



Ministry of Livestock and Fisheries Development  
Department of Fisheries and Marine Resources

**Rapid Assessment of the proposed  
Changuu – Bawe Marine Conservation Area  
(CHABAMCA)**

**APPENDIX I & II**

**Marine & Coastal Environment Management Project  
(MACEMP), Tanzania  
Global Environment Facility (GEF) / World Bank**

July 2009

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## APPENDICES

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### APPENDIX I: TERMS OF REFERENCE

#### CONSULTANCY SERVICES TO CONDUCT A RAPID ASSESSMENT IN THE PROPOSED CHANGUU BAWE MARINE CONSERVATION AREA

##### 1. Back Ground – Project Description:

The Government of the United Republic of Tanzania (URT) received funds from the World Bank to implement the six years Marine and Coastal Environment Management Project (MACEMP). The MACEMP is jointly implemented by the Ministry of Natural Resources & Tourism (MNRT) of the Government of URT, and the Ministry of Agriculture, Livestock & Environment (MALE) of the Revolutionary Government of Zanzibar.

*The global objective* of the MACEMP includes preservation of the globally significant biological diversity in critical marine ecosystems of mainland Tanzania and Zanzibar through effective integration and implementation of marine and coastal resources management strategies.

*The project development objective* is to enhance the contribution of marine and coastal resources to economic growth and reduction of poverty, and to develop the scientific understanding of the status of the resources and major threats to them.

##### 2. Objectives of the Assignment:

The objective of the assignment is to assist the Government of the United Republic of Tanzania, specifically the Project Coordination team for Zanzibar, with assessments and descriptions of the proposed Changuu-Bawe Marine Conservation Area.

The assessments of the target areas would result in a description of i) sector issues pertaining to management and use of coastal and marine resources in the proposed Changuu-Bawe Marine Conservation Area, ii) biodiversity assets available in the proposed Changuu-Bawe Marine Conservation Area species, distribution, endemism, etc.), iii) threats and roots causes affecting the coastal and marine environment in the proposed Changuu-Bawe Marine Conservation Area in general and global biodiversity in particular, iii) the coastal population of the proposed

Changuu-Bawe Marine Conservation Area and related socio-economic aspects, and iv) economic activities on going or suggested in the proposed Changuu-Bawe Marine Conservation Area and its potential impact on the marine and coastal environment.

The consultant will work under the supervision of the MACEMP Project Coordination Team for Zanzibar and in close collaboration with staff from the Department of Fisheries and the Department of Environment. Line ministries/departments, local authorities and relevant local organizations would be visited to collect already available data.

### **3. Approach for Carrying out the Assignment:**

MACEMP places high importance on collaborative planning with local partners. While the Fisheries Department under MALE is the overall lead agency for MACEMP it is fully recognized that other departments as well as local NGOs can play an important role in pursuing the overall objectives of MACEMP. Therefore the approach to this assessment should be participative as far as it is possible in the limited time available. The assessment should be carried out in close collaboration to the Department of Environment, and would be designed and carried out as a training exercise for department staff to undertake environmental and biodiversity assessments.

### **4. Outputs:**

1. The consultant will prepare a detailed report for the proposed Changuu-Bawe Marine Conservation Area containing the following information:-
  - A short general overview on the geographic aspects of the target area (including marine extent of the proposed Changuu-Bawe Marine Conservation Area), i.e. size, habitats, structure, etc.)
  - A short description of the coastal population in and adjacent to the proposed Changuu-Bawe Marine Conservation Area, i.e. number of villages and approximate size of population per village;
  - A short presentation of key socio-economic indicators of the proposed Changuu-Bawe Marine Conservation Area;
  - A presentation of the development plans, land use plans and natural resource use plans and activities in the proposed Changuu-Bawe Marine Conservation Area that target the coastal and marine zone;
  - A rapid assessments of biodiversity (in particular biodiversity of global importance), i.e. description of key habitats, endangered species, endemic species, migratory species, approximate species diversity);
  - An analysis of threats and root causes/barriers to biodiversity conservation in the proposed Changuu-Bawe Marine Conservation Area

- A short summary of recommendation as to how the MACEMP project can support sustainable natural resource management to address threats and root causes to biodiversity as identified under this assignment.

The draft report would be presented to the Project Coordination Team for comments and questions. Comments and input received would be incorporated before final submission of the report.

2. Technical guideline for conduction of rapid biodiversity assessments.
3. Library of Photos and film on the proposed Changuu-Bawe Marine Conservation Area.
4. Information booklet on the proposed Changuu-Bawe Marine Conservation Area incorporating key information and data collected during the rapid biodiversity assessment as well photos taken of the the proposed Changuu-Bawe Marine Conservation Area. The booklet would provide an outreach tool to raise awareness on the proposed Changuu-Bawe Marine Conservation Area. It would be targeted as international as well as local audience and would thus contain English as well as Swahili text sections.

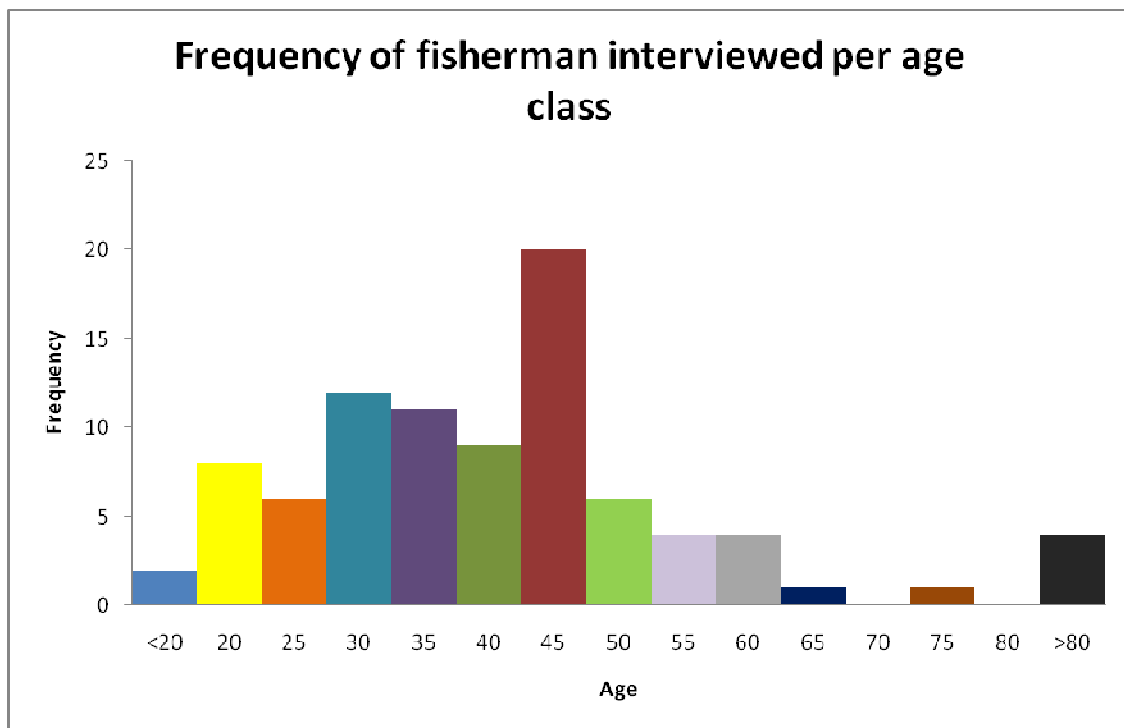
## **APPENDIX II: SOCIO ECONOMIC DATA AND PRELIMINARY ANALYSIS**

**APPENDIX II A: PRELIMINARY ANALYSIS**

From the outset it should be pointed out that the current rapid assessment was not intended to include an exhaustive study of the fishing community. Nonetheless, information gained from the 112 interviews revealed some patterns that are relevant to the proposed CHABAMCA, and revealed possible trends that need further investigation.

**General profile of the fishers**

The ages of the fishers ranged from 18 to 90 (although the upper age class records may be a result of poor record keeping of age) (see Figure 1 for the age structure of the interviewed Fishermen). Seventy seven percent (77%) of the fishermen were between the ages of 20 and 49.



*Figure 1: Age structure of the fishermen interviewed*

A large segment of the fishers are poorly educated with little or no formal academic schooling (1 % of the fisherman have no formal education, 18% of the respondents have attended only Quran school; while a combination of people with Form 2 and Form 3 education (secondary school qualifications) covered 25% (Figure 2). From the respondents who answered the question on level of education, (90 respondents), there were a total of 594 dependents with an average of about 7 dependants per person.

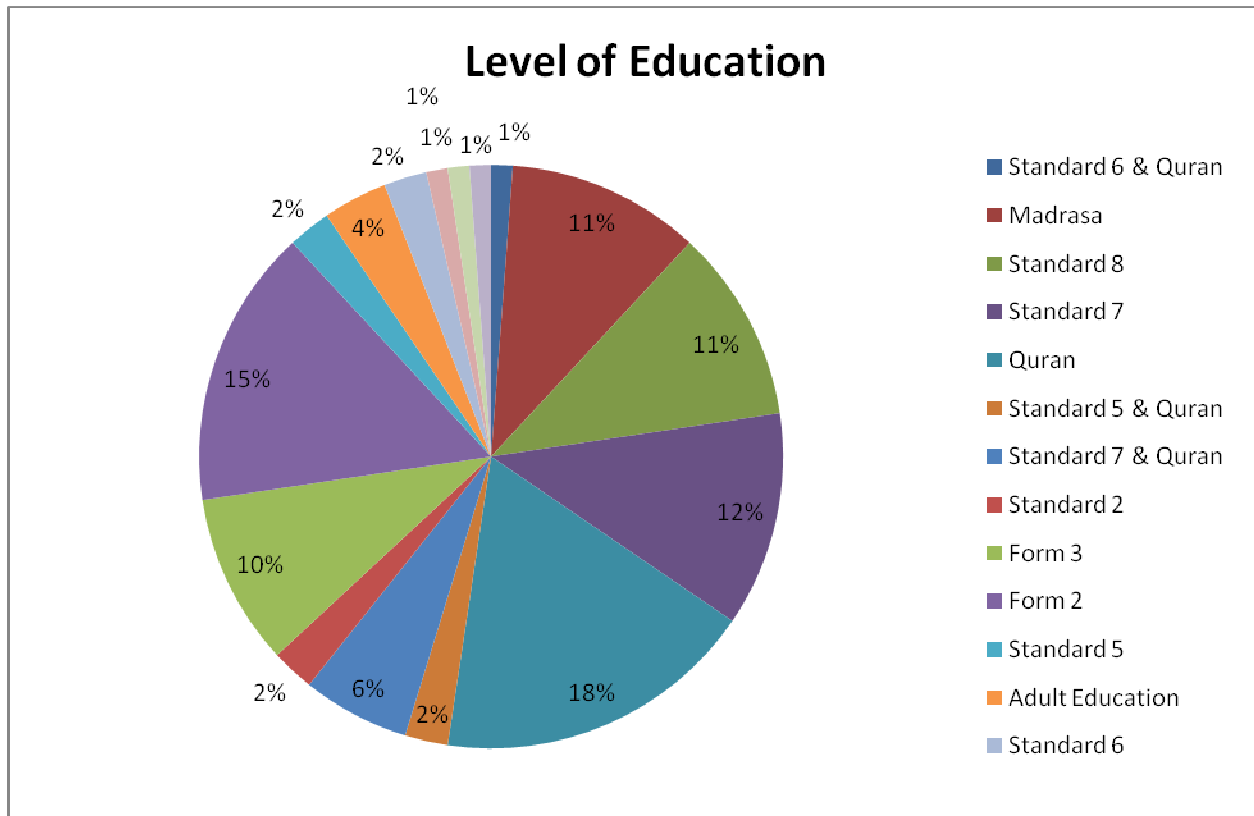


Figure 2: Proportion of the educational levels of the respondents

The consultant observed that the highest level attained by the sample interviewed was Form 3. By many standards this educational level is very low when relating the findings to the age structure of the local people interviewed. There is therefore a lack of highly skilled professionals which may have implication for livelihoods.

On average, the fishermen have been engaged for about 21 years in fishing in the district. Most of the fishers (77%) have been fishing for over 10 years (Figure 3). Zanzibar has a population growth rate that exceeds 5%, a figure that is above the calculated UN human population growth rate average of 3.5% (when considering birth and death rates only). This could mean that the birth rates are much higher than the death rates in the community and at the same time could also imply that there is considerable migration onto the Island. In turn, this may increase the fishing

pressure in future and because it is an Island, there is limited land available for cultivation. Currently the fishermen are only practicing subsistence farming as another major form of livelihood activity which may not be sustainable.

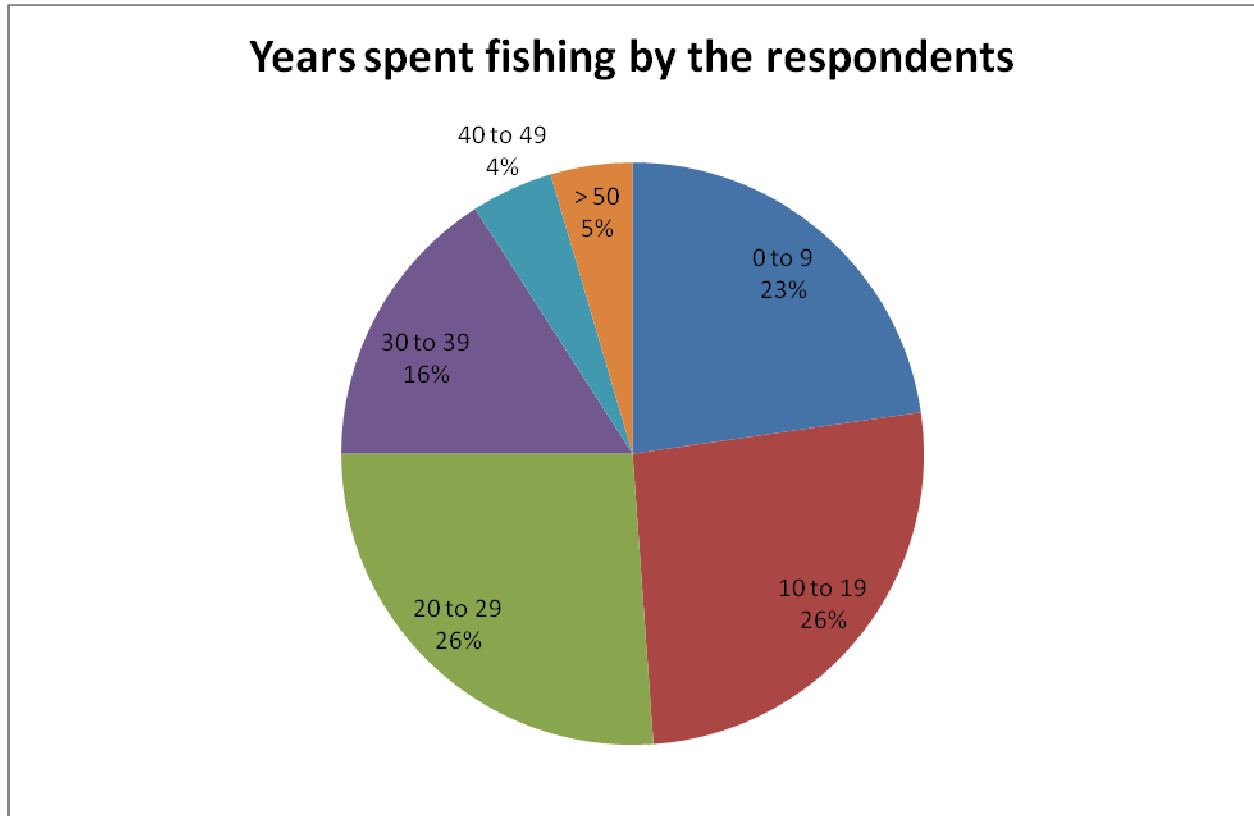


Figure 3: The number of years the respondents have been fishing in the Western Indian Ocean

Seventy seven percent (77%) have alternative means of income including, farming (cultivation only); farming (animal husbandry); farming (cultivation and animal husbandry); traders; carpenters; healers (not specified); mechanics; business man and captains of tourist boats (Figure 4).

### Livelihood through fishing

Only 12% of the fishers considered the income they receive from fishing to be sufficient to meet their basic needs. Coupled with the results of a much more comprehensive study this is an alarming result. The study indicates that in Zanzibar alone there has been a 25% increase in the number of fishermen (Ministry of Livestock and Fisheries Development and Ministry of Agriculture (Mainland), Livestock and Environment (Zanzibar), 2008)<sup>1</sup>; in spite of the failure of the resource to meet all their basic needs. While this may be a simplified picture (some fishers may do better than others, especially those with outboard motors), it is evident that there is an

<sup>1</sup> Ministry of Livestock and Fisheries Development and Ministry of Agriculture (Mainland), Livestock and Environment (Zanzibar), 2008. Marine Fisheries Frame Survey Results For 2007. Unpublished



urgent need to address the livelihood of the fishing families, in and outside of the MCAs. Such efforts should also focus on lessening their impact on the resource. Such measures must feature prominently in a future management plan for the CHABAMCA.

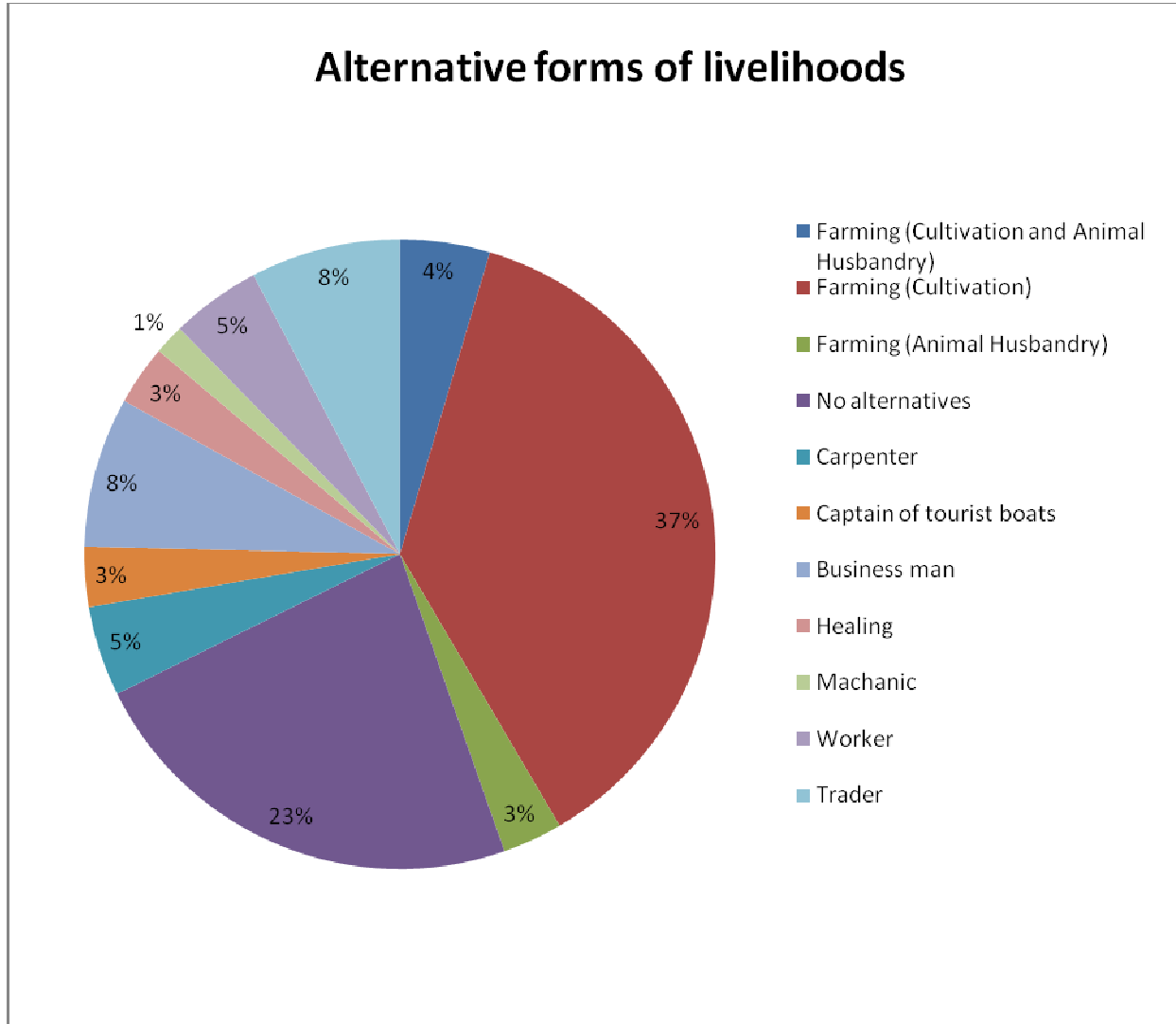


Figure 4: Other livelihood activities that the respondents are engaged in

When asked for the possible alternative that the fishermen could engage in, 28% stated that they would not want to change from fishing and would rather remain as fishermen. An equal percentage stated that they would become business men (see Figure 9) while others indicated that they would turn to farming. Other professions mentioned included teaching, selling in shops, driving, construction work, tour guiding and carpentering. Two percent of the respondents indicated that they would rather return back to school and continues with their education. They were some that stated a lack of knowledge in any other form of livelihood and therefore indicated the need for education in other form of livelihood activities.

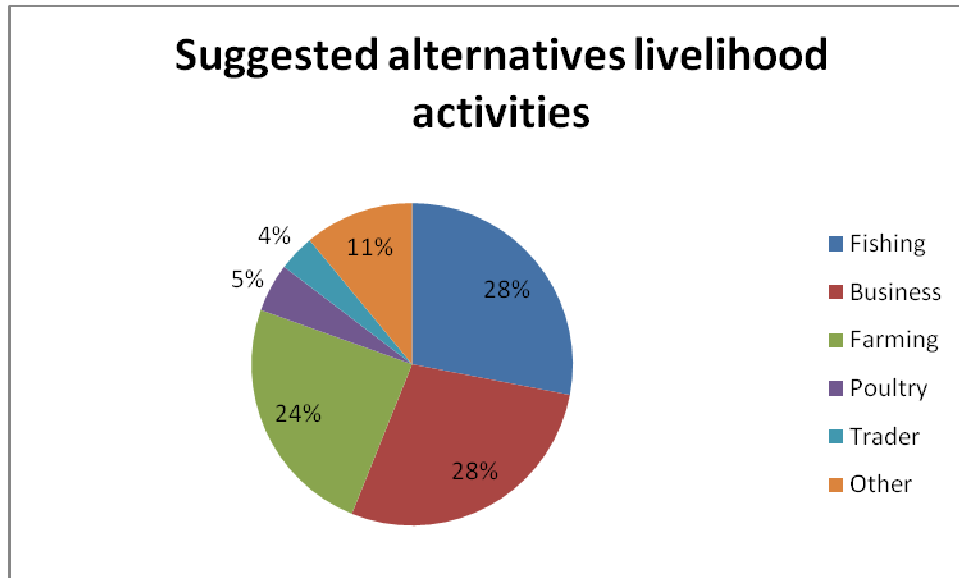


Figure 5: The suggested livelihood activities for the Fishermen in Zanzibar

When asked where the fishermen thought tourists liked to visit, 34% mentioned Islands such as Chumbe, Changuu/Prison Island, and Bawe Island. Others stated places that were in-land like Stone Town, Nungwi, Bububu, Fujoni, Kinyasini, Mtoni, Kiyongwe, Pangeni, Mkokotoni and Marumbi among other places.

### Organisation in the fisher community

There is some level of organization in the fisher community. While 28% of the fishermen are not members of any association, a good 40% belong to a fishers association, although some stated that the associations are not very active. It was also noted that 41% of the fishers do not own their boats, and either hire boats from owners or own a boat under cooperation.

Fishers generally sell their disposable fish (meaning above what is needed for feeding the household) at the Port of Malindi or larger centres such as Bububu, Dar es Salaam, Nungwi, Mkokotoni, Mazizini and on ferry boats. Forty-six percent of the fishermen sell an average of over 100 kg per day (Figure 6), [this may however have been an overestimation as the fishermen usually do not weight the fish and only gave rough estimates]. Most fishermen do not have freezers or other methods of keeping their fish for long. As such they are forced to sell their fish at lower prices soon after they catch them, or to dry them which may lower the prices of the fish when they sale them. Lacking easy access to markets further sap their energy and resources, and a development project aimed at value adding to the fishing resource through landing or processing facilities would be a great contribution. This may help to preserve the products better and regulate the prices so that the minimum cash disposition of the products because of the lack of alternatives can be avoided. Working with fishers association and improving linkages with the markets the CHABAMCA management may help the fishers while protecting the resources. Again, such initiatives fall in the domain of the management planning for the CHABAMCA and outside the scope of the current study. Not surprisingly, 66% of the fishers strongly supported the

notion of establishing a fish market near them. Some of the reasons stated for creating new markets include the creation of employment, for the fishermen to sell their fish at higher prices so that they may obtain profits from their produce. In addition, the fishermen state that the creation of facilities near their homes will enable them to store fish for longer.

The fishermen still use traditional means of fishing like lines and traps but are slowly changing to use more nets as they realize that they are able to catch more fish that way. In addition 42% of the fishermen use lines for fishing while the others use traps, nets or a combination of two or more methods such as nets and traps) while others use gas cylinders (Figure 5). The fishers try and fish as much as they can as at present the resource is open access. Nonetheless, there is a realisation by the fishers of the dangers of some of the methods used for fishing.

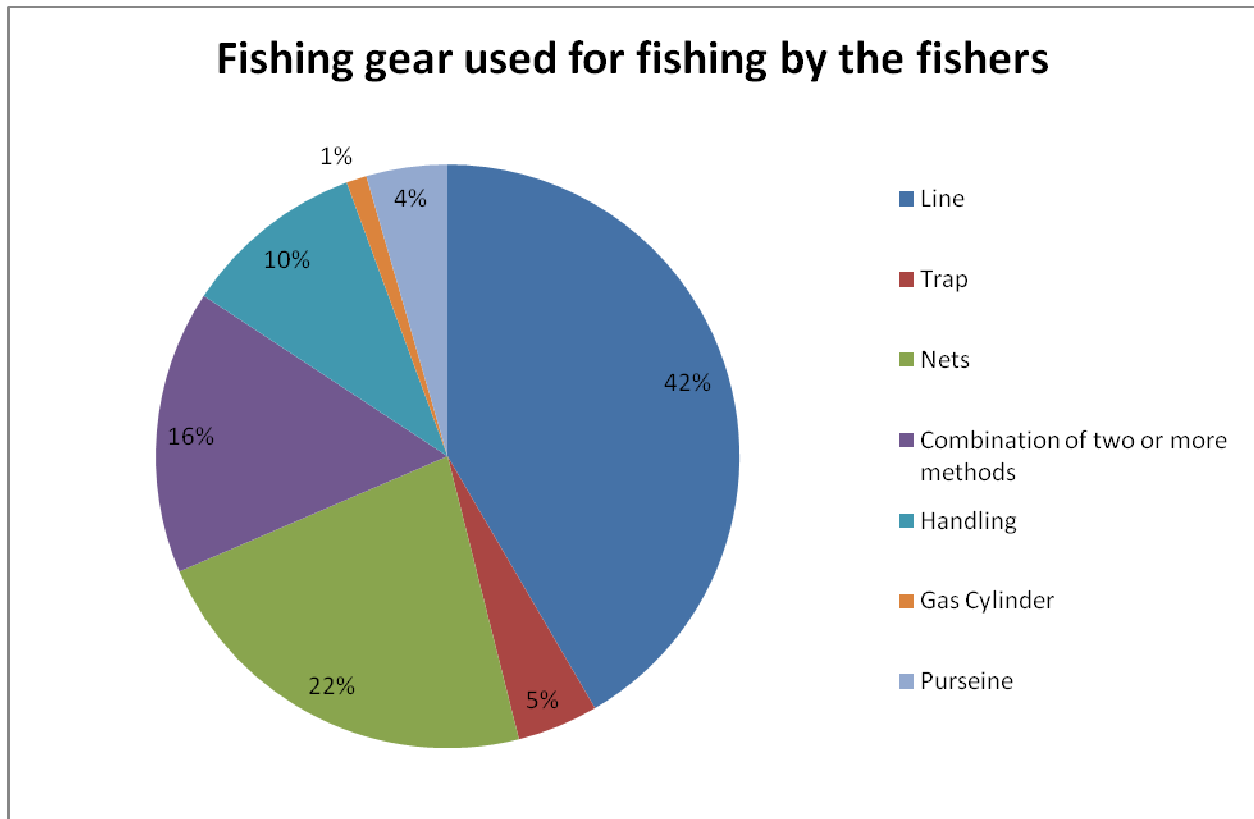


Figure 6: Fishing gear used for fishing

Some fishermen preferred to fish in places outside Changuu Island, Bawe Island, Murogo and Chumbe Island; Islands found within or close to the proposed CHABAMCA. Other fishermen with dhows that had boat motors would fish further away from shore and the proposed CHABAMCA. Of the respondents, 22% had boats with engines whilst the majority (56%) used canoes as fishing vessels (Figure 6).

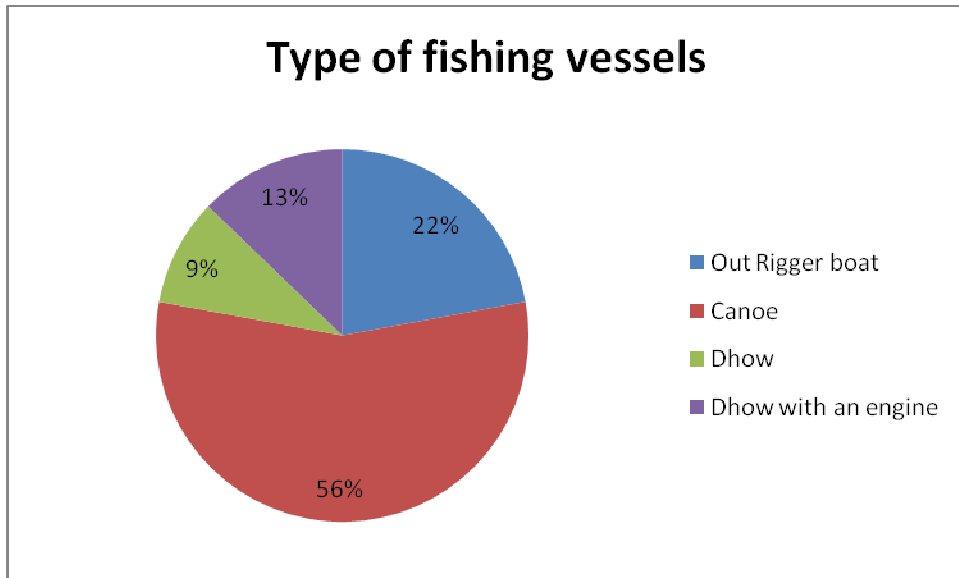


Figure 7: The different type of boats used by the fishermen for fishing

The majority of the fishermen use canoes for fishing and fish in small groups of people. Others fish alone and some operate in groups of over ten people but by and large, the fishermen normally fish in small groups. Twenty eight percent (28%) of the fishermen fish in groups of three while 14 of them indicated that they fished in groups of more than 10 people (Figure 7). Only 9 of the fishermen fished alone. While fishing, some of the fishermen observed species such as turtles and dolphins. From the respondents, 9 of the fishermen stated that they had spotted dolphins while fishing. Of these fishermen, 27% fished near or in coral reefs.

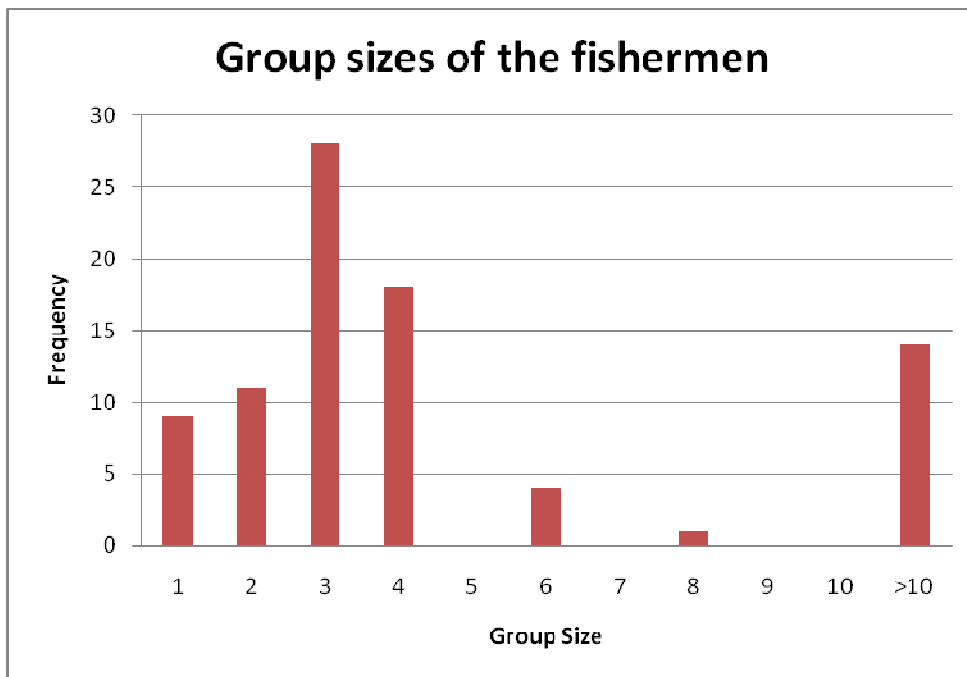


Figure 8: Group sizes of the fishermen interviewed

The fishermen indicate that they experienced a number of problems while fishing. Some of the problems stated include the changes in weather patterns which include a sudden change in wind patterns to be of major concern. Others indicated the lack of fish where they fished, conflicts with other fishermen, divers and people on cargo, ferry and passenger ships that cut their nets. Others mentioned the lack of equipment and the need for boats with engines. There were some who indicate the payment of taxes as a major problem stating that they were paying too much money on taxes.

**Views of the resources**

The fishers are well aware of the decline in the fishing resources. Of those interviewed, 74% stated that the resource has declined as compared to 5 years ago and 98% stated that the fish had declined at present as compared to 10 years ago. The reasons given by the 26% of fishermen who saw an increase on the amount of fish caught presently as compared to 5 years prior include, better gear, outboard motors, the use of nets, prices at the fish markets, politics ( people related politics to assess to better equipment during political campaigns), nature and an act of God. Generally, the reasons for the current decrease in resources were given as the destruction of corals due to illegal fishing methods such as those used by fishermen from Kojani (the Kojani fishermen have been commonly blamed in other rapid assessment studies also), the use of spear guns, illegal fishing, an increase in the number of fishermen, environmental change, weather pattern changes, increase in fishing pressure, damaging dragging nets and a punishment from God.

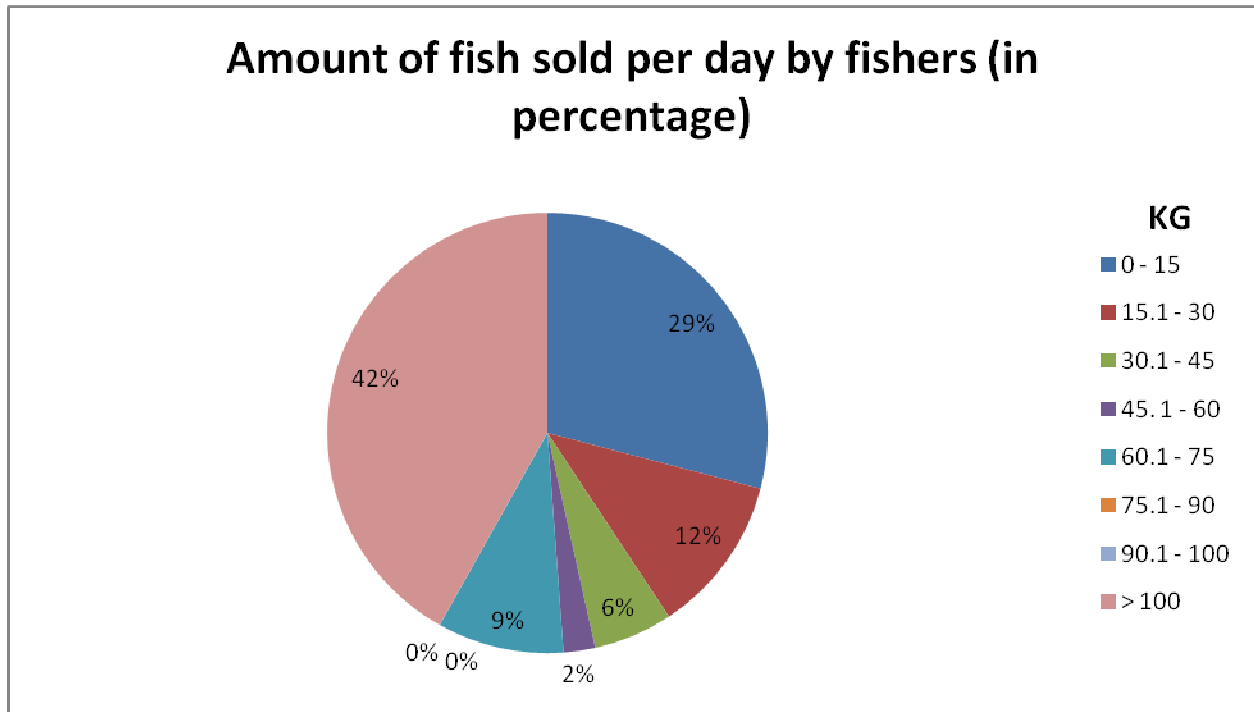


Figure 9: Amount of fish sold by the fishers per day

### The ‘Tragedy of the Commons’

Other information also paints a rather gloomy picture for the proposed CHABAMCA. Of the fishers interviewed, 27% fish inside the area demarcated for the marine conservation area. Furthermore, they note that fishers come from area far away as far as Kizimkazi to the West and Kojani on Pemba Island, while others come from as far as Dar es Salaam to fish in the demarcated area. The implication is that it may be very difficult to control fishers active in the CHABAMCA without a system of registering the fishers and their vessels in order to combat the ‘open access’ system of exploitation of marine resources. The authors are of the opinion that fishers and their actions can be regulated only when a system of registration of the users of the CHABAMCA is put in place; however, such actions fall in the management planning for the CHABAMCA and are outside the scope of this study.

### Threats to the environment

By and large the fishers thought that threats to the environment included dragging and the use of small nets, the destruction of coral reefs due to bad fishing methods such as spear gun fishing, bad diving and the killing of small fish. 6% of the fishermen mentioned environmental pollution that is threatening the beaches and the mangroves and the coral reefs. According to the fishers, the sources of pollution include garbage, oil spills from anchored ship, hotel sewage and sewage from Kikwajuni buildings. In addition, the fishermen mentioned political conflict, low law enforcement and the lack of environmental awareness as other sources of threats to the environment (Figure 7).

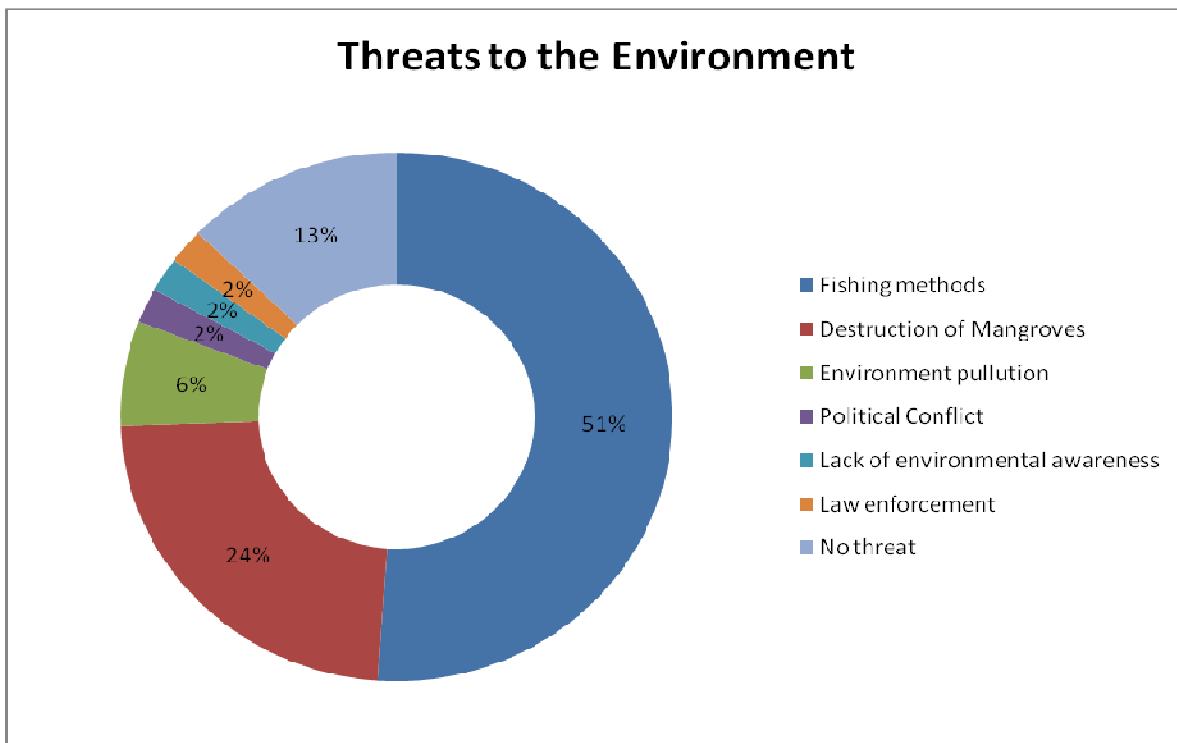


Figure 10: Threats to the environment

The threats to the environment stated by the fishers coupled with the fact that many marine fisheries in Zanzibar are over-utilised, unregulated, and subjected to illegal fishing have provided the impetus for the development of innovative approaches to the management of fisheries in Zanzibar

### **Attitudes toward a possible MCA**

When it comes to the establishment of a possible MCA the fishers generally had a very positive attitude. Only 7% were against the idea, 30% felt neither one way nor another, while 63% supported the idea. The stated reason by the fishermen that were not sure whether a conservation area was a good idea for their dislike of the idea of a MCA was the fear of the impacts the MCA may have on their livelihoods. In addition, they stated the lack of equipment that would enable them to fish elsewhere and further away from shore. Those who thought it a good idea to make a conservation area stated that this would curb illegal fishing and destructive fishing methods. They also mentioned that they would benefit from an increase in fish prices and that there will be a decrease in Malaria case as the fishermen will fish closer to home. Of those who thought it a bad idea to have the CHABAMCA stated the reason as the fear of a ban on fishing which could severely impact their livelihoods.

## APPENDIX II B: SOCIO-ECONOMIC DATA COLLECTED IN THE FIELD

		Interview 1	Interview 2	Interview 3	Interview 4	Interview 5
<b>PERSONAL DETAILS</b>						
1	<b>Name</b>	Kiyongwe Shadhili Kiyongwe	Haji Ali	Rashid Andika	Muhamed Salim	Kona Haji
2	<b>Age</b>	46	18	30	42	90
3	<b>Dependants</b>	9		2	7	4
4	<b>Education</b>	Standard 7 and Quran	Form 2	Standard 5	Standard 7	Adult education
5	<b>Time fishing (years)</b>	30	1	6	29	70
6	<b>Father's job</b>	Fisherman	Fisherman	Teacher	Driver	
7	<b>Length of stay (years)</b>	0.33	18	30	27	30
8	<b>Other activities</b>	Farming (Cultivation)		Farming (Animal husbandry)	None	Farming (Animal husbandry)
9	<b>Income from fishing</b>	Insufficient	Insufficient	Insufficient	Insufficient	Insufficient
<b>LOCATION</b>						
10	<b>Fishing ground</b>	Outside Bawe, Fungu fawatu, Changuu	Bawe, Changuu, Nje ya fungu	Changuu, Bawe, Pwakuu, Duzi, Mwana Mwale	Bububu, Kihinani, Changuu, Bawe, Funguni	Kama
11	<b>Place preferred for fishing</b>	Outside Changuu	Bawe, Changuu	Dar-es Salaam	Funguni, Fawatu	Kama
12	<b>Type of ecosystem/species</b>	Deep muddy water	Rocks, Leaves	Mud, Rocks, Corals	Rocks	Corals and Mud
13	<b>Problems in the area</b>	Strong winds and nets		Winds	Winds (rapid changes in weather)	Sometimes do not catch any fish
14	<b>Other fishermen</b>	Mtoni, Kizingo, Bububu	Yes, Kigamboni, Kunduchi	Yes, Kizimkazi, Matemwe,	Yes, Stone Town and Bumbwini	Yes, Kiomba mvua



				Makunduchi		
<b>METHOD AND GEAR</b>						
15	<b>Type of boat</b>	Outrigger boat	Canoe	Canoe	Canoe	Boat
16	<b>Work alone or as group</b>	2	4	Sometimes 3 fisherman sometimes alone	Alone	Alone
17	<b>Gear and method used</b>	Handling	Lines	Lines	Line	Trap (Dema), Lines, Nets
18	<b>Ownership of boat</b>	Yes	Hire	Yes	Hire	Hire
19	<b>Fishers Association</b>		No	No	Yes, (Wengi wape – majority support)	Yes
<b>CATCH ANALYSIS</b>						
20	<b>Type of organisms fished</b>	Koana (Rock fish), Changu chole (Lethrinus), mkule (Sphyrina), Changu (Lethrinus), Jodari ( King fish), Panje, Nguru (King fish), Sehewa (Mackrel), kolekole (Caranx), Karambisi (Trevellys), Muhadana	Jodari (Tuna), Nguru (King fish), Nduaro (Sail fish)	Koana (Rock fish), Nguru (king fish), Changu (Lethrinus), Ngisi (squid), Pweza (Octopus), Mkunga (Eel)	Koana (Rock fish), Changu (Lethrinus), Nukule (Sphyrina), Nguru (King fish)	Tasi (Siganus), Gongeo, Changu (Lethrinus), Mkundaji (Goat fish)
21	<b>Fish sale</b>	Bububu or Malindi	Yes, Malindi, Bububu	Yes, Malindi, Bububu	Yes, Malindi, Old market and Bububu	Yes, Beach, Mfanisini, Old market
22	<b>Amount of fish sold per day</b>	0 – 15kgs	45kgs	10kgs	10kgs	30kgs
23	<b>How fish is kept</b>	Cover on boat				

<b>FISHING STOCK</b>						
24	<b>Fish stocks compared to five ago</b>	Coral reef decreased now		Better 5 years ago	Better 5 years ago	Better 5 years ago
25	<b>Fish stock compared to 10 ago</b>				Much better 10 years ago	Much better 10 years ago
26	<b>Reasons for change</b>	Destruction of corals, increased fishermen		A lot of fishing gear and ban in destructive fishing	A lot more fishing gear and ban in destructive fishing	Better fishing gear
27	<b>Most common fish in the area</b>	Koana (Rock fish), Changu chole (Lethrinus), Mkule (Sphyrina)	Nguru (King fish)	Koana (Rock fish)	Nguru (King fish), Jodari (Tuna)	Tasi (Siganus)
28	<b>Views on conservation</b>	Good idea, will benefit from the income received	Good idea	Difficult for poor fisherman	Good idea	Good idea
29	<b>Effect on livelihood</b>	Benefit from protecting illegal fishing	Not affected	Difficult to support the family	Not affected	Not affected
30	<b>Possible alternative activities</b>	Fishing in the deep sea or other areas	Continue studying if possible	Business	Small business	Farming
<b>CONSERVATION AREA</b>						
31	<b>Conservation area demarcation</b>	Outside Kibandiko, Bawe/Changu	Pemba		Mawe 3, Miweleni	Kama, Mkwajuni should be conserved
32	<b>Areas liked for fishing</b>	Outside Changuu	Where there are a lot of fish		Deep Sea, Sand Bank	
33	<b>Fish market location</b>	Malindi is sufficient	Yes	Yes, will create employment for local people	Yes, employment for local people	Yes, creates employment
34	<b>Areas liked by tourists</b>	Close to the Islands	Bawe, Changuu, Kisiwa	Changuu, Bawa, Kwale	Melinane bandari	Mkwajuni

			makaburi			
<b>35</b>	<b>Mangrove sites</b>	Bububu, close to the river	Bububu	Bububu, Fuji, Bububu Salhia	Melinane, Bububu	Kama
<b>THREATS TO THE ENVIRONMENT</b>						
<b>36</b>	<b>Threats to the environment</b>	Drag netting			Coral reefs are being destroyed by Kojani fisherman	Mangroves are destroyed

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	Interview 6	Interview 7	Interview 8	Interview 9	Interview 10
<b>PERSONAL DETAILS</b>					
1	Omar Mtambo	Ali Moh'd Ali	Kassim Moh'd	Said Hasaa Haji	Rammedhlari Salenia Ussi
2	52	28	47	40	27
3	12	0	13	8	6
4	Madrassa (informal education)		Standard 8	Quran	Quran
5	30	14	30	22	15
6		Fisherman		Farmer	Farmer
7	39	14	35	22	23
8	Carpenter	Captain of a tourist boat		Farming	Cargo handler
9	Insufficient	Insufficient	Insufficient	Insufficient	Insufficient
<b>LOCATION</b>					
10	Pungume, Pakuu, Mchinje, Kizimkazi, Fungu Yasini	Dar-es Salaam, Mafia, Tanga, Nungwi	Nyange, Pwa kavu, Boribo, Mwamba heri	Matatani, Mwambani	Bawe, Nyanjole, Kame, Asunini, Mauriburi, Salilia
11	Fungu yasini	Kunduchi	Murogo	Depends on the boat they will be using	Nyanjale
12	Corals, Mud and Rocks	Rocks	Mud, Corals and Rocks	Mixed coral, Sea-grass	Sea-grass, Corals, Mud
13	Rapid change in weather	Conflicts of license while in Dar-es Salaam	Problems of rapid changes in weather and engines, lack of life jackets	Nyanjale they do not allow net fishing	Problems between fishermen
14	Dar es Salaam	Dar es Salaam	Dar es Salaam	Nyanjale, Meli nane	Asuni, Kana
<b>METHOD AND GEAR</b>					
15	Outrigger boat	Boat	Outrigger boat	Mtumbwi	Outrigger boat
16	3	3	3	2	8
17	Line	Lines	Lines, Senga, Mchoto	Used dragging nets but they were taken by the department	Handling, purse seine
18	Yes	No	No	Businessman	Hire

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19	Yes, Association of fisherman - Forodhani	Yes, Association of fisherman - Forodhani	Yes, Association of fisherman - Forodhani		Cooperative
<b>CATCH ANALYSIS</b>					
20	Changu (Emperor), Nguru (King fish), Jodari (Tuna), Sehwa (Mackerel), Mizia (Mallet), Kolekole (Travellys)	Jodari (Tuna), Nguru (King fish), Mizia (Mallet), Fatundu (Red snapper), Changu (Emperor), Nduaro (Sword fish)	Nguru (King fish), Jodari (Tuna), Chewa (Grouper)	Changu, Chaa, Kolekole, Keri ya mboya	Kundaji, Mikule, Mikoje, Mlizi, Vibua
21	Yes, Malindi, On ferries during Dago	Yes, Dar-es Salaam, Malindi	Yes, Malindi	Malindi	Malindi, Kilimani
22	100kgs	300kgs	200kgs	0-5kgs	50 – 100kgs
23				Cover with anything	Keep in sacks
<b>FISHING STOCK</b>					
24	Better 5 years ago	Good 5 years ago	Better five years ago	Low catch now	
25	Much better 10 years ago	Much better 10 years ago	Much better 10 years ago	Very low catch now	Decreased now
26	Different method of fishing		Method of fishing, especially Kojani fishing	Damaging dragging nets and small nets	High fishing pressure
27	King fish, Changu (Emperor), Taa (Skates/Rays)	King fish		Matatani, Mwambani	Kundaji, Mikule, Mikoje, Mlizi, Vibua
28	Good	Good idea	Good idea	Good Idea and may prevent illegal fishing in the area	Good, it stops the use of illegal gear
29	It doesn't affect	It doesn't affect	Not affected		Lack of fishing gear
30	Carpenter	Tour guide	Business		Poultry
<b>CONSERVATION AREA</b>					
31	Chapwani up to Chumbe	From Nungwi up to Kizimkazi	Chapwani, Changuu up to Chumbe	Along the mwamba reef	Just outside Changuu (west)
32	Fungu yasini	Its near and	Areas with	Inside the reef	Bawe,

	because the fish are bigger	much more profitable	more fish because its profitable		Nyanjole, Kame, Asunini, Mauriburi, Salilia
33	Yes	No	Yes	No	Yes but an improved market
34	Prison Island, Bawe, Chapwani	Bawe, Chumbe, Prison Island	Changuu, Bawe		Fungumi, Bawe
35	Mpiga duri, Chukwani	Kinazini, Chukwani, Mtoni	Kinazini, Chukwani	Mwana bibi, Mtoni	Salihia
<b>THREATS TO THE ENVIRONMENT</b>					
36	Coral are destroyed because of “dragged nets”	Corals are destroyed	Mangroves and corals are destroyed, JKU cause big threats	Dragging nets, mangrove cutting	Sand mining, Garbage, Spear gun, Dragged nets

	Interview 11	Interview 12	Interview 13	Interview 14	Interview 15
<b>PERSONAL DETAILS</b>					
1	Moh'd Shela Mikidadi	Abdulla Seif	Shaibu Ussi	Yussuf Masoud	Juma Malik Yussuf
2	39	42	47	24	88
3	4	7	8	6	9
4	Form 2 and Quran	Standard 8	Standard 8	Standard 6	Madrasa (informal education)
5	15	3	20	5	70
6	Tailor		Fisherman	Businessman and Fisherman	
7	39	30	27	4	88
8	None	Business man	None		Physician, massuse
9	Insufficient	Insufficient	Sufficient	Insufficient	Sufficient
<b>LOCATION</b>					
10	Bawe, Fawatu, Mrara, Bumbwini	Matoro	Dar-es Salaam, Pwakuu, Boribo, Tambale, Magambe, Manjena, Bumbwini	Dar-es Salaam, Bagamoyo, Mnara wa mbao, Boribo, Magambe	Kipumbwi, Bagamoyo, Kilwa

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11	Bubwini	Matoro	Dar-es Salaam	Boribo	Bagamoyo
12	Deep water	Rocks	Mud	Sand	Rocks
13	Cutting of nets	Sometimes do not get fish	Pays a lot of taxes and sometimes local traders in Bagamoyo	Boat engine problems	Rapid change in weather
14	Malindi	Yes	Yes, Mtoni, Forodhani	Yes, Dar-es Salaam, Magambe	Yes, Maruhubi, Bububu
<b>METHOD AND GEAR</b>					
15	Boat with an engine	Canoe	Outrigger boat	Outrigger boat	Boat
16	6	4	3	3	Alone or 2 fishermen
17	Gill net	Lines	Lines and nets	Nets and lines	Line
18	Cooperative	Yes	No	No	Yes
19	Yes 1	No	Yes, Jumuiya ya Uvuvi ya Matoro	Yes	No
<b>CATCH ANALYSIS</b>					
20	Jodari, Nduaro, Nguru, Sehewa, Mbasi, Papa	Changu Chaa	Kibua, Saladin, Tonge, Upapa	Saladin, Vibua, Ngurwa Ngurwa, Upapa, Tongekwatonge	Changu, Kolekole, Taa, Karambisi
21	Malindi	Yes to neighbors	Yes, Malindi, Ferry	Yes Malindi, Ferry and Bagamoyo	Yes, Malindi
22	3 - 10kgs	15kgs	300kgs	300kgs	30kgs
23	Do not keep	Freezer	Sack	Plastic bag	
<b>FISHING STOCK</b>					
24	Increased now as we now use boats		It was better 5 years ago	Better 5 years ago	A lot of fish 5 years ago but less money
25	Ten years ago, less catch as there were no boats		It was much better 10 years ago	Much better 10 years ago	Plenty of fish 10 years ago but less money
26	Use of modern methods	No change	Punishment from God	Prices at the market	More money for a few fish
27	Sehewa, Nguru	Changu Chole	Kibua, Saladin	Saladin	Changu, Kolekole, Karambisi, Taa
28	Good idea	Very nice	Very good idea	Not good	Good idea
29	Will improve our catch	Not effect	No because he usually fishes very far		Not affected

<b>30</b>	Deep sea fishing when supported	Businesses	Small business	Shop	Driver
<b>CONSERVATION AREA</b>					
<b>31</b>	Outside Mazizini, Bawe, Changuu, Bububu	Forodhani up to Chukwani	Kizingo, Bawe, Changuu, Matoro		
<b>32</b>	Same area with good management	Near their home		More profitable	Areas with more fish
<b>33</b>	Malindi but improved	Yes	Yes, they can collect taxes and increase employment	Yes, people will get employment	No
<b>34</b>	Faeatu, Mtozi, mewe	Fungu Karume (Pange)	Pange, Nyange	Fungu, Nyange	Changuu
<b>35</b>	Mtohodi, Malinana	Mazizini	Mazizini, Matoro	Kizingo, Majanini	Kinazini, Maruhubi, Mtoni
<b>THREATS TO THE ENVIRONMENT</b>					
<b>36</b>	Sand mining, Coral mining, Dragging nets and Spear gun fishing	Corals, killing small fish using nets	Erosion	Corals are destroyed	Mangroves are destroyed

	<b>Interview 16</b>	<b>Interview 17</b>	<b>Interview 18</b>	<b>Interview 19</b>	<b>Interview 20</b>
<b>PERSONAL DETAILS</b>					
<b>1</b>	Juma Malik Yussuf	Khalfani Ali	Hasam Hasid Khasi	Hamed Khamis Shaame	Dhani Hashim
<b>2</b>	88	60	46	40	29
<b>3</b>	9	4	6	7	6
<b>4</b>	Madrassa (informal education)	Madrassa (informal education)	Form 3	Standard 7 and Quran	Standard 8
<b>5</b>	70	40	20	20	15
<b>6</b>			Farmer	Mason	
<b>7</b>	88	50	46	15	15
<b>8</b>	Physician, massuse		Farming	None	Mechanic
<b>9</b>	Sufficient	Insufficient	Insufficient	Moderate	Insufficient
<b>LOCATION</b>					



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10	Kipumbwi, Bagamoyo, Kilwa	Jamba ngome, Pwawatu, Kipwani	Kipwani, Ngome, Faratu	Boribo, Tambole, Lanuu, Majambe	Boribo, Mwamba kuni, Tambale, Pwakuu, Kwale, Pungume, Mivinje mitoto, Mwera
11	Bagamoyo	Pwakuu, Mapape	Ngome	Boribo, Tambole, Lanuu, Majambe	Boribo, Kwale
12	Rocks	Coral, Stones and Mud	Coral reef	Coral reefs but Deep water	Mud
13	Rapid change in weather	Kuzama	Drag net fishermen keep people away		Problem with boat engine
14	Yes, Maruhubi, Bububu	Dar - es Salaam, Bumbwini	Kojani, Mangapwani, Fujoni	Malindi, Bagamoyo	Yes, Dar es Salaam
<b>METHOD AND GEAR</b>					
15	Boat	Canoe	Outrigger boat	Boat with an engine	Mtando
16	Alone or 2 fishermen	3	Alone	3	19
17	Line	Lines	Handline	Handline	Lines and nets
18	Yes	No	Yes	Hire	No
19	No	No	Yes	Association	Yes, Kizingo
<b>CATCH ANALYSIS</b>					
20	Changu, Kolekole, Taa, Karambisi	Changu, Mizia, Nguru, Chewa, Njana	Changu, Mikule, kolekole, Mizia, Karandini, Upapa	Changu, Nguru, Daga	Saladini, Vibua, Ngurwa ngurwa, Papa, Tongekwatonge, Jodari
21	Yes, Malindi	Yes, Malindi	On Landing sites	Yes, Malindi	Yes, Dar-es Salaam
22	30kgs	10kgs	0-20kgs	10-15kgs	80-120kgs
23			Freezer	Do not keep	Freezer
<b>FISHING STOCK</b>					
24	A lot of fish 5 years ago but less money	Better 5 years ago	Decreased catch now	Less fish now	Better 5 years ago
25	Plenty of fish 10 years ago but less money	Much better 10 years ago	Decreased catch now	Less fish now	Much better 10 years ago

26	More money for a few fish	A lot of fishermen with different fishing methods	Illegal fishing, catching of small fish, increased fishing pressure	High fishing effort and modernized fishing	A lot of fishing gear and Kojani fishing
27	Changu, Kolekole, Karambisi, Taa	Changu	Changu, Mikule	Dagaa	King fish
28	Good idea	Not good	Good idea will prevent illegal fishing	Good idea as it will eradicate illegal fishing	Good idea
29	Not affected	Will make it difficult to meet basic needs	No effect	Will enhance availability of big fish	Not affected
30	Driver	Fishmonger or security guard	Deep sea fishing	Trader	Animal husbandry
<b>CONSERVATION AREA</b>					
31			Mkondo wa, Ndani, Kufupwa, Tumbatu, Upwani	Protect all small Islands	Port until Ras Chukwani
32	Areas with more fish		Outside the conservation area		
33	No	No because there is no space	Yes	No, Malindi should be improved	No, because people in Malindi steal fishing equipment
34	Changuu	Changuu, Bawe		All areas	Mapipa, Nyange
35	Kinazini, Maruhubi, Mtoni	Kinazini, Maruhubi	None	Do not know	Chukwani
<b>THREATS TO THE ENVIRONMENT</b>					
36	Mangroves are destroyed	Coral reefs are destroyed by people from Kojani	Dragging nets, Spear gun and Gas fishing	Dragging nets, Divers, Spear gun, Sewage from Kikwajuni buildings	Coral reefs

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	Interview 21	Interview 22	Interview 23	Interview 24	Interview 25
<b>PERSONAL DETAILS</b>					
<b>1</b>	Kombo Abdalla Makame	Machano Dhua Omar	Makame Kudura	Omar Nati	Sulemani Ali
<b>2</b>	36	30	66	50	76
<b>3</b>	10	7	4	15	6
<b>4</b>	Standard 4 and Quran	Quran		Madrassa	Standard 8
<b>5</b>	15	15	30	30	25
<b>6</b>	Farmer	Farmer			
<b>7</b>	10	0.16	59	20	30
<b>8</b>		Farming	Worker in shop		Carpenter
<b>9</b>	Insufficient	Insufficient	Insufficient	Insufficient	Insufficient
<b>LOCATION</b>					
<b>10</b>	Dazi, Kipusa, Changuu, Kipja yahyo, Mchinji (Namwale) fugu, Kokeni	Deep sea	Chumbe, Sadani	Mkondoni, Pungune	Chumbe, Sadani, Bagamoyo
<b>11</b>	Dazi, Namwana, Kokeni		Kagera, Mwamba joto, Kanwilike	Kitame	Kagera, Winde
<b>12</b>	Mwamba Indigo		Rocks and Corals	Corals and Stones	Rocks, Corals
<b>13</b>	Net fishing	Accidents with bigger boats	People steal or damage his dhow	Few fish	Stealing of dhows, wind
<b>14</b>	Marabubi, Bububu, Mtoni, Kiziyo, Mazezi	Mazizini	Yes, Kibweni, Forodhani, Dar-es Salaam	Pemba, Nungwi, Tumbatu	Yes, Bagamoyo, Dar-es Salaam
<b>METHOD AND GEAR</b>					
<b>15</b>	Canoe	Sailing boat	Boat	Outrigger boat	Boat
<b>16</b>	2 or 3 fishermen	6	3	3	3
<b>17</b>	Traps	Gill net	Lines	Lines	Lines
<b>18</b>	Yes	Hire	Yes	No	Yes
<b>19</b>	Yes but note registered	Do not know	No	Yes	No
<b>CATCH ANALYSIS</b>					

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<b>20</b>	Tasi, Pono, Mkandaji, Changu, Changu chole, Karagunda	Taa, Papa, Nyenga	Nguru, Changu, Kolekole, Karambisi	Changu, Sehwa, Nguru, Jodari, Mizia	Changu, Kolekole, Changu, Karambi
<b>21</b>	Yes Malindi	Yes, Malindi	Yes, Malindi	Yes, Malindi	Yes, Malindi
<b>22</b>	1-30kgs	20kgs	80kgs	6kgs	120 - 300kgs
<b>23</b>	Do not keep	None			
<b>FISHING STOCK</b>					
<b>24</b>	Low catch now		Fair catch now	Better 5 years ago	Better 5 years ago but received less money
<b>25</b>	High catch 10 years ago	More fish caught 10 years ago	Catch less now	Much better catch 10 ago	Better 10 years ago but received less money
<b>26</b>	Sea changes, Many fishermen, destructive fishing gear, Spear gun fishing	Weather changes		The way of fishing	Environmental change
<b>27</b>	Changu	Taa, Papa, Nyenga	Changu	Changu, Nguru	Changu
<b>28</b>	Good idea	Good idea	Good idea	Good idea	Good
<b>29</b>	Will get reasonable fish	Will be able to catch fish easily	Not affected	Not affected	Not affected
<b>30</b>	Deep sea and areas that are free	None	Business	Business	Business
<b>CONSERVATION AREA</b>					
<b>31</b>	200m outside Islands	From Changuu to Bawe	Nyange	Uso wa membe up to Pungwe	Nyange, Pwakuu, Mwamba wa serekali, mwamba joto, Bawe
<b>32</b>		Deep sea			
<b>33</b>	Yes		Yes	Yes, fishermen will be able to get money	Yes, It will help keep fish
<b>34</b>	Changuu reef and Bawe mviji on the northern side	Around Islands	Bawe, Pwakuu	Bawe, Chumbe, Changuu	Bawe
<b>35</b>	Kinazini	Mpiga duri, Mtoni	Maruhubi	Kimazini, Mpiga duri	Maruhubi, Kinazini
<b>THREATS TO THE ENVIRONMENT</b>					

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36	Dragged nets, Spear gun, Gas fishers, too many dhows prevent local boats' landing sites	Small nets	Coral reefs	Mangrove and coral reefs	Coral reefs
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	Interview 26	Interview 27	Interview 28	Interview 29	Interview 30
<b>PERSONAL DETAILS</b>					
1	Juma Sleman	Awes Rajab Nassor	Indrisa Maalim	Usi Mcha Simai	Ameir Kimya Ali
2	62	45	56	40	35
3	4	6	5	11	3
4	Standard 8	Standard 7	Standard 7	Quran	Quran
5	20	18	10	25	15
6		Fisherman	Chairman A.S.P	Fisherman	Farmer
7	20	16	35	25	5
8		None	Farming	None	None
9	Insufficient	Insufficient	Insufficient	Insufficient	Insufficient
<b>LOCATION</b>					
10	Mkokotoni	Changuu, Bawe, Fungu, Karume, Mwale	Kibandike, Changuu, Bawe, Boya jekundu	Bawe, Nyanjalio, Changuu, Deep sea	Bawe, Minazini, Mafunguni
11	Sadani	Changuu	Bawe	Anywhere	Bawe
12	Corals and Stones	No	Squid	Changu, Pono, Paraguda, Tasi	Koana, Mkure, Nguru
13	Sometimes there is a problem with the engine	Only the wind	Change of weather	None	None
14	Yes, Pemba, Nungwi, Tumbatu, Dar-es Salaam	Yes from Maruhubi, Bububu	Yes Tumbatu	Dar - es Salaam, Pemba, Nungwi, Tumbatu	No
<b>METHOD AND GEAR</b>					
15	Outrigger boat	Mtumbwi – Tanga	Dhow with an engine	Dhow with an engine	Ngalawa Tanga
16	3	2	2	2 or 3	Alone
17	Lines	Mishipi	Mshipi wa Taa	Toe	Mishipi
18	Yes	Yes	No	Yes	Yes
19	No	Yes	Yes	Yes	Yes

<b>CATCH ANALYSIS</b>					
<b>20</b>	Changu, Nguru, Jodari, Mzia	Changu, Mwewe, Nguru, Changu chole	Changu	Parangunda, Mkundaji, Pono, Tasi, Changu	Kole Kole, Muadana, Sehewa, Jodari, Songoro
<b>21</b>	Yes	Malindi fish market	Malindi fish market	Malindi fish market	Malindi fish market
<b>22</b>	7kgs	0 - 40kgs	0 - 10kgs	0 - 30kgs	0 -20kgs
<b>23</b>		Do not keep	Do not keep	Do not keep	Do not keep
<b>FISHING STOCK</b>					
<b>24</b>	Better 5 years ago	Increased 5 years ago	Increase 5 years ago	Increase 5 years ago	Increase 5 years ago
<b>25</b>	Much better 10 years ago	Decreased now	Decreased now	Decreased now	Decreased now
<b>26</b>	Different ways of fishing	Because of fishing nets	Only God knows	Increase in the number of fishermen and use of nets	Because of using nets
<b>27</b>	Changu, Nguru	Changu	Changu	Changu and Koana	Changu
<b>28</b>	Good idea		Depends on the type of conservation	Better to conserve	Depending on the method employed though it's better to conserve
<b>29</b>	Not affected		None	None	None
<b>30</b>	Business		None	None	None need to be educated about alternatives
<b>CONSERVATION AREA</b>					
<b>31</b>	Isso wa membe up to Pungwe	Yes	Any place	Changuu	Changuu, Bawe
<b>32</b>		Changuu because there is less wind and a lot of fish	Changu because its near home	Bawe because there are a lot of fish	Bawe because there are a lot of fish
<b>33</b>	Yes, fishermen will get more profit	Yes	No	Yes	Yes
<b>34</b>	Bawe, Chumbe, Changuu	Changuu	Do not know	Stone Town, Bawe, Changuu, Chumbe	Stone town, Changuu, Bawe
<b>35</b>	Kinazini, Mpiga duri	Mpinga duri	Saateni, Mpiga duri	Mpiga duri, Saateni	Mpiga duri

<b>THREATS TO THE ENVIRONMENT</b>					
<b>36</b>	Coral reefs	Cutting Mangroves	Nothing	Uvuvi Haram, Cutting mangroves	Nothing

	<b>Interview 31</b>	<b>Interview 32</b>	<b>Interview 33</b>	<b>Interview 34</b>	<b>Interview 35</b>
<b>PERSONAL DETAILS</b>					
<b>1</b>	Yussif Haji	Salum Kibwana Salum	Issa Mshenga	Haji Kali Khamis	Juma Mosi Silima
<b>2</b>	46	48	35	35	52
<b>3</b>	8	13	5	11	16
<b>4</b>	Form 3	Form 2	Form 2	Quran	Standard 4
<b>5</b>	20	35	5	25	34
<b>6</b>			Teacher	Teacher	Fisherman
<b>7</b>	30	21	35	25	28
<b>8</b>			Farming, Plumbing	Trading	Farming
<b>9</b>	Insufficient	Insufficient	Insufficient	Insufficient	Sufficient
<b>LOCATION</b>					
<b>10</b>	Mkokotoni, Nungwi, Tanga, Pemba, Dar-es Salaam	Mwana wa mwana, Pangani, Tanga, Mombasa, Dar-es Salaam, Kilwa, Mafia	Tumbatu, Dar es Salaam	Fungu, Ali usi, Fungu nyangwe, Mjasiri, Tambale, Boribo	Fungu la karume, Bawe, Paakuu
<b>11</b>	Dar-es Salaam	Dar-es Salaam	Mwana wa mwana	Tambale	Paakuu
<b>12</b>	Mud, Leaves, Rocks	Corals, Rocks, Mud	Jodari, Changu, Matumbawe	Dolphin (Komboyo)	Dolphin and Turtles
<b>13</b>	Damage to the boat engine, lack of life equipment	Sometimes he doesn't get fish	Fish	People cutting nets	Ferries and ships cause accidents and sometimes cut our nets
<b>14</b>	Yes, Nungwi, Tumbatu, Matemwe	Yes, Dar-es Salaam, Kizimkazi, Bumbwini, Mkokotoni, Kenya	No other fishermen	Yes from Mainland, Malindi	
<b>METHOD AND GEAR</b>					
<b>15</b>	Boat	Boat	Canoe	Dhow – Tanga	Dhow and Tanga
<b>16</b>	3	3	3 or 4	3 or 4	2 or 3

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17	Lines	Lines	Lines and nets	Madema	Madema
18	No	Yes	No	Yes	Yes
19	Yes, Jumuia ya Uvuvi, Maruhubi	No	Yes	No	Yes, Kizingo Malindi Chukwani
<b>CATCH ANALYSIS</b>					
20	Changu, Nguru, Kole kole, Jodari	Nguru, Jodari, Sehewa, Kolekole, Papa, chazanda, Changu	Jodari, Nduaro, Koana, Chaa, Changu, Ngisi	Paragunda, Kanga Macho, Mkundaji, Pono, Tasi	Mkundaji, Changuu, Paragunda
21	Yes, Nungwi, Mkokotoni, Malindi	Yes, Malindi, Dar-es Salaam	Yes, depends where they fish	Mazizini fish market	Mazizini fish market
22	500kgs	500kgs	15kgs	0-15kgs	0 - 25kgs
23	Cooler box	Cooler box		Do not keep	
<b>FISHING STOCK</b>					
24	Better 5 years ago	Better 5 years ago	Better 5 years ago	Increased catch now	Increased catch now
25	Much better 10 years ago	Much better 10 years ago	Much better 10 years ago	Decreased now	Decreased now
26	More fishermen and destructive fishing	More fishing methods like ring nets during the day and night	Destructive fishing gear	Depends on God	Change in sea course
27	Nguru, Changu	Nguru, Jodari, Changu	Mkongge	Pono, Shupa or Janja	Koana
28	Good idea	Good	Good	Good idea but we need engines on boats so that we can go to other places	It's a good idea
29	Not affected	Not affected	Will gain more profit	It doesn't	It doesn't
30	Business	Business	Farming, vanishing	Teacher in Quran class	Farming and business
<b>CONSERVATION AREA</b>					
31	Jamba ngome, Kilume, Mapape	Jambangoni, Kibwa until Pwakuu, Chumbe	Coast	Fungu nyange	All islands



32		Deep water because there are a lot of fish		Tambale, because there are a few fishermen there	Pwakuu because there is a lot of fish there
33	Yes, creates employment	Yes, People get employment	Yes	No	No
34	Marumbi	Maruhumbi		Fungu Nyange, Fungu Pange, Chumbe	Fungu Karume, Bawe, Changu
35	Marumbi, Bubwini, Mkokotoni, Mwanda, Chukwani	Maruhumbi, Mwanda, Mkokotoni, Chukwani	Mafufuni	Mazizini	Mazizini
<b>THREATS TO THE ENVIRONMENT</b>					
36	Sea weeds and Coral reefs are destroyed by fishermen who use drag nets	Coral reefs are destroyed by drag net fishing and sea leaves are dead	Cutting of mangroves to prepare charcoal	Nothing	Nothing

	Interview 36	Interview 37	Interview 38	Interview 39	Interview 40
<b>PERSONAL DETAILS</b>					
1	Alan Mwadini Mdungi	Anzwani Makame Haji	Haji Khamis	Hamadi Haji	Abdalla Khamis Makame
2	56	29	21	28	25
3	10	3	6	12	6
4	Quran	Form 2	Form 2	Madrasa	Quran
5		6	2	15	7
6	Fisherman	Army officer	Fisherman		Farmer
7	40	7	6	0.16	8
8	Mending nets				None
9	Sufficient	Sufficient	Insufficient	Insufficient	Insufficient
<b>LOCATION</b>					
10	Pwakuu, Boribo, Fungu karume, Nyange, Manyenga, Chumbe, Tele	Fumba, Changuu, Mnara wa bumbwini, Kitoni	Nyange, Karume pwakuu, Bawe, Chumbe, Kisigie	Fungu nyange, Mapape, Boya jekundu, Bawe, Fungu Pange	Boribo, Mapape, Pua kan, Minjeri, Paraza, Ngejale, Marifuikane

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11	Pwakuu, Boribo, Chumbe	Fumba	Pwa Kuu	Fungu nyange, Mapape	Boribo, Mapape, Pua kan, Minjeri, Paraza, Ngejale, Marifuikane
12	Corals, Sand	Sand and Sea grass	Sand banks, Corals	Sands, Leaves, Mud and Corals	Sand
13	Traps		Rapid changes in weather	Wind	
14	Malindi, Wakolani, Chukwani, Nyamaza	Kikunguri, Ulubi, Kizimkazi	Buyu, Kizingo	No	
<b>METHOD AND GEAR</b>					
15	Canoe	Boat with engine	Canoe	Canoe	Outboard boat
16	4	6	2	3	22
17	Traps and handling	Gas cylinder and hand collection	Lines	Dema	Net
18	Yes	Hire	No	No	Hire
19			Yes, Jumuia ya Uvuvi ya Mazizini	No	
<b>CATCH ANALYSIS</b>					
20	Changu njana, Tawa, Tuku, Chewa, Mikundaji, Pono		Ngisi	Kundaji, Paragunda, Tasi, Pono, Chaa	Vibua, Daga, Upapa, Sardine, Tonge kwa tonge
21	Yes, Malindi	Yes, Mtoni	Yes, Mazizini, Old market town	Yes, Mazizini, Stone Town market	Malindi
22	4kgs	0-5kgs	5kgs	30kgs	50 - 100kgs
23		Keep in a pot	Keep in basket	In a bucket	Do not keep
<b>FISHING STOCK</b>					
24	Low catch now	Low catch now		Better 5 years ago	Increased now
25	More and sufficient fish 10 years ago	Increased catch now		Much better 10 years ago	
26	More fishermen using destructive fishing	More fishermen		Seasonal change	Change of weather

27	Changu, Chafi, Pono, Mikundayi		Ngisi	Chewa, Kundaji, Sororo, Changu Chole	Vibua, Daga, Upapa, Sardine, Toge kwa toge
28	Good idea but should prevent illegal gear (wire traps and dragged nets)	Bad concept as it will prevent fishing	Good idea	A difficult concept	A total ban on fishing will affect our livelihoods
29	Good fishing habit and big fish	Sea cucumber, Octopus	Will only affect us at the beginning after sometime it will be good	We will be affected	
30	Use of traps and big nets	Deep water fishing and Poultry	Business	Animal husbandry	Fishing in the same area and using the same method
<b>CONSERVATION AREA</b>					
31	Join Chumbe and follow routes of ship		Bawe, Karume	Chumbe until Pungume	East of ship wreck east of Changuu
32					Between Changuu and the coast
33	Yes, will make it easy to sell fish		Yes, there will be a guarantee of selling the fish	Yes, near their homes	No
34	Kungu, Karume east, Nyanje	All the areas	Bawe and Karume	Fungu Pange, Fungu nyange	None
35	Karume	Mazini and Mbwani	Mazizini	Mazizini	None
<b>THREATS TO THE ENVIRONMENT</b>					
36	Erosion, Spear gun fishing, Drag nets, Laws are broken because of low law enforcement	Small mesh nets and Spear gun		Coral reefs are destroyed	No threats

	Interview 41	Interview 42	Interview 43	Interview 44	Interview 45
<b>PERSONAL DETAILS</b>					
1	Nassir Othenaia Ngombo	Issa Khani Juma	Masand Aledulla	Swaleh Hamad Juma	Ali Hamad
2	22	49	48	36	33

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<b>3</b>	3	9	10	6	4
<b>4</b>	Standard 5 and Quran	Standard 7 and Quran	Madrasa (informal education)	Standard 2	
<b>5</b>	0.25	15	5	20	25
<b>6</b>	Police officer	Fisherman		Fisherman	
<b>7</b>	22	15	32	10	18
<b>8</b>	Mason	Trading	Farming		
<b>9</b>	Moderate	Moderate	Insufficient	Sufficient	Insufficient
<b>LOCATION</b>					
<b>10</b>	West of Changuu	Deep water	Jamba, Pemba, Bawe, Boribo, Pwakuu, Magambe, Manjema	Tambale, Bawe, Kibegi, Mivinje, Mitoto, Boribo, Lanjuni	Dar-es Salaam, Chumbe, Bawe, Pungume, Visiwatele
<b>11</b>		Deep water	Magambe, Boribo	Bawe	Kunduchi, Bagamoyo
<b>12</b>	Sand, Coral reefs		Rocks	Mud	Mud
<b>13</b>	Net fishing and traps	No assistance when there are problems	Rapid Changes in weather	There are no places to make temporary shelter	Rapid Change of weather
<b>14</b>	Stone Town and Bububu	Bagamoyo, Kunduchi	Yes, Tanga, Bagamoyo, Dar-es Salaam	Dar-es Salaam, Bagamoyo	Yes, Dar-es Salaam
<b>METHOD AND GEAR</b>					
<b>15</b>	Boat with outboard engine	Outboat engine boat	Boat	Outrigger boat	Boat
<b>16</b>	23	16	15	17	14
<b>17</b>	Purseine	Purseine	Nets and lines	Nets	Nets
<b>18</b>	Hire	Hire	Hire	Hire	Yes
<b>19</b>			No	No	No
<b>CATCH ANALYSIS</b>					
<b>20</b>	Vibua, Sardine, Ngurangura	Vibua, Sardine, Ngurangura, Upapa, Sahura	Sardine, Vibua, Tonge, Sehewa, Nguru, Kolekole	Vibua, Saladin, Simusimu, Sobari, Sehewa	Vibua, Sardine, Papa, Songoro, Sehewa, Jodari, Kambosi, Ngwangwa
<b>21</b>	Yes, Malindi	Malindi, Begamoyo, on ferries	Yes, Malindi, in Ferries and Bagamoyo	Yes, malindi	Yes, Malindi, on Ferries and Kunduchi

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22	10-40 buckets (15kgs each)	20 – 30 buckets (15 kgs each)	1000kgs	300kgs	300kgs
23		Do not keep	In sacks	In the boat	
<b>FISHING STOCK</b>					
24		Increased now	Better catch 5 years ago	Better 5 years ago	Better 5 years ago
25	Decreased now	Decreased now	Better catch 10 years ago	Much better 10 years ago	Much better 10 years ago
26	Increased fishing pressure	Fishing in far away areas	Politics	Nature	A lot of fishing methods and gear
27	Vibua, Sardine, Ngurangura	Vibua, Sardine, Ngurangura, Upapa, Sahura	Kibua, Saladin, Dagaa, Upapa	Saladin, Kibua	Vibua, Saladin, Ngurangura
28	Depends on the type of conservation employed	It's a good idea if people are made aware	Good idea	Good idea	Good but difficult to fish during low season
29	Fishing in deep water	Will only affect my livelihood if procedures are highly followed	Does not affect livelihoods	Not affect livelihoods	Will on affect livelihood
30	Construction and livestock keeping	Trading and animal husbandry	Farming or work at the Ministry of Agriculture	Business	Business
<b>CONSERVATION AREA</b>					
31	Inside Changuu or inside ship water	Outside Prison Island, Changuu and Bawe	Tumbatu, Prison Island, Bawe, Chumbe,	Chapwani up to the coast should be conserved	Prison Island, Bawe, Chapwani should be closed
32	Outside Changuu	Off-shore areas	Near home	Where there are a lot of fish	Market
33	No improve Malindi	No improve Malindi	Yes would like a local fish market as it creates employment for local people	No	Yes, will create employment for nearby people
34	Around Islands	Prison Island, Bawe	Fungu, Karume, Changuu, Chumbe	Changuu, Chapwani, Bawe	Prison Island, Bawe
35	Bububu, Maruhubi	Bububu, Maruhubi, Mpinga duri	Maruhubi, Bububu, Chukwani	Maruhubi, Bububu	Maruhubi, Bububu
<b>THREATS TO THE ENVIRONMENT</b>					

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<b>36</b>	Garbage	Oil from anchored ship, built hotel sewage and garbage drift to Mtoni	Beaches and coral are all threatened	Corals are threatened in Mtoni area	
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	<b>Interview 46</b>	<b>Interview 47</b>	<b>Interview 48</b>	<b>Interview 49</b>	<b>Interview 50</b>
<b>PERSONAL DETAILS</b>					
<b>1</b>	Amour Mzee Abdulla	Abdalla Juma Macheno	Salum Khamis	Salum Khamis	Abdalla Mzee Abdalla
<b>2</b>	50	57	45	28	42
<b>3</b>	10	6	5	1	5
<b>4</b>	Form 2	Quran	Form 2	Form 2	Standard 4
<b>5</b>	15	43	28	6	20
<b>6</b>	Fisherman	Farmer	Fisherman	Fisherman	Fisherman
<b>7</b>	50	55	45	24	42
<b>8</b>	None	Farming	Farming	Carpenter	-
<b>9</b>	Insufficient	Insufficient	Moderate	Moderate	Insufficient
<b>LOCATION</b>					
<b>10</b>	Mchinje Mazive, Boza kiongwe, Boza pwani, Kijamboni kwa said, Salima, Boza kubwa	Boza, Kijambani, Vipwani, Deep sea	Mwana wa mwana and Nungwi	Mwana wa mwana and Nungwi	Mkokotoni, Stone Town, kizingo
<b>11</b>	Mchinjemazive, Boza kiongwe, Boza pwani, Kijamboni kwa said, Salima, Boza kubwa	Boza, Kijambani, Vipwani, Deep sea	Mwana wa mwana	Mwana wa mwana and Tumbatu	Mkokotoni
<b>12</b>	Coral and Mud	Coral reef	Sea cucumber, Dolphin	Birds, Dolphin, Turtles	Changu, Jodari, Vibua, Daga
<b>13</b>	None	Drift netting conflicts	strong wind	Weak gear	Lack of equipment
<b>14</b>	Mkokotoni, Nungwi, Fukuchani		Potoa, Kidoti, Mkokotoni and Nungwi	Bumbwini, Tazari, Mkokotoni, Tumbatu and Nungwi	Mangapwani, Potoa, Stone Town
<b>METHOD AND GEAR</b>					
<b>15</b>	Boat with an engine	Outrigger boat	Canoe	Canoe	Canoe

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16	4	3	4	3	4 or 5
17	Handling	Handling	Lack of lines and fuel	Lines	Lines
18	Yes	Businessman	No	No	No
19	Yes	Yes	No	No	Yes
<b>CATCH ANALYSIS</b>					
20	Changu, Jodari, Sehewa, Kolekole, Fatundu, Hongwe	Changu, Hongwe, Kolekole, Dumbwara, Halundu	Nguru, Kolekole, Mzia, Njana	Dimbwara, Kolekole, Njana, Taa, Songoro	Hongwe, Paramamba, Fatundu
21	Yes	Yes	Yes, Mkokotoni market	Yes, Mkokotoni market	Mkokotoni
22	0-50kgs	0-10kgs	40-200 kgs	30 – 50 kgs	100-300kgs
23	Do not keep	Do not keep	In the boat	In the canoe	None
<b>FISHING STOCK</b>					
24	Decreased catch now	Decreased catch now	It was better 5 years ago	It was good 5 years ago	It was good 5 years ago
25	Decreased catch now	Decreased catch now	It was best 10 years ago	It was best 10 years ago	It was best 10 years ago
26	Increased fishing pressure, cutting of mangroves	Increased fishing pressure	A lot of fishermen who fish destructive way of fishing	More fishermen	A lot of fishermen demand on sea
27	Changu, Jodari, Sehewa, Kolekole, Fatundu, Hongwa	Changu, Hongwe, Kolekole, Dumbwara, Halundu	King fish	Dimbwara	Changu and Jodari
28	Depends on the method	It depends	Good if it will implementing	No conservation effort	Well, and we will be better of
29	Depends on the method-handling should be allowed	If closed then there are no negative effects	Not affect livelihood	It will affect livelihood if there will be no good arrangements	If no it will be no secured
30	Livestock keeping, Poultry and Off-shore fishing	Deep water fishing, livestock keeping and agriculture	Farming	Carpenter	Poultry
<b>CONSERVATION AREA</b>					

<b>31</b>	100m from Fukuchani, Mangapwani and 500m from Kiongwe	2-3 miles from the coast	From Mnemba island to changuu island	All coastal area in Zanzibar	Tumbatu
<b>32</b>	Outside these areas: Mchinje Mazive, Boza kiongwe, Boza pwani, Kijamboni kwa said, Salima, Boza kubwa	Boza, Kijambani, Vipwani, Deep sea	Kwambwana	Mwana wa mwana. Tumbatu	Mkokotoni because there is a lot more fish
<b>33</b>	Yes	Yes	Yes	Yes	Yes
<b>34</b>	Kipwa mwanda, Kipwa mvindo, Dindi, Mahonje	Kipwa mwanda, Ras kiongwe, Mole	None	None	None
<b>35</b>	Mwanda, Bumbwini, Mkokotoni	Kipange, Bumbwini, Mkokotoni	Mwanda and Mkokotoni	Msikitini and Mto wa chewa	Kiongwe
<b>THREATS TO THE ENVIRONMENT</b>					
<b>36</b>	Mangrove cutting, Dragging nets, Anchors, Gas and Spear gun	Spear fishing and dragging nets	No threat have ever seen	No threat	None

	<b>Interview 51</b>	<b>Interview 52</b>	<b>Interview 53</b>	<b>Interview 54</b>	<b>Interview 55</b>
<b>PERSONAL DETAILS</b>					
<b>1</b>	Malik Mwinyi Usi	Juma Nassor Juma	Salum Juma Haji	Ramadhan Mwinyi	Amour Abdalla
<b>2</b>	31	42	45	62	33
<b>3</b>	3	6	4	11	6
<b>4</b>	Form 2	Form 3	Standard 7	No education	Form 2
<b>5</b>	17	32	30	30	6
<b>6</b>	Fisherman	Fisherman	Cooker	Police man	No profession
<b>7</b>	31	42	37	62	33
<b>8</b>	-	Farming	Trader	Farming	Farming
<b>9</b>	Insufficient	Sufficient	In sufficient	Insufficient	Insufficient
<b>LOCATION</b>					
<b>10</b>	Mkokotoni	Tumbatu, Nungwi, Bumbwini	Mangapwani	Mangapwani, Bumbwini, Tumbatu, Changuu	Mangapwani



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11	Mkokotoni	Mwana wa mwana, Tumbatu	Mangapwani	Bumbwini	Mangapwani
12	Nguru, Changu, Sardine	Birds, Dolphin, Turtle	Coral reef, Turtle, Dolphin	Coral, Tutle, Dolphin	Stones /coral
13	No problem faced	They do not have good gear and method	Weak of engine	Strong waves	Lack of machines
14	Mwangapwani, Stone Town	Stone Town, Mangapwani, Nyanjale	Dar-es Salaam, Bumbwini	Mangapwani, Bumbwini, Mkokotoni, Stone Town	Dar-es Salaam, Mkokotoni
<b>METHOD AND GEAR</b>					
15	Boat	Canoe	Canoe	Boat	Outrigger boat
16	4	2 or 3	4	3	4
17	Lines	Lines	Lines	Lines	Lines
18	No	Yes	Yes	Yes	Yes
19	Yes	No	No	No	Yes
<b>CATCH ANALYSIS</b>					
20	Nguru, Changu, Vibua	Changu, Dimbwira, Kolekole, Komba, Tasi	Dagaa, Vibua, Vodari, Nguru	Vibua, Nguru, Jodari, Fatundu, Sehewa	Nguru, Jodari, Sehewa, Kolekole, Vibua
21	Mkokotoni, Stone Town	Mkokotoni	Yes, Mchangani, Mkokotoni, Mangapwani		Yes, Mangapwani
22	50 – 500 kgs	10-100 kgs	200-800 kgs	15- 20 kgs	25 kgs
23	None	In the boat	In the boat	In the boat	In the canoe
<b>FISHING STOCK</b>					
24	Better 5 years ago	It was good 5 years ago	Was good 5 years ago	It was good 5 years ago	It was better 5 years ago
25	Best 10 years ago	It was best 10 years ago	Was best 10 years ago	It was best 10 years ago	It was best 10 years ago
26	All rural people engaged in fishing	Destructive fishing	Many fishing method	Many fishermen	Nature
27	Saladin and Vibua	Changu	Dagaa and Vibua	Nguru	King fish, Hongwe
28	Its good	Good	Is good idea	Good idea	Good idea
29	Not affect	Not affect	Not affect	Not affect	Will not affect
30	farming	farming	farming	Farming	Business
<b>CONSERVATION AREA</b>					

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31	Muanda	Mnemba, Mangapwani	Nungwi upto Changuu Island	Mangapwani, Bumbwini	Mangapwani
32	Mkokotoni, nearby home	Mwana wa mwana	Mangapwani	Bumbwini, his gear are capable to reach the area	Mangapwani is nearby home
33	No need	Yes	Yes	Yes	Good idea
34	None	None	Mangapwani	Mangapwani	Mangapwani
35	Muanda	Bumbwini, Mkokotoni	None	No mangrove	Nyanjale
<b>THREATS TO THE ENVIRONMENT</b>					
36	People slash mangroves	No threat	None	No threat	Beach erosion

	Interview 56	Interview 57	Interview 58	Interview 59	Interview 60
<b>PERSONAL DETAILS</b>					
1	Abdalla Ali	Ibrahim Hamdan	Pande Kai	Khamis Ame Zubeir	Ali Juma
2	32	45	25	51	30
3	5	5	3	4	2
4	Standard 7	Form 3	Form 3	Standard 7	Adult education
5	19	18	1	21	15
6	Farmer	Fisherman	Fisherman and Farmer	Fisherman	Fisherman
7	32	25	25	51	30
8	Farming	Farming	Businessman	Farming (Cultivation)	Farming
9	Insufficient	Sufficient	Sufficient	Insufficient	Insufficient
<b>LOCATION</b>					
10	Mkokotoni	Mkokotoni, deep sea	Uso wa membe (Peninsula), Bububu, Uzi, Dago	Mwana wa Mwana and Kizimkazi	Uso wa membe for north monsoon wind, for south monsoon wind Vundwe.
11	Ndagoni	Mkokotoni	Uso wa membe	Kizimkazi	Uso wa membe
12	Changu, Kolekole	Njana, Kolekole, Mizia	Ngisi (Squid), Pweza (Octopus), Changu (Lethrinus), Chaa (Gar fish)	Turtle, Dolphin, Whale	Rocks

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13	He is not faced any problem	I usually did have big problem	Lots of wind and the fishing gear is small	Poor fishing gear	Rapid change of weather. Also conflict with nearby fishermen
14	Bumbwini, Stone Town	Kiomba mvua, Stone Town, Fukuchani	Yes, Mkokotoni, Tumbatu, Matemwe, Potoa	Bumbwini, Michungwani, Makoba	Yes, Mkokotoni, Fukuchani, Nungwi.
<b>METHOD AND GEAR</b>					
15	Canoe	Canoe	Boat, Outrigger boat ( Ngalawa)	Canoe	Canoe
16	4 to 5	4 to 5	2 or 3	4	2
17	Lines	Lines	Lines	Lines	Lines
18	Yes	No	Yes	No	Yes
19	Yes	Yes	No	No	No
<b>CATCH ANALYSIS</b>					
20	Fatundu, Tambisi, Makuwazi	Madimbwara, Jodari, Sehewa	Octopus, Koana (Rock fish), Mbasi (King fish), Sehewa (Mackerel)	Jodari (Tuna) Nguru (King fish), Nduaro (Sword fish), Mbaasi (Sword fish), Koana (Rock fish)	Njana , Komba, Janja, Koana (Rock fish)
21	Mkokotoni fish market	Yes, Mkokotoni	Yes, Kiongwe and Mkokotoni, Bububu and Malindi	Yes, Mkokotoni and Kizimkazi	Yes, old Stone Town market
22	10 - 15 kgs	70 kgs	55kgs	50-150 kgs	15kgs
23	None	None	In bucket	In the boat	In the basket
<b>FISHING STOCK</b>					
24	Was better 5 years ago	It was better 5 years ago	More fish 5 years ago	It was good 5 years ago	It was better 5 years ago
25	Was best 10 years ago	It was best 10 years ago	More fish 10 years ago	It was better 10 years ago	It was best 10 years ago
26	Allot fishermen come in our place	Allot of fishermen	Advanced fishing gear and technique	Fishermen change behavior	None
27	Kambisi	Changu, Nguru	Changu (Lethrinus)	Jodari (Tuna)	Changu (Lethrinus)
28	It is good idea	better	Good	It is good idea	None

29	Not affect	Not affect	Decrease in Malaria as they will start fishing nearer home where its more secure	It does not affected his livelihood	None
30	Poultry	Poultry	Farming and sea weed	Small business	farming
<b>CONSERVATION AREA</b>					
31	Muanda	Muanda, Tumbatu, Mangapwani	Should stop at Ngamoya	Nungwi, Bawe island	None
32	Muanda because it is near by home	Mkokotoni, becource near by a fish market	Uso wa Membe	Mwana wa mwana is very near to home	Nearby home
33	Yes	Yes	Yes	Yes	No
34	None	None	Uso wa membe	Mangapwani	None
35	Bumbwini, Mkokotoni	Kiongwe , Kipange	Mangisani, Kiwani	Dikoni, Mwambaoni, kwa buji	Mangisani, Mkokotoni
<b>THREATS TO THE ENVIRONMENT</b>					
36	Mangrove cutting	Mangrove cutting	Fishermen cut the mangrove for fishing gear	Political Conflict	None

	Interview 61	Interview 62	Interview 63	Interview 64	Interview 65
<b>PERSONAL DETAILS</b>					
1	Makame Jecha Makame	Hassan Ali Said	Haji Makame Haji	Juma Kona Haji	Juma Malik Yussuf
2	36	49	62	54	88
3	5	5	6	11	9
4	Form 2	Form 3	Quran	Standard 6 and Quran	Madrasa (informal education)
5	18	15	43	41	70
6	Fisherman	Farmer	Fisherman	Trader	
7	36	49	55	54	88
8	Farming	Farming		Farming (Animal Husbandry)	Physician
9	Insufficient	Moderate		Insufficient	Sufficient
<b>LOCATION</b>					

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10	Nungwi, Mwana wa mwana, Bumbwini, Mazizini and Makani	Boza kubwa, Outside Kiyongwe, Kijandani, Mwamba Saidi	Fukuchani, Nungwi	Boza kubwa, Kijambani, Mwamba said, Fumba, Kizimkazi, Tanga	Kipumbwi, Bagamoyo, Kilwa
11	Nungwi and Mwana wa mwana	Boza kubwa, Outside Kiyongwe, Kijandani, Mwamba said	Fukuchani, Nungwi	Boza kubwa, Kijambani, Mwamba said, Fumba, Kizimkazi, Tanga	Bagamoyo
12	Coral Reefs, Birds, Dolphin	Coral reefs	Nguru, Ngisi	Coral and Sand	Rocks
13	Poor fishing gear	Passing ships	No problems	Entangled nets	Rapid change in weather
14	Yes, Bumbwini, Pemba, Tanga, Stone Town	Mto wa pwani, Mkokotoni, Bumbwini, Murando	Stone Town and Bagamoyo	Tumbatu, Bumbwini, Mkokotoni	Yes, Maruhubi, Bububu
<b>METHOD AND GEAR</b>					
15	Dhow	Mashua	Dhow with tanga	Fishing boat	Boat
16	In a group	3 or 4	5 or 6	3 or 4	Alone or with 2
17	Fishing net	Handline	6 inch net	Gill net	Line
18	No	Yes	No	No	Yes
19	No	1 fishing committee	Yes	Yes	No
<b>CATCH ANALYSIS</b>					
20	Kolekole, Nguru, Jodari, Tenga, Changu	Changu, Fatundu, Kolekole, Chewa	Jodari, Nguru, Sehewa	Jodari, Sehewa, Fatundu, Hongwe	Changu, Kolekole, Taa, Karambisi
21	Mkokotoni	Mkokotoni	Mkokotoni, Stone Town, Nungwi	Yes, Landing site, Mkokotoni, Hongwe	Yes, Malindi
22	50 – 300kgs	0-10kgs	0-75kgs	20-50kgs	30kgs
23	In the boat	In the boat covered with a piece of cloth		Do not keep	
<b>FISHING STOCK</b>					
24	Good five years ago	Decreased catch now	Decreased number of fish now	Decreased number of fish now	A lot of fish 5 years ago but less money
25	Much better 10 years ago	Increased catch 10 years ago	Decreased number of fish now	Decreased number of fish now	Plenty of fish 10 years ago but less money

26	More fishermen	More fishermen	Too many fishermen	Too many fishermen and boats	More money for a few fish
27	Jodari	Changu, Fatundu, Kolekole, Chewa		Jodari, Sehewa, Fatundu, Hongwe	Changu, Kolekole, Karambisi, Taa
28	It's a good idea	Has doubts	Depends on method	Confusing	Good idea
29	It will decrease people's standards of living	If the areas is totally closed then they will starve	Depends on method	If the areas is totally closed then they will starve	Not affected
30	Cultivation	Farming	Carpenter and farming	Farming and keeping cattle	Driver
<b>CONSERVATION AREA</b>					
31	Mnemba to Bumbinini	Outside Tumbatu and the coastal area	Fukuchani, Tumbatu	2-5 miles off the coast	
32	Mwana wa mwana, Tumbatu	Boza kubwa, Outside Kiyongwe, Kijandani, Mwamba Saidi	Outside the Tumbatu	Outside this boundary	Areas with more fish
33	Yes	Yes	Yes	Yes	No
34	Mwana wa mwana	Mwana wa mwana, Boza kubwa, Kijamba said	Matemwe, Nungwi	Boza, Kubwa, Kijambani	Changuu
35	Mkokotoni	Mwanda, Bibwini, Mto wa pwani	Bumbwini	Mkokotoni, Mwanda, Bumbwini	Kinazini, Maruhubi, Mtoni
<b>THREATS TO THE ENVIRONMENT</b>					
36	Lack of conservation awareness	Dragged nets and Anchors	Nylon nets around Coral reefs	Dragging nets, Anchor and Gas fishing	Mangroves are destroyed

	Interview 66	Interview 67	Interview 68	Interview 69	Interview 70
<b>PERSONAL DETAILS</b>					
1	Omar Mtambo	Ali Moh'd Ali	Kassim Moh'd	Awes Rajab Nassor	Indrisa Maalim
2	52	28	47	45	56
3	12	0	13	6	5
4	Madrasa (informal education)		Standard 8	Standard 7	Standard 7

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5	30	14	30	18	10
6		Fisherman		Fisherman	Chairman A.S.P
7	39	14	35	16	35
8	Carpenter	Captain of a tourist boat		None	Farming
9	Insufficient	Insufficient	Insufficient	Insufficient	Insufficient
<b>LOCATION</b>					
10	Pungume, Pakuu, Mchinje, Kizimkazi, Fungu yasini	Dar-es Salaam, Mafia, Tanga, Nungwi	Nyange, Pwa kavu, Boribo, Mwamba heri	Changuu, Bawe, Fungu, Karume, Mwale	Kibandike, Changuu, Bawe, Boya jekundu
11	Fungu yasini	Kunduchi	Morogo	Changuu	Bawe
12	Corals, Mud and Rocks	Rocks	Mud, Corals and rocks	No	Squid
13	Rapid change in weather	Conflicts of license while in Dar-es Salaam	Problems of rapid changes in weather and engines, lack of life jackets	Only the wind	Change of weather
14	Dar es Salaam	Dar es Salaam	Dar es Salaam	Yes from Maruhubi, Bububu	Yes Tumbatu
<b>METHOD AND GEAR</b>					
15	Outrigger boat	Boat	Outrigger boat	Mtumbwi – Tanga	Dhow with an engine
16	3	3	3	2	2
17	Line	Lines	Lines, Senga, Mchoto	Mishipi	Mshipi wa Taa
18	Yes	No	No	Yes	No
19	Yes, Association of fisherman - Forodhani	Yes, Association of fisherman - Forodhani	Yes, Association of fisherman - Forodhani	Yes	Yes
<b>CATCH ANALYSIS</b>					
20	Changu (Emperor), Nguru (King fish), Jodari (Tuna), Sehewa (Mackerel), Mizia (Mullet), Kolekole (Travellys)	Jodari (Tuna), Nguru (King fish), Mizia (Mallet), Fatundu (Red snapper), Changu (Emperor), Nduaro (Sword fish)	Nguru (King fish), Jodari (Tuna), Chewa (Grouper)	Changu, Mwewe, Nguru, Changu chole	Changu

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21	Yes, Malindi, On ferries during Dago	Yes, Dar-es Salaam, Malindi	Yes, Malindi	Malindi fish market	Malindi fish market
22	100kgs	300kgs	200kgs	0 – 40kgs	0 – 10kgs
23				Do not keep	Do not keep
<b>FISHING STOCK</b>					
24	Better 5 years ago	Good 5 years ago	Better 5 years ago	Increased catch now	Increased catch 5 years ago
25	Much better 10 years ago	Much better 10 years ago	Much better 10 years ago	Decreased now	Decreased now
26	Different method of fishing		Method of fishing, especially Kojani fishing	Because of fishing nets	Only God knows
27	King fish, Changu (Emperor), Taa (Skates/Rays)	King fish		Changu	Changu
28	Good	Good idea	Good idea		Depends on the type of conservation
29	It doesn't affect	It doesn't affect	Not affected		None
30	Carpenter	Tour guide	Business		None
<b>CONSERVATION AREA</b>					
31	Chapwani upto Chumbe	From Nungwi up to Kizimkazi	Chapwani, Changuu up to Chumbe	Yes	Any place
32	Fungu yasini because the fish are bigger	Its near and much more profitable	Areas with more fish because its profitable	Changuu because there is less wind and a lot of fish	Changuu because its near home
33	Yes	No	Yes	Yes	No
34	Prison Island, Bawe, Chapwani	Bawe, Chumbe, Prison Island	Changuu, Bawe	Changuu	Do not know
35	Mpiga duri, Chukwani	Kinazini, Chukwani, Mtoni	Kinazini, Chukwani	Mpinga duri	Saateni, Mpiga duri
<b>THREATS TO THE ENVIRONMENT</b>					
36	Coral are destroyed because of “dragged nets”	Corals are destroyed, JKU[1]	Mangroves and corals are destroyed, JKU cause big threats	Cutting Mangroves	Nothing



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	Interview 71	Interview 72	Interview 73	Interview 74	Interview 75
<b>PERSONAL DETAILS</b>					
<b>1</b>	Usi Mcha Simai	Ameir Kimya Ali	Said Hassan Haji	Abdalla Khami Makane	Nassir Othenaia Ngombo
<b>2</b>	40	35	40	25	22
<b>3</b>	11	3	8	6	3
<b>4</b>	Quran	Quran	Quran	Quran	Standard 5 and Quran
<b>5</b>	25	15	22	7	0.25
<b>6</b>	Fisherman	Farmer	Farmer	Farmer	Police man
<b>7</b>	25	5	22	8	22
<b>8</b>	None	None	Farming	None	Mason
<b>9</b>	Insufficient	Insufficient	Insufficient	Insufficient	Moderate
<b>LOCATION</b>					
<b>10</b>	Bawe, Nyanjalio, Changuu, Deep sea	Bawe, Kinazini, Mafunguni	Matatani, Mwambwani	Boribo, Mapape, Pua kan, Minjeri, Paraza, Ngejale, Marifuikane	West of Changuu
<b>11</b>	Anywhere	Bawe	Depends on the boat they will be using	Boribo, Mapape, Pua kan, Minjeri, Paraza, Ngejale, Marifuikane	
<b>12</b>	Changu, Pono, Paraguda, Tasi	Koana, Mkure, Nguru	Mixed coral, Sea-grass	Sand	Sand, Coral reefs
<b>13</b>	None	None	Nyanjale they do not allow net fishing		Net fishing and traps
<b>14</b>	Dar - es Salaam, Pemba, Nungwi, Tumbatu	No	Nyanjale, Meli nane		Stone Town and Bububu
<b>METHOD AND GEAR</b>					
<b>15</b>	Dhow with an engine	Ngalawa Tanga	Mtumbwi/canoe	Outboard boat	Boat with outboard engine
<b>16</b>	2 or 3	Alone	2	22	23
<b>17</b>	Toe	Mishipi	Used dragging nets but they were taken by the department	Net	Purseine

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18	Yes	Yes	Businessman	Hire	Hire
19	Yes	Yes			
<b>CATCH ANALYSIS</b>					
20	Parangunda, Mkundaji, Pono, Tasi, Changu	Kolekole, Muadana, Sehewa, Jodari, Songoro	Changu, Chaa, Kolekole, Keri ya mboya	Vibua, Dagua, Upapa, Sardine, Tonge kwa tonge	Vibua, Sardine, Ngurangura
21	Malindi fish market	Malindi fish market	Malindi	Malindi	Yes, Malindi
22	0 – 30kgs	0 – 20 kgs	0-5kgs	50 – 100kgs	10-40 buckets (15kgs each)
23	Do not keep	Do not keep	Cover with anything	Do not keep	
<b>FISHING STOCK</b>					
24	Increased catch 5 years ago	Increased catch 5 years ago	Low catch now	Increased catch 5 years ago	
25	Decreased now	Decreased now	Very low catch now		Decreased now
26	Increase in the number of fishermen and use of nets	Because of using nets	Damaging dragging nets and small nets	Change of weather	Increased fishing pressure
27	Changu and Koana	Changu	Matatani, Mwambwani	Vibwa, dagaa, upapa, sardine, toge kwa toge	Vibua, Sardine, Ngurangura
28	Better to conserve	Depending on the method employed though it's better to conserve	Good Idea and may prevent illegal fishing in the area	A total ban on fishing will affect our livelihoods	Depends on the type of conservation employed
29	None	None			Fishing in deep water
30	None	None need to be educated about alternatives		Fishing in the same area and using the same method	Construction and livestock keeping
<b>CONSERVATION AREA</b>					
31	Changuu	Changuu, Bawe	Along the Mwamba reef	East of ship wreck east of Changuu	Inside Changuu or inside ship water
32	Bawe because there are a lot of fish	Bawe because there are a lot of fish	Inside the reef	Between Changuu and the coast	Outside Changuu
33	Yes	Yes	No	No	No improve Malindi

34	Stone Town, Bawe, Changuu, Chumbe	Stone Town, Changuu, Bawe		None	Around Islands
35	Mpiga duri, Saateni	Mpiga duri	Mwana bibi, Mtoni	None	Bububu, Maruhubi
<b>THREATS TO THE ENVIRONMENT</b>					
36	Uvuvi haram, Cutting mangroves	Nothing	Dragging nets and Mangrove cutting	No threats	Garbage

	Interview 76	Interview 77	Interview 78	Interview 79	Interview 80
<b>PERSONAL DETAILS</b>					
1	Issa Khani Juma	Masoud Abdalla	Swaleh Hamad Juma	Ali Hamad	Yussif Haji
2	49	48	36	33	46
3	9	10	6	4	8
4	Standard 7 and Quran	Madrassa (informal education)	Standard 2		Form 3
5	15	5	20	25	20
6	Fisherman		Fisherman		
7	15	32	10	18	30
8	Trading	Farming			
9	Moderate	Insufficient	Sufficient	Insufficient	Insufficient
<b>LOCATION</b>					
10	Deep water	Jamba, Pemba, Baweni, Boribo, Pwakuu, Magambe, Manjema	Tambale, Bawe, Kibegi, Mivinje, Mitoto, Boribo, Lanjuni	Dar-es Salaam, Chumbe, Bawe, Punguwe, Visiwatele	Mkokotoni, Nungwi, Taga, Pemba, Dar-es Salaam
11	Deep water	Magambe, Boribo	Bawe	Kunduchi, Bagamoyo	Dar-es Salaam
12		Rocks	Mud	Mud	Mud, Leaves, Rocks
13	No assistance when there are problems	Rapid changes in weather	There are no places to make temporary shelter	Rapid change of weather	Damage to the boat engine, lack of life equipment
14	Bagamoyo, Kuduchi	Yes, Tanga, Bagamoyo, Dar-es Salaam	Dar-es Salaam, Bagamoyo	Yes, Dar-es Salaam	Yes, Nungwi, Tumbatu, Matemwe
<b>METHOD AND GEAR</b>					

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15	Outboat engine boat	Boat	Outrigger boat	Boat	Boat
16	16	15	17	14	3
17	Purseine	Nets and lines	Nets	Nets	Lines
18	Hire	Hire	Hire	Yes	No
19		No	No	No	Yes, Jumuia ya wavuvi, Maruhubi
<b>CATCH ANALYSIS</b>					
20	Vibua, Sardine, Ngurangura, Upapa, Sahura	Sardine, Vibua, Tonge, Sehewa, Nguru, Kolekole	Vibua, Sardine, Simusimu, Sobari, Sehewa	Vibua, Sardine, Papa, Songoro, Sehewa, Jodari, Kambosi, Ngwangwa	Changu, Nguru, Kolekole, Jodari
21	Malindi, Begamoyo, on ferries	Yes, Malindi, in Ferries and Bagamoyo	Yes, Malindi	Yes, Malindi, on Ferries and Kunduchi	Yes, Nungwi, Mkokotoni, Malindi
22	20 – 30 buckets (15 kgs each)	1000kgs	300kgs	300kgs	500kgs
23	Do not keep	In sacks	In the boat		Cooler box
<b>FISHING STOCK</b>					
24	Increased catch 5 years ago	Better catch 5 years ago	Better catch 5 years ago	Better catch 5 years ago	Better catch 5 years ago
25	Decreased now	Better catch 10 years ago	Much better 10 years ago	Much better 10 years ago	Much better 10 years ago
26	Fishing in far away areas	Politics	Nature	A lot of fishing methods and gear	More fishermen and destructive fishing
27	Vibua, Sardine, Ngurangura, Upapa, Sahura	Kibua, Saladin, Dagua, Upapa	Saladin, Kibua	Vibua, Saladin, Ngurangura	Nguru, Changu
28	It's a good idea if people are made aware	Good idea	Good idea	Good but difficult to fish during low season	Good idea
29	Will only affect my livelihood if procedures are highly followed	Does not affect livelihoods	Not affect livelihoods	Will affect livelihood	Not affected
30	Trading and animal husbandry	Farming or work at the Ministry of Agriculture	Business	Business	Business
<b>CONSERVATION AREA</b>					

<b>31</b>	Outside Prison Island, Changuu and Bawe	Tumbatu, Prison Island, Bawe, Chumbe,	Chapwani up to the coast should be conserved	Prison Island, Bawe, Chapwani should be closed	Jamba ngome, Kilume, Mapape
<b>32</b>	Off-shore areas	Near home	Where there are a lot of fish	Market	
<b>33</b>	No improve Malindi	Yes would like a local fish market as it creates employment for local people	No	Yes, will create employment for nearby people	Yes, creates employment
<b>34</b>	Prison Island, Bawe	Fungu, Karume, Changuu, Chumbe	Changuu, Chapwani, Bawe	Prison Island, Bawe	Marumbi
<b>35</b>	Bububu, Maruhubi, Mpinga duri	Maruhubi, Bububu, Chukwani	Maruhubi, Bububu	Maruhubi, Bububu	Marumbi, Bumbwini, Mkokotoni, Mwanda, Chukwani
<b>THREATS TO THE ENVIRONMENT</b>					
<b>36</b>	Oil from anchored ship, built hotel sewage and garbage drift to Mtoni	Beaches and coral are all threatened	Corals are threatened in Mtoni area		Sea weeds and Coral reefs are destroyed by fisherman who use drag nets

	<b>Interview 81</b>	<b>Interview 82</b>	<b>Interview 83</b>	<b>Interview 84</b>	<b>Interview 85</b>
<b>PERSONAL DETAILS</b>					
<b>1</b>	Salum Kibwana Salum	Kiyongwe Shadhili Kiyongwe	Haji Ali	Rashid Andika	Muhamed Salim
<b>2</b>	48	46	18	30	42
<b>3</b>	13	9		2	7
<b>4</b>	Form 2	Standard 7 and Quran	Form 2	Standard 5	Standard 7
<b>5</b>	35	30	1	6	29
<b>6</b>		Fisherman	Fisherman	Teacher	Driver
<b>7</b>	21	0.33	18	30	27
<b>8</b>		Farming		Farming (Animal husbandry)	Fisherman
<b>9</b>	Insufficient	Insufficient	Insufficient	Insufficient	Insufficient

<b>LOCATION</b>					
<b>10</b>	Mwana wa mwana, Pangani, Tanga, Mombasa, Dar-es Salaam, Kilwa, Mafia	Outside Bawe, Fungu fawatu, Changuu	Bawe, Changuu, Nje ya fungu	Changuu, Bawe, Pwakuu, Duzi, Mwana mwale	Bububu, Kihinani, Changuu, Bawe, Funguni
<b>11</b>	Dar-es Salaam	Outside Changuu	Bawe, Changuu	Dar-es Salaam	Funguni, Fawatu
<b>12</b>	Coral, Rocks, Mud	Deep muddy water	Rocks, Leaves	Mud, Rocks, Corals	Rocks
<b>13</b>	Sometimes he doesn't get fish	Strong winds and surrounding nets		Winds	Winds (rapid changes in weather)
<b>14</b>	Yes, Dar es Salaam, Kizimkazi, Bumbwini, Mkokotoni, Kenya	Mtoni, Kizingo, Bububu	Yes, Kigamboni, Kunduchi	Yes, Kizimkazi, Matemwe, Makunduchi	Yes, Stone Town and Bumbwini
<b>METHOD AND GEAR</b>					
<b>15</b>	Boat	Outrigger boat	Canoe	Canoe	Canoe
<b>16</b>	3	2	4	Sometimes 3 fisherman sometimes alone	Alone
<b>17</b>	Lines	Handling	Lines	Lines	Line
<b>18</b>	Yes	Yes	Hire	Yes	Hire
<b>19</b>	No		No	No	Yes, (Wengi wape – majority support)
<b>CATCH ANALYSIS</b>					

<b>20</b>	Nguru, Jodari, Sehewa, Kolekole, Papa, chazanda, Changu	Koana (Rock fish), Changu chole (Lethrinus), Mkule (Sphyrina), Changu (Lathrenus), Jodari ( King fish), Panje, Nguru (King fish), Sehewa (Mackerel), kolekole (Caranx), Karambisi (Trevellys), Muhadana	Jodari (Tuna), Nguru (King fish), Nduaro (Sail fish)	Koana (Rock fish), Nguru (king fish), Changu (Lethrinus), Ngisi (squid), Pweza (Octopus), Mkunga (Eel)	Koana (Rock fish), Changu (Lethrinus), Mkule (Sphyrina), Nguru (King fish)
<b>21</b>	Yes, Malindi, Dar-es Salaam	Bububu or Malindi	Yes, Malindi, Bububu	Yes, Malindi, Bububu	Yes, Malindi, Old market and Bububu
<b>22</b>	500kgs	0 – 15kgs	45kgs	10kgs	10kgs
<b>23</b>	Cooler box	Cover on boat			
<b>FISHING STOCK</b>					
<b>24</b>	Better 5 years ago	Coral reef decreased now		Better 5 years ago	Better 5 years ago
<b>25</b>	Much better 10 years ago				Much better 10 years ago
<b>26</b>	More fishing methods like ring nets during the day and night	Destruction of corals, increased fishermen		A lot of fishing gear and ban destructive fishing	A lot more fishing gear and ban destructive fishing
<b>27</b>	Nguru, Jodari, Changu	Koana (Rock fish), Changu chole (Lethrinus), Mkule (Sphyrina)	Nguru (King fish)	Koana (Rock fish)	Nguru (King fish), Jodari (Tuna)
<b>28</b>	Good	Good idea, will benefit from the income received	Good idea	Difficult for small fishermen	Good idea
<b>29</b>	Not affected	Benefit from protecting illegal fishing	Not affected	Difficult to support the family	Not affected
<b>30</b>	Business	Fishing in the deep sea or other areas	Continue studying if possible	Business	Small business

<b>CONSERVATION AREA</b>					
<b>31</b>	Jambangoni, Kibwa until Pwakuu, Chumbe	Outside Kibandiko, Bawe/Changu	Pemba		Mawe 3, Miweleni
<b>32</b>	Deep water because there are a lot of fish	Outside Changuu	Where there are a lot of fish		Deep Sea, Sand Bank
<b>33</b>	Yes, People get employment	Malindi is sufficient	Yes	Yes, will create employment for local people	Yes, employment for local people
<b>34</b>	Maruhumbi	Close to the Islands	Bawe, Changuu, Kisiwa Makaburi	Changuu, Bawa, Kwale	Melinane bandari
<b>35</b>	Maruhumbi, Mwanda, Mkokotoni, Chukwani	Bububu, close to the river	Bububu	Bububu, Fuji, Bububu salhia	Melinane Bububu
<b>THREATS TO THE ENVIRONMENT</b>					
<b>36</b>	Coral reefs are destroyed by drag net fishing and sea leaves are dead.	Dragging and netting			Coral reefs are being destroyed by Kojani fisherman

	<b>Interview 91</b>	<b>Interview 92</b>	<b>Interview 93</b>	<b>Interview 94</b>	<b>Interview 95</b>
<b>PERSONAL DETAILS</b>					
<b>1</b>	Kona Abdulla	Moh'd Seif	Moh'd Yassif	Yassif Haji	Abdula Mah'm Seif
<b>2</b>	90	42	47	24	46
<b>3</b>	4	7	8	6	8
<b>4</b>	Adult education	Standard 8	Standard 8	Standard 6	Form 3
<b>5</b>	70	3	20	5	20
<b>6</b>			Fisherman	Businessman and Fisherman	
<b>7</b>	30	30	27	4	30
<b>8</b>	Farming (Animal husbandry)	Business	None		
<b>9</b>	Insufficient	Insufficient	Sufficient	Insufficient	Insufficient
<b>LOCATION</b>					



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10	Kama	Matoro	Dar-es Salaam, Pwakuu, Boribo, Tambale, Magambe, Manjena, Bumbwini	Dar-es Salaam, Bagamoyo, Mnara wa mbao, Boribo, Magambe	Mkokotoni, Nungwi, Taga, Pemba, Dar-es Salaam
11	Kama	Matoro	Dar-es Salaam	Boribo	Dar-es Salaam
12	Corals and Mud	Rocks	Mud	Sand	Mud, Leaves, Rocks
13	Sometimes do not catch any fish	Sometimes do not get fish	Pays a lot of taxes and sometimes local traders in Bagamoyo	Boat engine problems	Damage to the boat engine, lack of life saving equipment
14	Yes, Kiomba mvua	Yes	Yes, Mtoni, Forodhani	Yes, Dar-es Salaam, Magambe	Yes, Nungwi, Tumbatu, Matemwe
<b>METHOD AND GEAR</b>					
15	Boat	Canoe	Outrigger boat	Outrigger boat	Boat
16	Alone	4	3	3	3
17	Trap (Dema), Lines, Nets	Lines	Lines and nets	Nets and lines	Lines
18	Hire	Yes	No	No	No
19	Yes	No	Yes, Jumuia ya Uvuvi ya Matoro	Yes	Yes, Jumuia ya Uvuvi, Maruhubi
<b>CATCH ANALYSIS</b>					
20	Tasi (Siganus), Gongeo, Changu (Lethrinus), Mkundaji (Goat fish)	Changu Chaa	Kibua, Saladini, Tonge, Upapa	Saladin, Vibua, Ngurwa Ngurwa, Upapa, Tongekwatonge	Changu, Nguru, Kolekole, Jodari
21	Yes, Beach, Mfanisini, Old market	Yes to neighbors	Yes, Malindi, Ferry	Yes Malindi, Ferry and Bagamoyo	Yes, Nungwi, Mkokotoni, Malindi
22	30kgs	15kgs	300kgs	300kgs	500kgs
23		Freezer	Sack	Plastic bag	Cooler box
<b>FISHING STOCK</b>					
24	Better 5 years ago		It was better 5 years ago	Better 5 years ago	Better 5 years ago
25	Much better 10 years ago		It was much better 10 years ago	Much better 10 years ago	Much better 10 years ago
26	Better fishing gear	No change	Punishment from God	Prices at the market	More fishermen and destructive fishing

27	Tasi (Siganus)	Changu Chole	Kibua, Saladin	Saladin	Nguru, Changu
28	Good idea	Very nice	Very good idea	Not good	Good idea
29	Not affected	Not effect	No because he usually fishes very far		Not affected
30	Farming	Businesses	Small business	Shop	Business
<b>CONSERVATION AREA</b>					
31	Kama, Mkwajuni should be conserved	Forodhani up to Chukwani	Kizing, Bawe, Changuu, Matoro		Jamba ngome, Kilume, Mapape
32		Near their home		More profitable	
33	Yes, creates employment	Yes	Yes, they can collect taxes and increase employment	Yes, people will get employment	Yes, creates employment
34	Mkwajuni	Fungu karume (Pange)	Pange, Nyange	Fungu, Nyange	Marumbi
35	Kama	Mazizini	Mazizini, Matoro	Kizingo, Majanini	Marumbi, Bumbwini, Mkokotoni, Mwanda, Chukwani
<b>THREATS TO THE ENVIRONMENT</b>					
36	Mangroves are destroyed	Corals, killing small fish using nets	Erosion	Corals are destroyed	Sea weeds and Coral reefs are destroyed by fisherman who use drag nets

	Interview 96	Interview 97	Interview 98	Interview 99	Interview 100
<b>PERSONAL DETAILS</b>					
1	Omar Ali	Mwalim Mussa	Moh'd Issa	Ali Nassor Ali	Abdella Haji
2	52	28	47	45	56
3	12	0	13	6	5
4	Madrassa (informal education)		Standard 8	Standard 7	Standard 7
5	30	14	30	18	10
6		Fisherman		Fisherman	Chairman A.S.P
7	39	14	35	16	35
8	Carpenter	Captain of a tourist boat		None	Farming
9	Insufficient	Insufficient	Insufficient	Insufficient	Insufficient

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<b>LOCATION</b>					
<b>10</b>	Pungume, Pakuu, Mchinje, Kizimkazi, Fungu yasini	Dar-es Salaam, Mafia, Tanga, Nungwi	Nyange, Pwa kavu, Boribo, Mwamba heri	Changuu, Bawe, Fungu, Karume, Mwale	Kibandike, Changuu, Bawe, Boya jekundu
<b>11</b>	Fungu yasini	Kunduchi	Morogo	Changuu	Bawe
<b>12</b>	Corals, Mud and Rocks	Rocks	Mud, Corals and rocks	No	Squid
<b>13</b>	Rapid change in weather	Conflicts of license while in Dar-es Salaam	Problems of rapid changes in weather and engines, lack of life jackets	Only the wind	Change of weather
<b>14</b>	Dar -es Salaam	Dar - es Salaam	Dar - es Salaam	Yes from Maruhubi, Bububu	Yes Tumbatu
<b>METHOD AND GEAR</b>					
<b>15</b>	Outrigger boat	Boat	Outrigger boat	Mtumbwi – Tanga	Dhow with an engine
<b>16</b>	3	3	3	2	2
<b>17</b>	Line	Lines	Lines, Senga, Mchoto	Mishipi	Mshipi wa Taza
<b>18</b>	Yes	No	No	Yes	No
<b>19</b>	Yes, Association of fisherman - Forodhani	Yes, Association of fisherman - Forodhani	Yes, Association of fisherman - Forodhani	Yes	Yes
<b>CATCH ANALYSIS</b>					
<b>20</b>	Changu (Emperor), Nguru (King fish), Jodari (Tuna), Sehwa (Mackerel), Mizia (Mallet), Kolekole (Travellys)	Jodari (Tuna), Nguru (King fish), Mizia (Mallet), Fatundu (Red snapper), Changu (Emperor), Nduaro (Sword fish)	Nguru (King fish), Jodari (Tuna), Chewa (Grouper)	Changu, Mwewe, Nguru, Changu chole	Changu
<b>21</b>	Yes, Malindi, On ferries during Dago	Yes, Dar-es Salaam, Malindi	Yes, Malindi	Malindi fish market	Malindi fish market
<b>22</b>	100kgs	300kgs	200kgs	0 – 40kgs	0 – 10kgs
<b>23</b>				Do not keep	Do not keep
<b>FISHING STOCK</b>					
<b>24</b>	Better 5 years ago	Good 5 years	Better 5 years	Increased catch	Increased catch

		ago	ago	5 years ago	5 years ago
25	Much better 10 years ago	Much better 10 years ago	Much better 10 years ago	Decreased now	Decreased now
26	Different method of fishing		Method of fishing, especially Kojani fishing	Because of fishing nets	Only God knows
27	King fish, Changu (Emperor), Taa (Skates/Rays)	King fish		Changu	Changu
28	Good	Good idea	Good idea		Depends on the type of conservation
29	It doesn't affect	It doesn't affect	Not affected		None
30	Carpenter	Tour guide	Business		None
<b>CONSERVATION AREA</b>					
31	Chapwani upto Chumbe	From Nungwi up to Kizimkazi	Chapwani, Changuu up to Chumbe	Yes	Any place
32	Fungu yasini because the fish are bigger	Its near and much more profitable	Areas with more fish because its profitable	Changuu because there is less wind and a lot of fish	Changuu because its near home
33	Yes	No	Yes	Yes	No
34	Prison Island, Bawe, Chapwani	Bawe, Chumbe, Prison Island	Changuu, Bawe	Changuu	Do not know
35	Mpiga duri, Chukwani	Kinazini, Chukwani, Mtoni	Kinazini, Chukwani	Mpiga duri	Saateni, Mpiga duri
<b>THREATS TO THE ENVIRONMENT</b>					
36	Coral are destroyed because of "dragged nets"	Corals are destroyed, JKU[1]	Mangroves and corals are destroyed, JKU cause big threats	Cutting Mangroves	Nothing

	Interview 101	Interview 102	Interview 103	Interview 104	Interview 105
<b>PERSONAL DETAILS</b>					
1	Juma Amor	Simani Kimya	Maalim Khani	Duo Omar	Mcha Ali
2	62	45	56	40	35
3	4	6	5	11	3
4	Standard 8	Standard 7	Standard 7	Quran	Quran
5	20	18	10	25	15

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6		Fisherman	Chairman A.S.P	Fisherman	Farmer
7	20	16	35	25	5
8		None	Farming	None	None
9	Insufficient	Insufficient	Insufficient	Insufficient	Insufficient
<b>LOCATION</b>					
10	Mkokotoni	Changuu, Bawe, Fungu Karume, Mwale	Kibandike, Changuu, Bawe, Boya jekundu	Bawe, Nyanjalio, Changuu, Deep sea	Bawe, Minazini, Mafunguni
11	Sadani	Changuu	Bawe	Anywhere	Bawe
12	Corals and Stones	No	Squid	Changu, Pono, Paraguda, Tasi	Koana, Mkure, Nguru
13	Sometimes there is a problem with the engine	Only the wind	Change of weather	None	None
14	Yes, Pemba, Nungwi, Tumbatu, Dar-es Salaam	Yes from Maruhubi, Bububu	Yes Tumbatu	Dar - es Salaam, Pemba, Nungwi, Tumbatu	No
<b>METHOD AND GEAR</b>					
15	Outrigger boat	Mtumbwi – Tanga	Dhow with an engine	Dhow with an engine	Ngalawa Tanga
16	3	2	2	2 or 3	Alone
17	Lines	Mishipi	Mshipi wa Taa	Toe	Mishipi
18	Yes	Yes	No	Yes	Yes
19	No	Yes	Yes	Yes	Yes
<b>CATCH ANALYSIS</b>					
20	Changu, Nguru, Jodari, Mzia	Changu, Mwewe, Nguru, Changu chole	Changu	Parangunda, Mkundaji, Pono, Tasi, Changu	Kole Kole, Muadana, Sehewa, Jodari, Songoro
21	Yes	Malindi fish market	Malindi fish market	Malindi fish market	Malindi fish market
22	7kgs	0 - 40kgs	0 - 10kgs	0 - 30kgs	0 -20kgs
23		Do not keep	Do not keep	Do not keep	Do not keep
<b>FISHING STOCK</b>					
24	Better 5 years ago	Increased catch 5 years ago	Increased catch 5 years ago	Increased catch 5 years ago	Increased catch 5 years ago
25	Much better 10 years ago	Decreased now	Decreased now	Decreased now	Decreased now

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26	Different ways of fishing	Because of fishing nets	Only God knows	Increase in the number of fishermen and use of nets	Because of using nets
27	Changu, Nguru	Changu	Changu	Changu and Koana	Changu
28	Good idea		Depends on the type of conservation	Better to conserve	Depending on the method employed though it's better to conserve
29	Not affected		None	None	None
30	Business		None	None	None need to be educated about alternatives

**CONSERVATION AREA**

31	Isso wa membe up to Pungwe	Yes	Any place	Changuu	Changuu, Bawe
32		Changuu because there is less wind and a lot of fish	Changu because its near home	Bawe because there are a lot of fish	Bawe because there are a lot of fish
33	Yes, fishermen will get more profit	Yes	No	Yes	Yes
34	Bawe, Chumbe, Changuu	Changuu	Do not know	Stone Town, Bawe, Changuu, Chumbe	Stone town, Changuu, Bawe
35	Kinazini, Mpiga duri	Mpiga duri	Saateni, Mpiga duri	Mpiga duri, Saateni	Mpiga duri

**THREATS TO THE ENVIRONMENT**

36	Coral reefs	Cutting Mangroves	Nothing	Uvuvi Haram, Cutting mangroves	Nothing
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	Interview 106	Interview 107	Interview 108	Interview 109	Interview 110
<b>PERSONAL DETAILS</b>					
1	Pande Ali	Ibrahim Mussa	Abdulla Kai	Khamis Ame Moh'd	Juma Swaleh
2	32	45	25	51	30
3	5	5	3	4	2
4	Standard 7	Form 3	Form 3	Standard 7	Adult education
5	19	18	1	21	15

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<b>6</b>	Farmer	Fisherman	Fisherman and Farmer	Fisherman	Fisherman
<b>7</b>	32	25	25	51	30
<b>8</b>	Farming	Farming	Businessman	Farming (Cultivation)	Farming
<b>9</b>	Insufficient	Sufficient	Sufficient	Insufficient	Insufficient
<b>LOCATION</b>					
<b>10</b>	Mkokotoni	Mkokotoni, deep sea	Uso wa membe (Peninsula), Bububu, Uzi, Dago	Mwana wa Mwana and Kizimkazi	USo wa membe for north monsoon wind, for south monsoon wind Vundwe.
<b>11</b>	Ndagoni	Mkokotoni	Uso wa membe	Kizimkazi	Uso wa membe
<b>12</b>	Changu, Kolekole	Njana, Kolekole, Mizia	Ngisi (Squid), Pweza (Octopus), Changu (Lethrinus), Chaa (Gar fish)	Turtle, Dolphin, Whale	Rocks
<b>13</b>	He is not faced any problem	I usually did have big problem	Lots of wind and the fishing gear is small	Poor fishing gear	Rapid change of weather. Also conflict with nearby fishermen
<b>14</b>	Bumbwini, Stone Town	Kiomba mvua, Stone Town, Fukuchani	Yes, Mkokotoni, Tumbatu, Matemwe, Potoa	Bumbwini, Michungwani, Makoba	Yes, Mkokotoni, Fukuchani, Nungwi.
<b>METHOD AND GEAR</b>					
<b>15</b>	Canoe	Canoe	Boat, Outrigger boat (Ngalawa)	Canoe	Canoe
<b>16</b>	4 to 5	4 to 5	2 or 3	4	2
<b>17</b>	Lines	Lines	Lines	Lines	Lines
<b>18</b>	Yes	No	Yes	No	Yes
<b>19</b>	Yes	Yes	No	No	No
<b>CATCH ANALYSIS</b>					
<b>20</b>	Fatundu, Tambisi, Makuwazi	Madimbwara, Jodari, Sehewa	Octopus, Koana (Rock fish), Mbasi (King fish), Sehewa (Mackerel)	Jodari (Tuna) Nguru (King fish), Nduaro (Sword fish), Mbaasi (Sword fish), Koana (Rock fish)	Njana , Komba, Janja, Koana (Rock fish)

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21	Mkokotoni fish market	Yes, Mkokotoni	Yes, Kiongwe and Mkokotoni, Bububu and Malindi	Yes, Mkokotoni and Kizimkazi	Yes, old Stone Town market
22	10 - 15 kgs	70 kgs	55 kgs	50-150 kgs	1 5kgs
23	None	None	In bucket	In the boat	In the basket
<b>FISHING STOCK</b>					
24	Was better 5 years ago	It was better 5 years ago	More fish 5 years ago	It was good 5 years ago	It was better 5 years ago
25	Was best 10 years ago	It was best 10 years ago	More fish 10 ago	It was better 10 years ago	It was best 10 years ago
26	A lot fishermen come in our place	A lot of fishermen	Advanced fishing gear and technique	Fishermen change behavior	None
27	Kambisi	Changu, Nguru	Changu (Lethrinus)	Jodari (Tuna)	Changu (Lethrinus)
28	It is good idea	better	Good	It is good idea	None
29	Not affect	Not affect	Decrease in Malaria as they will start fishing nearer home where its more secure	It does not affected his livelihood	None
30	Poultry	Poultry	Farming and sea weed	Small business	Farming
<b>CONSERVATION AREA</b>					
31	Muanda	Muanda, Tumbatu, Mangapwani	Should stop at Ngamoya	Nungwi, Bawe island	None
32	Muanda because it is near by home	Mkokotoni, becourse near by fish market	Uso wa Membe	Mwana wa mwana is very near to home	Nearby home
33	Yes	Yes	Yes	Yes	No
34	None	None	Uso wa membe	Mangapwani	None
35	Bumbwini, Mkokotoni	Kiongwe , Kipange	Mangisani, Kiwani	Dikoni, Mwambaoni, kwa buji	Mangisani, Mkokotoni
<b>THREATS TO THE ENVIRONMENT</b>					
36	Mangrove cutting	Mangrove cutting	Fishermen cut the mangrove for fishing gear	Political Conflict	None

	<b>Interview 111</b>	<b>Interview 112</b>			
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<b>PERSONAL DETAILS</b>					
<b>1</b>	Malik Mwinyi Usi	Issa Aledulla			
<b>2</b>	49	48			
<b>3</b>	9	10			
<b>4</b>	Standard 7 and Quran	Madrassa (informal education)			
<b>5</b>	15	5			
<b>6</b>	Fisherman				
<b>7</b>	15	32			
<b>8</b>	Trading	Farming			
<b>9</b>	Moderate	Insufficient			
<b>LOCATION</b>					
<b>10</b>	Deep water	Jamba, Pemba, Baweni, Boribo, Pwakuu, Magambe, Manjema			
<b>11</b>	Deep water	Magambe, Boribo			
<b>12</b>		Rocks			
<b>13</b>	No assistance when there are problems	Rapid changes in weather			
<b>14</b>	Bagamoyo, Kuduchi	Yes, Tanga, Bagamoyo, Dar-es Salaam			
<b>METHOD AND GEAR</b>					
<b>15</b>	Outboat engine boat	Boat			
<b>16</b>	16	15			
<b>17</b>	Purseine	Nets and lines			
<b>18</b>	Hire	Hire			
<b>19</b>		No			
<b>CATCH ANALYSIS</b>					
<b>20</b>	Vibua, Sardine, Ngurangura, Upapa, Sahura	Jaladini, Vibua, Tonge, Sehewa, Nguru, Kolekole			
<b>21</b>	Malindi, Begamoyo, on ferries	Yes, Malindi, in Ferries and Bagamoyo			

22	20 – 30 buckets (15 kgs each)	1000kgs			
23	Do not keep	In sacks			
<b>FISHING STOCK</b>					
24	Increased now	Better catch 5 years ago			
25	Decreased now	Better catch 5 years ago			
26	Fishing in far away areas	Politics			
27	Vibua, Sardine, Ngurangura, Upapa, Sahura	Kibua, Saladin, Daga, Upapa			
28	It's a good idea if people are made aware	Good idea			
29	Will only affect my livelihood if procedures are highly followed	Does not affect livelihoods			
30	Trading and animal husbandry	Farming or work at the Ministry of Agriculture			
<b>CONSERVATION AREA</b>					
31	Outside Prison Island, Changuu and Bawe	Tumbatu, Prison Island, Bawe, Chumbe,			
32	Off-shore areas	Near home			
33	No improve Malindi	Yes would like a local fish market as it creates employment for local people			
34	Prison Island, Bawe	Fungu, Karume, Changuu, Chumbe			
35	Bububu, Maralubi, Mpinga duri	Maruhubi, Bububu, Chukwani			
<b>THREATS TO THE ENVIRONMENT</b>					
36	Oil from anchored ship, built hotel sewage and garbage drift to Mtoni	Beaches and coral are all threatened			