     |
| 11:20 - 13:00 | Groups Presentation              | Groups                     |
| 13:00 – 14:00 | <b>LUNCH</b>                     | ALL                        |
| 14:00 – 15:00 | <b>DISCUSSION AND WAYFORWARD</b> | ALL                        |
| 15:00         | <b>CLOSING</b>                   | Chairperson                |

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### **Annex 3: Opening Speech**

#### **Speech By Sazi Salula, Permanent Secretary, Vice President's Office at the Opening of the Inception Workshop on Climate Change Adaptation Projects, Kiromo View Resort, Bagamoyo From 29<sup>th</sup> – 30<sup>th</sup> October, 2012.**

***Chairperson,  
Distinguished guests,  
Workshop participants,  
Ladies and Gentlemen.***

It is indeed a great pleasure and honor for me to officiate this opening ceremony of the inception workshop on initiation of the implementation of the projects namely "Developing Core Capacity to Address Adaptation to Climate Change in Productive Zones of Tanzania" funded by Global Environmental Facility through the Least Developed Countries Fund (LDCF) and the "Implementation of Concrete Adaptation Measures to Reduce Vulnerability of Livelihoods and Economy of Coastal Communities of Tanzania" funded by the Adaptation Fund (AF). Let me express my sincere appreciation to you all for availing your time to be present today which indeed signifies the importance you attach to climate change issues and environmental sustainability generally. Let me on behalf of the government also express my sincere gratitude and thanks to the Global Environment Facility and the Adaptation Fund Board whose support through UNEP is enabling the government to address the challenge of climate change in the Tanzania's coastal zone through the implementation of these projects.

#### ***Chairperson***

The development of these projects continues the national efforts to address climate change in Tanzania in order to enable the country to adapt to the impacts of climate change. We are all aware of the dangers climate change poses to our country. We have all witnessed prolonged droughts and heavy rains which lead to severe floods for instance the floods occurred in Dar es Salaam on December 2011. Sea level rise has affected coastal zone and in particular its natural ecosystems, fresh water availability, infrastructure, agriculture and community livelihoods. Intrusion of salt water to fresh water and destruction of coastal infrastructure such as Pangani sea wall are a testimony to these phenomena.

#### ***Chairperson***

Climate change affects all countries in all parts of the world but the impacts are differently distributed amongst regions, generations, age classes, income, groups, occupations and gender. The poor countries with weather dependent economic activities are the mostly affected due to a number of reasons including less adaptive capacity to the impacts of climate change and weak economic base. This vulnerability is superimposed to non-climate threats such as poverty; dependence on rain-fed agriculture; and overdependence of natural resources as the main source of livelihood.

It is indeed, from this spirit of taking action made the government in collaboration with UNEP to develop the adaptation projects which are now at the implementation stage. This process is supported by GEF through the window of the Least Developed Countries Fund and the Adaptation Fund Board through the window of Adaptation Fund established under the Kyoto Protocol of which Tanzania is a party. The overall objective of the Adaptation Fund project is to reduce vulnerability of ecosystems, infrastructure and economy in Tanzania while the LDCF project aims to develop institutional capacities to manage climate change impacts through improved climate information, technical capacity, and implementation of concrete adaptation measures in Pangani, Bagamoyo, Rufiji and Zanzibar.

#### ***Chairperson***

Through both projects, the government is looking forward to extract lessons learned and best practices towards a replication and up scaling strategy, and with a view to creating a qualitative increase in the country's capacity to adaptation to the impacts of climate change, with ultimate objective of reducing vulnerability and enhancing resilience.

#### ***Chairperson***

The input that will come out of this workshop is of utmost importance to our nation, as it lays the foundation for agreeing on key roles of various stakeholders during the implementation of the projects. I therefore urge you all to fully commit your time and most important your mind, in these two days and ensure that you come up with a sound input that reflects the national interests and needs in addressing climate change.

#### ***Chairperson***

As I conclude, let me once again thank the organizers of this workshop, and again express my appreciation to GEF and Adaptation Fund Board for the financial support to this important undertaking. I also take this opportunity to express my sincere thanks to UNEP for agreeing to host these projects. The Government is looking forward to start the implementation of these projects and will make sure that the intended objectives are achieved. I wish you fruitful deliberations and it is my sincere hope that you will come up with the

information that will help the government, communities and all stakeholders to deal with this inevitable challenge.

With these few remarks, it is now my pleasure and honor to declare this Workshop officially opened.

***I thank you for your kind attention.***

#### Annex 4: Adaptation Fund Project Brief

**Project Title:** Implementation of Concrete Adaptation Measures to Reduce Vulnerability of Livelihoods and Economy of Coastal Communities of Tanzania

**Project areas:** Dar es Salaam

**In December 2011, Adaptation Fund Board approved a five years project with a total of USD 5,008,564.**

**Project period:** November 2012-October 2017

#### Introduction

Tanzania will be impacted by climate change mainly through its effects on rainfall patterns, temperature extremes and sea level rise. The direct impacts of these changes are likely to result in more frequent and intense droughts, the destruction of infrastructures in the coast and inland through flooding, inundation, erosion and storms; if no action is taken, the socio-economic impacts will include agricultural yield decreases, decreased water availability and quality, and losses of lives and livelihoods, as well as the accelerated degradation of ecosystems that form the basis of the Tanzanian economy. To respond to this, the government developed a project proposal to adapt to the climate change in the coast of Dar es salaam. The proposal was submitted to the Adaptation Fund Board Secretariat based in New York, USA for funds consideration. It is in this context that in December last the Adaptation Fund Board considered the proposal and approved a five years project with a total of USD 5.0 million. Implementation of the project is expected to start by May, 2012.

#### Outcomes

##### Component 1 - Activities, Targets, Indicators

| Component 1 - Addressing climate change impacts on key infrastructure and settlements                       |  |  |   |   |   |
|---|--|--|---|---|---|
| Activity  | Output   | Indicator  | Target  | Baseline  | Means of Verification                   |
| <i>Outcome 1 - Adverse impacts of SLR and floods on coastal infrastructures and settlements are reduced</i> |  |  |   |   |   |
| Rehabilitate coastal protection facilities to protect settlements economic and cultural infrastructure      | Sea wall raised, rehabilitated, constructed in areas showing particular damage         | Length of sea walls raised, rehabilitated, constructed (m)                     | 1335 linear meters of seawall rehabilitated along the Ocean Road (Kivukoni-Upanga East) and Kigamboni | Dar es salaam seawall (2.6km) showing signs of severe degradation along Ocean road and Kingamboni   | visual observation, engineering reports |
| Cleaning up of the drainage channels, rehabilitation of storm drains  | Effective storm and flood drainage systems in urban areas and near coastal communities | change in number of urban flooding events related to storm and severe rainfall | a 50% reduction in the number of flooding events during rainy season in targeted sites                | According to recent data there have been on average 5 flooding events in Dar es Salaam city center during rainy seasons over the past 5 years | visual observation, engineering reports |

##### Component 2 – Activities, targets and indicators

| Component 2 - Ecosystem-Based Integrated Coastal Area Management (EBICAM)       |        |           |        |          |                       |
|---|--------|-----------|--------|----------|-----------------------|
| <i>Outcome 2 - Coastal ecosystems are rehabilitated and ICAM is implemented</i> |        |           |        |          |                       |
| Activity  | Output | Indicator | Target | Baseline | Means of Verification |
|   |        |           |        |          |                       |

|  |   |   |   |  |   |
|--|---|---|---|--|---|
| Coastal ecosystem rehabilitation for climate resilience through the implementation of a Green Jobs program | Mangrove rehabilitation through planting of resilient seedlings, dredging and the creation of no-take buffer zones;                             | Area of mangrove under rehabilitation   | Mangrove rehabilitation underway in a total area of 40 ha   | There are approximately 2,000 ha of mangroves in Dar es Salaam surroundings.   | Reports, visual observation, mangrove and forest studies, surveys |
|  | Appropriate alternative energy (efficient cook stoves, small solar) technology transferred for avoided deforestation including through training | % change in wood fuel use<br>Number of people in project sites with access to alternative or efficient energy sources (disaggregated by gender) | At least 30% decrease in use of wood fuels among participating communities.<br>1500 households with access to alternative and or efficient energy sources (disaggregated by gender)   | Average wood fuel consumption per capita in Tanzania is 1 to 1.3 ton m3; fuel wood efficiency is estimated at less than 10% on average in all sites; estimated mangrove deforestation rate is 2% per year                      |   |
|  | Coral reef rehabilitation and protection in coastal sites   | Area of reef under rehabilitation   | 2000m <sup>2</sup> (0.2 ha)   | Latest data sets show a low rate of biocover in reefs (20-45%) Fringe and tidal reefs line the entire coast of Tanzania, at a short distance from the shore; patch reefs and inlets are also located a few hundred meters off. | visual observation , project reports                              |
| Shoreline stabilization and rehabilitation using trees and grasses   | Extent of shoreline revegetated   | 1500m (20m wide)  | There is scarce vegetation along the shores in Dar es Salaam. Shorelines are often left open and unprotected with no buffer zone between the sea wall and roads, or buildings. In some instances, at high tide the waves come up to the road. | Visual observation   |   |

**Component 3 – Activities, indicators and targets**

**Component 3 - Knowledge, monitoring and policy linkages**

*Outcome 4 - Knowledge of climate impacts and adaptation measures is increased*

| Activity    | Output   | Indicator  | Target                     | Baseline   | Means of Verification |
|-------------|--|--|----------------------------|--|-----------------------|
| Stocktaking | Performance of a baseline study based on coastal vulnerability | Availability of a comprehensive baseline study; available knowledge gathered | 1 baseline study in year 1 | no such study; there is no recent comprehensive desk review of available knowledge | project reports       |

|                                   |   |   |  |  |   |
|-----------------------------------|---|---|--|--|---|
| Coastal monitoring and assessment | Create and operate a Climate change observatory for Tanzania for ongoing monitoring of CZM and Coastal environmental status and scientific research | effective implementation of clearing house function                                 | Clearing house function is operational by mid-term   | There is no climate change clearing house mechanism  | project reports, institution reports                        |
|                                   | Assessment of the economic viability and practical feasibility of adaptation measures (i.e. through undertaking cost-benefit analyses)              | cost-effective measures are identified for up scaling and policy uptake             | measures are identified for up scaling and policy uptake on an ongoing basis                             | ad hoc assessments available but none specific to this project   | reports from climate observatory, project reports           |
| Policy linkages                   | lessons learned from the project outputs documented   | number of policy briefs provided to key sectors and regulators; number of workshops | 3 briefing notes per year; 2 workshops during the project  | While there is a good degree of information on climate change, there is no systematic effort to inform policy makers based on project outcomes | project reports; briefing materials; workshop reports       |
|                                   | district level administration have the capacity to adequately manage rehabilitated infrastructure   | Amount dedicated to infrastructure maintenance from district budgets                | Dar es Salaam Municipal Councils earmarks appropriate annual allocations for infrastructure maintenance. | infrastructure budgets within district administrations are low   | project reports, plans and policies, district-level budgets |
|                                   | One EBICAM Action Plan for the coastal region is approved   | Number of plans approved  | One plan approved by end of project  | No plan exists as yet but ICZM capacity exists   | project reports, plans and policies                         |

### Project Costs

The table below summarizes the baseline and additional costs for this project:

| PROJECT COMPONENTS   | EXPECTED CONCRETE OUTPUTS AND TARGETS  | EXPECTED OUTCOMES   | AMOUNT (US\$)    |
|--|--|---|------------------|
| Project objective: To reduce vulnerability of livelihoods, ecosystems, infrastructure and economy in Tanzania. |  |   |                  |
| <b>Component 1 - Addressing climate change impacts on key infrastructure and settlements</b>                   | 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                 | <i>Outcome 1 - Adverse impacts of SLR and floods on coastal infrastructures and settlements are reduced</i> | 3,337,500        |
|  | 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 |   | 200,000          |
|  |  |   | <b>3,537,500</b> |

| PROJECT COMPONENTS  | EXPECTED CONCRETE OUTPUTS AND TARGETS  | EXPECTED OUTCOMES   | AMOUNT (US\$)    |
|---|--|---|------------------|
| <b>Component 2 - Ecosystem-Based Integrated Coastal Area Management (EBICAM)</b>                            | 40 ha of mangroves rehabilitated through planting of resilient seedlings, dredging and the creation of no-take buffer zones.   | <i>Outcome 2 - Coastal and shoreline ecosystems are rehabilitated and ICAM is implemented</i> | 35,000           |
|   | Appropriate alternative energy (efficient cook stoves, small solar) technology transferred to 3,000 households in support of sustainable mangrove regeneration including through training  |   | 76,500           |
|   | 2000 m <sup>2</sup> 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           |
|   |  |   | <b>289,000</b>   |
| <b>Component 3 - Knowledge, coastal monitoring and policy linkages</b>                                      | Available knowledge, science and data on coastal vulnerability gathered  | Outcome 3 - knowledge of climate impacts and adaptation measures is increased                 | 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 up scaling (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          |
|   |  |   | <b>415,000</b>   |
| 5a. Monitoring and evaluation (see the M&E table under part III.C)  |  |   | 104,688          |
| 5b. Project/Programme Execution cost (See Execution Cost under Part III.A)                                  |  |   | <b>270,000</b>   |
| 6. Total Project/Programme Cost (Total of 1 to 6)   |  |   | <b>4,616,188</b> |
| 7. Project Cycle Management Fee charged by the Implementing Entity 8.5% of total project cost. See Annex 5) |  |   | 392,376          |
| <b>Amount of Financing Requested</b>  |  |   | <b>5,008,564</b> |

### Institutional Framework and Implementation Arrangements

UNEP will be the Multilateral Implementing Entity (MIE) for the project and will oversee and provide technical backstopping to the project. UNEP benefits from significant experience in implementing projects of this type, and has excellent relations with the 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.

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 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.

The VPO- DOE will be the overall coordinator of the project (through the services of a Project Coordinator from the existing staff within VPO). 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.

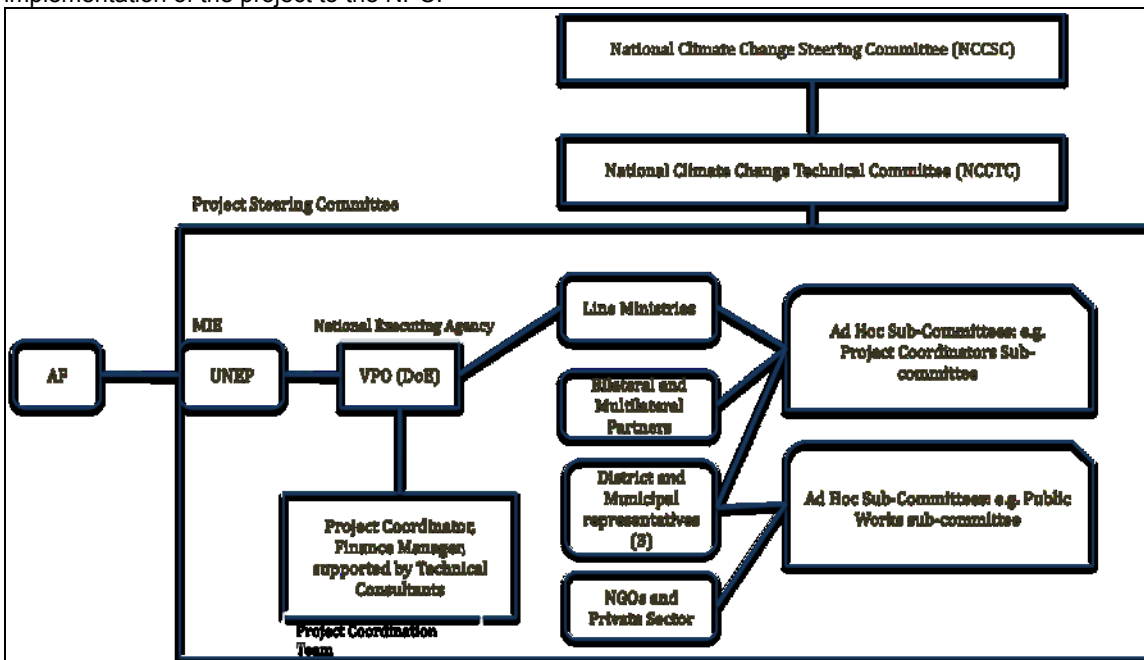


Figure: Project Management and Supervision structure

## **Annex 5: LDCF Project Brief**

**Project Title:** Developing Core Capacity to Address Adaptation to Climate Change in Tanzania in Productive Coastal Zones

**Project areas:** Pangani, Rufiji, Bagamoyo and Zanzibar  
**In December 2011 GEF approved a five years project with a total of USD 3.356 million.**

**Project period:** November 2012-October 2017

### **Project Components**

#### **Component 1: Scientific and Technical capacities increased for climate change adaptation analysis**

This component will seek to establish local and decentralized-level capacity to assess and understand climate change impacts. In line with ongoing efforts to strengthen scientific and technical capacity at the national level (e.g. UNDP Africa Adaptation Program), this component will provide decentralized administrations and communities with the capacity to perform coastal vulnerability assessments, as well as information and analytical tools to undertake participatory adaptation planning. This will also include local climate monitoring capacity, so as to enhance local forecasting and monitoring of climate change and sea level rise.

#### **Component 2: Broadening Stakeholder Engagement for Vulnerability Reduction**

Recognizing that adequate adaptation strategies must rely on multiple partners at all levels of society, and in all sectors, this component will seek to promote interministerial coordination at national and decentralized levels, as well as public awareness of coastal impacts and adaptation options. It will include an awareness campaign with messages targeting key coastal stakeholders, as well as seek to engage academia in developing new research and growing capacity for adaptation research relevant to coastal challenges.

#### **Component 3: Pilot on Integrated Coastal Zone and River Basin Management**

This component will seek to demonstrate innovative and integrated approaches to coastal zone and river basin management in order to achieve a reduction in vulnerability among coastal communities and ecosystems, as well as to inform future policy development. These activities will be undertaken in close collaboration with other ongoing initiatives in the coastal region, including those related to coastal forestry and biodiversity. Pilots will address shifting of shallow wells affected by inundation of salt water; afforestation/reforestation of mangroves in Bagamoyo, Pangani and Rufiji will also be undertaken as a means to restore key buffer areas, and rehabilitation of sea defense wall in Pangani Districts will also be foreseen as a tool for climate change adaptation.

#### **Component 4: Knowledge Development and Learning**

This component will include activities related to the wider dissemination of data, information and tools related to climate change and adaptation to the broader network of coastal stakeholders, as well as through universities and schools. Activities under this component aim at strengthening public awareness (Component 3) as well as interministerial coordination (Component 2). It will support the development, publication and dissemination of targeted information products and studies relevant to coastal zone management and adaptation, including legal texts, guidelines, monographies and other project documents.

In order to fully develop these activities, a short Preparatory Phase (PPG) will be requested, to last no more than nine 9 months. During the PPG phase, a comprehensive assessment of activities already underway in the country and targeted region will be undertaken, so as to achieve synergy and coordination.

### **Outcomes**

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

Without the GEF support, the capacity of communities will remain low in terms of understanding the changes which are taking place of environmental resources available for productive uses. For example, sources of income provided from drought sensitive crops may no longer be viable as temperatures increase. Water provided through shallow coastal aquifers is increasingly saline and less suitable for agriculture or human consumption. Without the GEF project, communities will see their livelihoods diminish due to the impacts of climate changes and sea level rise.

This project will promote community participation in detailed vulnerability assessment as a means of engaging them in defining the most suitable adaptation options as well as increase the relevance of the vulnerability assessments to take place. The project will also promote participatory research through the involvement of academia, so as to enable knowledge on local adaptive measures to be up scaled.



**Outcome 2. Government and public engagement in climate change adaptation activities is enhanced**

Current capacity to integrate climate change into relevant policies and decision making processes is inadequate. A recent assessment of the core capacities in the government has shown that consideration of climate change across Ministries has been weak. There is little expertise in the country on which to draw. Without the GEF intervention, adaptation initiatives will take place in an ad hoc manner, and key barriers to nation-wide adaptation will remain unaddressed.

This project will seek to increase knowledge and build capacity across Ministries about how climate change will impact Tanzania's development and provide tools and resources which they can use.

**Outcome 3. Vulnerability to climate change is reduced in the coastal zones through pilot projects**

Without the GEF support, the communities living along the coastal area in Bagamoyo, Pangani and Rufiji districts will continue to face the risks of climate change owing to lack of adaptive capacity. The government alone will not be able to mobilize and raise resources enough to address the effects of sea level rise to the intended communities. As a result communities will face acute shortage of clean and safe water for drinking and other productive activities as well as observing beaches erosion without doing anything to cope/rectify the situation. Owing to shortage of water, women will be forced to walk very long distances to fetch water for household use and spent a lot of their precious time which could be used for other productive economic activities. If this situation will remain unchecked there is a danger of people living along the coast to migrate to other places and create social conflicts and other environmental degradation due to over population and unsustainable utilization of resources. This will also accelerate the level of school dropout particularly to girls who are traditionally water courier and retard the initiatives to attain Millennium Development Goal number 3 (access to universal education). Without the support from LDCF, the livelihoods of communities in Rufiji which depend largely on rice farming and fishing will be severely affected by the effects of sea level rise.

The LDCF support will be used to demonstrate a model of climate change vulnerability reduction which could then be replicated to other areas having the same problem. The proposed intervention will address risks associated with salt water intrusion to water wells as well as raising the adaptive capacity of local rural communities and make them less vulnerable to climate change induced water related problems. The project will enable local communities in Bagamoyo and Rufiji districts to be aware on the causes and impacts and explore their adjustment to the problems faced due to climate change impacts (adaptation options available). The pilots in the coastal areas identified as most vulnerable, will practice improved environmental management and reinforcement of the coastal zone to protect its coastal resources, such as freshwater and productive soils. At the end of the project it is expected that at least 75% of the areas mostly affected by ocean waves will be identified and planted with different species of mangrove trees, as a means of coastal protection against sea level rise. Other non mangroves trees will be also planted to give alternative sources for timber and poles as well as encouraging other economic activities like bee keeping, etc. To ensure sustainability of the project, a minimum of 20 people composed of men and women will be trained on how to manage the project. The communities will also be trained on other simple alternatives which will enable them to adapt to effects of climate change in general.

**Outcome 4. Substantive knowledge on how to reduce vulnerability to climate change increased**

Core technical capacity to understand climate change is lacking in the country and in many university programs. A lack of knowledge generation at this level often translates into a lack of understanding at decision making levels. Information for simple dissemination is lacking therefore limiting the ability to engage a wider community in identifying and implementing adaptation measures and making the necessary changes to common practices.

To further institute core technical capacity in the country, young professionals will be trained through the University and will also work on the pilot projects as a practical learning tool. This will concretize the knowledge gained from the pilot projects as well as increase the scientific expertise available to the project. The GEF resources are necessary for promoting this knowledge loop.

**Project Costs**

The table below summarizes the baseline and additional costs for this project:

| Baseline Situation  | Baseline Costs  | With LDCF support  | Additional Costs |
|---|---|--|------------------|
| <b>Component 1 - Scientific and Technical knowledge and capacities for climate change adaptation analysis</b> |   |  |                  |
| Business as usual planning at district level  | Baseline costs of operation of each district administration include staff costs and office space. Costs estimated at 240,000 US\$ for all four districts for 5 years, all of which has been earmarked as co-financing for this project. | Thorough Science-Based understanding of vulnerability to climate change at local level. Integration of adaptation and vulnerability in local planning. | 225,000 US\$     |
| <b>Component 2 - Broadening Stakeholder Engagement for Vulnerability Reduction</b>                            |   |  |                  |
| Limited number of NGOs  | Costs of operation of all NGOs are  | New CBOs emerge with   | 345,000 US\$     |

|  |   |  |  |
|--|---|--|--|
| <p>and CBOs working on coastal adaptation issues.</p> <p>Low awareness among local communities of coastal vulnerability and adaptation options. No formal regular integration of Climate adaptation in university curricula.</p> | <p>not known with precision. The NGO Forum-CC has received funding from DFID to support advocacy activities (500,000 pounds until 2012). Baseline costs for each district to link with community associations are estimated on basis of staff time, to 60,000 US\$ over 5 years for awareness raising (earmarked as co-financing for this project). Baseline costs of operating the University facilities and academic programmes were estimated for Dar es Salaam University at 2 million US\$ per year.</p> | <p>capacity to engage on coastal adaptation issues. (at least 10)</p> <p>Local awareness on adaptation issues is increased through the implementation of an awareness program. New students and researchers are involved in adaptation programming and implementation at the local level. Adaptation is integrated into university curricula</p> |  |
|--|---|--|--|

**Component 3 - Priority adaptation interventions for resilient Integrated Coastal Zone Management**

|   |   |   |           |
|---|---|---|-----------|
| <p>Coastal ecosystems (mangroves) are suffering from degradation. Coastal protection systems exist but are degraded and inadequate to cope with climate change. Coastal water supply systems are functional but an increasing number are facing inundation and Stalination.</p> | <p>In the four districts, programmes are underway to address baseline development needs, including basic water supply, infrastructure maintenance and construction, as well as agriculture, fisheries and energy support. Total State Budget for 2011-2012 were estimated at 8.6 billion US\$ covering expenditures in infrastructures and recurring programme costs.<sup>1</sup></p> <p>A number of programmes are underway, supported by donors and national resources that flow through the districts targeted by this project in support of baseline environmental issues and adaptation issues. These include the following, of which 67,000,357 US\$ have been earmarked as co-financing for this project: Marine Environmental Conservation Programme (IDA, 62 million US\$), Finland-supported SLM project (11 million Euros), Japan-Supported AAP project (2.6 million US\$), Eastern Selous Community Wildlife and Natural Resources Management Projects (Belgium, 500,000 US\$) Participatory Forest Management (Finland, 140,000 US\$) Nyamweke Irrigation Scheme (DFID, 753,000US\$), Rural Water Supply and sanitation programme (WB, GoT, 34 million US\$)</p> | <p>Mangrove rehabilitation using resilient species for enhanced coastal protection and productivity;</p> <p>Rehabilitation and upgrade of man-made coastal protection infrastructure up to climate change standards.</p> <p>Relocation of inundated or salinized boreholes and alternative water supply systems for enhanced and resilient water supply in coastal areas.</p> | 2,476,300 |
|---|---|---|-----------|

**Institutional Framework and Implementation Arrangements**

UNEP will be the Implementing Agency for the project and will oversee and provide technical backstopping to the project. UNEP will work closely with the Vice President's Office (VPO) and the Project Steering Committee (PSC) during project implementation. Overall, the project will be implemented with the support of several government and non-government partners.

<sup>1</sup> 2011-2012 Budget. Sectoral expenditures per sector were approved as follows: 16.9% on education; 20.56% on infrastructure; 8.9% on health; 6.8% on agriculture and irrigation; • 4.6% on water; 3.98% on energy and minerals. See <http://www.pwc.com/tz/en/pdf/Tanzania-Budget-2011-2012-Summary.pdf>

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 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.

The VPO- DOE will be the overall coordinator of the project, through the services of a Project Coordination unit staffed with a Project Coordinator from the existing staff within VPO, supported by external climate adaptation experts, as needed. Financial and administrative support will be provided from the existing staff within VPO. Focal points within district councils will assist with local supervision and maintain consultative processes. Participation at district council level will be ensured through the council management teams and standing committee on environmental works and economics, which brings together experts and elected officials. These local committees will report to the full District Councils regularly as per regular procedures.

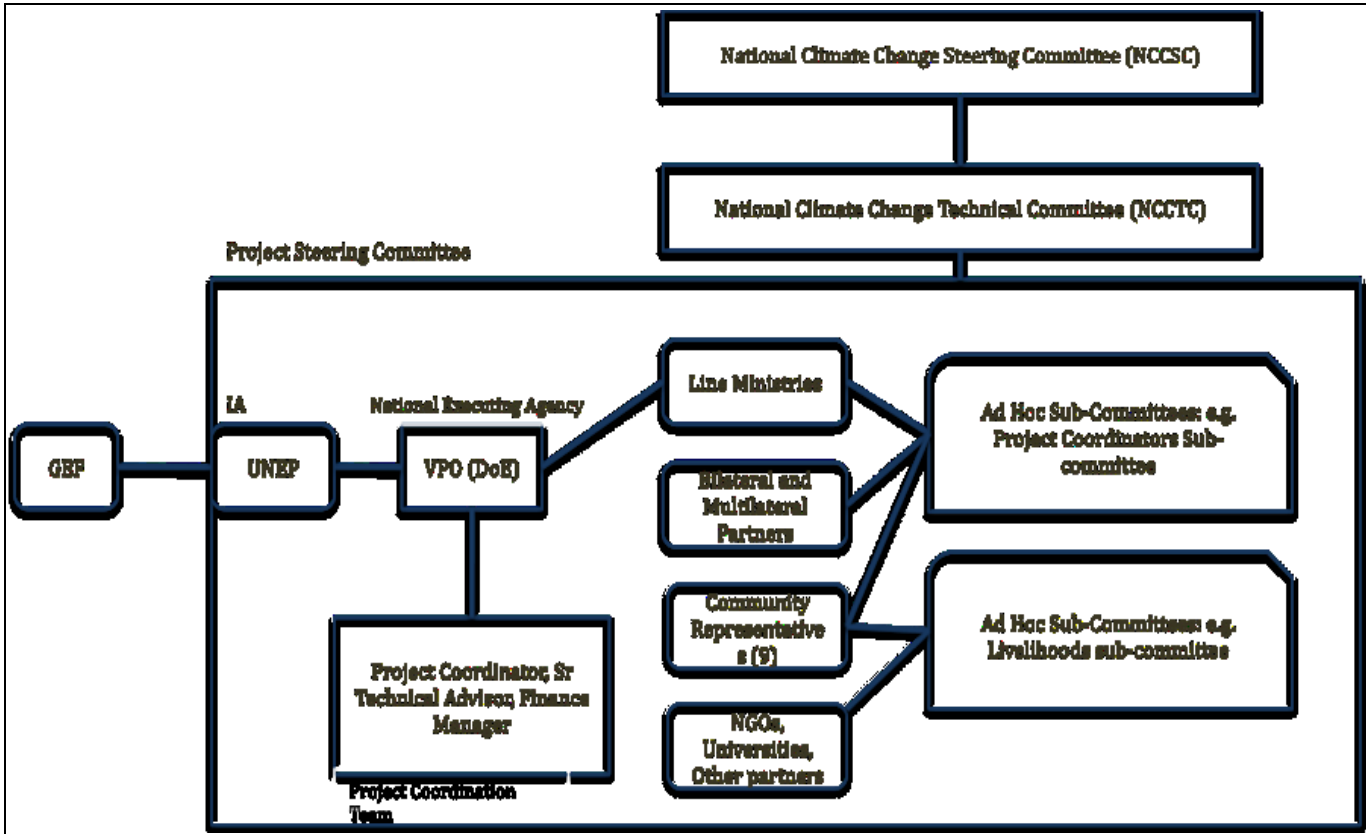


Figure: Project Management and Supervision Structure

## Annex 6: Reporting and Procurements Requirements

### Implementing agency/entity vs executing agency/entity

- Implementing Agency/Entity (UNEP): accountable to the GEF Executive Council (LDCF)/Adaptation Fund Board (AF) for ensuring that financed activities are carried out in accordance with the agreed project document as well as UNEP, GEF and AF policies, criteria and procedures.
  - Timely and efficient achievement of objectives and outcomes and targets as defined in project results framework and agreed work plans.
  - Timely and high quality reporting
  - Assurance of fiduciary standards
  - Assurance of procurement standards
  - General technical support and oversight
- Executing Agency/Entity (VPO – Division of Environment): day to day responsibility for technical and administrative services to the project
  - Accountable to UNEP for all of the above
  - Day to day budget management and management of project staff
  - Leading procurement
  - Achievement of agreed objectives, outputs and activities

### UNEP Project Supervision Team

#### Task Manager (TM) – Lars Christiansen

- Supervises project management, coordination, work planning, Monitoring and Evaluation (M&E), Technical meetings, workshops
- Reviews specific outputs (including progress reporting; also helps with troubleshooting as required).
- Ensures outputs/activities meet expectations and timelines of project.
- Coordinates most of the implementation reporting back to GEF Secretariat/AFB.

#### UNEP Fund Management Officer (FMO) – Shakira Khawaja

- Provide financial oversight of the project in accordance with the GEF/AFB fiduciary standards and UN rules and regulations

### Two projects, two separate lines of reporting

- **AF project.** Reporting is done to AF Board through UNEP. AF specific templates
- **LDCF project.** Reporting is done to GEF through UNEP. LDCF specific templates

→ However, general requirements are roughly the same.

### Technical Reporting

- **Inception report.** Should among other things include revised work plan and detailed procurement plan.
- **UNEP Progress Report.** Twice yearly (Jan-Jun, Jul-Dec) – submitted no more than 30 days later.
- **GEF/AFB progress reporting.** Project Implementation Report (PIR) and Project Performance Report (PPR). PIR (LDCF) in July, PPR (AF) in January.
- **Mid Term and Terminal review/evaluation** (independent)
- **Final report** (end of project)

Templates are found in the Project Cooperation Agreements (PCAs) of the two projects.

### UNEP Progress Report

- Primary purpose is to ensure that UNEP/UNEP task manager is formally appraised of the status of project implementation and that the decisions or actions necessary for successful implementation of the project have been or are being taken and documented in a timely manner.
  - Status of delivery of project activities, outputs, results and impacts (if possible).
  - Actual or potential problems and deviations from the approved work plan and budget
  - Specification of agreed changes to work plan and any decisions/actions regarding the future direction of the project.

#### **Financial Reporting**

- **Quarterly expenditure reports.** Reports on spending in quarter.
- **Independent audit.** Once a year (Jan-Jan + 180 days).
- **Co-financing report** (LDCF only). Once a year (July) – co-financing realized.
- **Inventory report on non-expendable equipment.**
- **Final audit and financial report** (end of project)

#### **Failure to comply with Reporting Requirements: Cause for Possible suspension and Termination**

- First course of action is to work with the execution agency and/or government to resolve issues

Note that UNEP PCA states:

- *“At any stage of the project cycle, participating country(ies), UNEP or the GEF Secretariat/AF board may recommend suspending or terminating the project for several reasons including force majeure, changes in national priorities, poor implementation performance, lack of compliance with financial or reporting obligations, leading to a conclusion that the project can no longer meet its objectives “*

#### **Budget revision**

- In case of expected or actual deviation from original budget, the budget needs to formally revised.
- Deviations above 10% on individual budget line requires UNEP formal approval.
- Can be done as often as needed, but preferably not more than once pr. year. Best done in October/November as this is 'quiet' time for FMO
- Follow specific template found in PCA.

#### **Cash Advance**

- First cash advance (to cover initial expenses) processed at signature of PCA.
- Subsequent cash advances processed based on actual cash needs for project expenses. Cash advances can be submitted on an ongoing basis. However, good practice is:
  - A cash advance should cover needs for around 3-6 months
  - Should be submitted at least one month before funding is needed (takes time!)
  - Make a cash advance BEFORE you run out of money. Always make sure sufficient cash is available for ongoing expenses.
- Requirements for cash advances.
  - Up to date project account information
  - Correctly filled template (annexed to PCA) – approved by TM
  - Satisfactory reporting (in particular progress and expenditure reports)

**If these conditions are not met the cash advance cannot be processed/will be delayed.**

#### **Procurement**

- All procurement is to meet internationally accepted standards, including, but not limited to:
  - Competitive open process
  - Review of at least 3 qualified candidates based on objective criteria
  - Evaluation report – documentation of the process.

At any given time GEF/AF board and/or UNEP may investigate procurement procedures and if any irregularities are found a full refund could be requested (PCA para 22b + UNEP-AFB agreement para 6.01)

" In the event that the Executing Entity makes any disbursements in a manner which UNEP considers to be inconsistent with UN Regulations and rules; internationally accepted principles... the Executing Entity shall fully refund to UNEP any such disbursements" (PCA para 22b)

**Annex 7: Procurement Plans**

**Procurement Plan -2012/2013**

**Project Name: Implementation of Concrete Adaptation Measures to Reduce Vulnerability of Livelihoods and Economy of Coastal Communities of Tanzania**

| S/NO.       | GOODS/SERVICE   | QTY | SPECIFICATIONS   | YEAR 2012/2013 |    |    |     | BUDGET (US\$)     |
|-------------|---|-----|--|----------------|----|----|-----|-------------------|
|             |   |     |  | Q1             | Q2 | Q3 | Q4  |                   |
| <b>1200</b> | <b>CONSULTANCIES</b>  |     |  |                |    |    |     |                   |
| 1205        | Coastal zone adaptation specialist (STA)  | 1   | TORs   |                |    | 1  |     | 30,000.00         |
| 1206        | Ecosystem management specialist (Baseline specialist)   | 1   | TORs   |                |    | 1  |     | 30,000.00         |
| 1210        | Knowledge expert  | 1   | TORs   |                |    | 1  |     | 20,000.00         |
| 1212        | Climate change knowledge specialist   | 1   | TORs   |                |    | 1  |     | 10,000.00         |
|             | <b>Sub total</b>  |     |  |                |    |    |     | <b>90,000</b>     |
| <b>20</b>   | <b>SUB-CONTRACT COMPONENT</b>   |     |  |                |    |    |     |                   |
| 2205        | Sub-contract agri-research lab for pod multiplication   | 1   | TORs   |                |    |    | 1   | -                 |
| 2301        | Subcontract coastal engineering firm for seawall rehab  | 1   |  |                |    |    | 1   | 360,000.00        |
| 2302        | Sub-contract civil engineering firm for drainage rehab  | 1   |  |                |    |    | 1   | 100,000.00        |
|             | <b>Sub total</b>  |     |  |                |    |    |     | <b>460,000.00</b> |
| <b>40</b>   | <b>EQUIPMENT AND PREMISES COMPONENT</b>   |     |  |                |    |    |     |                   |
| 4104        | Office equipment and expendables  |     |  |                |    |    |     | 8000              |
|             | <b>Sub total</b>  |     |  |                |    |    |     | <b>8,000</b>      |
| 4201        | Small alternative energy appliances (solar water heaters, PV battery chargers, lighting systems, cook stoves etc) | 500 |  |                |    |    | 500 |                   |
|             | <b>Sub total</b>  |     |  |                |    |    |     | <b>8000</b>       |
| <b>4202</b> | <b>Computers and database software</b>  |     |  |                |    |    |     |                   |
|             | Cartridge   | 4   |  |                |    | 2  | 2   |                   |
|             | Toner for photocopier   | 3   | Canon  |                |    | 1  | 2   |                   |
|             | External hard disk  | 4   | lomega_HDD, 298 GB   |                |    | 4  |     |                   |
|             | LCD Projector   | 1   | LPF D 711  |                |    | 1  | -   |                   |
|             | Laptops   | 2   | MacBook Air  |                |    | 2  |     |                   |
|             | Desk top computer   | 1   | Window 7 professional 32-bit Pentium R dual-core 2.7 GHz 2GB-ram, 240 GB HDD, DVD RW microsoft office 2007 |                |    | 1  |     |                   |

| S/NO.       | GOODS/SERVICE                        | QTY  | SPECIFICATIONS      | YEAR 2012/2013 |    |      |      | BUDGET (US\$)  |
|-------------|--------------------------------------|------|---------------------|----------------|----|------|------|----------------|
|             |                                      |      |                     | Q1             | Q2 | Q3   | Q4   |                |
|             | Antivirus software                   | 10   |                     |                |    | 5    | 5    |                |
|             | Communications                       | 50   |                     |                |    | 30   | 20   |                |
|             | Modems                               | 5    |                     |                |    | 4    | 1    |                |
|             | <b>Sub total</b>                     |      |                     |                |    |      |      | <b>10,000</b>  |
| <b>4203</b> | <b>Vehicle and maintenance costs</b> |      |                     |                |    |      |      |                |
|             | Vehicle                              | 1    | Toyota Hilux Probox |                |    | 1    |      | 30,000         |
|             | <b>Sub total</b>                     |      |                     |                |    |      |      | <b>35,000</b>  |
|             | Service of vehicle                   | 2    |                     |                |    | 1    | 1    |                |
|             | Fuel                                 | 2400 | Diesel              |                |    | 1200 | 1200 |                |
|             | 2 T Stroke                           | 314  |                     |                |    |      |      |                |
|             | <b>Sub total</b>                     |      |                     |                |    |      |      | <b>5,000</b>   |
|             |                                      |      |                     |                |    |      |      |                |
|             |                                      |      |                     |                |    |      |      |                |
|             | <b>GRAND TOTAL</b>                   |      |                     |                |    |      |      | <b>596,000</b> |
|             |                                      |      |                     |                |    |      |      |                |

#### Procurement Plan -2012/2013

#### Annual Procurement Plan for a Project on Developing Core Capacity to Address Adaptation to Climate Change in Productive Coastal Zones of Tanzania

| S/N         | GOODS/SERVICE   | QTY | SPECIFICATIONS | YEAR 2012/2013 |    |    |    | BUDGET \$      |
|-------------|---|-----|----------------|----------------|----|----|----|----------------|
|             |   |     |                | Q1             | Q2 | Q3 | Q4 |                |
| <b>10</b>   | <b>CONSULTANTS</b>  |     |                |                |    |    |    |                |
| 1201        | National Coastal zone Management Consultant (Baseline specialist) | 1   | TORs           |                |    | 1  |    | 30,000         |
| 1202        | National Socio-economist  | 1   | TORs           |                |    | 1  |    | 15,000         |
| 1203        | International Coastal adaptation specialist (STA)                 | 1   | TORs           |                |    | 1  |    | 10,000         |
| 1204        | National NGO management specialist                                | 1   | TORs           |                |    | 1  |    | 10,000         |
| 1205        | National legal advisor  | 1   | TORs           |                |    | 1  |    | 5,000          |
| 1206        | National climate education specialist                             | 1   | TORs           |                |    |    | 1  | 15,000         |
| 1209        | International mangrove specialist                                 | 1   | TORs           |                |    | 1  |    | 35,000         |
| 1210        | National Mangrove specialist                                      | 1   | TORs           |                |    | 1  |    | 35,000         |
| 1212        | National water management specialist                              | 1   | TORs           |                |    | 1  |    | 10,000         |
| <b>1299</b> | <b>Sub total</b>  |     |                |                |    |    |    | <b>165,000</b> |
| 1601        | <b>Travel</b>   |     |                |                |    |    |    | 7000           |
| 1699        | <b>Sub total</b>  |     |                |                |    |    |    | <b>7,000</b>   |
|             |   |     |                |                |    |    |    |                |
| <b>20</b>   | <b>SUB - CONTRACTORS</b>  |     |                |                |    |    |    |                |



| S/N         | GOODS/SERVICE  | QTY | SPECIFICATIONS         | YEAR 2012/2013 |    |    |    | BUDGET \$      |
|-------------|--|-----|------------------------|----------------|----|----|----|----------------|
|             |  |     |                        | Q1             | Q2 | Q3 | Q4 |                |
| <b>2200</b> | <b>Sub - Contracts (MOUs/LOAs for supporting Organization)</b> |     |                        |                |    |    |    |                |
| 2201        | Sub-contract with NGO network                                  | 1   | TORs                   |                |    | 1  |    | 15,000         |
| 2203        | Sub-contract with University Consortium                        | 1   | TORs                   |                |    | 1  |    | 20,000         |
| <b>2299</b> | <b>Sub total</b>   |     |                        |                |    |    |    | <b>35,000</b>  |
| <b>2300</b> | <b>Sub-contracts (for commercial purposes)</b>                 |     |                        |                |    |    |    |                |
| 2302        | Sub-contract civil engineering firm (water)                    | 1   | TORs                   |                |    |    | 1  | 198,000        |
| 2303        | Sub-contract civil engineering firm (Pangani seawall)          | 1   | TORs                   |                |    |    | 1  | 315,475        |
| <b>2399</b> | <b>Sub total</b>   |     |                        |                |    |    |    | <b>513,475</b> |
| <b>40</b>   | <b>EQUIPMENT AND PREMISES COMPONENT</b>                        |     |                        |                |    |    |    |                |
| 4301        | Computers and Materials for members                            | 4   |                        |                |    | 4  |    | 10,000         |
| 4303        | Vehicle  | 1   | TOYOTA PROBOX<br>HILUX |                |    | 1  |    | 30,000         |
| <b>4399</b> | <b>Sub total</b>   |     |                        |                |    |    |    | <b>40,000</b>  |
| <b>50</b>   | <b>MISCELLANEOUS COMPONENT</b>                                 |     |                        |                |    |    |    |                |
| 5101        | Vehicle maintenance costs                                      |     |                        |                |    |    |    | 10,000         |
| 5102        | Office Stationeries  |     |                        |                |    |    |    | 6,500          |
| 5103        | Conference facilities  |     |                        |                |    |    |    | 12,000         |
| <b>5199</b> | <b>Sub total</b>   |     |                        |                |    |    |    | <b>28,500</b>  |
|             | <b>GRAND TOTAL</b>   |     |                        |                |    |    |    | <b>788,975</b> |

**Annex 8: Work Plan of Adaptation Fund Project (See separate file)**

**Annex 9: Work Plan of LDCF Project (See separate file)**

**Annex 10: Detailed budgets of the projects**

**Adaptation Fund Project**

| Budget Line |   | Project budget (US\$) | Expenditure by calendar year |                |                |                |               | Total (US\$)   |
|-------------|---|-----------------------|------------------------------|----------------|----------------|----------------|---------------|----------------|
|             |   |                       | Year 1                       | Year 2         | Year 3         | Year 4         | Year 5        |                |
| <b>10</b>   | <b>PERSONNEL COMPONENT</b>                                    |                       |                              |                |                |                |               |                |
| 1101        | National project coordinator                                  | 25,000                | 25,000                       | 25,000         | 25,000         | 25,000         | 25,000        | 125,000        |
| <b>1199</b> | <b>Sub-total</b>  | <b>125,000</b>        | <b>25,000</b>                | <b>25,000</b>  | <b>25,000</b>  | <b>25,000</b>  | <b>25,000</b> | <b>125,000</b> |
| <b>1200</b> | <b>Consultants</b>  |                       |                              |                |                |                |               |                |
| 1201        | mangrove specialist   | 5,000                 |                              |                | 15,000         |                |               | 15,000         |
| 1202        | reef specialist   | 30,000                |                              |                | 30,000         |                |               | 30,000         |
| 1203        | coastal rehabilitation specialist                             | 25,000                |                              |                | 10,000         | 10,000         | 5,000         | 25,000         |
| 1204        | rural energy consultant                                       | 24,000                |                              | 8,000          | 8,000          | 8,000          |               | 24,000         |
| 1205        | Coastal zone adaptation specialist (STA)                      | 140,000               | 30,000                       | 30,000         | 30,000         | 30,000         | 20,000        | 140,000        |
| 1206        | Ecosystem Management Specialist (baseline specialist)         | 30,000                | 30,000                       |                |                |                |               | 30,000         |
| 1210        | knowledge management expert                                   | 40,000                | 20,000                       | 20,000         |                |                |               | 40,000         |
| 1211        | Coastal Climate Adaptation Consultant                         | 15,000                |                              |                |                | 15,000         |               | 15,000         |
| 1212        | Climate Change Knowledge Specialist                           | 50,000                | 10,000                       | 10,000         | 10,000         | 10,000         | 10,000        | 50,000         |
| 1213        | Coastal zone management specialist                            | 40,000                |                              | 10,000         | 10,000         | 10,000         | 10,000        | 40,000         |
| <b>1299</b> | <b>Sub-total</b>  | <b>409,000</b>        | <b>90,000</b>                | <b>78,000</b>  | <b>113,000</b> | <b>83,000</b>  | <b>45,000</b> | <b>409,000</b> |
| <b>1300</b> | <b>Administrative Support</b>                                 |                       |                              |                |                |                |               | -              |
| 1301        | financial manager   | 75,000                | 15,000                       | 15,000         | 5,000          | 15,000         | 15,000        | 75,000         |
| <b>1399</b> | <b>Sub-total</b>  | <b>75,000</b>         | <b>15,000</b>                | <b>15,000</b>  | <b>15,000</b>  | <b>15,000</b>  | <b>15,000</b> | <b>75,000</b>  |
| <b>1600</b> | <b>Travel on official business</b>                            |                       |                              |                |                |                |               | -              |
| 1601        | mgmt travel to sites  | -                     | -                            | -              | -              | -              | -             | -              |
| <b>1699</b> | <b>Sub-total</b>  | -                     | -                            | -              | -              | -              | -             | -              |
| <b>1999</b> | <b>COMPONENT TOTAL</b>  | <b>609,000</b>        | <b>130,000</b>               | <b>118,000</b> | <b>153,000</b> | <b>123,000</b> | <b>85,000</b> | <b>609,000</b> |
|             |   |                       |                              |                |                |                |               | -              |
| <b>20</b>   | <b>SUB-CONTRACT COMPONENT</b>                                 |                       |                              |                |                |                |               | -              |
| <b>2100</b> | <b>Sub-contracts (MOUs/LOAs for cooperating agencies)</b>     |                       |                              |                |                |                |               | -              |
| 2101        | sub-contract NGO reef rehab                                   | 60,000                |                              |                |                | 10,000         | 50,000        | 60,000         |
| <b>2199</b> | <b>Sub-total</b>  | <b>60,000</b>         | -                            | -              | -              | <b>10,000</b>  | <b>50,000</b> | <b>60,000</b>  |
| <b>2200</b> | <b>Sub-contracts (MOUs/LOAs for supporting organizations)</b> |                       |                              |                |                |                |               | -              |
| 2205        | sub-contract agri-research lab for pod multiplication         | 20,000                |                              | 20,000         |                |                |               | 20,000         |
| <b>2299</b> | <b>Sub-total</b>  | <b>20,000</b>         |                              | <b>20,000</b>  |                | -              | -             | <b>20,000</b>  |

| Budget Line |   | Project budget (US\$) | Expenditure by calendar year |                  |                  |               |               | Total (US\$)     |
|-------------|---|-----------------------|------------------------------|------------------|------------------|---------------|---------------|------------------|
|             |   |                       | Year 1                       | Year 2           | Year 3           | Year 4        | Year 5        |                  |
|             |   |                       |                              |                  |                  |               |               | -                |
| <b>2300</b> | <b>Sub-contracts (for commercial purposes)</b>                                    |                       |                              |                  |                  |               |               | -                |
| 2301        | subcontract coastal engineering firm for seawall rehab                            | 3,337,500             | 360,000                      | 1,668,750        | 1,308,750        |               |               | 3,337,500        |
| 2302        | sub-contract civil engineering firm for drainage rehab                            | 200,000               | 100,000                      | 100,000          |                  |               |               | 200,000          |
| 2303        | sub-contract env. engineering firm for mangrove                                   | 10,000                |                              |                  | 10,000           |               |               | 10,000           |
| 2305        | labour costs  | 10,000                |                              |                  |                  | 5,000         | 5,000         | 10,000           |
| <b>2399</b> | <b>Sub-total</b>  | <b>3,557,500</b>      | <b>460,000</b>               | <b>1,768,750</b> | <b>1,318,750</b> | <b>5,000</b>  | <b>5,000</b>  | <b>3,557,500</b> |
| <b>2999</b> | <b>COMPONENT TOTAL</b>  | <b>3,637,500</b>      | <b>460,000</b>               | <b>1,788,750</b> | <b>1,318,750</b> | <b>15,000</b> | <b>55,000</b> | <b>3,637,500</b> |
|             |   |                       |                              |                  |                  |               |               | -                |
| <b>30</b>   | <b>TRAINING COMPONENT</b>   |                       |                              |                  |                  |               |               | -                |
| <b>3200</b> | <b>Group training</b>   |                       |                              |                  |                  |               |               | -                |
| 3202        | community training on renewable and efficient energy (through NGO and Green Jobs) | 10,000                |                              | 10,000           |                  |               |               | 10,000           |
| 3203        | community and user association training on sustainable mangrove management        | 10,000                |                              |                  | 10,000           |               |               | 10,000           |
| 3204        | community-level and district training on coastal ecosystem management             | 10,000                |                              |                  |                  | 10,000        |               | 10,000           |
| 3205        | District-level trainings on ecosystem based coastal adaptation                    | 10,000                |                              |                  | 10,000           |               |               | 10,000           |
| 3206        | district-level financing and budgeting assistance                                 | 10,000                |                              |                  |                  | 10,000        |               | 10,000           |
| <b>3299</b> | <b>Sub-total</b>  | <b>50,000</b>         | <b>-</b>                     | <b>10,000</b>    | <b>20,000</b>    | <b>20,000</b> | <b>-</b>      | <b>50,000</b>    |
| <b>3300</b> | <b>Meetings/Conferences</b>   |                       |                              |                  |                  |               |               | -                |
| 3301        | EBICAM Consultation and validation meetings                                       | 10,000                |                              |                  |                  |               | 10,000        | 10,000           |
| 3302        | Climate Change Observatory meetings   | 40,000                |                              | 10,000           | 10,000           | 10,000        | 10,000        | 40,000           |
| 3303        | Policy Briefing Workshops   | 20,000                |                              |                  | 5,000            | 5,000         | 10,000        | 20,000           |
| 3304        | Meetings of the project steering committee  | -                     | -                            | -                | -                | -             | -             | -                |
| <b>3399</b> | <b>Sub-total</b>  | <b>70,000</b>         | <b>-</b>                     | <b>10,000</b>    | <b>15,000</b>    | <b>15,000</b> | <b>30,000</b> | <b>70,000</b>    |
| <b>3999</b> | <b>COMPONENT TOTAL</b>  | <b>120,000</b>        | <b>-</b>                     | <b>20,000</b>    | <b>35,000</b>    | <b>35,000</b> | <b>30,000</b> | <b>120,000</b>   |
|             |   |                       |                              |                  |                  |               |               | -                |
| <b>40</b>   | <b>EQUIPMENT AND PREMISES COMPONENT</b>   |                       |                              |                  |                  |               |               | -                |
| <b>4100</b> | <b>Expendable equipment</b>   |                       |                              |                  |                  |               |               | -                |
| 4102        | seedlings, saplings, materials for mangrove rehab                                 |                       |                              |                  |                  |               |               | -                |
| 4103        | trees, seedlings, fertilizers (shoreline reforestation)                           | 22,500                |                              |                  | 7,500            | 7,500         | 7,500         | 22,500           |
| 4104        | office equipment and expendables  | 20,000                | 8,000                        | 3,000            | 3,000            | 3,000         | 3,000         | 20,000           |

| Budget Line |                                     | Project budget (US\$) | Expenditure by calendar year |                  |                  |                |                | Total (US\$)     |
|-------------|-------------------------------------|-----------------------|------------------------------|------------------|------------------|----------------|----------------|------------------|
|             |                                     |                       | Year 1                       | Year 2           | Year 3           | Year 4         | Year 5         |                  |
| <b>4199</b> | <b>Sub-total</b>                    | <b>42,500</b>         | <b>8,000</b>                 | <b>3,000</b>     | <b>10,500</b>    | <b>10,500</b>  | <b>10,500</b>  | <b>42,500</b>    |
| <b>4200</b> | <b>Non-expendable equipment</b>     |                       |                              |                  |                  |                |                | -                |
| 4201        | small alternative energy appliances | 42,500                |                              | 21,250           | 21,250           |                |                | 42,500           |
| 4202        | computers and database software     | 10,000                | 10,000                       | -                | -                | -              | -              | 10,000           |
| 4203        | vehicle and maintenance costs       | 50,000                | 30,000                       | 5,000            | 5,000            | 5,000          | 5,000          | 50,000           |
| <b>4299</b> | <b>Sub-total</b>                    | <b>102,500</b>        | <b>40,000</b>                | <b>26,250</b>    | <b>26,250</b>    | <b>5,000</b>   | <b>5,000</b>   | <b>102,500</b>   |
| <b>4999</b> | <b>COMPONENT TOTAL</b>              | <b>145,000</b>        | <b>48,000</b>                | <b>29,250</b>    | <b>36,750</b>    | <b>15,500</b>  | <b>15,500</b>  | <b>145,000</b>   |
|             |                                     |                       |                              |                  |                  |                |                | -                |
| <b>50</b>   | <b>MISCELLANEOUS COMPONENT</b>      |                       |                              |                  |                  |                |                | -                |
| <b>5500</b> | <b>Evaluation</b>                   |                       |                              |                  |                  |                |                | -                |
| 5501        | Audit                               | 24,688                | 4,910                        | 4,910            | 4,910            | 4,910          | 5,048          | 24,688           |
| 5582        | Independent mid-term evaluation     | 40,000                |                              |                  | 40,000           |                |                | 40,000           |
| 5583        | independent final evaluation        | 40,000                |                              |                  |                  |                | 40,000         | 40,000           |
| <b>5599</b> | <b>Sub-total</b>                    | <b>104,688</b>        | <b>4,910</b>                 | <b>4,910</b>     | <b>44,910</b>    | <b>4,910</b>   | <b>45,048</b>  | <b>104,688</b>   |
| <b>5999</b> | <b>COMPONENT TOTAL</b>              | <b>104,688</b>        | <b>4,910</b>                 | <b>4,910</b>     | <b>44,910</b>    | <b>4,910</b>   | <b>45,048</b>  | <b>104,688</b>   |
| <b>99</b>   | <b>TOTAL</b>                        | <b>4,616,188</b>      | <b>642,910</b>               | <b>1,960,910</b> | <b>1,588,410</b> | <b>193,410</b> | <b>230,548</b> | <b>4,616,188</b> |
|             | NIE fee                             | <b>392,376</b>        |                              |                  |                  |                |                |                  |
|             | <b>GRAND TOTAL</b>                  | <b>5,008,564</b>      |                              |                  |                  |                |                |                  |

### LDCF Project

| Budget Line |   | Approved budget (\$) | Expenditure by calendar year |               |               |               |               | Total (\$)     |
|-------------|---|----------------------|------------------------------|---------------|---------------|---------------|---------------|----------------|
|             |   |                      | Year 1                       | Year 2        | Year 3        | Year 4        | Year 5        |                |
| <b>10</b>   | <b>PERSONNEL COMPONENT</b>  |                      |                              |               |               |               |               |                |
| 1100        | Project personnel   |                      |                              |               |               |               |               |                |
| 1101        | Project coordinator   | 100,000              | 20,000                       | 20,000        | 20,000        | 20,000        | 20,000        | 100,000        |
| 1102        | Assistant project coordinator                                     | 0                    | 0                            | 0             | 0             | 0             | 0             | 0              |
| 1103        |   |                      |                              |               |               |               |               | 0              |
| <b>1199</b> | <b>Sub-total</b>  | <b>100,000</b>       | <b>20,000</b>                | <b>20,000</b> | <b>20,000</b> | <b>20,000</b> | <b>20,000</b> | <b>100,000</b> |
| 1200        | Consultants   |                      |                              |               |               |               |               | 0              |
| 1201        | National Coastal zone Management Consultant (Baseline specialist) | 40,000               | 20,000                       | 20,000        | -             | -             | -             | 40,000         |
| 1202        | National Socio-economist  | 30,000               | 15,000                       | 15,000        | -             | -             | -             | 30,000         |
| 1203        | International Coastal adaptation specialist (STA)                 | 75,000               | 15,000                       | 15,000        | 15,000        | 15,000        | 15,000        | 75,000         |

|             |                               | Approved budget (\$)  | Expenditure by calendar year |                |                |                |               | Total (\$)     |
|-------------|-------------------------------|---|------------------------------|----------------|----------------|----------------|---------------|----------------|
| Budget Line |                               |   | Year 1                       | Year 2         | Year 3         | Year 4         | Year 5        |                |
|             | 1204                          | National NGO management specialist                          | 10,000                       | 10,000         | -              | -              | -             | 10,000         |
|             | 1205                          | National legal advisor                                      | 5,000                        | 5,000          | -              | -              | -             | 5,000          |
|             | 1206                          | National climate education specialist                       | 10,000                       | 10,000         | -              | -              | -             | 10,000         |
|             | 1207                          | National climate education specialist                       | 10,000                       | 10,000         | -              | -              | -             | 10,000         |
|             | 1208                          | International climate education specialist                  | 20,000                       | -              | 20,000         | -              | -             | 20,000         |
|             | 1209                          | International mangrove specialist                           | 35,000                       | 35,000         | -              | -              | -             | 35,000         |
|             | 1210                          | National Mangrove specialist                                | 35,000                       | 35,000         | -              | -              | -             | 35,000         |
|             | 1211                          | National community natural resources management facilitator | 30,000                       | -              | 10,000         | 10,000         | 10,000        | 30,000         |
|             | 1212                          | National water management specialist                        | 50,000                       | 10,000         | 15,000         | 15,000         | 10,000        | 50,000         |
|             | 12.13                         | National Evaluation Specialists (2)                         | 40,000                       | -              | -              | 20,000         | -             | 20,000         |
|             | 12.14                         | Int'l Adaptation Evaluation Consultants (2)                 | 40,000                       | -              | -              | 20,000         | -             | 20,000         |
|             | <b>1299</b>                   | <b>Sub-total</b>  | <b>430,000</b>               | <b>165,000</b> | <b>95,000</b>  | <b>80,000</b>  | <b>35,000</b> | <b>430,000</b> |
|             | 1300                          | Administrative Support                                      |                              |                |                |                |               |                |
|             | <b>1399</b>                   | <b>Sub-total</b>  | <b>0</b>                     | <b>0</b>       | <b>0</b>       | <b>0</b>       | <b>0</b>      |                |
|             | 1600                          | Travel on official business                                 |                              |                |                |                |               |                |
|             | 1601                          | Travel  | 35,000                       | 7,000          | 7,000          | 7,000          | 7,000         | 35,000         |
|             | <b>1699</b>                   | <b>Sub-total</b>  | <b>35,000</b>                | <b>7,000</b>   | <b>7,000</b>   | <b>7,000</b>   | <b>7,000</b>  | <b>35,000</b>  |
|             | <b>Component total</b>        |   | <b>565,000</b>               | <b>192,000</b> | <b>122,000</b> | <b>107,000</b> | <b>62,000</b> | <b>82,000</b>  |
|             |                               |   |                              |                |                |                |               |                |
| <b>20</b>   | <b>SUB-CONTRACT COMPONENT</b> |   |                              |                |                |                |               |                |
|             | 2200                          | Sub-contracts (MOUs/LOAs for supporting organizations)      |                              |                |                |                |               |                |
|             | 2201                          | Sub-contract with NGO network                               | 70,000                       | 15,000         | 15,000         | 15,000         | 15,000        | 70,000         |
|             | 2202                          | Sub-contract with NGO network                               | 40,000                       | -              | 10,000         | 10,000         | 10,000        | 40,000         |
|             | 2203                          | sub-contract with University Consortium                     | 100,000                      | 20,000         | 20,000         | 20,000         | 20,000        | 100,000        |
|             | 2204                          | sub-contract with University Consortium                     | 30,000                       | -              | 30,000         | -              | -             | 30,000         |
|             | 2205                          | sub-contract NGO for labour                                 | 540,000                      | 180,000        | 180,000        | 180,000        | 0             | 540,000        |
|             | <b>2299</b>                   | <b>Sub-total</b>  | <b>780,000</b>               | <b>215,000</b> | <b>255,000</b> | <b>225,000</b> | <b>45,000</b> | <b>780,000</b> |
|             | <b>2300</b>                   | <b>Sub-contracts (for commercial purposes)</b>              |                              |                |                |                |               | 0              |
|             | 2301                          | National mapping service consultancy                        | 20,000                       | 0              | 20,000         | -              | -             | 20,000         |
|             | 2302                          | Sub-contract civil engineering firm (water)                 | 396,000                      | 0              | 198,000        | 198,000        | -             | 396,000        |

|             |   | Approved budget (\$)   | Expenditure by calendar year |                |                  |                |               | Total (\$)    |                  |
|-------------|---|--|------------------------------|----------------|------------------|----------------|---------------|---------------|------------------|
| Budget Line |   |  | Year 1                       | Year 2         | Year 3           | Year 4         | Year 5        |               |                  |
|             | 2303                                    | Sub-contract civil engineering firm (Pangani seawall)              | 1,261,900                    | 315,475        | 630,950          | 315,475        | 0             |               | 1,261,900        |
|             | 2304                                    | Sub-contract civil engineering firm (Zanzibar dikes and spillways) | 28,400                       | 0              | 28,400           | -              | -             | -             | 28,400           |
|             | <b>2399</b>                             | <b>Sub-total</b>   | <b>1,706,300</b>             |                |                  |                |               |               | <b>1,706,300</b> |
| <b>2999</b> | <b>Component total</b>                  |  | <b>2,486,300</b>             | <b>530,475</b> | <b>1,132,350</b> | <b>738,475</b> | <b>45,000</b> | <b>40,000</b> | <b>2,486,300</b> |
| <b>30</b>   | <b>TRAINING COMPONENT</b>               |  |                              |                |                  |                |               |               |                  |
|             | <b>3200</b>                             | <b>Group training</b>  |                              |                |                  |                |               |               |                  |
|             | 3201                                    | ICZM and Coastal Vulnerability Training workshop                   | 40,000                       | 40,000         | -                | -              | -             | -             | 40,000           |
|             | 3202                                    | Climate and Coastal Vulnerability modeling training workshop       | 20,000                       | 20,000         | -                | -              | -             | -             | 20,000           |
|             |   | Academic training workshop   | 15,000                       | -              | 15,000           | -              | -             | -             | 15,000           |
|             | <b>3299</b>                             | <b>Sub-total</b>   | <b>75,000</b>                | <b>60,000</b>  | <b>15,000</b>    | <b>0</b>       | <b>0</b>      | <b>0</b>      | <b>75,000</b>    |
|             | 3300                                    | Meetings/Conferences   |                              |                |                  |                |               |               |                  |
|             | 3301                                    | NGO meetings and workshops   | 20,000                       | -              | 5,000            | 5,000          | 5,000         | 5,000         | 20,000           |
|             | 3302                                    | Project steering committees  | 0                            | 0              |                  |                |               |               | 0                |
|             | 3303                                    |  |                              |                |                  |                |               |               |                  |
|             | <b>3399</b>                             | <b>Sub-total</b>   | <b>20,000</b>                | <b>0</b>       | <b>5,000</b>     | <b>5,000</b>   | <b>5,000</b>  | <b>5,000</b>  | <b>20,000</b>    |
| <b>3999</b> | <b>Component total</b>                  |  | <b>95,000</b>                | <b>60,000</b>  | <b>20,000</b>    | <b>5,000</b>   | <b>5,000</b>  | <b>5,000</b>  | <b>95,000</b>    |
| <b>40</b>   | <b>EQUIPMENT AND PREMISES COMPONENT</b> |  |                              |                |                  |                |               |               |                  |
|             | <b>4100</b>                             | <b>Expendable equipment</b>  |                              |                |                  |                |               |               |                  |
|             | <b>4199</b>                             | <b>Sub-total</b>   | <b>-</b>                     | <b>-</b>       | <b>-</b>         | <b>-</b>       | <b>-</b>      | <b>-</b>      |                  |
|             | <b>4200</b>                             | <b>Non-expendable equipment</b>                                    |                              |                |                  |                |               |               | 0                |
|             | 4201                                    | Computers and Materials for members and NGOs                       | 15,000                       | 0              | 5,000            | 5,000          | 5,000         | -             | 15,000           |
|             | 4202                                    | Cisterns and water harvesting piping                               | 100,000                      | -              | 50,000           | 50,000         | -             | -             | 100,000          |
|             | 4203                                    | Vehicle  | 30,000                       | 30,000         | -                | -              | -             | -             | 30,000           |
|             | <b>4299</b>                             | <b>Sub-total</b>   | <b>145,000</b>               | <b>30,000</b>  | <b>55,000</b>    | <b>55,000</b>  | <b>5,000</b>  | <b>0</b>      | <b>145,000</b>   |
| <b>4999</b> | <b>Component total</b>                  |  | <b>145,000</b>               | <b>30,000</b>  | <b>55,000</b>    | <b>55,000</b>  | <b>5,000</b>  | <b>0</b>      | <b>145,000</b>   |
| <b>50</b>   | <b>MISCELLANEOUS COMPONENT</b>          |  |                              |                |                  |                |               |               |                  |
|             | 5100                                    | Operation and maintenance of equipment                             |                              |                |                  |                |               |               |                  |
|             | 5101                                    | Vehicle maintenance costs  | 50,000                       | 10,000         | 10,000           | 10,000         | 10,000        | 10,000        | 50,000           |
|             | 5102                                    | Office stationeries  | 0                            | 0              |                  |                |               |               |                  |

|             |                        | Approved budget (\$)  | Expenditure by calendar year |                |                  |                |                | Total (\$)       |
|-------------|------------------------|-----------------------|------------------------------|----------------|------------------|----------------|----------------|------------------|
| Budget Line |                        |                       | Year 1                       | Year 2         | Year 3           | Year 4         | Year 5         |                  |
|             | 5103                   | Conference facilities | 0                            |                |                  |                |                |                  |
|             | <b>5199</b>            | <b>Sub-total</b>      | <b>50,000</b>                | <b>10,000</b>  | <b>10,000</b>    | <b>10,000</b>  | <b>10,000</b>  | <b>50,000</b>    |
|             | 5500                   | Evaluation            | 0                            |                | 0                |                |                | 0                |
|             | 5501                   | Audit                 | 15,000                       | 3,000          | 3,000            | 3,000          | 3,000          | 15,000           |
|             | <b>5599</b>            | <b>Sub-total</b>      | <b>15,000</b>                | <b>3,000</b>   | <b>3,000</b>     | <b>3,000</b>   | <b>3,000</b>   | <b>15,000</b>    |
| <b>5999</b> | <b>Component total</b> |                       | <b>65,000</b>                | <b>13,000</b>  | <b>13,000</b>    | <b>13,000</b>  | <b>13,000</b>  | <b>65,000</b>    |
|             |                        |                       |                              |                |                  |                |                |                  |
| <b>99</b>   | <b>GRAND TOTAL</b>     |                       | <b>3,356,300</b>             | <b>825,475</b> | <b>1,342,350</b> | <b>918,475</b> | <b>130,000</b> | <b>3,356,300</b> |
|             |                        |                       |                              |                |                  |                |                |                  |

**Annex 11: Roles and responsibilities of stakeholders during implementation of the projects**

| Stakeholder  | Roles and responsibilities  |   |
|--|---|---|
|  | Adaptation Fund project   | LDCF project  |
| Vice President's Office-Division of Environment                                      | Provide overall coordination of the project, through the services of a Project management team.<br>Serve as relay between the project and the Adaptation Fund Board.  | Provide overall coordination of the project, through the services of a Project management team.<br>Serve as relay between the project and GEF secretariat.  |
| Prime Minister's Office- (1) Regional Administration and Local Governments (PMORALG) | Provide oversight and an overall policy supervision function to ensure project activities at local level are undertaken in accordance with policies regarding decentralization, and delivery of district budgets.<br>Provide policy level guidance on empowering local communities to sustain adaptation measures that will be instituted in the project areas. | Provide oversight and an overall policy supervision function to ensure project activities at local level are undertaken in accordance with policies regarding decentralization, and delivery of district budgets.<br>Provide policy level guidance on empowering local communities to sustain adaptation measures that will be instituted in the project areas. |
| Ministry of Foreign Affairs and International Co-operation                           | Play an advisory role on linkages between national institutions and the MIE.  | Play an advisory role on linkages between national institutions and the MIE.  |
| Ministry of Water  |   | Responsible for implementing activities related to the relocation of boreholes, water quality monitoring.   |
| Ministry of Finance  | Participate in providing assistance to local authorities in mainstreaming climate change into their local development plans. Participate in activities related to assessment of cost-effectiveness, be informed of analyses related to the costs of adaptation, and will also participate in awareness raising efforts towards policy uptake.                   | Participate in providing assistance to local authorities in mainstreaming climate change into their local development plans. Participate in activities related to assessment of cost-effectiveness, be informed of analyses related to the costs of adaptation, and will also participate in awareness raising efforts towards policy uptake.                   |
| Ministry of Natural Resources and Tourism  | The Ministry will be responsible for coordinating and delivering the project components related to ecosystem rehabilitation and monitoring.   | The Ministry will be responsible for coordinating and delivering the project components related to ecosystem rehabilitation and monitoring.   |
| Ministry of Energy and Minerals  | The ministry will provide services in order to deliver the alternative energy technologies to targeted communities.   |   |
| Ministry of Works  | Responsible for implementing activities related to infrastructure components of this project  | Responsible for implementing activities related to infrastructure components of this project  |
| Ministry of Communication, Science and Technology                                    | Participate in developing the Climate Change Observatory and will work with the VPO to support its operations. The ministry will also provide linkages between the project and national research facilities.  |   |
| Ministry of Education and Vocational Training  | Provide linkages to universities and will participate in the creation of the Green Jobs program.  | Provide linkages to universities  |



| Stakeholder   | Roles and responsibilities  |  |
|---|---|--|
|   | Adaptation Fund project   | LDCF project   |
| Ministry of Labour, Employment and Youth Development  | Operate the Green Jobs program and will provide advice on climate related education in project sites.   |  |
| Ministry of Lands, Housing and Human Settlements Development  | Provide advice at national level on the integration of climate risks into land use planning, urban planning and the revision of relevant codes.   | Provide advice at national level on the integration of climate risks into land use planning, urban planning and the revision of relevant codes.  |
| Ministry of Constitution and Legal Affairs  | Provide advice on enforcement of regulations.   | Provide advice on enforcement of regulations.  |
| Ministry of Community Development, Gender and Children  | Participate in the project by providing advice and guidance on the integration of gender equity and gender sensitive activities, as well as on the monitoring of community-level resilience and well-being. Participate in activities related to livelihoods development.                               | Participate in the project by providing advice and guidance on the integration of gender equity and gender sensitive activities, as well as on the monitoring of community-level resilience and well-being. Participate in activities related to livelihoods development.  |
| Tanzania Meteorological Agency  | Provide climate related information, including early warnings in project zones, designed to feed into feasibility studies, impact assessments as well as resilience modeling.   | Provide climate related information, including early warnings in project zones, designed to feed into feasibility studies, impact assessments as well as resilience modeling.  |
| The National Environment Management Council (NEMC)  | Provide support in areas related to information collation and dissemination within the project sites. Participate in awareness raising activities.  | Provide support in areas related to information collation and dissemination within the project sites. Participate in awareness raising activities.   |
| University of Dar es Salaam   |   | The University of Dar es Salaam, Department of Geography, will lead on the coordination of the University consortium in charge of delivering the internship programme and the integration of climate change into university curricula.   |
| Revolutionary Government of Zanzibar, Dar es salaam city council and district authorities of Pangani, Rufiji and Bagamoyo | Dar es salaam city council will nominate project focal person who will act as liaison with the project coordination unit for the day to day supervision of works and will act as primary points of relay with the local communities; Provide assistance for consultation and operations of the project. | Zanzibar, Pangani, Rufiji and Bagamoyo will nominate project focal points who will act as liaisons with the project coordination unit for the day to day supervision of works and will act as primary points of relay with the local communities; Provide assistance for consultation and operations of the project. |
| CSOs  | Private sector will duplicate the best practices of the project to other areas of the country.  | NGOs will be called upon to support awareness raising among coastal communities, as well as to facilitate the emergence and capacity building of coastal community based organizations. Private sector will duplicate the best practices of the project to other areas of the country.                               |