SOCIO-ECONOMIC BASELINE SURVEYS FOR SELECTED COASTAL FOREST LANDSCAPES IN TANZANIA

CONSULTANCY REPORT SUBMITTED TO WWF TANZANIA COUNTRY OFFICE

By

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TABLE OF CONTENT

LIST OF TABLES

LIST OF FIGURES

LIST OF ANNEXES

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ACRONYMS

CBFM	Community Based Forest Management
CBO	Community Based Organizations (CBOs)
COFMA	Community Forest Management Agreement
DANIDA	Denmark International Development Agency
EPWS	Equitable Payments of Watershed Services
FBD	Forest and Beekeeping Department
FINNIDA	Finland Agency of International Development
GEF	Global Environment Facility
Ha	Hectare
IUCN	International Union for Conservation of Nature (IUCN)
MACEMP	Marine and Coastal Environment Management Project
MCDI	Mpingo Conservation and Development Initiative
MNRT	Ministry of Natural Resources and Tourism
NGO	Non Governmental Organizations (NGOs)
PFM	Participatory Forest Management
REDD	Reducing Emissions from Deforestation and Forest Degradation
RGZ	Revolutionary Government of Zanzibar
TFCG	Tanzania Forest Conservation Group (TFCG),
ToR	Terms of References (ToR)
UNDP	United Nations Development Program
USD ($)	United States Dollar
WWF – TCO	World Wide Fund Tanzania Country Office

EXECUTIVE SUMMARY

Background

The United Nations Development Programme (UNDP), Global Environmental Facility (GEF) has committed $3.5 million to improving conservation of coastal forests of Southern Tanzania (in Lindi, Kilwa and Rufiji districts) and Zanzibar (Unguja and Pemba). An important part of GEF project model is to collect sufficient data at the start of the project to allow the impact of the interventions to be measured over the life span of the project. Another part of the model is to fully understand the barriers and their distribution so that the project could remove or significantly reduce them.

Objective of the Assignment

In order to develop a baseline forest conservation financial status before the beginning of the project, a study to assess the existing economic inputs and values of the protected area network in the coastal regions of Tanzania, and the potential for enhancing sustainable financing over the period of the projects' activities was commissioned.

Scope and Methodology

The assignment was carried out in the selected areas of Rufiji; Kilwa and Lindi Rural Districts in the Tanzania Mainland as well as Unguja and Pemba in Zanzibar.

Different tools used to gather information include financial sustainability scorecard; checklists for the key informant interviews as well as questionnaire which were administered to the heads of household and carpenters in the selected villages in the project area. Different key stakeholders who were consulted include: community representatives in the selected villages/shehia, representatives from Forest and Beekeeping Division (FBD), Forest Chiefs in Unguja and Pemba, and District Forest Officers across respective districts in Tanzania mainland and Zanzibar. Others include Executive Directors and /or their selected representatives from different Non Governmental Organizations (NGOs) working in the respective districts.

Findings

Main Categories of Forest Management Systems

The present categories of forest management systems in coastal areas include: (i) Central government managed forests; (ii) District Council managed forests; (iii) Village Forest Reserves; (iv)Forests on public/general land and (v)Privately owned forests.

Actors' Expenditures in Coastal Forest Conservation Activities

Based on the financial figures obtained from different actors working in the selected coastal areas, an estimated total of USD 3,655,594.00 is currently invested for different forest conservation and management activities in the project areas. The actors and their reported contributions are as follows: Central Government (US$55,661); Local Government (US$ 45,334); Development Partner through the government (US$62,707); WWF Tanzania Country Office (US$597,800); CARE International in Tanzania (US$ 90,000); Tanzania Forest Conservation Group (US$ 235,000); IUCN (US$ 82,425); Mpingo Conservation and Development Initiative (US$ 386,667) and government of Finland through SMOLE II framework (US$2,100,000).

Elements of Financing Systems

Results from the score cards indicated that, in these areas, level of implementation of the existing regulatory frameworks i.e. by-laws, financial instruments in implementing forest conservation activities in these districts was only by 27.5% which was very low, as a result, degradation of forest resources was high and inadequate realization of contribution of forest resources to the

communities surrounding the coastal forests in the respective districts. Further, results from the scorecard assessment indicated that, in all the case study districts, extent of the application of these tools was only by 19.3% which was regarded to be very low. This leads to inadequacy information on expenditures in the forest conservation as the expenditures are highly guided by cost effective approaches. Moreover, findings from this study indicated that levels of application of revenue collection tools in the area were 20.2% which again was very low. These results to the loss of revenue collected from coastal forest resources. It is notable that with transparency and accountability in terms of forestry revenue collection, adequate funds could be available and hence guarantee sustainable management of forestry resources.

Potential Additional Sources of Funding

In the coastal areas, there are different sources of revenues which could be taped. These include:

- Commercial / market driven funding approaches such as sustainable logging, butterfly farming and ecotourism; beekeeping and fish related activities.
- Project based approaches such as Wildlife Management Areas (WMA) and sustainable charcoal production
- Some emerging opportunities including Reducing Emissions from Deforestation and Forest Degradation (REDD) projects.

Socio-economic Characteristics of the Communities in the Coastal Areas

Communities in the coastal areas where this assignment was conducted are characterized by:

- The majority having low levels of education. Over half (50.7%) of the community representatives have primary school education as the highest level of education, while 30% have no formal education.
- An average household owning 4.8 acres of land. Of these acres, 1.6 and 1.1 are used for maize and rice production respectively. Maize and rice are the major crops that are grown in these areas.
- An average household having 0.1 acres of woodlot which is regarded not to be enough to produce wood needed for different uses.
- An average household owning 1 cow, 1 goat and 5 chickens/ducks. These are regarded not to be enough to generate extra income out of those generated from crop (maize and rice) sales hence create much dependence on and exert more pressure on the existing forest resources as farmers strive to expand their farmlands.
- About 86.5% of the household representatives living in grass thatched houses.
- Regarding sources of energy used for cooking, 84.6% of the household representatives using firewood and 14.9% use charcoal. This indicated the high demand of trees from forests to be used as a source of energy for cooking.
- As for water for domestic uses, majority (50%) of the households using water from locally made wells, 38.7% from rivers and 7% from springs. These water sources as well as their associated catchments need to be conserved and protected for the continuously availability of water.

Conclusions

- There are several stakeholder/actors investing money into forest conservation and management activities in the coastal areas. Most of these actors concentrated their activities in the Tanzania mainland as compared to Zanzibar.
- Funding contributions from the Central and Local Governments for forest conservation and management activities were limited and mostly in-kind, and in many cases the expenditure data could not easily be available. Clearly, this implies that much of the

funding for forestry conservation and management activities was from the development partners and the sustainability of the donor funding cannot be guaranteed.

- Collected revenue from forest products and services are not retained for forest conservation and management activities in the case study coastal districts. This makes district authorities under resourced and subsequently accelerates illegal activities in Forest Reserves across case study districts.
- Inadequacy follow up of the implementation of legal regulatory frameworks (bylaws, financial regulations); the use of business planning tool for cost effective management and the use of tools for revenue collection in the selected coastal districts is low. This results into more encroachment to the forest resources, inadequate information on expenditures in the forest conservation activities and revenue losses from coastal forest resources.
- There are possible potential projects that can be used as source of revenue for the forest activities in the coastal areas. These sources can be in different broad categories such as the commercial / market driven funding approaches; project based approaches and different emerging opportunities such as REDD.
- As efforts to explore different sources of revenue for forest conservation activities are still being considered, it has to be noted that these coastal areas are characterized by community with low level of education with limited sources of income generation activities. Moreover, these communities much depend on forests and forest related products and services. Thus, all efforts should also take on board communities livelihoods in these areas.

Recommendations

- Actors and stakeholders donating funds for forest activities in the coastal forests in the selected districts need to be coordinated so that there is no duplication of efforts in the respective areas.
- Financial contributions from both central and local government need to be documented in order to understand the real financial value contributed by the government.
- There is need to re-invest the collected revenue from forest goods and services for forest activities in the respective districts.
- Establishing and ensuring implementation of legal regulatory frameworks (bylaws, financial regulations); the use of business planning tool for cost effective management and the use of tools for revenue collection in the selected coastal districts will ensure sustainable coastal forest management which will have contribution to the communities in the respective areas and the nation at large.
- Proposals on the identified potential sources of revenues need to be developed and submitted to the respective funding organizations. The current project could set aside a budget to hire consultants who could help in developing fundable projects.
- The proposed strategies for income generating activities have to be implemented. This will reduce pressure to the coastal forests.
- Pursuing forest conservation and management activities in the coastal areas should take on board the socioeconomic characteristics of the communities in these areas as the coastal community is characterized by low level of education, limited sources of income and high dependence of natural resources, especially the forest goods and services.

1.0 BACKGROUND

UNDP GEF has committed $3.5 million to improving conservation of the coastal forests of Tanzania mainland and Zanzibar. Field action will focus on Zanzibar (Unguja and Pemba) and southern Tanzania (Lindi, Kilwa and Rufiji districts). An important part of the GEF project model is to collect sufficient data at the start of the project to allow the impact of the interventions to be measured over the life span of the project. Another part of the model is to adequately understand the barriers and their distribution, so that the project could remove or significantly reduce them

2.0 OBJECTIVES AND SCOPE OF THE ASSIGNMENT

2.1 Objectives

In this assignment, the main aim was to assess the existing economic inputs and values of the protected area network in the coastal regions of Tanzania and the potential for enhancing sustainable financing over the period of the projects activities.

Based on the main objective of the assignment, the specific tasks that were addressed are as follows:

- To apply the Financial Sustainability Score card developed by GEF to the network of protected areas in the coastal forest districts on mainland Tanzania and Zanzibar.
- To assess the degree of funding available compared with the required in order to adequately manage the coastal forest protected area network.
- To assess potential additional sources of revenue and make concrete proposals on how these income sources could be realized.
- Advise project on how to set up income generating schemes linked to the protected area network and provide backstopping for those activities over the project lifespan.

2.2 Scope of the Assignment

The assignment was carried out in the selected areas of Rufiji; Kilwa coastal forests; and Lindi Rural District for the Tanzania Mainland as well as Unguja and Pamba in Zanzibar.

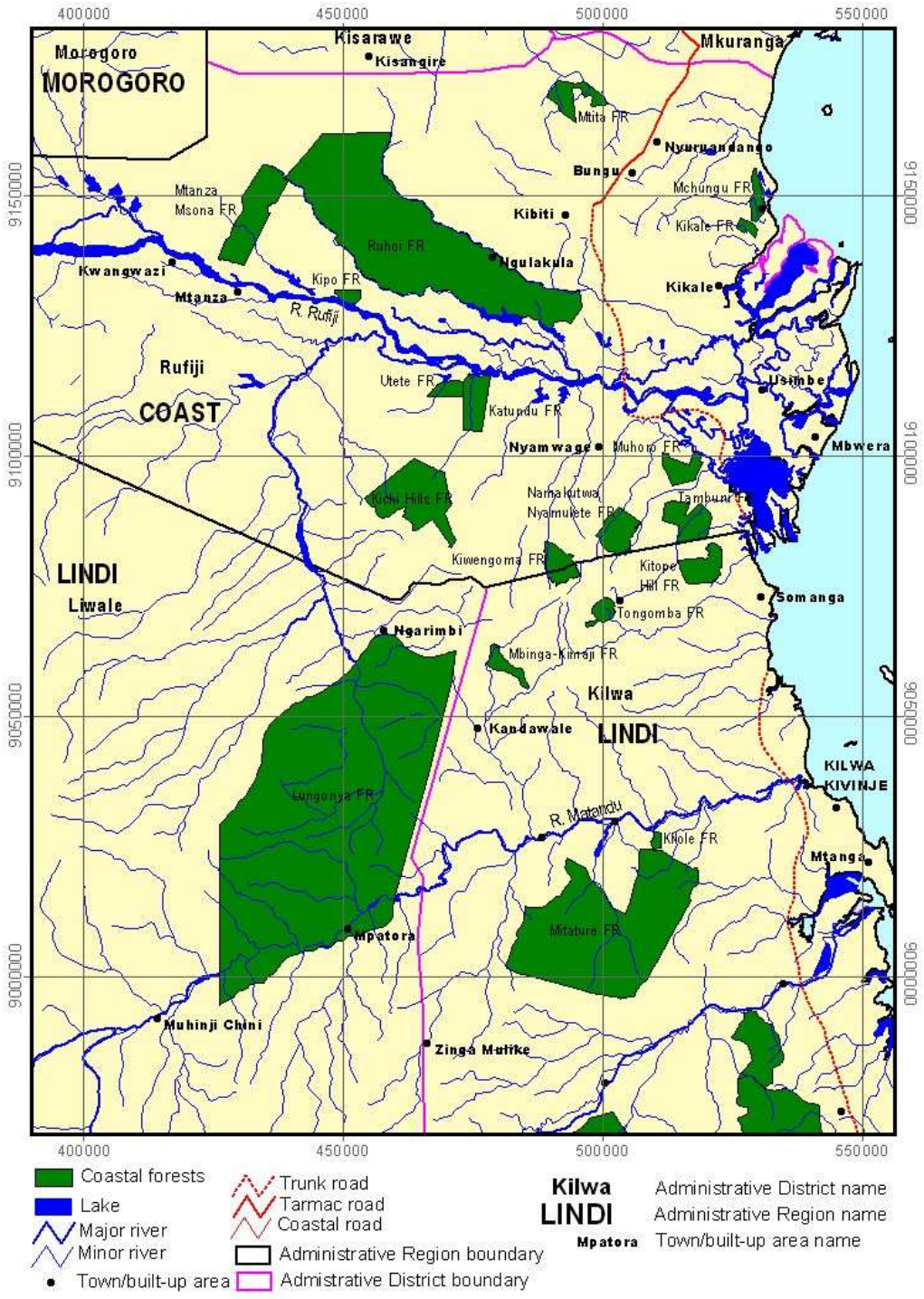

Figure 1: Distribution of Coastal forests in Rufiji Kilwa and Lindi Rural districts Source (WWF, 2006)

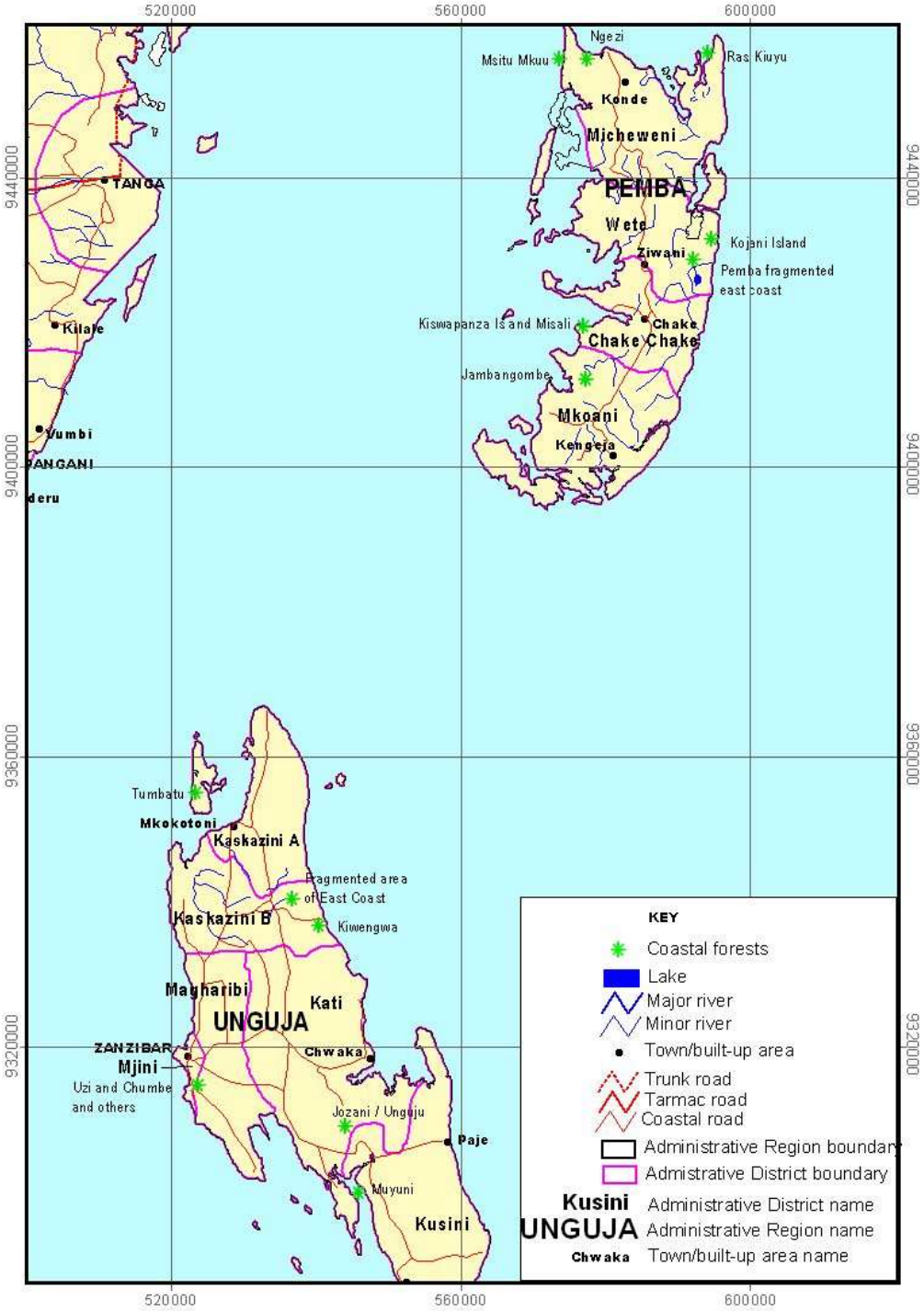

Figure 2: Distribution of Coastal forests in Unguja and Pemba Islands
Source (WWF, 2006)

3.0 METHODOLOGY

In order to generate social and economic information to help project managers to make informed decisions and use the information for project monitoring and evaluation in the respective areas. Different key stakeholders within the project area (including representatives from selected villages in the selected landscapes in Tanzania) were consulted. Other approaches included consultation with representatives from Forest and Beekeeping Department (FBD), forest chiefs in Unguja and Pemba, district council representatives (mainly district forest officers) in six different districts (Rufiji, Kilwa and Lindi in the mainland and Central district, North Unguja district and Western Urban district in Zanzibar). Other stakeholders that were consulted include executive directors and /or their selected representatives from different Non Governmental Organizations (NGOs) that are funding forest activities in the respective areas. Different tools used to gather information include financial sustainability scorecard (Annex 1); checklists for key informants' interviews (the list of people consulted is in Annex 3) as well as questionnaire (Annex 2) administered to household heads and carpenters in the selected villages in the six districts.

3.1 Financial Sustainability Scorecard

Financial Sustainability Scorecard (Annex 1) was employed in determining significant aspects of financing systems as a requirement for understanding inputs and values of the protected areas in the coastal regions. Findings from financial sustainability scorecards are expected to be used in monitoring and evaluating different finances during the project implementation period. Under financial scorecard, three main aspects were taken into consideration. These include:

(i) The overall financial status of the protected areas system. This included general understanding of different finances that are invested in the respective forest landscapes from different sources of funds, including the government and other development partners supporting forest conservation in the selected respective areas. The information was collected through administration of the scorecard tool to representatives from Ministry of Natural Resources and Tourism (MNRT), mainly from FBD for the Tanzanian mainland and Ministry of Agriculture and Natural Resources of Zanzibar Government.

(ii) Elements of financing systems. Assessed elements of financing systems include:

1. Funds that are channeled to the governments as donor funding, loans etc

2. Funds that are channeled through the third party such as NGOs, Community Based Organizations (CBOs) and other independent non-governmental bodies.

(iii) Scoring: This involved the action of scoring the financial elements that contribute to protection of the coastal forest landscapes in the selected areas. All these were done by interviewing representatives from FBD, forest officers in the respective districts, and Executives from NGOs working in the respective districts.

3.2 Key Informants Interviews

Key informant interviews were conducted with respective stakeholders including the project staff at WWF-TCO, representatives from respective ministries, officials from respective district councils and departments and different executives from NGOs working in the selected case study area. This was regarded to be critical approach in identifying and documenting various desired issues such as degree of funding availability, potential additional sources of revenue and other related issues as per the Terms of References (Annex 4). Under this approach, a financial scorecard was used in gathering different financial information from respective actors.

3.3 Socio-economic Survey

Wealth Ranking

The study conducted wealth ranking exercise in each of the sample villages. The aim of this exercise was two-fold: one, to gauge the socio-economic structure of the communities at the beginning of the project, and, two, to get a sampling frame for selection of households to be involved in the questionnaire interviews. The ranking was performed by teams of selected villagers from each village categorized by age and gender. This exercise began by defining assets. The lists of assets that were perceived as indicator of wealth/riches in the villages were listed. The importance of each of these assets as villagers social status indicators was then determined as presented in Table 1.

Table 1: **Wealth Group Ranking Criteria in the Sample Villages**

Wealth Group	Ranking Criteria
Well-off	• Have at least one off-farm business; able to buy and sell goods, engaged in businesses such as shops; own big businesses within and outside of the villages. • Own up to 50 acres of land; have farm implements such as ox ploughs and tractors. • Extensive use of fertilizers. • Own a modern house with cement plastered brick walls and floors plus corrugated iron sheet roofs. • Highly food secure; managing three meals per day. • Have more cattle • Can own motor vehicles such as trucks, cars, or a motorbike. • Can afford school fees for their children. • Own some milling machines.
Middle	• Own 5-10 acres of land. • Own and/or rent farm implements such as ox ploughs and tractors. • Uses fertilizers and farmyard manure. • Own motorbikes and bicycles for transportation of goods. • Own normal house made of bricks and corrugated iron sheets roof; sometimes the iron-roofs have stones placed on top to prevent wind blows. • Food secured and can manage at least 2 meals in a day. • Livestock: have heads of cattle. • Normally run small businesses such as shops, kiosks, etc. • They can meet basic needs such as food, education, and can educate their children. • Most have primary level of education or more.
Poor	• Own land size 0.5 - 2 acres, but cultivates only 1 acre; renting the rest to middle group farmers; uses a hand hoe for farming; no fertilizers are applied in the farms. • Do not have any livestock. • Have poor grass-thatched houses. • Food insecure; can manage only one meal per day. • Dependent on casual labour; a source of cheap labour for middle and well-off groups. • Many who live near forest resources indulge in charcoal production. • Illiterate (both parents and children). • Can't meet basic needs and are often dressed in tattered clothes.

Focus Group Discussions and Key Informant Interviews

This was among activities done in all the sample villages. At least 10 people in each sample village participated in the focus group discussions and key informant interviews. The participants

included Village Council representatives, aged people, young male females, institutional representatives (e.g. religious leaders), and representatives of youth groups.

During the FGDs and Key Informant Interviews, a checklist of five variables was used to guide the discussions. The variables included:

1. General village background information, including demographics, household numbers, ethnicity, etc.
2. Socio-economic services, such as schools, health facilities, water supply, etc.
3. Economic activities
4. Natural resources availability and use
5. Dependence on forest resources

Household Survey

These participatory approaches were supplemented with household surveys, using a questionnaire administered to an average sample of 10%. The sample size totalled to 416. Table 2 presents the percentage distribution and number of questionnaire administered in the sample villages.

Table 2: Percentage Distribution and Number of Administered Questionnaire

District	Village/shehia	Number of respondents	% Male	%Female
Rufiji	Mbware	21	61.9	38.1
Rufiji	Utunge	32	71.9	28.1
Rufiji	Nyamwage	30	80.0	20.0
Kilwa	Hotel 3	28	71.4	28.6
Kilwa	Kiwawa	31	64.5	35.5
Lindi Rural	Ndawa	25	60.0	40.0
Lindi Rural	Mihima	35	77.1	22.9
Lindi Rural	Muungano	30	56.7	43.3
Magharibi	Dole	37	78.4	21.6
Kati	Uzing'ambwa	18	88.9	11.1
Kaskazini	Upenja	40	70.0	30.0
Micheweni	Kiuyu	30	26.7	73.3
Micheweni	Wingwi	20	50.0	50.0
Micheweni	Mapofu	22	22.7	77.3
Micheweni	Msuka	17	0.0	100.0
Total		**416**	**61.3**	**38.7**

The questionnaire survey was meant to collect socio-economic baseline data at the start of the project so that the project impacts at various stages of implementation could be evaluated with reference to the baseline conditions. In addition, the questionnaire survey was intended to help to gain an understanding of socio-economic constraints and opportunities so as to determine various intervention parameters needed from targeted households. Key socio-economic indicators may be developed and used to monitor and assess project impacts at the end of the project.

Respondents who were interviewed during household survey included 256 males making a total of 61.3% of the respondents and 160 female making a total of 38.7%. In each village interviews targeted heads of households which, in these communities, were males. However, where the household heads were not available at home at the time of the interview, the spouse was interviewed instead. The distribution of the respondents by wealth category is presented as annex 5. So was the case in female headed households. In some situations where both spouses were not available during the interview, an adult member of the household conversant with the household activities and livelihood issues was interviewed instead.

3.4 Literature Review

Literature review/ desk study was used to support the rest of data collection methods employed during execution of this assignment. This was applied starting by reviewing the ToR, developing a general understanding of the Financial Sustainability Scorecard used in collecting financial data and financial management aspects of the coastal forests for the selected coastal areas. Other different documents that were studied include the project document that indicated the financial commitment from different actors in the project area. Other literature on coastal forests, financial scorecards and others related to the subject under study were also studied.

4.0 FINDINGS

4.1 Coastal Forests Management and Current Financial Status

In this section, coastal forest management and current financial status in the selected coastal districts of the main land (Rufiji, Kilwa and Lindi) as well as Unguja and Pemba are discussed. Issues discussed include the coastal forest management systems; financing forest in the coastal districts and the financial status; available finances for forest management activities in the coastal districts; financial commitment for forest activities in the respective selected areas; actual annual central government budget allocated to coastal districts for forest management activities as well as NGOs and other donors' support to forestry activities in the selected coastal districts of Tanzania.

4.1.1 Coastal Forest Area Systems of Management

In coastal districts, types of forests where central government, local government and NGOs are putting more efforts in ensuring their management and sustainability were divided into different categories, including (i) the central government managed forest; (ii) district council managed forests; (iii) village forest reserves (iv) forests on public/general land and (v) privately owned forests. Sizes of the respective forests based on the ownership as identified by the consulted district forest officers are given in Table 3.

Table 3: Total Hectares Based on the Type of the Forest Ownership in Tanzania Mainland and Zanzibar

Type of Forest Based on the Ownership	**Total forest in ha in Coastal Districts**				
	Rufiji	**Kilwa**	**Lindi**	**Unguja**	**Pemba**
Central government managed forest	125,346	201,900	45,828	21,557	20,080
Forest on Public lands	Ni	450,000	470,000	38,328	8000
Local Authority Forests (District)	84,957	83,000	3,080	Ni	50
Village Forest Reserves (community woodlots for Pemba)	18,807	126,000	5,132.63	Ni	5000

Ni = No information available

Forests types indicated in Table 3, receive funding from various stakeholders. The actors that are funding forest activities in the respective areas include the Central Government, Local

Government through respective district council budgets, donors channeling funds through the Central Government and Local Governments directly, as well as NGOs working directly in these forests. Most NGOs do work on local government forests, mainly the district and village forest reserves. Some few NGOs, including WWF – TCO in addition to have its efforts in the community based forest management; they also work in national parks, especially in Zanzibar.

4.1.2 Financing Forest in Coastal Districts and the Financial Status

Financing forests in the coastal districts (Rufiji, Kilwa, Lindi, Unguja and Pemba) is done by different actors. These include the Central Government through its annual budget that is channeled through the Ministry of Natural Resources and Tourism under its Forest and Beekeeping Department (FBD) in Tanzania mainland and through the Ministry of Agriculture and Natural Resources of the Revolutionary Government of Zanzibar under the Department of Forestry and Non-renewable Resources in Zanzibar.

Other stakeholders involved in funding forest activities in the coastal areas include: WWF Tanzania Country Office (WWF-TCO), CARE International in Tanzania, Tanzania Forest Conservation Group (TFCG), IUCN, and Mpingo Conservation and Development Initiative (MCDI). As indicated in Table 4, the Central Government is involved in allocating some budgets for the forests in all districts. The respective district councils are also setting aside some funds for forest activities in their respective districts in the Tanzania mainland.

Different NGOs are allocating a lot of funding for forest activities in the selected coastal districts. NGOs and their respective areas where they work are: WWF Tanzania Country Office working in all three selected coastal districts in Tanzania Mainland (Rufiji, Kilwa, Lindi) as well as Unguja and Pemba; CARE International in Tanzania working in Unguja and Pemba; Tanzania Forest Conservation Group working in Rufiji, Kilwa and Lindi; International Union for Conservation of Nature **(**IUCN) working in Rufiji and Mpingo Conservation and Development Initiative which is working in Rufiji; and Kilwa. Most of these NGOs were working on village forests with an exception of WWF-TCO which was also working in a number of different forest reserves both in the coastal districts of Tanzania mainland and those in Zanzibar.

Table 4: Different Actors Working in the Selected Case Study Areas

Actor	Rufiji	Kilwa	Lindi	Unguja	Pemba
Central government – Through respective ministries	v	v	v	v	v
Local government-District Council	v	v	v	v	v
WWF Tanzania Country Office	v	v	v	v	v
CARE International in Tanzania				v	v
Tanzania Forest Conservation Group	v	v	v		
IUCN	v				
Mpingo Conservation and Development Initiative	v	v			
Other donors through central government (DANIDA, FINNIDA)	v	v	v	v	v

4.1.3 Available Finances for Forest Management Activities in Coastal Districts

In this section, available finances for forest management activities, both operational and investment costs are analyzed for each of the three coastal districts as well as Pemba and Unguja. Several aspects are discussed based on the financial information that was obtained as a baseline. These include (i) total annual Central Government budget allocated to the coastal districts for forest management activities. This information was harmonized from two sources, that is, from FBD and those that were obtained from respective district councils; (ii) total annual donor budget and finances dedicated to coastal forest management in the respective coastal districts; (ii) total annual district revenue collected from forests in the respective coastal districts; and (iii) total annual expenditure for forest activities in the respective district. Table 5 presents the annual budget that different actors are allocating in for forestry activities in the five selected areas where this assignment was carried out. The budget is drawn from actors based on the 2010/2011 financial year.

4.1.4 Financial Commitment and Current Financial Status

The project on improving conservation of selected coastal forests of Tanzania mainland and Zanzibar that UNDP-GEF has committed USD 3.5 million. Several other commitments were set

by different actors to fund different forest activities in the selected project districts. The type of financial commitment were both in cash and in-kind. Financial commitments by different actors and current financial investment that was documented from this study are detailed in Table 5. Forest and Beekeeping Department (FBD); Ministry of Agriculture and Natural Resources of Zanzibar; Rufiji, Kilwa and Lindi district councils committed to offer some in-kind contributions to the project. In the project stating, there has been a need to identify the exact financial status that is being injected into different forest conservation and management activities in the coastal forests in the respective selected areas. The actual total annual budgets and expenditures for different actors have been documented and the information obtained can be used as a baseline status for the project onset. In the year 2010/2011 as a baseline year, an estimated total of 3,665,594USD have been invested in forest conservation and management related activities in Rufiji, Kilwa Lindi rural districts as well as Unguja and Pemba. These are receiving funds from central and local governments, some development partners as well as NGOs working in these areas. Table 5 presents financial commitments by different stakeholders and the baseline financial status (for the year 2010/2011) for funds that have been invested in the selected coastal districts for coastal forest conservation activities.

Table 5: **Financial Commitments by Actors and Current (2010/2011) Financial Investment**

Responsible Party/ Implementing Agent	Amount Year 1 (USD)	Amount Year 2 (USD)	Amount Year 3 (USD)	Amount Year 4 (USD)	Total (USD)	*Baseline Expenditure (2010/2011)
GEF	902,000	1,095,500	857,500	695,500	3,550,500	0
UNDP	100,000	100,000	100,000	100,000	400,000	0
FBD (In kind)	320,000	320,000	320,000	320,000	1,280,000	47,661
DCCFF (In kind)	433,000	433,000	433,000	433,000	1,732,000	8,000
Rufiji District council (in kind)	51,000	51,000	51,000	51,000	204,000	12,000
Kilwa District council (in kind)	60,000	60,000	60,000	60,000	240,000	18,667
Lindi district council (in kind)	54,000	54,000	54,000	54,000	216,000	14,667
TFCG	100,000	100,000	100,000	100,000	400,000	235,000
CARE	150,000	150,000	150,000	150,000	600,000	90,000
Mpingo Conservation Project	100,000	100,000	100,000	100,000	400,000	386,667
WWF TCO and Partners						597,800
WWF UK	120,000	120,000	120,000	120,000	480,000	
WWF Finland	347,500	0	0	0	347,500	
WWF Denmark	40,000	0	0	0	40,000	
WWF Sweden	200,000	200,000	200,000	200,000	800,000	
IUCN	0	0	0	0	0	82,425
SMOLE II	0	0	0	0	0	2,100,000
Other development partners through central government	0	0	0	0	0	62,707
TOTAL PROJECT FINANCE	**2,977,500**	**2,783,500**	**2,545,500**	**2,383,500**	**10,690,000**	**3,655,594**

Source: Project document (PIMS No: 2760 Proposal ID: 00049523, Project ID: 00060459)

1US$ = 1500Tshs and 1Euro = 1.4 US$

4.2 Annual Central Budget Allocated Funds for Forest Management Activities

4.2.1 Budget Allocated to Respective Districts from Central Government

Annual total budgets from central government for forest activities in the selected coastal districts were documented. The budget allocations for these districts as presented in Table 6 are as follows: For Rufiji district, the budget allocated from Central Government is estimated at USD13, 333, Kilwa USD 22,000; Lindi USD 12,328 and Unguja USD 8,000. It has to be noted

that the estimates are based on the normal district allocations as there was no specific budget that was set aside for the coastal districts.

4.2.2 Local Government Allocations from District Council Budget

The financial commitments from local governments to the project (see Table 6) are: USD 51,000 (Rufiji District Council); USD 60,000 Kilwa District Council); and USD 54,000 (Lindi District Council). Contributions from district councils are as follows: Rufiji district, the district council contributes USD 12,000; for Kilwa district, the actual reported expenditure was USD 18,667 and USD 14,667 was spent for forest activities by local government in Lindi rural (Table 6).

4.2.3 Support from the Development Partners

In the selected coastal districts, there were other donors funding different forest activities. These include DANIDA with USD 18,020 for PFM in Kilwa; and USD 24,687 in Lindi. In Rufiji, a total of $20,000 was financed by FINNIDA to facilitate various forest activities in this district.

In Zanzibar (MANRZ, 2010), there was a second phase of programme on Sustainable Management of Land and Environment (SMOLE- II). This programme aims at reduction of absolute poverty in Zanzibar through environmentally sound land management and socio-economic as per the government's strategy for growth and poverty reduction (MKUZA). The government of Finland has donated a total of 9 milion Euros to the Government of Zanzibar for execution of SMOLE II. Half of the funds (4.5 Milion Euros) have been set as operational cost for the programme and the other half is set for technical assistance. Thus it is estimated that there is a total of 1.5 million Euros (USD 2.1 million) per year budgeted for operational activities.

4.2.4 NGOs and other Donors' Support for Forestry Activities

As indicated in Table 6, different Non-Governmental Organizations have been allocating money for forest activities in the selected coastal districts. These include WWF Tanzania Country Office, CARE International in Tanzania, Mpingo Conservation and Development Initiative (MCDI), International Union for Conservation of Nature (IUCN) and Tanzania Forest Conservation Group (TFCG).

4.2.4.1 WWF-Tanzania Country Office

WWF Tanzania and its funding organizations have committed relatively higher funding into forest activities in Zanzibar (Pemba and Unguja) than in the Mainland Tanzania. A total sum of USD 157,000 has been budgeted for forest activities in each of the two areas (Unguja and

Pemba). In the selected districts in the mainland, WWF has basically set a total sum of USD 94,600 for forest activities in each of the three selected districts (Rufiji, Kilwa and Lindi). Types of forest that WWF Tanzania Country Office is working on in these selected coastal districts include Territorial Local Authority and Village Forest Reserves with a total of 49,000 ha in Rufiji, 54,000 ha in Kilwa and 25,000 ha in Lindi. In Unguja, WWF-TCO is working on a total of 8,236 ha (2,500 ha in Jozani National Park) and the rest being under the National Forest Reserve and Community Forest Management Agreement (COFMA). In Pemba, the organization is working in Ngezi Natural Reserve (1,450 ha) and on 460 ha that are under COFMA.

4.2.4.2 Tanzania Forest Conservation Group

Tanzania Forest Conservation Group (TFCG) has projects in Rufiji Kilwa and Lindi districts in Community Based Forest Management (CBFM). In Rufiji district, TFCG covers a total of 4,544 ha; in Kilwa 2,442 ha and a total of 1,873 ha in Lindi rural. In these districts, the estimated funds that TFCG has invested in forest activities include USD 62,500 invested in Rufiji; USD 22,500 in Kilwa and USD 150,000 in Lindi. Most of the funds that are being injected into forest activities in the coastal districts by TFCG are for piloting REDD.

4.2.4.3 International Union for Conservation of Nature

International Union for Conservation of Nature (IUCN) is working in two different forests in Rufiji district. These forests are Mtanza Msona Village Forest Reserve (7,395 ha); and the 13,500 ha of Ngurumbuni Forest. The main area that IUCN focuses is on the Participatory Forest Management. In this district, the annual expenditure that IUCN is investing in forest activities, based on the current financial year, is USD 82,425.

4.2.4.4 Mpingo Conservation and Development Initiative

Mpingo Conservation and Development Initiative (MCDI) is working in two districts which are Rufiji and Kilwa. In Rufiji, a total of USD 14,500 was set as an annual budget and spent for forestry activities for the MCDIs' 2010/2011 budget. Much more funding have been budgeted and spent for forest activities in Kilwa district, where MCDI has a number of activities including PFM, REDD and the certification project activities that are going on these coastal forests. In Kilwa, a total of USD 372,117 was budgeted and spent for these activities in this district. Under

this organization, most of the funds are for the PFM for piloting REDD pilot project and certification initiatives.

4.2.4.5 Care International in Tanzania

Care International in Tanzania is piloting REDD in coastal forests in Unguja and Pemba under community forest management. In Unguja, Care is working in a total of 25,000 ha and 15,000 ha in Pemba. In these two areas, the budget that has been budgeted for and spent in the fiscal year 2010/2011 amounts to USD 50,000 for Unguja and USD 40,000 for Pemba.

4.2.5 Total Financial Investment Based on the 2010/2011 Different Actors Budget

Based on the financial figures obtained from different actors working (Table 6) in the selected coastal areas, a total of USD 3,655,594.00 is currently invested for different forest conservation and management activities in the project area. Other potential funding in the project areas include the Finnish funding in Liwale and Nachingwea to support good forest governance, benefit sharing and poverty alleviation activities at a tune of 9M Euros, Mama Misitu phase II which is also supported by Ministry of Foreign Affairs – Finland through TNRF coordination in Kilwa and Rufiji Districts at a tune of 0.8M Euros are expected to be among the additional funding for forest conservation activities in the selected coastal districts.

Table 6*:* Estimated Budgets (in USD) from Different Actors Working in the Selected Districts

Actor	**Rufiji**	**Kilwa**	**Lindi**	**Zanzibar**	**Total (USD)**
Central government	13,333	22,000	12,328	8,000	55,661.00
Local governments	12,000	18,667	14,667	0	45,334.00
WWF Tanzania Country Office	94,600.00	94,600.00	94,600.00	314,000	597,800.00
CARE International in Tanzania	0	0	0	90,000	90,000.00
Tanzania Forest Conservation Group	62,500.00	22,500.00	150,000.00	0	235,000.00
IUCN	82,425.00	0	0	0	82,425.00
Mpingo Conservation and Development Initiative	14,500.00	372,166.67	0	0	386,666.00
Other development partners through the government (DANIDA for Kilwa and Lindi and FINNIDA for Rufiji)	20,000	18,020	24,687	0	62,707.00
SMOLE 11	0	0	0	2,100,000	2,100,000.00
Estimated Total	**299,358**	**547,954**	**296,282**	**2,512,000**	**3,655,594.00**

4.3 Revenue Collections from Forests in the Respective Coastal Districts

Revenue collected from forest products in the respective districts are presented in Table 7. Most of the royalties are collected from sales of forest goods that are obtained from forests on the public lands and from the selected district forest reserves.

Rufiji district has the highest reported collections compared to other districts. This was attributed to its proximity to Dar es Salaam where there is high demand of wood based products including charcoal. Moreover, the district has a good road networks that is encouraging easy transportation of the forest products. It is also reported (see WWF, 2010) that, there are a lot of charcoal sales to Zanzibar through Indian Ocean where loyalties paid may result into increasing revenues. It is noted that, if stringent rules and regulations can be implemented (i.e. reducing smuggling of forest based products), revenue in this district could also go higher than what is currently being collected. Studies in Rufiji district has indicated that, there are several forest products that are being produced which go without being financially evaluated. Furthermore, some of the goods are illegally sold without revenue been collected (WWF, 2010).

Table 7*:* Revenue Collected from Coastal Forests in the Selected Districts

	Collected amount in a district in USD				
	Rufiji	**Kilwa**	**Lindi**	**Unguja**	**Pemba**
Total revenue collected	733,333	82,000	47,162	-	-

4.4 Application of Legal Regulatory Frameworks, and Business Planning Tools for Forest Management and Revenue Collection

Application of legal regulatory frameworks, business planning tools for effective forest management and the use of tools for revenue collections in the case study districts were studied using a Financial Sustainability Scorecard developed by GEF. In this scorecard, elements of the existence and implementation of the legal regulatory frameworks; application of the business planning tool for cost effective forest management; and application of revenue collection tools were documented.

4.4.1 Prevalence and Application of Legal Regulatory Frameworks and Implications to Forest Resource Management

As indicated in Table 8, Prevalence and levels of legal regulatory frameworks implementation (bylaws, financial regulations) was very low. Findings from the scorecard indicate that existence and implementation of these frameworks in all selected districts is below 50%. Levels of implementation of the legal regulatory frameworks are: 15.8% in Rufiji, 30.5% in Lindi and 37.9% in Kilwa. In the Island, levels of implementation of legal regulatory frameworks are12.6% in North Unguja, 21.4% in Central district and 41.1% in Western Urban). The low level of legal regulatory framework implementation leads to forest resources degradation as well as poor contribution of forest resources to the communities' livelihoods and the national economy.

4.4.2 Prevalence and Application of Business Planning Tools and Implications on Forest Resource Management

Results from the scorecard indicated that the existence and application of business planning tool for cost effective management in the selected coastal districts was also very low. It was observed that, the extent of application of the business planning tool was11.5% in Kilwa, 34.4% in Lindi and 44.3% in Rufiji. In the Island, application of the business planning tool for cost effective management is 0% in North Unguja, 11.5% in Central district and 13.1% in Western Urban district (Table 8). This implies that there is in adequate information on expenditures in forest conservation as the expenditures were lightly guided by cost effective approaches.

4.4.3 Revenue Collection Tools and Application Implications on Forest Resources Management

Table 8 indicates the percentage use and application of tools for revenue collection in the selected coastal districts. Results presented in Table 8 indicate that there was low level of financial tools application in revenue collection in almost all the case study districts.

In the selected Tanzania mainland districts, it was observed that the level of revenue collection tools application was only at 19.7% in Lindi, 26.8% in Rufiji and 29.6% in Kilwa. In the Island the levels of revenue collection tools use ranged from 4.2% in North Unguja to 23.9% in Western Urban district. This implies that, as the prevalent and use of revenue collection was low; a lot of revenues from the coastal forest resources were lost. This is also supported by the fact that there was no information on revenue collected from selected coastal forest resources reported in districts.

Table 8*:* Percentage Application Level of Legal Regulatory Frameworks and Business Planning Tools

Component Element	**% Level in the Respective Districts**						
	Rufiji	**Kilwa**	**Lindi**	**Central District**	**North Unguja**	**Western Urban**	**Average % use of frameworks and tools**
Legal regulatory frameworks (bylaws, financial regulations)	15.79	37.89	30.53	27.37	12.63	41.05	27.54
Business planning tool for cost effective forest management	44.26	11.48	34.43	11.48	0.00	13.11	19.13
Revenue collection tools	26.76	29.58	19.72	16.90	4.23	23.94	20.19

Note: Details of the analysis is given in annexes 1.1 to 1.3

4.5 Potential Projects as Revenue Sources to be Applied in Coastal Forest

In the coastal areas, the potential additional sources of funding apart from the existing ones may be achieved through different project write ups. Potential areas that have been indicated to interest different funding organizations include:

i. Commercial / Market Driven Funding Approach:

- Sustainable logging can be one of the potential project sources of revenue to the communities and the forest sector in the selected coastal forests. An example from MCDI whereby a total of 84m^3 of Blackwood (worth TZS 13,337,800/-) and 23m^3 of five other species was extracted (*msenjele, mpangapanga, mtondoro, mninga* and *mkongo* worth 2,683,400/-) was harvested VLFR (MCDI, 2011). Certification is resulting into sustainable logging and communities in such areas could benefit from the collections earned compared to the situation where trees are harvested unsustainably.

- Butterfly farming is one of the potential revenue generation activities that can be introduced to communities surrounding the coastal forests in the case study districts. This type of the project has been applied in a number of areas in Tanzania, including Zanzibar and Tanzania mainland. Evidence on the contribution of butterfly farming to the communities provided by WWF (2009) where it is reported that, in Kwezitu Village in the East Usambara, a household involved in the butterfly farming project is earning up to 200,000 Tshs per month. Establishing such kind of project (with establishment of market for the lavae) will have two fold advantages; one will be increased income to communities and secondly, forest resources conservation enhancement in the respective areas.

- Crabs fattening and fish farming as introduced by RUMAKI in some of these districts should be developed and scaled up to many other coastal areas. This is regarded as one of the best source revenue to the communities surrounding the ocean. Having this done could also help an alternative source of income which will reduce pressure to forest resources in these areas.

ii. Project Based Approaches:

- Wildlife Management Areas (WMA). This is an area where various donors are investing money into. As WWF-TCO is also involved in facilitating a number of such initiatives elsewhere in the country. It can be useful to make proposals looking for funding to introduce WMAs in the possible coastal areas where such initiatives could work.
- Sustainable charcoal production is also another way of revenue generation to the communities in the case study areas. As observed in Malimbwi *et al* (nd) there is huge amount of charcoal that is flowing to Dar es Salaam from coastal areas. It is reported that a total of 6,777 bags of charcoal enter Dar es Salaam every day and 50% of these bags are getting into Dar es Salaam through Kilwa Road. As this will still be a continuing deal, sustainable charcoal production using the Half Orange Kilns, could help in increasing community income in the areas where charcoal is produced in the coastal forests as well as reduce the current pressure for haphazard charcoal burning which is threatening coastal forests in coastal districts. Evidence of contribution of sustainable charcoal production is given by Sumbi and Songela (2010) who report that two groups in Bumba-Msoro village earned Tshs. 1.8 million by selling 180 bags of sustainable charcoal to Destinations All Ltd. The groups deposited around 30 percent of the earning into their bank accounts and the rest has been distributed among group members. Such kind of investment could be used as one of the revenue generation niche to the communities in the case study area which will result into improved livelihoods of the communities in the respective areas and reduce pressure to the forest resources in these areas.

iii. Emerging Opportunities:

- Reducing Emissions from Deforestation and Forest Degradation (REDD) projects is another area where different project can be developed as a source of revenue to continue with forest activities. In the current financial status, there is a large portion of funding that is being channeled to coastal districts for different forest activities. Based on the already existing experience on how to attract REDD funding, experience from WWF-TCO itself, Care International in Tanzania

working in Unguja and Pemba, Mpingo Conservation and Development Initiative, and Tanzania Forest Conservation Group may be used by WWF and other actors to attract funds for forest conservation and management activities in the respective coastal areas where this assignment was carried out. Currently, most of the activities carried out in these areas entirely depend on the project funding.

- Ecotourism can be established. This can be used as one of the revenue generating activity that could not only benefit the community in the respective areas but also the revenue collected could be re-invested into conservation activities in the respective areas where coastal forests do exist.

4.6 Socio-economic Information and Livelihoods Strategies

4.6.1 Household Characteristics

Analysis of socio-economic data at district level in the selected case study coastal districts, show that majority of interviewed respondents were males (61.5%, Table 9). Although the nature of these areas are male dominated as indicated in the number of respondents, the team solicited information from a substantial number of women (38.5%). This implies that the reported socio-economic issues in the districts have included both men and women feelings and perceptions.

As presented in Table 9 majority of the interviewed respondents in the districts where data were collected are married (79.1%). Cases of divorces were very low in all districts. With an exception of the Magharibi (Zanzibar) and Lindi (Main land) districts, where the number of widows was high. The remaining districts had low number of widows.

Levels of respondents education in the case study districts differ. Generally, half (50.7%, Table 9) of the interviewed respondents had primary school level of eduction. The other major groupwere those with no formal education (30% Table 9), followed by those with secondary school education level. The dominance of the comunity segment with primary school education followed by those with no formal education, implies that the level of dependence of locally available natural resources such as forest, fisheries and agricultural resources was very high as these were the kind of people who had no much altenatives for income generation.

In the area, respondents varied from 36 to 45 years with the overal mean age being 41 years (Table 9). Annex 5 presents respondents age by village. This implies that, information collected

in the areas are given by the people who were actively involved in the production and that, for any intevention that may be taken in ensuring coastal forests are conserved, could involve the people who are actively engaged in the production and use of natural resouces in the area.

Table 9*:* Household Characteristcs in the Case Study Districts

Characteristics		**Kaskazini (n=39)**	**Kati (n=18)**	**Kilwa (n=59)**	**Lindi (n=90)**	**Magharibi (n=37)**	**Micheweni (n=90)**	**Rufiji (n=83)**	**Total (N=416)**
Respondents'Sex (%)	Male	71.8	88.9	67.8	65.6	78.4	26.7	72.3	**61.5**
	Female	28.2	11.1	32.2	34.4	21.6	73.3	27.7	**38.5**
Marital status (%)	Married	74.4	94.4	84.7	75.6	67.6	86.7	74.7	**79.1**
	Widow	10.3	0.0	3.4	10.0	24.3	7.8	6.0	**8.7**
	Divorced	7.7	5.6	5.1	4.4	2.7	5.6	2.4	**4.6**
	Single	7.7	0.0	6.8	10.0	5.4	0.0	16.9	**7.7**
Education level (%)	Primary	28.2	16.7	69.5	70.0	43.2	20.0	71.1	**50.7**
	Secondary	48.7	50.0	5.1	5.6	45.9	12.2	12.0	**17.8**
	No formal	23.1	33.3	20.3	24.4	10.8	65.6	15.7	**30.0**
	Adult	0.0	0.0	5.1	0.0	0.0	2.2	1.2	**1.4**
Mean age (years)		36	42	42	44	45	40	36	**41**

Socio-economic analysis at village/Shehia level revealed that there were higher figures of divorce in Mopofu Shahia compared to the rest of villages/shahia. Higher rates of widows were observed in Muungano (Lindi Rural) and Dole (Unguja Magharibi) compared to other villages/shahia (Table 10).

Table 10: Marital Status by Village/Shehia

Sampled Village	**Village/Shehia**	**Number of respondents**	**% Married**	**% Single**	**% Divorced**	**% Widow**
Rufiji	Mbware	21	76.2	4.8	9.5	9.5
Rufiji	Utunge	32	65.6	25.0	0.0	9.4
Rufiji	Nyamwage	30	83.3	16.7	0.0	0.0
Kilwa	Hotel 3	28	89.3	0.0	3.6	7.1
Kilwa	Kiwawa	31	80.6	12.9	6.5	0.0
Lindi Rural	Ndawa	25	84.0	8.0	0.0	8.0
Lindi Rural	Mihima	35	77.1	11.4	8.6	2.9
Lindi Rural	Muungano	30	66.7	10.0	3.3	20.0
Magharibi	Dole	37	67.0	5.7	2.7	24.8
Kati	Uzing'ambwa	18	94.4	0.0	5.6	0.0
Kaskazini	Upenja	40	75.0	7.5	7.5	10.0
Micheweni	Kiuyu	30	96.7	0.0	3.3	0.0
Micheweni	Wingwi	20	85.0	0.0	0.0	15.0
Micheweni	Mapofu	22	63.6	0.0	18.2	18.2
Micheweni	Msuka	17	100.0	0.0	0.0	0.0
Total		**416**	**79.1**	**7.7**	**4.6**	**8.7**

Table 11 indicates that respondents education levels from the sample villages were relatively low. Most of respondents (50%) had attained primary education. Very few (17.8%) had attained secondary education, while a sizeable (30%) had no formal education. Respondents in Wingi Shahia were the least educated at 15.0%. Kiuyu, Wingwi and Mapofu had very high proportion of respondents (63%, 65% and 72.6% ,respectively) with no formal education at all. An insignificant percentage had attained tertiary education. This group comprised teachers and local government employed members of staff residing in the villages. In general, this implies that many people in the project area had limited opportunities to access income generating activities that demand educational skills.

Table 11: Levels of Education by Village/Shehia

District	Village/ Shehia	Number of respondents	Primary education %	Secondary education %	Adult education %	No formal education%
Rufiji	Mbware	21	61.9	4.8	0.0	33.3
Rufiji	Utunge	32	75.0	9.4	3.1	12.5
Rufiji	Nyamwage	30	73.3	20.0	0.0	6.7
Kilwa	Hotel 3	28	71.4	0.0	0.0	28.6
Kilwa	Kiwawa	31	67.7	9.7	9.7	12.9
Lindi Rural	Ndawa	25	76.0	0.0	0.0	24.0
Lindi Rural	Mihima	35	62.9	5.7	0.0	31.4
Lindi Rural	Muungano	30	73.3	10.0	0.0	16.7
Magharibi	Dole	37	43.3	45.9	0.0	10.8
Kati	Uzing'ambwa	18	16.7	50.0	0.0	33.3
Kaskazini	Upenja	40	27.5	47.5	0.0	25.0
Micheweni	Kiuyu	30	16.7	20.0	0.0	63.3
Micheweni	Wingwi	20	15.0	10.0	10.0	65.0
Micheweni	Mapofu	22	18.2	9.1	0.0	72.6
Micheweni	Msuka	17	35.3	5.9	0.0	8.8
Total		**416**	**50.7**	**17.8**	**1.4**	**30.0**

Analysis of education by wealth categories shows that the middle group formed a majority of the primary school leavers at 49.1%, followed by the poor and well-off groups at 42.8 % and 8.1%, respectively (Table 12). As expected, the well-off group had more people with secondary education at 66.7%, followed by the middle group at 33.3%. The middle and poor groups were the least educated in the study area with 51.5% and 44.3% of the respondents having not attended any schooling at all.

Table 12: Education Level by Wealth Categories in the Mainland Villages

Village Name	Respondents education	Wealth categories		
		Well-off %	%Middle wealth	% Poor
Hotel 3	Primary	5.0	55.0	40.0
	No Formal Education	0.0	37.5	62.5
Kiwawa	Primary	11.8	52.9	35.3
	Secondary	33.3	66.7	0.0
	No Formal Education	0.0	66.7	33.3
	Adult Education	0.0	100.0	0.0
Mbware	Primary	7.7	53.8	38.5
	Secondary	100.0	0.0	0.0
	No Formal Education	0.0	42.9	57.1
Mihima	Primary	9.1	59.1	31.8
	Secondary	50.0	50.0	.0
	No Formal Education	9.1	54.5	36.4
Muungano II	Primary	9.1	50.0	40.9
	Secondary	66.7	33.3	.0
	No Formal Education	.0	60.0	40.0
Ndawa	Primary	5.3	42.1	52.6
	No Formal Education	.0	50.0	50.0
Nyamwage	Primary	4.5	36.4	59.1
	Secondary	83.3	16.7	.0
	No Formal Education	.0	50.0	50.0
Utunge	Primary	12.5	45.8	41.7
	Secondary	66.7	33.3	.0
	No Formal Education	25.0	50.0	25.0
Total	**Primary**	**8.1**	**49.4**	**42.5**
	Secondary	**66.7**	**33.3**	**0.0**
	No Formal Education	**4.3**	**51.5**	**44.3**
	Adult Education	**.0**	**100.0**	**.0**

On average, a high proportion of respondents were aged 41. Hotel Tatu, Mbware and Mihima villages/shahia had the highest number of aged respondents, while Nyamwage and Utunge had the lowest number of elderly Households (Table 13).

Table 13: **Respondents'Age by Village in the Mainland Coastal Districts**

Village	**Mean**
Hotel 3	46.11
Kiwawa	39.58
Mbware	47.1
Mihima	46.83
Muungano II	42.77
Ndawa	42.84
Nyamwage	32.2
Utunge	33
Total	**41.07**

4.6.2: Average Land Size Owned and Used for Crop and Woodlots

Land is the basic resource depended upon by a majority of rural communities in Tanzania. The amount of land owned and/or operated varies between communities' dependence on the availability of land resources and the nature of social structures governing access to land. In the selected districts, the average land size owned by individual households ranged from 2.8 to 6.1 acres with the overall mean land size being 4.8 acres (Table 14). The main use of the land is crop production and very small land sizes have been set for woodlots. The main crops that are being grown in these districts are maize and rice. In these districts, the average land size set for maize production range from 0.6 acres to 2.2 acres with an overall average being 1.6 acres. As for rice production, the average land size used for production range from 0.3 acres to 1.8 acres with an overall average land size being 1.1 acres (Table 14).

Regarding the land size set for woodlots in the surveyed district, results indicate that, in some districts, (Lindi and Micheweni), individual households did not set aside land for woodlots. The overall mean size for the districts whereby individual households set aside land for woodlots was 0.1 acres. The implication of households that had no land set aside for woodlots or having small land sizes for woodlots was that most of the wood resources such as charcoal, firewood and other

related wood products are obtained from surrounding forests hence a high pressure is imposed to the existing coastal forests in the districts.

Table 14: Average Land Size Owned and Used for Crop and Woodlots

Land size	**Kaskazini (n=39)**	**Kati (n=18)**	**Kilwa (n=59)**	**Lindi (n=90)**	**Magharibi (n=37)**	**Micheweni (n=90)**	**Rufiji (n=83)**	**Overal (N=416)**
Land	6.1	5.9	5.7	3.2	5.5	4.5	2.8	**4.8**
Acres with woodlot	0.23	0.17	0.15	0	0.16	0	0.1	**0.1**
Acres with maize	2.18	2.08	1.42	1.12	1.88	1.6	0.63	**1.6**
Acres with rice	1.67	1.70	0.78	0.33	1.84	0.98	0.6	**1.1**

Contrary to literature, the well-off category reported small land size (Table 15) across all villages compared to other wealth groups. Although many households from the very poor category reported ownership of larger land size, it is visible that not every household can fully exploit it. Lack of inputs for agricultural production tends to limit *de facto* access to land to the few well-off groups leaving a majority of the poor households struggling the best they can with the land that they can operate. Therefore, any intervention should be able to consider the very poor category.

Table 15: Land Ownership by Wealth Groups and Villages

	Land Size in Acres Relative to Group Wealth		
Village Name	Well-off	Middle wealth)	Very poor
Hotel 3	2.0	6.9	4.3
Kiwawa	3.5	6.7	2.6
Mbware	2.0	2.9	5.1
Mihima	2.0	2.6	3.5
Muungano II	4.5	3.5	3.9
Ndawa	2.8	3.2	3.2
Nyamwage	5.0	2.3	3.0
Utunge	1.5	1.9	2.1
Average	**2.9**	**3.7**	**3.5**

4.6.3: Livestock Ownership

In these districts, types of livestock kept by the studied communities include cow, goat and poultry (chicken and duck). Results indicate that, in these districts, the average number of cow ranges from 0 to 1 and those of goat are between 1 and 2. With regard to poultry, the number of chicken/duck owned by individual households ranged from 5 to 9 (Table 16). This baseline information indicate that people in these areas much depend on crop production and extraction of other natural resources such as forest products for their livelihoods. These lead to need for establishment of alternative income generation activities intended to help people reduce forest product overutilization and their associated resources if forest conservation is to be attained.

Table 16: Average Number of Livestock Owned by Individual Households

Type of Livestock	**Kaskazini (n=39)**	**Kati (n=18)**	**Kilwa (n=59)**	**Lindi (n=90)**	**Magharibi (n=37)**	**Micheweni (n=90)**	**Rufiji (n=83)**
Number of cattle	1	1	0	0	1	0	1
Goat	1	1	2	1	1	1	1
Poultry	9	8	9	6	9	8	5

A comparison across wealth groups across villages (Table 17) shows that a majority of livestock (mainly goats) are owned by the well-off group, followed by the middle group, and the poor. The poor were mainly confined to keeping of smaller stock such as goats and chicken. Livestock is vital to economies of many areas in the country. Animals are a source of food, more specifically, protein for human diets and income. For low income producers, livestock can serve as store of wealth.

Table 17: Livestock Ownership Across Wealth Categories in the Sample Villages

Wealth status	Village Name	Cattle	Goats	Chicken/Duck
Well off	Hotel 3	0	21	10
	Kiwawa	4	3	6
	Mbware	0	20	18
	Mihima	0	0	12
	Muungano II	0	6	10
	Ndawa	4	0	9
	Nyamwage	0	6	14
	Utunge	0	0	8
Middle wealth	Hotel 3	0	20	14
	Kiwawa	0	3	11
	Mbware	0	0	9
	Mihima	0	18	18
	Muungano II	0	0	8
	Ndawa	0	0	8
	Nyamwage	0	0	11
	Utunge	0	0	7
Very poor	Hotel 3	0	0	10
	Kiwawa	0	4	11
	Mihima	0	0	4
	Muungano II	4	0	0
	Ndawa	0	0	6
	Nyamwage	0	0	4
	Utunge	0	0	4

4.6.4: Type of Houses Based on Roofing Materials

In the case study districts as indicated in Table 18, majority (86.5%) of households own houses that are grass thatched with 56% having well thatched grass houses and 30.5% having dilapidated grass thatched houses. Moreover, majority of these houses were constructed using poles, which are among timber products from the coastal forests. In the surveyed villages in these districts, whereas 12.3% of the interviewed households possess houses that are roofed using iron sheet, only 1.2% of the total interviewed respondents own houses that were roofed with tiles. This implies that community in these areas benefits a lot from forest based products for shelter, hence the need to conserve forests.

Table 18: House Types Based on Roofing Materials

Type of roofing material	**Kaskazini (n=39**	**Kati (n=18)**	**Kilwa (n=59)**	**Lindi (n=90)**	**Magharibi (n=37)**	**Micheweni(n=90)**	**Rufiji (n=83)**	**Total (N=416)**
Tiles	0.00	0.00	0.00	2.20	0.00	1.10	2.40	**1.20**
Iron sheet	15.40	11.10	13.60	10.00	13.50	11.10	13.30	**12.30**
Thatched grass	84.6	88.9	86.4	87.8	86.5	87.8	84.3	**86.5**

Annex 6 shows sampled villages and the roofing materials used. The information in Annex 6 is consistent with the data in Table 18. Most of the village households had main houses built using grass as main roofing material, followed by iron sheets. Besides, Mbware Mihima Muungano II and Nyamwage villages had reported higher percentages of houses being roofed with iron sheets

4.6.5: Energy Sources for Cooking

Energy is an important aspect for communities to survive in the respective areas. In the case study area, the main types of energy sources for cooking include firewood, charcoal and kerosene. Findings from this study indicate that majority of households (84.6%, Table 19) in all selected villages in the respective districts use firewood as the main source of energy for cooking. Very few (14.9%, Table 19, see also Annex 7) reported to use charcoal and less than 1% were using kerosene as cooking energy source. Some villages (such as Ndawa, Wingwi, Kiuyu, Muungano II, Upenja and Utunge). More than 90% of households were using firewood as main source of energy for cooking. This implies that communities in the respective villages in the selected districts depend entirely (with an exception of 0.4% from Rufiji district) on forest products as a source of cooking energy which justifies the need for ensuring that forest resources are sustainably managed for the well-being of these communities in the coastal areas of Tanzania.

Table 19: Energy Sources for Cooking

Type	**Kaskazini (n=39**	**Kati (n=18)**	**Kilwa (n=59)**	**Lindi (n=90)**	**Magharibi (n=37)**	**Micheweni (n=90)**	**Rufiji (n=83)**	**Total (N=416)**
Kerosene	0	0	0	0	0	0	2.4	0.4
Charcoal	10.3	11.1	18.6	16.7	10.8	15.6	14.5	14.9
Firewood	89.7	88.9	81.4	83.3	89.2	84.4	83.1	84.6

Table 20 compares the main source of cooking energy across wealth categories. As expected, the well-off tend to mix charcoal and firewood. Firewood energy for cooking dominated the middle and very poor categories (Table 20). Forest Reserves are situated in the vicinity of these villages. Their uses are restricted by the law, but were being accessed by those communities that live adjacent to them for charcoal and firewood.

Table 20: Energy for Cooking by Wealth Categories

	Well-off (%)	Middle (%)	Very poor (%)
Kerosene	0	0	0.5
Charcoal	45.5	13.9	11.1
Firewood	54.5	86.1	88

4.6.6. Sources of Water for Domestic Use

In the surveyed villages, the existing sources of water for domestic purposes include wells, rivers, springs and taps. As indicated in Table 21, half (50%) of the households interviewed in the selected coastal areas depend on wells as sources of domestic water followed by those depending on rivers, springs and very few (4.3%) with access to tap water.

Table 21: Source of Water for Domestic Use

Source	Kaskazini (n=39)	Kati (n=18)	Kilwa (n=59)	Lindi (n=90)	Magharibi (n=37)	Micheweni(n=90)	Rufiji (n=83)	Total (N=416)
Wells (%)	56.4	55.6	59.3	47.8	54	42.2	48.2	**50.0**
River (%)	38.5	38.9	35.6	33.3	40.5	43.3	41.0	**38.7**
Spring (%)	5.1	5.6	5.1	13.3	5.4	8.9	1.2	**7.0**
Tap (%)	0.0	0.0	0.0	5.6	0.0	5.6	9.6	**4.3**

Although the main water source is well, the poor categories use fewer choices of water sources compared to the well-off and middle wealth groups (Table 22). This implies that, by all means, there was need for ensuring that forests are conserved as they are the catchments for all these water sources where the community in these areas depends on.

Table 22: Source of Water for Domestic Use by Wealth Categories

Water source	Well-off (%)	Middle (%)	Very poor (%)
Well	35.7	60.8	90.9
River	0.0	28.9	52.1
Spring	0.0	6.6	8.5
Tap	9.1	3.7	3.7

5.0 CONCLUSIONS AND RECOMMENDATIONS

5.1 Conclusion

Based on the findings from this assignment, it has been learnt that:

i. There are several stakeholder/actors that are investing money for forest activities in coastal areas and most of these actors have been conducting their activities in the Tanzania mainland than in the Island.
ii. Funding contributions from Central and Local Governments for forest conservation and management activities are limited and mostly in-kind.
iii. The collected revenue from forest products and services are not directly retained for forest conservation and management activities in the case study coastal districts.
iv. Inexistence in some cases and inadequacy follow up of implementation of legal regulatory frameworks (bylaws, financial regulations); the use of business planning tool for cost effective management and the use of tools for revenue collection in the selected coastal districts is low. This results into more encroachment to forest resources, inadequate information about forest conservation activities expenditures and revenue losses.
v. There are possible potential projects that can be used as source of revenue for the forest activities in the coastal areas. These sources can be in different broad categories such as

commercial / market driven funding approaches; community level approaches; project based approaches and emerging opportunities such as REDD.

vi. As efforts to explore different sources of income are still being worked out, it has to be noted that these coastal areas are characterized by community with low level of education, and limited sources of income generation activities. Moreover, the communities much depend on forests and forest related products and services. These necessitate the need for sustainable forest management in these coastal areas.

5.2 Recommendations

Based on the findings from this study it is recommended that:

i) Actors investing money for forest activities in the studied coastal forests in the selected districts need to be coordinated so that there is no duplication of efforts in the respective areas.

ii) Financial contributions from both central and local government have to be documented in order to understand the real financial value contributed by the government.

iii) There is need to re-invest the collected revenue from forest goods and services for forest activities in the respective districts.

iv) Establishing and ensuring the implementation of legal regulatory frameworks (bylaws, financial regulations); the use of business planning tool for cost effective management and use of tools for revenue collection in the selected coastal districts will ensure sustainable coastal forest management which will have a contribution to communities in the respective areas and the nation at large.

v) Proposals on the identified potential sources of revenues are needed for submission to respective funding organizations. The current project could set aside a budget to hire consultants who could help in developing fundable projects.

vi) The proposed strategies for income generation activities have to be implemented. This will reduce pressure to coastal forest.

vii) Pursuing forest conservation and management activities in the coastal areas need to take into consideration socioeconomic characteristics of the communities in these areas as the coastal community is characterized by low level of education, limited sources of income and high dependence on forest goods and services.

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ANNEXES

Annex 1: Financial Scorecard- Part 1: Overall Financial Status Of The Coastal Forests In The Selected Coastal Districts Of Tanzania

Name: ……..
Position:……
Date:……
Organization: ……

Coastal forest area system of management	**Total Hectares**	**Comments**
Central government managed forest		
Forest on Public lands		
Local Authority Forests		
Privately owned forests reserves with the central government technical assistance		
Other types of Forest (Specify)		

Annex 1.1 AVAILABLE FINANCES

1. Total annual government budget allocated to the coastal forest	**Finance available for 2010 in TZS or USD**	**Comments**
Central government managed forest		
Forest on Public lands		
Local Authority Forests		
Privately owned forests reserves with the central government technical assistance		
Other types of Forest (Specify)		

2. Total annual donor budget for the coastal forest in the respective district (Name the District)	***Finance available for 2010 in TZS or USD***	***Comments (include the name of the donor)***
Central government managed forest		
Forest on Public lands		
Local Authority Forests		
Privately owned forests reserves with the central government technical assistance		
Other types of Forest (Specify)		

3. Total annual site revenue collected in the specific coastal forest (Name the District) (to be filled at the district level by the staff in the district natural resource office)	*Finance available for 2010 in TZS or USD*	*Comments*
A. Tourism		
Central government managed forest		
Forest on Public lands		
Local Authority Forests		
Privately owned forests reserves with the central government technical assistance		
Other types of Forest (Specify)		
B. Concessions		
Central government managed forest		
Forest on Public lands		
Local Authority Forests		
Privately owned forests reserves with the central government technical assistance		
Other types of Forest (Specify)		
C. Other sources of revenue		
Central government managed forest		
Forest on Public lands		
Local Authority Forests		
Privately owned forests reserves with the central government technical assistance		
Other types of Forest (Specify)		

4.Total annual revenue generated	*Finance available for 2010 in TZS or USD*	*Comments*
Central government managed forest		
Forest on Public lands		
Local Authority Forests		
Privately owned forests reserves with the central government technical assistance		
Other types of Forest (Specify)		

5.Percentage of revenue collected from the specific coastal forest retained for re-investment	*Finance available for 2010 in TZS or*	*Comments*

	USD	
Central government managed forest		
Forest on Public lands		
Local Authority Forests		
Privately owned forests reserves with the central government technical assistance		
Other types of Forest (Specify)		

6.Total finances available for a specific coastal forest retained for re-investment	***Finance available for 2010 in TZS or USD***	***Comments***
Central government managed forest		
Forest on Public lands		
Local Authority Forests		
Privately owned forests reserves with the central government technical assistance		
Other types of Forest (Specify)		

7.Total annual expenditure for forest for the specific Coastal forest	***Finance available for 2010 in TZS or USD***		***Comments***
	Operating costs i.e. salaries etc (This can be calculated using the estimated number of employees in coastal forest if the data are not directly available)	Investment costs	
Central government managed forest			
Forest on Public lands			
Local Authority Forests			
Privately owned forests reserves with the central government technical assistance			
Other types of Forest (Specify)			

8. Estimation of the finances needs	***Finance available for 2010 in TZS or USD***		***Comments***
	Operating costs i.e. salaries etc	Investment costs	
A. Estimation of the finances needed for basic management cost for a specific coastal forest (indicate the district)			
Central government managed forest			
Forest on Public lands			
Local Authority Forests			
Privately owned forests reserves with the central government technical assistance			
Other types of Forest (Specify)			
B. Estimation of the finances needed for optimal management for a specific coastal forest (indicate the district)			
Central government managed forest			
Forest on Public lands			
Local Authority Forests			
Privately owned forests reserves with the central government technical assistance			
Other types of Forest (Specify)			

9. Annual financing gap(Financial needs –	***Finance available for 2010 in TZS or USD***	***Net financing gap and***

available finances)	Financial needs	Financial available	***Comments***
A. Annual financing gap for basic management cost for a specific coastal forest (indicate the district)			
Central government managed forest			
Forest on Public lands			
Local Authority Forests			
Privately owned forests reserves with the central government technical assistance			
Other types of Forest (Specify)			
B. Annual financing gap for optimal management for a specific coastal forest (indicate the district)			
Central government managed forest			
Forest on Public lands			
Local Authority Forests			
Privately owned forests reserves with the central government technical assistance			
Other types of Forest (Specify)			
10. Financial data collection needs and challenges		***Comments***	

Annex 1.2: Scores for elements of Legal regulatory and institutional frameworks assessed in the selected coastal forests in Tanzania

Component element	***Mainland***			***Zanzibar***			
	Rufiji	***Kilwa***	***Lindi***	***Central District***	***North Unguja***	***Western Urban***	***Average total***
Element 1: Legal, policy and regulatory support for revenue generation by coastal forests							
(i)Bylaws or policies are in place that facilitate revenue mechanisms in the coastal forest	2	0	0	2	1	2	
(ii)Financial instruments such as taxes on tourism and water or breaks existing to promote coastal forest financing	0	0	0	1	0	2	
Element 2: Legal policy and regulatory support for revenue retention and sharing within coastal forest systems							
(i)bylaws or policies are in place for coastal forest revenues to be retained by central government and at the local level	1	1	0	2	2	2	
(ii)Bylaws or policies are in place for coastal revenues to be retained at the specific coastal forest level	0	2	0	0	0	2	

(iii)Bylaws or policies in place for revenue sharing at the coastal forest site level with local stakeholders	0	1	0	1	0	2	
Element 3: Legal and regulatory conditions for establishing funds (endowment, sinking or revolving)							
i)A fund has been established and capitalized to finance the forest activities in this district	2	1	2	0	2	0	
ii)Funds have been created to finance the forest activities in this district	2	1	1	0	0	0	
iii)Funds expenditures are integrated with national forest financial planning and accounting	1	0	0	1	3	0	
Element 4: Legal, policy and regulatory support for alternative institutional arrangements for Coastal forest management to reduce cost burden to the government							
i)There are bylaws or policies which allow and regulate concessions for forest resources in the district	0	2	0	0	0	2	
ii)There are bylaws or policies which allow and regulate co-management of forests in this district	0	2	2	2	0	2	
iii)There are bylaws or policies which allow and regulate local government management of the forest	0	2	2	2	0	3	
iv)There are bylaws which allow, promote and regulate private Forest Reserves in the coastal areas	0	0	2	2	1	3	
Element 5: National Forest financing policies and strategies							
(i)There are key forest financing system	1	0	1	0	0	0	
-Comprehensive, standardized and coordinated cost accounting systems (both input and activity based accounting)	1	1	1	0	0	0	
Revenue generation and fee levels for forests in the district	1	1	0	0	0	0	
Allocation of forest budgets to district forest department (criteria based on size, threats, business plans, performance etc)	1	1	2	1	0	1	
Safeguards to ensure that revenue generation does not adversely affect conservation objectives for forest areas in the district	0	1	1	1	0	1	
District forest management plans exist	1	1	1	0	0	0	
(ii)Degree of formulation, adoption and implementation of a district financing strategy	1	1	1	0	0	0	
Element 6: economic valuation of coastal forests							
(i)Economic valuation studies on the contribution of forest	0	0	0	1	0	0	

to local and national development are available at the district level							
(ii) Forest economic valuation influences local government decision making	0	0	0	2	0	2	
Element 7: Improved government budgeting for district forest systems							
(i)Local government policy promotes budgeting for Forest based on financial need as determined by forest management plans in the district	0	2	1	0	0	3	
(ii) Forest budgets including funds to finance threats reduction strategies in buffer zones (e.g. Livelihoods of communities living around forests) exist in this district	0	2	1	2	0	3	
(iii)Administrative (e.g. procurements) procedures facilitate budget to be spent, reducing risk of future budget cuts due to low disbursement rate in the district	0	0	1	2	0	3	
(iv)District plans to increase budget over the long term to reduce the forest financing gap in this district	0	2	1	3	3	3	
Element 8: Clearly defined institutional responsibilities for financial management of forest in the district							
(i)Mandates of public institutions regarding Forest finances are clear and agreed in this district	0	2	1	0	0	0	
Element 9: Well defined staffing requirement, profiles and incentive at the district level							
(i)There is an organizational structure with a sufficient number of economists and financial planners to help forest department in this district	0	2	1	0	0	0	
ii)District Forest officer responsibilities include, financial management, cost-effectiveness and revenue generation	0	2	2	0	0	1	
(iii) Budgetary incentives motivate district forest officers to promote district level financial sustainability (e.g. sites generating revenues do not experience budget cuts)	0	1	0	0	0	1	
(iv)Performance assessment of district forest officers includes assessment of sound financial planning, revenue generation, fee collection and cost-effective management	0	1	1	0	0	1	
(v)There are is auditing capacity for district forest finances	0	2	2	0	0	0	
(vi)District forest officers have the possibility to budget and plan for long term (e.g. over 5 years)	1	2	2	1	0	0	
Total score for component 1	15	36	29	26	12	39	26.17
Total possible scores	95	95	95	95	95	95	95

%	15.79	37.89	30.53	27.37	12.63	41.05	27.54

Benchmarks used in determining the existence and application of the legal regulatory frameworks

0. Not existing
1. Underdevelopment
2. Developed but needs improvement
3. Developed and implemented

Annex 1.3: Scores for business planning tool for cost effective management as a component to the elements of financing systems

Component element	***Mainland***			***Zanzibar***			
	Rufiji	***Kilwa***	***Lindi***	***Central District***	***North Unguja***	***Western Urban***	***Average total***
Element 1: District level badness planning							
(i)District Forest management plans includes conservation objectives, management needs and costs based on cost-effective analysis	1	0	2	1	0	1	
(ii)Forest management plans are used at the district level	2	0	1	0	0	0	
(iii)Forest business plans, based on standard formats and link to forest management plans and conservation objectives are developed in this district	1	0	0	0	0	0	
(iv) Forest business plans are implemented in this district (degree of implementation measured by achievement of objective)	2	0	0	0	0	1	
(v)Forest business plans for forests contribute to system level planning and budgeting at the district level	2	0	0	0	0	1	
(vi)Costs of implementing management and business plans in this district are monitored and contributes to cost-effective guidance and financial performance reporting	2	0	1	1	0	1	
Element 2: Operational, transparent and useful accounting and auditing systems							
(i)There is a transparent and coordinated cost (operational and investment)accounting system functioning for	1	0	2	0	0	1	

Component element	*Mainland*			*Zanzibar*			
	Rufiji	*Kilwa*	*Lindi*	*Central District*	*North Unguja*	*Western Urban*	*Average total*
coastal forest system							
(ii)Forest revenue tracking systems in the district is in place and operational	1	0	2	1	0	1	
(iii)There is a system so that accounting data contribute to system level planning and budgeting	2	0	0	0	0	0	
Element 3:Systems for monitoring and reporting on financial management performance							
(i)All district forest revenues and expenditures are fully and accurately reported by district authorities to stakeholders	3	0	3	0	0	0	
(ii)Financial returns on tourism related investments are measured and reported where possible (e.g. track increase in visitor revenues before and after establishment of a visitor center) in this district	1	0	0	1	0	0	
(iii)a monitoring and reporting in place to show how and why funds are allocated across the district and the central authority	1	0	3	0	0	0	
(iv)A reporting and evaluation system is in place to show how effectively this district use its available finances (i.e. disbursement rate and cost-effectiveness)to achieve management objectives	1	0	3	0	0	0	
Element 4: Methods of allocation funds across individual coastal districts							
(i)National budget is allocated to districts based on agreed and	0	0	2	0	0	0	

Component element	*Mainland*			*Zanzibar*			
	Rufiji	*Kilwa*	*Lindi*	*Central District*	*North Unguja*	*Western Urban*	*Average total*
appropriate criteria (size, threats, performance)							
(ii)Funds raised by co-managed coastal forests do not reduce government budget allocation where funding gap still exist	0	0	0	2	0	2	
Element 5: Training and support networks to enable coastal forest managers to operate more cost-effectively							
(i)Guidance on cost-effective management developed and being used in the respective districts	1	1	0	0	0	0	
(ii)Inter-district level network exist for district forest managers to share information with each other on their costs, practice and impact	1	1	1	1	0	0	
(iii)Operational and investment cost comparison between the districts complete, available and being used to track coastal forest manager performance	1	1	1	0	0	0	
(iv)Monitoring and leaning systems of cost-effectiveness are in place and feed into system management policy and planning	1	1	0	0	0	0	
(v)District forest officers are trained in technical management and cost effective management	1	1	0	0	0	0	
(vi)District forest financing system facilitates different coastal forest districts to share cost of common practices with each other and with the FBD	2	2	0	0	0	0	

Component element	*Mainland*			*Zanzibar*			
	Rufiji	*Kilwa*	*Lindi*	*Central District*	*North Unguja*	*Western Urban*	*Average total*
Actual total scores for component 2	27.00	7.00	21.00	7.00	0.00	8.00	11.67
Total possible scores	61	61	61	61	61	61	61
%	44.26	11.48	34.43	11.48	0.00	13.11	19.13

Benchmarks used in determining the existence and application of the business planning tool for cost effective management

0. Not existing
1. Underdevelopment
2. Developed but needs improvement
3. Developed and implemented

Annex 1.3 : Scores for tool for revenue generation as a component to the elements of financing systems

Component element	*Mainland*			*Zanzibar*			
	Rufiji	*Kilwa*	*Lindi*	*Central District*	*North Unguja*	*Western Urban*	*Average total*
Element 1: Number and variety of revenue sources used across the district							
(i)An up – to – date analysis of revenue options for the district to complete and available including feasibility studies	0	1	1	0	0	0	
(ii) There is a diverse set of sources and mechanisms, generating funds for the forest activities in the district	0	0	1	1	0	0	
(iii) Districts are operating revenue mechanisms for forests that generate positive net revenues(greater than annual operating costs and over long-term payback initial investment cost)	0	2	1	0	0	0	
(iv) Districts forest authorities enable local communities to generate revenues, resulting in reduced threats to the forests	0	1	1	2	0	0	
Element 2: Setting and establishment of user fees across the district forest systems							
(i)A system wide strategy and action plan for user fees is complete and adopted by the local government	0	1	0	1	0	1	

(ii)The national tourism industry and Ministry are supportive and are partners in the forest service's user fee system and programmes existing in the district	1	1	0	1	0	0	
(iii)Tourism related infrastructure investment is proposed and developed in the district based on analysis of revenue potential and return on investment	1	1	0	0	0	1	
(iv)Where tourism is promoted district forest officers can demonstrate maximum revenue whilst not threatening coastal forest conservation objectives	3	1	0	0	0	1	
(v)None tourism user fees are applied and generate additional revenue in the district	1	1	0	0	0	1	
Element 3: Effective fee collection systems in the1 district							
System wide guidelines for fee collection are complete and approved by district authorities	1	2	2	0	0	1	
Fee collection systems are being implemented at the district level in a cost-effective manner	1	1	1	1	0	1	
Fee collection systems are monitored, evaluated and acted upon by the district councils	1	3	2	1	0	1	
Coastal forest visitors are satisfied with the professionalism of fee collection and the services provided	0	0	1	0	0	1	
Element 4:Marketing and communication strategies for revenue generation mechanisms at the district level							
(i)Communication campaigns and marketing for the public about tourism fees, conservation taxes etc are widespread and high profile at district level	1	1	0	0	3	1	
(ii) Communication campaigns	1	2	3	0	0	1	

and marketing for the public about forest fees are in place in this district							
Element 5: Operational Payment Ecosystem Services (PES) schemes in this district							
(i) A system wide strategy and action plan for PES is complete and adopted by the local government	0	0	0	1	0	0	
(ii) There is a pilot PES schemes developed in this district	0	0	0	1	0	0	
(iii) Operational performance of (PES) pilots is monitored, evaluated and reported	1	0	0	0	0	1	
(iv) Scale up of PES in the district is underway	0	0	0	0	0	1	
Element 6:Concessions operation within coastal forests in the district							
(i) A system wide strategy and implementation action plan is complete and adopted by local government for concessions	1	0	0	1	0	1	
(ii) Concession opportunities are operational at the district level	1	0	0	0	0	1	
(iii) Operational performance (environmental and financial) of pilots is monitored, evaluated, reported and acted upon	2	0	0	1	0	1	
(iv)Scale up of concessions across the district is underway	2	2	0	1	0	1	
Element 7: District Forest training programmes on revenue generation mechanisms							
(i) Training courses run by the government and other competent organizations for forest officers on revenue mechanisms and financial administration	1	1	1	0	0	1	
Actual total scores for component 3	19.00	21.00	14.00	12.00	3.00	17.00	14.33
Total possible scores	71	71	71	71	71	71	71
%	26.76	29.58	19.72	16.90	4.23	23.94	20.19

Benchmarks used in determining the use of revenue collection tools

0. The tool does not exist
1. Underdevelopment
2. Developed but not used
3. Developed and used

Annex 2: Household Questionnaire for Social Economic Baseline Focusing on the Coastal Forests of Southern Tanzania and Zanzibar

1: Introductory information

Date of interview:……

Name of enumerator:……..

Hamlet:……

Village:……..

Ward:…….

District:……..

2: Basic information

Name of respondent:…….

Relation of respondent to household head:…….

Code: 1=the same, 2=wife, 3= husband, 4= others specify:

Household head information:

Age:…….

Sex:……1=Male; 2=Female

Marital status:

Code: 1= married, 2= widow, 3= divorced, 4= never married

Education:

Code: 1= primary, 2= secondary, 3= No formal education, 4= adult education, 4= Others specify

3. General household information

Household composition		
	Number of children < 3 years	
	Number of children 3 < 10 years	
	Number of boys 11 < 18 years	
	Number of girls 11 < 18 years	
	Number of women 19 < 60 years	
	Number of men 19 < 60 years	
	Number of women > 60 years	
	Number of men > 60 years	
Human capital		
	How many household members have an adult education?	
	How many household members have a university education?	
	How many household members are currently under university education?	
	How many household members finished secondary school?	
	How many household members are currently in secondary school?	
	How many household members finished primary school?	
	How many household members are formally employed?	
	How many people in secondary school do your household support?	
House		
	Do you own your house	
	Roof materials *(Observe and tick-off, but ask if in doubt):*	
	- Tiles	
	- Iron sheets	
	- Well-maintained thatched grass	
	- Dilapidated thatched grass	
	- Other, specify	
	Wall materials *(Observe and tick-off, but ask if in doubt):*	
	- Burnt bricks with plaster	
	- Burnt bricks without plaster	
	- Mud bricks with plaster	
	- Mud bricks without plaster	
	- Well-constructed poles and mud	
	- Poorly constructed/maintained poles and mud	
	- Other, specify	
	Floor materials *(Observe and tick-off, but ask if in doubt):*	
	- Cement - Mud but smooth	
	- Dust but smooth	
	- Dust and rough	
	- Other, specify	
	Does the house have glass windows	
Energy for cooking		
	Electricity	

	Kerosene	
	Charcoal	
	Firewood	
Energy for lighting		
	Electricity	
	Kerosene lantern	
	Candle	
	Firewood	
	Other, specify	
Source of water for domestic use		
	Tap	
	Protected well/bore hole	
	Unprotected well/bore hole	
	River/stream	
	Spring	
Land and agriculture		
	How many acres of land do you own	
	Number of acres with irrigation	
	Number of acres with woodlot	
	What is the primary tree species	
	Number of acres farmed in the past year	
	Number of acres with maize in the past year	
	Number of acres with tobacco in the past year	
	Number of acres with paprika in the past year	
	Number of acres with tomatoes in the past year	
	Number of acres with groundnuts in the past year	
	Number of acres with sunflower in the past year	
	Number of acres with rice in the past year	
	Number of acres with other crops (specify)	
	Number of acres with other crops (specify)	
	Number of acres with other crops (specify)	
	Number of acres ploughed with oxen or tractor in the past year	
	Number of fertilizer bags used for agriculture in the past year	
	Did the household use any bought pesticides in the past year	
	App. number of casual labour days hired for agriculture in the past year	

Livestock		
	Number of cattle owned	
	Number of donkeys owned	
	Number of sheep owned	
	Number of goats owned	
	Number of adult pigs owned	
	Number of chicken/ducks	
	Number of beehives owned	
Other household assets		
	Number of couches owned	
	Number of radios owned	
	Number of televisions	
	Number of mobile phones	
	Number wrist watches	
	Number of bikes owned	
	Number of donkey carts owned	
	Number of ploughs owned	
	Number of shops owned	
	Number of milling machines owned	
	Number of cars owned	
	Number of motorcycles owned	
	Number of tractors owned	
	Number of guns owned	
Consumption proxies		
	In a usual week, how many days does your household eat meat?	
	In a usual week, how many days does your household have tea?	
	How many meals per day does your household usually have?	
Savings and debts		
	How much does the household have in savings in banks, credit associations or savings clubs?	
	How much does the household have in savings in non-productive assets such as gold and jewellery?	
	How much does the household have in outstanding debt?	
Social capital		
	How many household members are members of the village council?	
	How many household members are in a committee under the village council?	
	How many household members hold a position in a political party?	
	How many household members hold a civil society position?	
	How many close relatives* of the household head and/or spouse are formally employed?	
	How many household members receive a pension?	

* Blood sisters, blood brothers, children and grandchildren.

4. Household livelihood strategies

1. Normally, how many months does the harvest of your main staple food last for your household's food consumption?:_____
   Code: 1: < 3 months; 2: < 5 months; 3: < 8 months; 4: < 10 months; 5: > 10 months

2. Please mention the most important strategies your household uses to earn income to buy food when the harvest runs out?

Casual labour in the community	
Casual labour involving seasonal migration	
Selling agricultural products	
Selling livestock	
Selling other assets	
Harvesting of forest products	
Petty businesses	
Reduce number of meals	
Received food relief	
Other specify:	
Other specify:	
Other specify:	

Code: 1: most important, 2: less important, 3: least important

3. In a year with very poor harvest, i.e. the harvest of the main staple food is less than half of that of a normal year, how many months does the harvest of maize (main stable food) last for your household's food consumption?:_____
   Code: 1: < 1 month; 2: < 3 months; 3 < 5 months; 4: < 8 months; 5: > 8 months.

4. When was the last time you experienced such a very poor harvest? _____

5. Please mention the most important strategies you used to earn extra income to buy food during that year?

Casual labour in the community	
Casual labour involving seasonal migration	
Selling agricultural products	
Selling livestock	
Selling other assets	
Harvesting of forest products	
Petty businesses	
Reduce number of meals	
Received food relief	
Other specify:	

Code: 1: most important; 2: less important; 3: least important

5. Household income sources

5.1 Income from agriculture – crops

1. What are the quantities, uses and values of crops that household has harvested during the past 12 months?

Note: List first the main crops that are harvested in largest quantities at specific times of the year. Then probe for small quantities of crops that are continuously harvested for subsistence uses.

1. Crops	2. Total production (4+5)	3. Unit (for production)	4.Own use (incl. gifts)	5. Sold (incl. barter)	6. Price per unit	7.Total value ((4+5)*6)

2. What are the quantities and values of inputs used in crop production over the past 12 months (this refers to agricultural cash expenditures)?

Note: Take into account all the crops in the previous table.

1. Inputs	2. Quantity	3. Unit	4. Price per unit	5. Total costs (2*4)
1. Seeds				
2. Fertilizers				
3. Pesticides/herbicides				
4. Manure				
5. Draught power				
6. Hired labour				
7. Hired machinery				
8. Transport/marketing				
19. Other, specify:				
20. 20.Payment for land rental*				

* This may be in the form of cash or crops harvested

5.2 Income from livestock

1. Livestock	2. Present number	3. Sold (incl. barter), live or slaught-ered	4. Slaught-ered for own use (or gift given)	5. Lost (theft, died,…)	6. Bought or gift received	7. New from own stock	8. Number (12 months ago)	9. Price per adult animal	10. Change in stock value 9*(2-8)
1. Cattle									
2. Buffalos									
3. Goats									
4. Sheep									
5. Pigs									
6. Donkeys									
7. Horses									
8. Turkey									
9. Other, specify:									

1. What is the number of ADULT animals your household has now, and how many have you sold, bought, slaughtered or lost during the past 12 months?
Note: Only include larger valuable animals; smaller animals are included in table 1a.

2. Which smaller animals does the household keep and what was their perceived importance and estimated value to the household economy during the past 12 months?

Animal	1.	2.	3.	4.	5. Present number	6. Price per adult animal	8. Value of stock (5*6)
1. Ducks							
2. Chicken							
3. Guinea pigs							
4. Rabbit							
5. Guinea fowl							
6. Other, specify:							

Code: 1=Very important, 2=Important, 3=Marginal, 4=cannot say

3. What are the quantities and values of animal products and services that you have produced during the past 12 months?

Product/service	1. Production (3+4)	2. Unit	3. Own use (incl. gifts)	4. Sold (incl. barter)	6. Price per unit	7. Total value (1*5)
1. Live animals[1)]						
-						
-						
-						
-						
-						
-						
-						
2. Meat[1)]						

3. Milk [2)]						
4. Butter						
5. Cheese						
6. Ghee						
7. Eggs						
8. Hides and skin						
9. Wool						
10. Manure						
11. Draught power						
12. Bee hives						
13. Honey						
14. Curdled milk						
15. Soap						
19. Other, specify						

1) Make sure this corresponds with the above table on sale and consumption of animals.
2) Only milk consumed or sold should be included. If used for making, for example, cheese it should not be reported (only the amount and value of cheese).

4. What are the quantities and values of inputs used in livestock production during the past 12 months (cash expenditures)?
Note: The objective is to get total costs, rather than input units.

Inputs	1.	2.	3.	4. (2*3)
1. Feed/fodder				
2. Rental of grazing land				
3. Medicines, vaccination and other veterinary services				
4. Costs of maintaining barns, enclosures, pens, etc.				
5. Hired labour				
6. Inputs from own farm				
9. Other, specify:				
10.				
11.				
Key: 1=Unit, 2=Quantity, 3=Price per unit, 4=Total Cost				

5. Please indicate approx. share of fodder, either grazed by your animals or brought to the farm by household members.

Type of grazing land or source of fodder		3. Approx. share (%)
1. Land type	2. Ownership	
forest	Village land	
Non-forest	Gov. & General land	
Fallow/pasture	Village & General land	
Fallow/pasture	Someone's private land	
Fallow/pasture	Own land	
Other, specify:		
Total		100%

5.3 Wage income

1. Has any member of the household had paid work over the past 12 months?

Note: One person can be listed more than once for different jobs.

Note: If a person has worked but not yet received payment, the expected income is recorded in column 5 while the actually received income is recorded in column 6. In cases of pre-payment and/or late payment for work, the actual days worked, the negotiated daily wage rate and the actual amount received are recorded in columns 3, 4 and 6, respectively.

Household member	1.Type of work	2. Days worked past 12 months	3. Daily wage rate	4. Total (expected) wage income (2*3)	5. Total wage income actually received

5.4 Income from own/other business (not forest or agriculture)

1. Are you involved in any types of business, and if so, what are the gross income and costs related to that business over the 12 months?

Note: If the household is involved in several different types of business, you should fill in one column for each business.

	1. Business 1	2. Business 2	3. Business
1. What is your type of business?[1)]			
2. Gross income (sales)			
Costs:			
3. Purchased inputs			
4. Own non-labour inputs (equivalent market value)			
5. Hired labour			
6. Transport and marketing cost			
7. Capital costs (repair, maintenance, etc.)			
8. Other costs			
9. Net income (2 - items 3-8)			
10. Current value of capital stock			

5.5 Forest Incomes

1. What are the quantities and values of the economically most important *raw-material* forest products the members of your household collected for both own use and sale over the past 12 months?

Note: Tables 1-3 are concerned with forest products that are so important to the household economy (for sale or own consumption) that the respondent can remember harvested volumes and values over the past 12 months with reasonable accuracy. Other forest products, which are difficult to remember in terms of quantities and values, are dealt with in table 4.

Note: Some products like firewood and charcoal may also be collected outside forest areas,

e.g. on farm or fallow land. If this is the case, only the products actually collected in forests should be recorded in this table. Products collected outside forests are recorded in tables 1 & 2 under Non-forest environmental incomes.

Note: The quantities of unprocessed forest products used as inputs in making processed forest products should only be reported in table 3 (below), and not in this table.

1. Forest product	1. Collected by whom?[1)]	2. Collected where? [3)]	3. Quantity collected (5+6)	4. Unit	5. Own use (incl. gifts)	6. Sold (incl. barter)	7. Price per unit	8. Type of market [2)]	9. Gross value (3*7)	10. Permit/transport/ marketing costs	11. Purch. inputs & hired labour	12. Net income (9-10-11)

1) Codes: 1=only/mainly by wife and adult female household members; 2=both adult males and adult females participate about equally; 3=only/mainly by the husband and adult male household members; 4=only/mainly by girls (<15 years); 5=only/mainly by boys (<15 years); 6=only/mainly by children (<15 years), and boys and girls participate about equally; 7=all members of household participate equally; 8=none of the above alternatives.

2) Codes:

1. Sold within the village	(10-19)	2. Sold outside the village	(20-29)
Friends and relatives	10	Friends and relatives	20
Directly to consumers	11	Directly to consumers	21
Private wholesale buyer	12	Private wholesale buyer	22
Processing factory	13	Processing factory	23
Producer organization	14	Producer organization	24
Government agency	15	Government agency	25
Other, Specify	19	Other, Specify	29

2. What are the quantities and values of the economically most important *processed* forest products the members of your household collected for both own use and sale over the past 12 months?

Product	1. Who in the household did the work?[1)]	2. Quantity produced (5+6)	3. Unit	4. Own use (incl. gifts)	5. Sold (incl. barter)	6. Price per unit	7. Type of market[2)]	8. Gross value (2*6)	9. Permit/transport/ marketing costs	10. Purch. inputs & hired labour	11. Net income excl. costs of forest inputs (8-9-10)

1) Codes: 1=only/mainly by wife and adult female household members; 2=both adult males and adult females participate about equally; 3=only/mainly by the husband and adult male household members; 4=only/mainly by girls (<15 years);

5=only/mainly by boys (<15 years); 6=only/mainly by children (<15 years), and boys and girls participate about equally; 7=all members of household participate equally; 8=none of the above alternatives.

2) Codes:

1. Sold within the village	(10-19)	2. Sold outside the village	(20-29)
Friends and relatives	10	Friends and relatives	20
Directly to consumers	11	Directly to consumers	21
Private wholesale buyer	12	Private wholesale buyer	22
Processing factory	13	Processing factory	23
Producer organization	14	Producer organization	24
Government agency	15	Government agency	25
Other, Specify	19	Other, Specify	29

3. What are the quantities and values of *unprocessed* forest products used as inputs (raw material) to produce the *processed* forest products in table above?

Note:Avoid double counting: only products used as inputs are recorded in this table and these quantities should not be included in what is recorded in Table 1.

Processed	1. Unproc	2.Quantity used	3. Unit	4. Quantit	5. Quantit	Collected where?	8. Who in	9. Price per unit	10. Value

(final) products	essed forest product used as input	(4+5)		y purchased	y collected by household	6. Forest	7. Non-Forest	the house-hold collected the forest product?		(2*9)

1) Codes as in table 2 above.
Note: The products in column 1 should be <u>exactly</u> the same as those in column 1 in table 2 above.
Note: Columns 6, 7, 8 should be left blank if no collection by household. Column 9 (price) should be asked even if only from collection, but if not available, see the Technical Guidelines on valuation.

4. Which *other* forest products has the household collected in the past 12 months?

Forest product	1. Collected by whom [1)]?	Where Collected?		Importance to the household		
		2. From Forest	3. Outside Forest	4. Important	5.Not important	6. If important, why?

1) Codes: 1=only/mainly by wife and adult female household members; 2=both adult males and adult females participate about equally; 3=only/mainly by the husband and adult male household members;

4=only/mainly by girls (<15 years); 5=only/mainly by boys (<15 years); 6=only/mainly by children (<15 years), and boys and girls participate about equally; 7=all members of household participate equally; 8=none of the above alternatives.

5.6 Non-forest environmental incomes

1. What are the quantities and values of the economically most important non-forest products collected from the wild that the members of your household have collected for both own use and sale over the past 12 months?

Note: Table 1is concerned with non-forest products collected in the wild that are so important to the household economy (for sale or own consumption) that the respondent can remember harvested volumes and values over the past 12 months with reasonable accuracy. Other non-forest products collected in the wild, which are difficult to remember in terms of quantities and values, are dealt with in table 2.

Note: Some products like firewood and charcoal may also be collected in forests (PFM and/on non-PFM). If this is the case, only the products actually collected outside forests should be recorded in this table. Products collected in forests are recorded in the tables under Forest incomes.

Product	1. Collected by whom?[1)]	2. Collected where? [3)]	3. Quantity collected (5+6)	4. Unit	5. Own use (incl. gifts)	6. Sold (incl. barter)	7. Price per unit	8. Type of market[2)]	9. Gross value (3*7)	10.Permit/tran-sport/ marketing costs	11. Purch. inputs & hired labour	12. Net income (9-10-11)

1) Codes: 1=only/mainly by wife and adult female household members; 2=both adult males and adult females participate about equally; 3=only/mainly by the husband and adult male household members; 4=only/mainly by girls (<15 years); 5=only/mainly by boys (<15 years); 6=only/mainly by children (<15 years), and boys and girls participate about equally; 7=all members of household participate equally; 8=none of the above alternatives.

2) Codes:

1. Sold within the village	(10-19)	2. Sold outside the village	(20-29)
Friends and relatives	10	Friends and relatives	20
Directly to consumers	11	Directly to consumers	21
Private wholesale buyer	12	Private wholesale buyer	22
Processing factory	13	Processing factory	23
Producer organization	14	Producer organization	24
Government agency	15	Government agency	25
Other, Specify	19	Other, Specify	29

3) Codes: 1=General land; 2=somebody's private land; 3=Other, specify;

2. Which *other* non-forest products from the wild has the household collected in the past 12 months?

Forest product	1. Collected by whom [1)]?	2. Collected where [2)]?	Importance to the household		
			3. Important	4.Not important	5. If important, why?

1) Codes: 1=only/mainly by wife and adult female household members; 2=both adult males and adult females participate about equally; 3=only/mainly by the husband and adult male household members; 4=only/mainly by girls (<15 years); 5=only/mainly by boys (<15 years); 6=only/mainly by children (<15 years), and boys and girls participate about equally; 7=all members of household participate equally; 8=none of the above alternatives.

3) Codes: 1=General land; 2=somebody's private land; 3=Other, specify;

6 Potential Forestry Related Income Generating Activities

6.1 Mention Potential forestry related income activities in your village

Activity	Where can be performed[1]	Gender (M/F)	Season[2]

1) Codes: 1=Protected area; 2=General land; 3=somebody's private land; 4=Other, specify;

2) Codes: 1=Rain season; 2=Dry season; 3=All; 4=Other, specify;

6.2 State how the following income generating activities can realised

Activity	Where can be performed[1]	Potential Implementers[2]	Technical backstopping needed[3]	Comparative advantages the area has
REDD				
Water PES				
Ecotourism				
FSC Timber				
Sustainable harvests in VLFR				

1) Codes: 1=Protected area; 2=General land; 3=somebody's private land; 4=Other, specify;

2) Codes: 1=CBO; 2=Females; 3=Male; 4=Family; 5=Other, specify;
3) Codes: 1=Training; 2=Facilitator (mention who…); 3=Government; 4=Other, specify;
3) Codes: 1=Highly degraded forests; 2=attractive features (mention them…); 3=Capacity (mention……); 4=Other, specify;

QUANTITATIVE QUESTIONS ABOUT NTFP IN COASTAL FORESTS FOR ANY HOUSEHOLD COLLECTING AND SELLING OR BUYING NTFPS

1. Do you know how much roundwood is needed for firewood and poles?	
Firewood: 1 headload of firewood is equivalent to Poles: 1 pole is equivalent to	…..... kg of wood or ..... m3 of wood .....…. kg of wood or ..... m3 of wood

2. Do you know how much roundwood is needed to make charcoal?
With .....…. kg of wood or ..... m3 of wood, you can make …….. (60 kg) Bags of charcoal
3. What are the prices of the following NTFPs?
Firewood: TSH/headload: Poles: TSH/pole: Thatch: TSH/bundle:
4. How many poles are required to build a typical village house with wooden walls and roofframe? How many years would such a house normally last?

Annex 3: List of consulted stakeholders

SN	NAME	OFFICE	TELEPHONE
1	Mr. John Nambua	District Forest officer, Rufiji District	0786135001
2	Mr.Mustapha Mfangavo	District Forest officer, Kilwa District	0784652905
3	Mr. Mahimbo	District Forest officer, Lindi District	0787314204
4	Ms. Mtumwa	West Urban District	0777472732
5	Shazil Shauri	Central District	0777434078
6	Mkubwa Hamza	North B district Unguja	0773067276
7	Mr. Mbwambo	FBD	
8	Ms. Amina Akida	FBD	0713356782
9	Mr Peter Sumbi	WWF-TCO	0784415159
10	Mr. Adam Kijazi	WWF-TCO	0754496747
11	Mr. Isack Malugu	WWF-TCO	0784775877
12	Mr. Steve Ball	MCDI	0784820323
13	Mr. Charles Meshack	TFCG	0655380607
14	Mr. Abdalah Shah	IUCN	0754091742
15	Ms. N. Mbaga	Care International in Tanzania -Dsm	
15	Mr Amour	Care International in Tanzania -Zanzibar	0777463486

Annex 4: Terms of References

1. Background

UNDP GEF has committed $3.5 million to improving the conservation of the coastal forests of Tanzania mainland and Zanzibar. Field action will focus on Zanzibar (Unguja and Pemba) and southern Tanzania (Lindi, Kilwa and Rufiji districts).
An important part of the GEF project model is to collect sufficient data at the start of the project to allow the impact of the interventions to be measured over the life span of the project. Another part of the model is to fully understand the barriers and their distribution, so that the project can seek to remove these barriers.
In this assignment the main aim is to assess the existing economic inputs and values of the protected area network in the coastal regions of Tanzania, and the potential for enhancing sustainable financing over the period of the projects activities.

2. Consultancy tasks
A service provider is required to undertake the following piece of work:

- To apply the Financial Sustainability Score card developed by the GEF to the network of protected areas in the coastal forest districts on mainland Tanzania and on Zanzibar
- To assess the degree of funding available compared with that which is required in order to manage the coastal forest protected area network adequately.
- To assess potential additional sources of revenue and make concrete proposals on how these sources of income might be realized (REDD, water PES, ecotourism, FSC timber, sustainable harvesting in village land FRs etc).
- Advice project on how to set up income generating schemes linked to the protected area network and provide backstopping for those activities over the project lifespan.

3. Outputs/Deliverables

3.1) Report that summarises the funding currently available within the network Forest Reserves across the coastal Districts of Tanzania, and which makes an assessment of what would be required to manage these reserves at a minimum sustainable level. This will have to link to the baseline impact assessment consultancy.

3.2) Report that explores the various options for improving the financial status of the management authorities and make concrete recommendations on what the project should do to improve the financial situation of the reserve managers over the 4 years of the project lifespan. This second part will form the bulk of the consultancy and needs to be making recommendations and proposals that can be translated into conservation actions that the project can then do.

4. Methodology

In order to generate social and economic information to help project managers make informed decisions and use the information for monitoring and evaluation of the project in the respective areas; this assignment will be as participative as possible by effectively involving key stakeholders within the project including representatives from sample villages where the dependence of the goods and services from the selected coastal forest landscapes in Tanzania is sought. The consultants with their assistants propose to use participatory methodologies and tools to generate most required information. Triangulation approaches will also be applied, where relevant. The following are the specific approaches and methods

which will be put in place to ensure generation of participatory information: Tools that will be applied in data gathering for this assignment shall include:

4.1 Financial Sustainability Scorecard.

Financial Sustainability Score Card is a data collection approach that will be used in determining significant aspects of the financing systems that is a requirement for understanding the inputs and values of the protected areas in the coastal regions, the findings from the financial sustainability scorecards will be used in monitoring and evaluation of the financing of the projects over the period of project activities. In this approach there will be three main aspects:

(iv) The overall financial status of the protected areas system... this shall include the knowledge on what is currently spent in protecting these areas in the coastal forest landscapes from different sources of funds including the government and other development partners who are supporting the conservation of these areas. The information will be collected from the ministry of natural resources and tourism, mainly from the Forestry and Bee Keeping department. This department will also be the source of information as to which other partner is funding the protected areas in question. In this the information to be collected shall include the total annual central government budgeted is allocated to the PA management especially in the selected coastal forest landscapes such as the salaries, fuel, maintenance costs infrastructure investment budgets i.e. roads etc these excludes donor funds.

(v) Elements of financing systems which shall include:
   1. funds that are channelled to the governments as donor funding, loans etc
   2. Funds that are channelled through the third party such as NGOs, CBOs and other independent non-governmental bodies. These funds will be in terms of donor fund, trust funds, loans and others as will be identified during the implementation of this assignment.

(vi) Scoring: This will involve the action of scoring the financial elements that contribute to the protection of the coastal forest landscapes in these selected areas.
   The standard scorecard table will be used (see http://www.yslme.org/doc/Fundraise/ppt/Jiang2_scorecard.pdf) and different stakeholders starting with the Ministry of Natural Resources and Tourism in the two departments the Forest and beekeeping and Department of Wildlife. Other donors will be identified during the discussion with the staff of the project and both Forest and beekeeping and Department of Wildlife.

4.2. Designing appropriate and comprehensive survey tools

Appropriate and comprehensive survey tools will be prepared upon reviewing the project documents and consultations with key project staff. The tools shall include relevant checklists and key informants' interview guide that will be used to capture information from key informants as well as the community in the respective areas where the assignment will be carried out.

4.2.1 Methods for data gathering

a) Key informants interviews

Key informants interviews will be conducted with the respective stakeholders including the project staff, representatives from the respective ministries and departments, NGOs and the development partners that will be identified to have funded different activities and those who are potential funders in the coastal forest landscape. Such approaches are critical in identifying and documenting various desired issues such as degree of funding availability, potential additional sources of revenue and other related issues as per the assignment.

b) Focus Group Discussions

This will be an important approach to get opinions from groups of people and also will be critical in terms of capturing information not be captured through other methods such as the household questionnaire. Discussions with groups of people will mainly be at village\hamlet levels. Such groups will include farmers' groups\associations, village environmental committees, and women as well as youth groups who are the beneficiaries of the adjacent forests where the program will take place. This approach will help to capture and gauge collective perceptions, views and ideas from these groups about critical issues as clearly outlined in the ToR such issues will include but not limited to sources of possible alternative sources of income in the area as well as and livelihood strategies in their areas.

c) In-depth interviews with selected heads of household using questionnaire

Structured questionnaire will be administered to the sampled households within the study sites and particularly the hamlets and villages within case study area. The questionnaire will seek to capture socio-economic issues notably major economic activities, household incomes, education levels, population age, current and potential income generating activities as well as gender distribution.

d) Literature review

This method will be used to support the rest of other data gathering methods. Extensive literature review will be conducted regarding the subject under study. This method will entail systematic review of research reports from various projects and institutions that are working or have been working in the respective areas.

5. Linkages

This work will link to the work of UN REDD and the Norwegian REDD pilot projects in the coastal forests. It will link to the ongoing work to develop sustainable tourism on Zanzibar and to the efforts to supply FSC certified timber from the coastal forests of Southern Tanzania.

Annex 5: Age of the respondents by wealth status and village

Wealth status	**Village/Shehia**	**Mean**
Well off	Hotel 3	50
	Kiwawa	29.5
	Mbware	42
	Mihima	43
	Muungano II	57
	Ndawa	53.5
	Nyamwage	22
	Utunge	34
	Total	42.56
Middle wealth	Hotel 3	45.57
	Kiwawa	42.5
	Mbware	47.7
	Mihima	46.2
	Muungano II	40.07
	Ndawa	39.36
	Nyamwage	34.9
	Utunge	33.47
	Total	41.48
Very poor	Hotel 3	46.38
	Kiwawa	36.25
	Mbware	47
	Mihima	48.83
	Muungano II	43.69
	Ndawa	42.4
	Nyamwage	31.32
	Utunge	32.15
	Total	40.35
Total	Hotel 3	46.11
	Kiwawa	39.58
	Mbware	47.1
	Mihima	46.83
	Muungano II	42.77
	Ndawa	42.84
	Nyamwage	32.2
	Utunge	33
	Total	41.07

Annex 6: Main house roofing materials by villages

Dole	Hotel 3	Kiuyu	Kiwawa	Mapofu	Mbwarae	Mihima	Msuka	Muungano II	Ndawa	Nyamwage	Upenja	Utunge	Uzi Ng'ambwa	Wingwi
0	0	20	0	0	20	20	0	20	0	20	0	0	0	0
9.8	7.8	7.8	7.8	2	7.8	13.7	5.9	3.9	0	9.8	11.8	3.9	3.9	3.9
70.7	78.2	79.8	77.2	87.6	85.8	73.1	86.1	80.3	85.6	77.2	67.7	79.1	86.5	85.3

Annex 7: Energy used for cooking by villages

	Dole	Hotel 3	Kiuyu	Kiwawa	Mapofu	Mbwarae	Mihima	Msuka	Muungano II	Ndawa	Nyamwage	Upenja	Utunge	Uzi Ng'ambwa	Wingwi
Kerosene	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0
Charcoal	10.8	21.4	10.0	16.1	27.3	33.3	37.1	23.5	6.7	.0	13.3	10.0	3.1	11.1	5.0
Firewood	89.2	78.6	90.0	83.9	72.7	66.7	62.9	76.5	93.3	100.0	83.3	90.0	93.8	88.9	95.0