

TRANSBOUNDARY SOCIOECONOMIC MONITORING REPORT

FIELD STUDY AND INFORMATION



BY
Omwenga Kwaba

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KESCOM

FOREWORD

This report presents the results of social-economic monitoring at the Transboundary site at Vanga and Jimbo and Mkinga district of Tanzania. This monitoring has been implementing by Kenya Sea Turtle Conservation Committee (KESCOM). This is the first time KESCOM is implementing monitoring on this site hence the findings are not only new but will give substantive view of the socioeconomic status of the region.

The overall objective was to provide an analysis of the resource conditions, management susceptibility and the perception pertaining to it. The study has come up with findings and results that are tabulated and others put in graphs, recommendations and conclusions.

This report is designed to highlight the major findings from the field and it is hoped to help the policy makers, stakeholders and guide future socioeconomic researchers into making relevant decisions concerning management of the coastal and marine resources.

ACKNOWLEDGEMENT

I would wish to thank Mr. Andrew Wamukota, project coordinator KESCOM, for his initiative, faith and interests in socioeconomics and making it possible for this project to be implemented.

Initial thanks also go to Mr. Innocent Wanyonyi of CORDIO East Africa, for financial support, contribution and guidance through the SocMon WIO programme all the way from training to implementation.

Special acknowledgement and thanks goes to my colleagues Douglas and Rose for facilitating and supporting me throughout the entire period of training enumerators and data collection. To my data collection Bakari, Mwanaidi, Ali Shilling and Mwanamvua Zara, your dedication, hard work and sacrifice produced these results and made everything happen, I highly appreciate.

It is impossible to mention names of all interview people. In the field deserve immense thanks for their sacrifice, time and energy assisting the KESCOM team collect required information. He would wish to appreciate and thank you for all your efforts, good will and welcome.

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INTRODUCTION

1.1 TRANSBOUNDARY SITE

The TRANSBOUNDARY site consists of Vanga and Jimbo islands and the Mkinga district of Tanzania in Tanga province. The Kenyan transboundary site is sheltered and enclosed by mangroves along the south coast of the Indian Ocean. It borders the Republic of Tanzania 2 kilometers off the Indian Ocean. To the south, it borders the Indian Ocean to the East, Msambweni division to the North. It is located between latitudes 3° 30' south and 38° 31' east. The habitats here are a mixture of Digos, Durumas and other coastal tribes that have migrated to this area for business or fishing. The approximate population of transboundary site is 5000 people. The main economic activity here is fishing, making of fishing gears and environmental conservation through mangrove planting and turtle conservation. Among the few organization working on the ground are the ACK that is currently building a sea wall and a fish market .They have also an active environmental conservation group in the name of JEG Jimbo Environmental Conservation,Mwambiweje Women group,Mwagugu fishers and the BMU..

1.1.0 Biodiversity

Of the three coastal geographical zones, transboundary site lies within the coastal plain, others are the Nyika plateau, and the foot plateau. This is characterized by sheltered mangroves swamps, sheltered tidal flats and the fringing coral reefs and sea grass beds.

The Transboundary site is blessed with a diversity of coastal ecosystem rich in biodiversity resources that not only are used as a source of income, but also contribute positively in sustaining the local livelihoods. Among the most important ecosystem in the area include mangrove swamps and forests, sea grass meadows, mudflats, marshes and coral reefs.

The above features form the main basis through which other ecological features are sustained, thus they provide shelter and act as a breeding ground for a number of species of fish, mammals, reptiles, crustaceans and other marine flora and fauna. This forms the economic mainstay of the local community.

The economic mainstay of the people in the transboundary site is fishing though rice farming is practiced at the flood plains of Uмба and Jasini river a few kilometers from Vanga town. The Transboundary region climate is influenced by two prevailing winds the south west monsoon (SWM) winds and North East Monsoon (NEM) winds. Long rains start from March to June while short rains start from September to October.

1.2 Socioeconomic Monitoring objectives

The broad objective of the socioeconomic monitoring programme was to study how the coastal communities use the coastal and marine resources in order to provide information that will be used to improve resource management for sustainability and to come with tangible strategies that will bring lasting solution. This is the very first time that KESCOM has conducted such monitoring in the area. Specifically, the study aimed at addressing the following objectives:

- Identify resource use pattern and dependence To know the trend of the coastal and marine resources
- To understand the dependence of the community on the coastal and marine resources
- To assess the efficiency and effectiveness of the managers of the coastal and marine resources
- Establish the threats to the coastal resources and the probable solutions.
- To compare the economic status of the coastal and marine resources along the transboundary
- Assessing the believes and perceptions related turtles and their products

All this were captured in the structured and semi structured interviews, where the four enumerators and one data manager were to engage the target group and derive vital data for analysis

1.3 Benefits of data collection:

The perceived benefit of this data includes:

- Data collected will be use in bettering or building a lasting effective management system
- Help in protecting, obtainining, utilization and conservation of goods and services.
- Improve the capability and power of the resource user's perception and influence over the utilization of the resources.
- It will also be used in developing relevant skills, knowledge and confidence and self reliance of the resource uses to achieve sustainable development.
- Form a documentary through which other references can be made pertaining the visited sites and their needs.

The ocean remains a major resource that over time is facing threats. The economic mainstay of the transboundary people is in fishing; which directly translates to the fact that the ocean and other marine resources are of uttermost importance.

2.0. METHODS

The monitoring process was carried during the SEM season and various methods were used in data collection and analysis. Essentially the data was collected from two villages of Vanga and Jimbo. a total of 116 surveys and 44 key informant interviews were conducted within a period of two weeks. This added to 160 respondents.

Table 1.0 variables

<i>Variables</i>	<i>Methods</i>
1. Demographics	Household level (S), observation
2. Resource Use Patterns	Key Informant Interviews and household level (KI, S)
3. Material style of life	Household level survey (S), observation
3. Attitudes and Perceptions	Key Informant Interviews (KI) Household level (S)
4. Resource Management	Key Informant Interviews (KI), Household levels (S)

3.0. RESULTS

3.1.0 DEMOGRAPHICS

Table 2.0: Demographics

Demographics at household level	Description	Percentage
Age group	30-50	61
	18-30	26
	Over 50	9
Gender	Male	88
	Female	12
Religion	Christian	3
	Muslim	97
Education	No education	11
	Primary level	61
	O level	28

3.1.1 Discussion

- The average household size of the sampled population is six persons per house
- 81% of the household are heads by men, 14% by women and 5% by guardians
- 97% of households are Muslims
- 61% of the households have primary level education, while 11% had no formal education and only 28% had finished O level.
- Majority of the household heads belong to the age group of 30-50 years who constitute 61% .
- At household level, 72% of the respondents were Digos who are the natives of Msambweni 19% were Washirazi who are as a result of intermarriages between the digos and other coastal tribes, others were wakifundi 5%, duruma 3% and wagunya who are supposedly from north coast and pemba at 1%
- Other tribes do exist but they don't stay in this site except for business transactions only.

3.2.0 MATERIAL STYLE OF LIFE

Table 3.0 material style of life

variable	type			
House	Owns a house	Owned by occupants		
Percentage (%)	63	37		
Type of roof	Makuti	Corrugated		
Percentage (%)	78	22		
Type of wall	Mud	Stone and mud	stone	
Percentage (%)	39	10	51	
Type of floor	Cement	Cement and mud	mud	
Percentage (%)	49	6	45	
Access to water	Public wells	Personal wells		
Percentage (%)	99	1		
Source of power	Tin lamp	hurricane	electricity	Pressure lamp
percentage	29	41	25	3
Boat ownership	Owns boat	Wooden boat	Paddled boat	
Percentage (%)	38	95	87	

3.2.1 Discussion

Material style of life is the measure or an indicator of social status of a given group or community. From the table above its quite clear that most people in Transboundary region are poor .have little access to fresh water as most of these public wells have salty water, these may also be perceived as a health hazard as public wells are left open which may result to susceptibility to infectious diseases like cholera. This can further be complicated by the number of fishers who own boats at 38% only. Most of the fishermen are taken as crews on engine boats hence are given tokens at the end of the

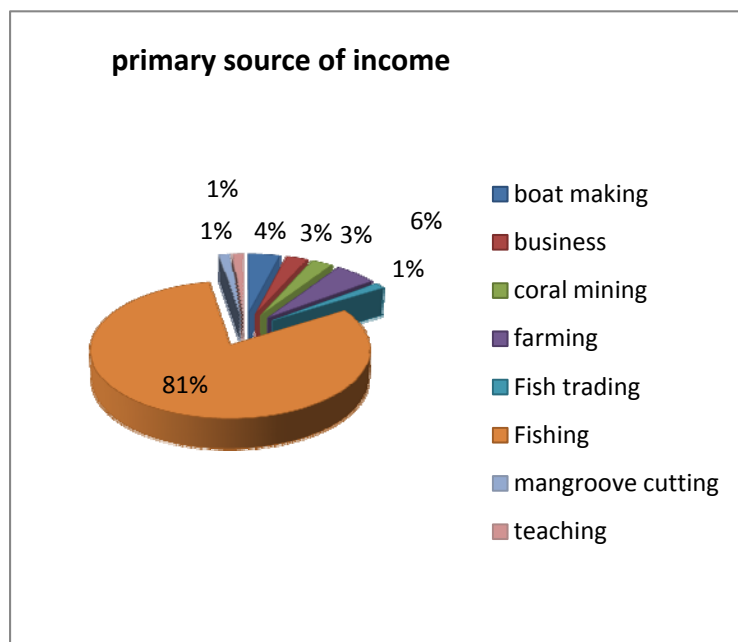
Makuti is the dominant roof type owing to its availability, cost and durability as opposed to other materials like corrugated iron sheets which are easily corroded by sea water thus highly vulnerable to leaking.

A larger percentage of cannot afford electricity as a source of power instead most of them Over 50% use both tin and hurricane lamps for lighting their houses. This means that most people's houses lacked basic facilities such as radios, television and other essential electronics. Definitely this hinders effective communication through media leading to uninformed society.

Its unfortunate that the lucrative fish trading at the transboundary region has not helped or is yet to adequately deliver any significant benefit to the vulnerable small scale fishers. This means that still the pressure will continue to realize on the dwindling natural resources.

Basically from the analysis of the material style of life, most people in this site are not economically favoured which directly affects their social life. Over 60% of the people live below the poverty line.

3.3.0: SOURCES OF INCOME



Over 80% of the respondents mentioned fishing as the main source of income. This can be attributed to proximity to the ocean and as the longest practiced profession in this area. Various types of fish octopus, sea cucumbers and other marine products are caught and 90% sold within Vanga.

Fig 1.1 source of primary income

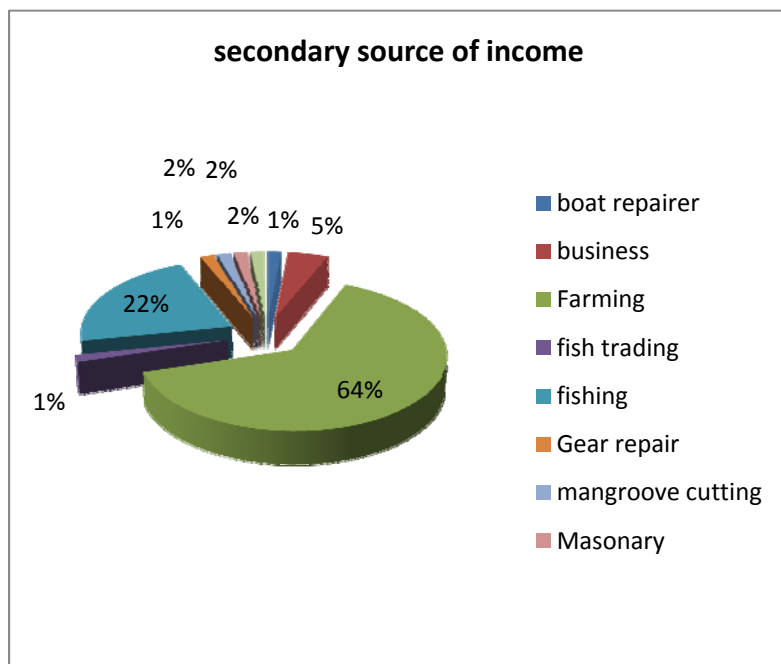


Fig 1.1.2; Secondary source of income
Virtually over 64% of respondents mentioned farming as a secondary source of income. Farming is mostly carried out by mothers who plant rice near Jasini and river Umba plains with help from Jasini river alongside mangoes, cassava and bananas. All this are done to complement fish hence they are for subsistence purposes except for rice that at times can be sold to bring in cash for home upkeep. It's apparent that mostly this farming is done by mothers.

Fig

3.3.1 Discussion

A range of modern and traditional methods are used in getting fish which is the major source of income. Traditionally, traps are used (uzio,malema),spears (mkuki/mkonzo),mdeti (traditional guns) and hand lines (mishipi).modern methods used include fishing nets, shark nets and fishing lines which are mainly used by foreigners with bigger vessels.

3% of those interviewed admitted of once in a while using illegal methods of fishing especially the use of poison (utupa) which is extracted from the crushing of some plants. The poison is meant to paralyze the coordination of impulses by the fish making it possible to catch it easily. Apparently this method is said to have originated from Tanzanian fishermen who equally use dynamite in

blasting the coral reefs for an increased catch, it is estimated that a large number of local fishermen may adopt the same method as a way of competing with those having bigger vessels and machines. If so, this may be a major threat to the health of coastal resources.

4.1.0 RESOURCE MANAGEMENT

4.1.1. Stakeholders in the study area

Table 4.0 : List of stakeholders as mentioned by the respondents.

Category	Name
Government	Fisheries department
	Forestry department
	County council
	Kenya Wildlife Service
Community Based Organizations	Mwagugu fishers group
	Mwambiweje women group
	Jimbo environmental group
	Vanga cooperative society
	ACK community services
Investors	Corals harvesters
	Transporter
	Fish mongers
	Vessel owners
	Fishermen

Over 95 % of the community based organizations are formal and working independently through the leadership of the local elected community members, though each has its own objectives which contribute to common good of the transboundary region

Over 65% of the people interviewed belonged to BMU, although 51% of the respondents were members of other community owned groups which included Mwambiweje women group, Jimbo Environmental Group and Mwagugu fishers cooperative. Although these other groups seem to have been adversely affected by the management wrangles, they still exist and are determined to survive.

The Vanga and Jimbo BMU was herald of the good work it is doing especially in the maintenance of good working environment within the coastal region and the support it gives to fishers. Though they were quick to point out that, with good governance and management structure, the BMU will salvage the fishers from exploitation while ensuring sustainable use of the coastal and marine resources.

Perceived benefits that the BMU will bring

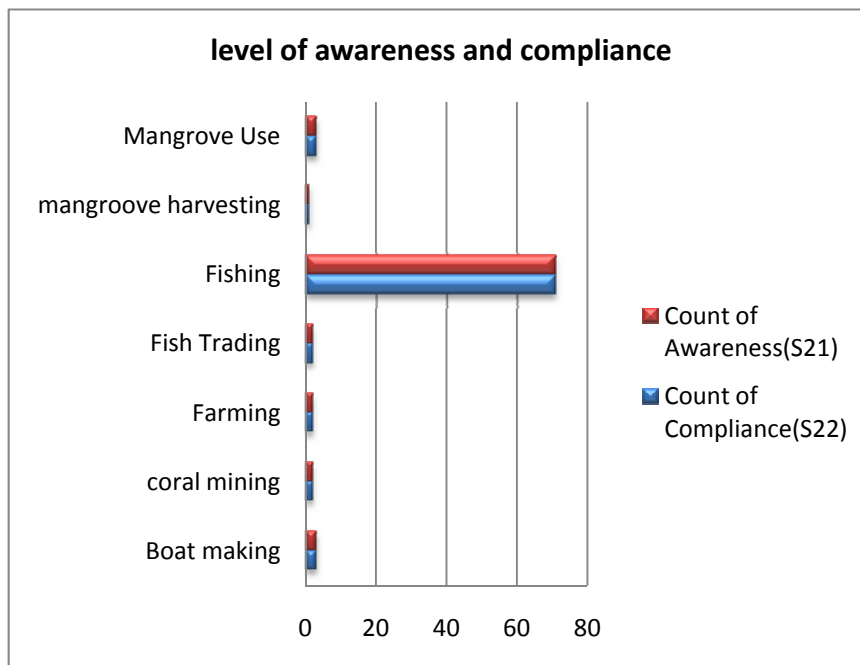
- Ensuring sound working environment for the fishers, through awareness creation on sustainable use of resources
- Creating a management system that will foresee the daily fish exploitation, selling, buying and

collection of revenue that will be vital in making sound decisions about the marine activities

- Putting in place monitoring mechanism to ensure compliance with laid down rules and regulations by the fishers and mongers for responsible and sustained use of resources.
- Conflict resolution and management among fishers or with other stakeholders, hence ensuring the proper working and beneficial synergy between development partners.

In spite of the existence of these CBO and other government and NGOs within the area, the issue of alternative livelihood has not been fully articulated or implemented as most people especially the youths are still looking at the ocean as the only source of income, this is dangerous and points to attend of exploitation of already dwindling resources. Capacity building and effective sensitization will help change this perception if we have to save our sea and manage the coastal natural resources.

5.1.0. AWARENESS AND COMPLIANCE TO RULES AND REGULATIONS



Fig

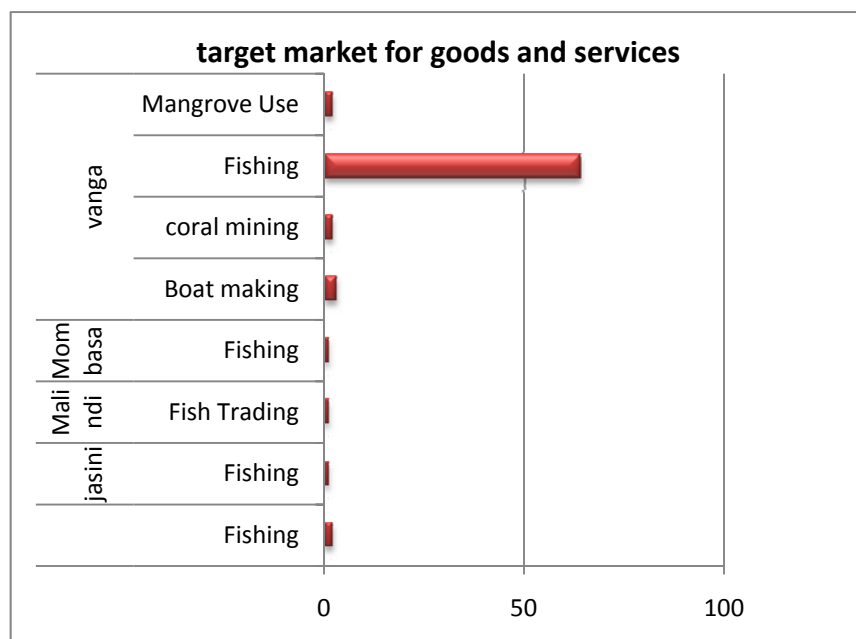
5.1.1 Discussion

Most respondents 80% claimed to be aware of rules and regulations especially in the fisheries part and equally 81% claimed to comply with the set rules, this has been possible through the establishment of the BMU in Vanga that controls access to fisheries resources by limiting number and types of fishing boats and gears in partnership with available decision making.

A number of all coastal resource users i.e. fish traders, fishermen and others who comprised of mangrove harvesters, conservationists and vessel makers, perceived licencing as fully complied to while a few of the fishermen and other resource users sighted default to the rule.

Most of those who defaulted sighted the lack of effective monitoring and management by the relevant bodies endowed with ensuring effective enforcement e.g KWS, fisheries department and the forestry department. This has led to conflicts especially with their counterparts in Tanzania hence a call on a more proactive role in dealing with the situation.

6.1.0 TARGET MARKET OF GOODS AND SERVICES



6.1.1 Discussion

Most of the goods and services produced are sold locally at vanga, less than 10% find their way into the external market which is always at Jasini which is a boarder town of Tanzania in the south coast.

The popular goods produced here are mainly fish which account for 80% of the goods produced in Vanga. Various names were used in referring to fish in this region most of which are borrowed by the local dialects ranging from kikifundi, digo, duruma and shirazi

It also emerged that the major goods produced are those related to fishing which comprised in large percentage of fish, octopus and sea cucumbers. Other services offered include boat making, mangrove use, coral mining and fish trading.

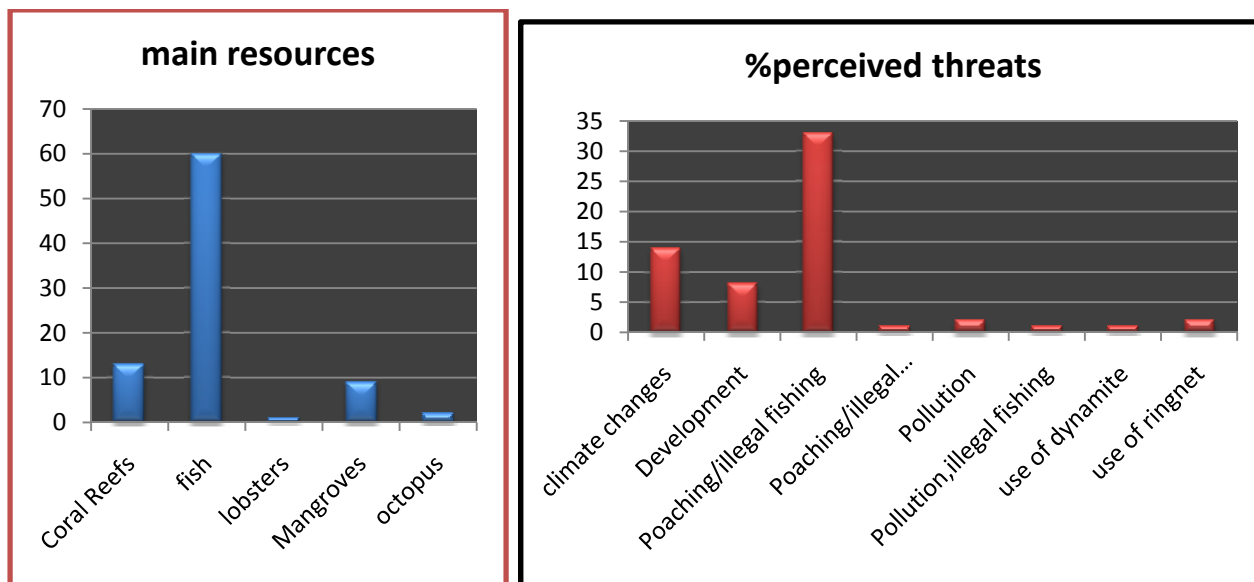
Among the factors attributed on the choice of the target market include:

- The quantity of the goods produced, this if it supersedes the local hold then others could be transported to the nearby towns mostly malindi or Mombasa
- Quality and demand of some goods, some goods are highly regarded due to demand for instance the octopus and the lobster, hence most of it is caught and transported to Mombasa to be sold in big

hotels and others exported.

- The season, most activities especially dealing with fisheries within the Kenyan coast are affected by change in seasons, thus some seasons the production of fish and fish products is high and some is low hence this hinders the development of local and national trade considerably.
- Availability of fish mongers/traders from other towns or country.

7.1.0. Attitudes and perceptions about resource condition



7.1.1 Discussion

From the data collected over 60% of the fisheries resource user turned as non being good or bad as this varied with seasons, though they were quick to exclude the octopus and lobsters from the fish category which 70% termed as good since all seasons round its value was high though at a moment it is faced with lots of devatation ranging from illegal gears, environmental degredation and change in climatic conditions.

Among the mejour threats attributed to the fisheries resource include:

- The increased foreign vessels with sophisticated gears i.e beach seining and trwalers
- Increased use of destructive gears like local guns (mdeti) and dynamite
- Overfishing by both the foreigners and the locals
- Unregulated exploitation of fisheries.

Another essential resource that is facing challenges is the Mangrooves, though the transboundary site may boost of being among the well endowed with mangrooves, the cureent development of hotels, resorts and increasing population is creating pressure on its exploitation.

Although 78% of the respondents perceived the state of mangrooves as being good, there is likelihood of these state changing with even the high demand of construction materials even within the local set up.

As for the corals, they are perceived to damage the anchor, though they are also faced with over exploitation by the local communities.

8.1.0 THEATS TO SEA TURTLES

While collecting this data the data concerning the threats posed to turtle by various marine and coastal activities were captured for the interest of developing an awareness and sensitization tool toward its conservation. Over 50 % of the respondents were aware of the turtle and though not ready to discuss it, gave an insight on the community traditions and perception attributed to them.

Basically just like many parts of the coastal region, turtles have a long history and many traditions related to them ranging from their use, presence to the medicinal value attached to them. Its believed that turtles have a range of uses traditionally for instance turtle oil is believed to cure some ear diseases, resistant coughs, asthma, and improves mens vitality. Turtle oil if combined with coconut oil is used for massage and as a liniment for muscular strain relieve. On the other hand the meat from turtles is believed to be so sweet and with high nutritive value, hence they commonly refer to it as “mbuzi” or goat especially in beer drinking places. Just like oil, turtle meat is also believed to give the body vitality and as a remedy for asthma apart from protecting the body against infection.

CHALLENGES ENCOUNTERED

- lack of accommodation facilities at Vanga
- Waiting for long hours for the fishermen especially during low tide
- Some respondents spoke foreign Swahili which is not directly translated brings a different meaning.
- Joining of some individuals into the discussion even though not invited.
- Interruptions especially the mothers who had to work as well as talking to the enumerators.

RECOMMENDATIONS

With the current status of the resources in the coastal region, there is need to do an evaluation, survey the available resources and do a SWOT analysis for the benefit of the future communities. Survival to achieve this, it's important to bring on board issues ranging from management, demographics and economic issues that directly and indirectly affect the coastal communities. This is the essence of the survey that was done in both Vanga and Jimbo sites as well as across the Ocean to The United Republic of Tanzania in Mkinga district.

Involving the communities in the management of the resources remains the only plausible way for them to see and embrace the value that comes with its sustenance and protection. Equally, effective management is more likely to occur when local resource users have shared or exclusive rights to make decisions about the benefit of the resources. This is why it's vital to strengthen and open perspective to which people perceive their local resources.

From the data collection using the various methods It was noted that:

- it is important to bring on board all stakeholders, define their role in management of coastal and marine resources. This can be done through having stakeholders consultative meetings between BM U, fisheries department, fishers, mwambiweje women group and mwagugu fishers other stakeholders
- Initiating poverty reduction through income generating activities as a source of alternative livelihood so as to ease pressure on existing marine resources.
- It is also important to keep the stakeholders updated and well informed of their roles. This will be through leadership training, resources management and financial accounts management. This will foster understanding and effective management of existing groups.
- Strengthening community participation in the management of the coastal and marine resources of the area and devise ways of constantly updating them on the progress. This can be done through empowering the fisher communities to participate in policy formulation so as to reduce confusion and misunderstandings especially in implementation of projects
- Define ways of incorporating alternative livelihood activities (income generating activities) as a way of reducing pressure on e.g. microcredit for fishermen, sea weeds farming, agriculture and small business grant to organized communities groups.
- Raising awareness and sensitizing the communities on the importance of environmental conservation through environmental campaigns, days for example mangrove planting days.

CONCLUSION

For many years now, the people in the coast have always and still relying on the ocean for subsistence needs, income, recreation purpose and for their cultural believes and practices. The economic mainstay of the coastal region entirely revolves around what the ocean can offer but for decades this very source of survival has been neglected, choked with all sorts of degradation including overexploitation to use of illegal fishing methods. Little if any has been done to sustainably manage the dwindling resources. This is why it calls for concerted efforts using the socioeconomic information gathered to improve, sustain and give a new look and perception in regard to the coastal and marine resources.

This can only be achieved through creating alternative avenues for livelihood, encouraging the communities in the transboundary and other coastal parts to venture into business, try a hand in commercial farming and sensitizing them in the importance of sustainable use. All this is aimed to ease pressure on overdependence on marine resources. For instance there are high chances of trying aquaculture, bee keeping and rice farming, this will not only improve livelihoods but will go along way to foster sound management of coastal environment

But this can not be achieved and may not be reached unless the stakeholders consistently and strategically act now through cooperation, consensus and with the aid and support of the local communities. It's possible and it can be realized. This means training the leaders and stakeholders of various CBOs on the importance of sound management, capacity building

As seen there are many threats facing the marine environment, flora and fauna. Ranging from anthropogenic to manmade threats. The most affected being the fisheries resources and the endangered species like turtles. The transboundary stretch forms one of the potential nesting and hatching sites for the turtles, who unfortunately in their time of need are captured as a by catch or intentionally and either killed or their eggs consumed. This creates a conflict between consumption and protection. Though it is perceived that through efficient and effective awareness creation, community sensitization may bring a difference. If the whole population of turtles like the dinosaurs, will be history.

ANNEXES

Annex 1: list of participants, questionnaire and field sheets

List of participants

Name	Designation	Duty
Andrew Wamukota	Project coordinator	Coordination of project activities
Douglas Maina	Field supervisor	Supervision of field activities
Omwenga Kwaba	Field data manager	Data collection, entry & analysis
Ali Shilingi	Enumerator	Data collection
Bakari Hassan	Enumerator	Data collection
Mwanamvua Zara	Enumerator	Data collection
Mwanaidi Hassan	Enumerator	Data collection

Sample field enumerator monitoring sheet

DAY	<i>No. of scripts done</i>		<i>Challenge encountered</i>	<i>Solution to challenge</i>	<i>Remarks</i>	
ONE						
Enumerator	K	S			Success	Failure
Zara kassim						
Ali shilingi						
Bakari H.						
Mwanaidi M.						
Omwenga K.						
TOTAL						

Annex 2:Transboundary budget

ANNEX 3: GRAPHS

1 Demographics

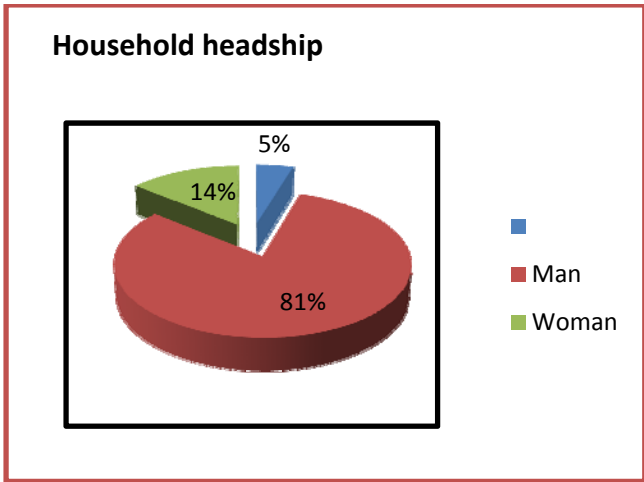


Fig 1.1 percentage of household headship

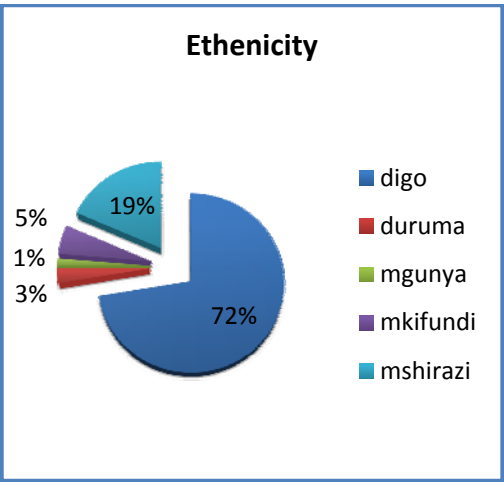


Fig 1.2 percentage of various ethnic groups

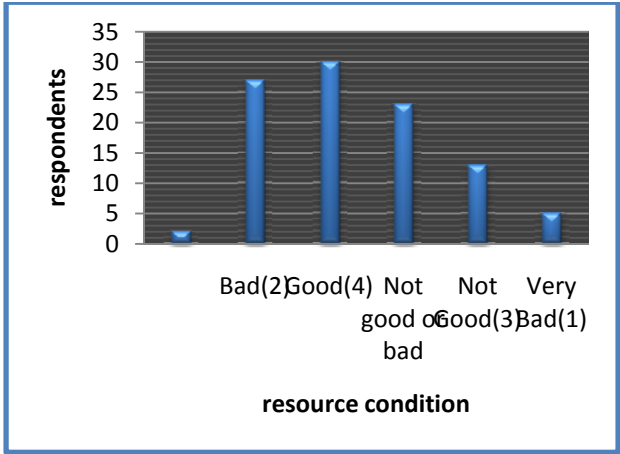


Fig1.3 perceived resource status

3 Material style of life

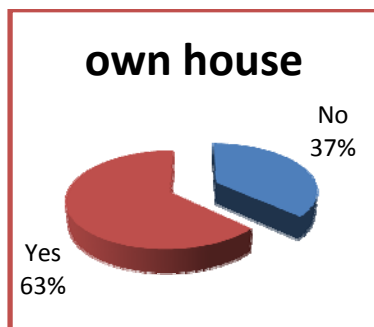


Fig 3.4

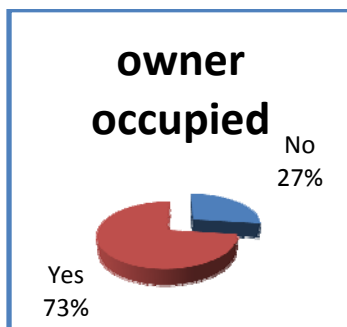


Fig 3.5

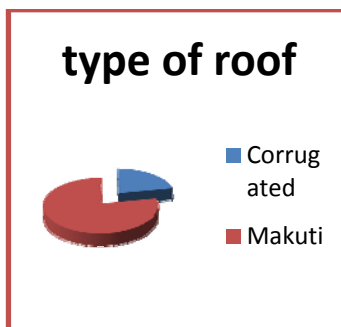


Fig 3.6

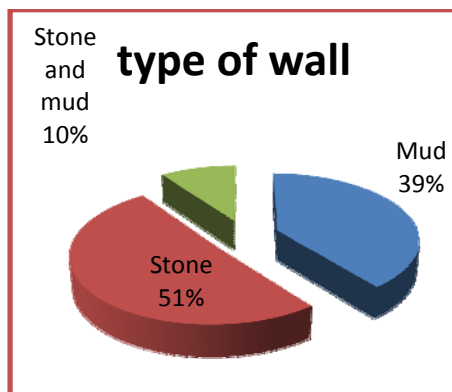


Fig 3.7

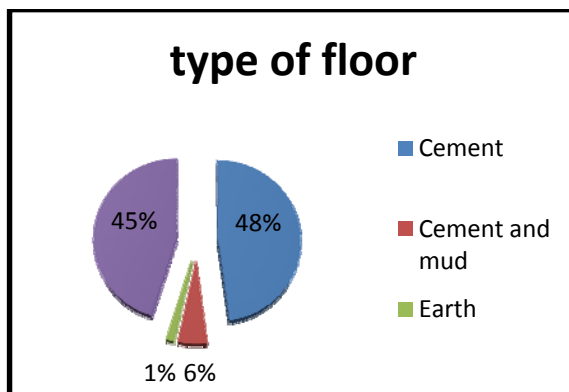


Fig 3.8

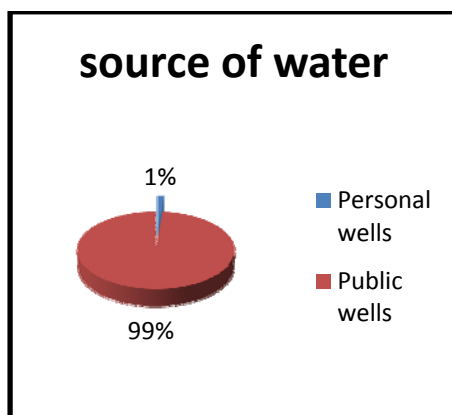


Fig 3.9

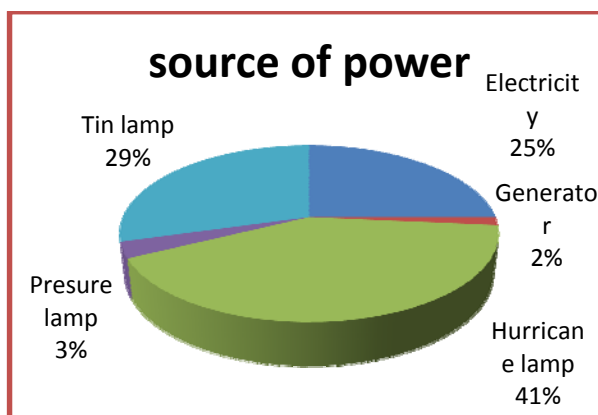


Fig 3.10

Annex 4: Images



Fig 4.1: Vanga plain during high tide



Fig 4.2: conserved Mangrove forests near Jimbo



Fig 4.3 Mzee Selemani making concrete blocks as Secondary source of income



Fig4.4: children from Pemba harvesting crustaceans for sell and consumption

