



Ministry of Agriculture, Livestock and Environment

Department of Fisheries and Marine Resources

Rapid Assessment of the proposed Tumbatu Marine Conservation Area (TMCA)

Appendix IV A & B

**Marine & Coastal Environment Management Project
(MACEMP), Tanzania**

Global Environment Facility (GEF) / World Bank

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APPENDIX IVA: Preliminary Analysis of the socio-economic data collected in the field

A preliminary analysis

Though the rapid assessment was not intended to include an extensive study of the fishing community, information gained from the 119 interviews revealed some patterns that are relevant to the proposed TMCA, and revealed possible trends that need further investigation. The analysis below is tentative and would require further investigation for proper statistical tests to be done.

General profile of the fishers

The ages of the fishers ranged from 20 to 88 (although the upper age class records may be a result of poor record keeping of age). See Figure 1 for an overview of the age structure among the interviewed Fishermen. The most common age class (between the age of 45-49) had 27 of the 119 respondents.

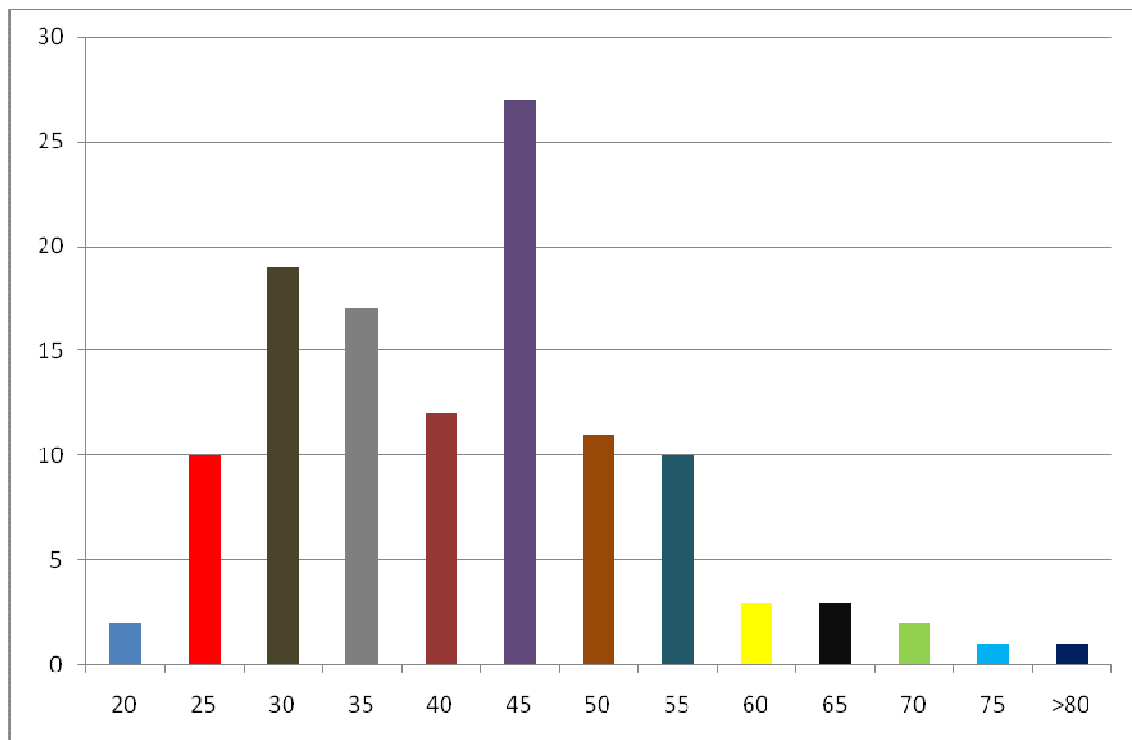


Figure 1: Age structure of the fishermen interviewed

The majority of the respondents had either form 2 or form 3 education only (with 14% of the respondents in each category). The 3rd most common education class was Quran school only (12%). 10 % of the fishermen had no formal education, while the remaining 60% had different combinations of Quran school and lower education like between standard 1 and 7 (Figure 2). The 119 respondents had a total of 939 dependants.

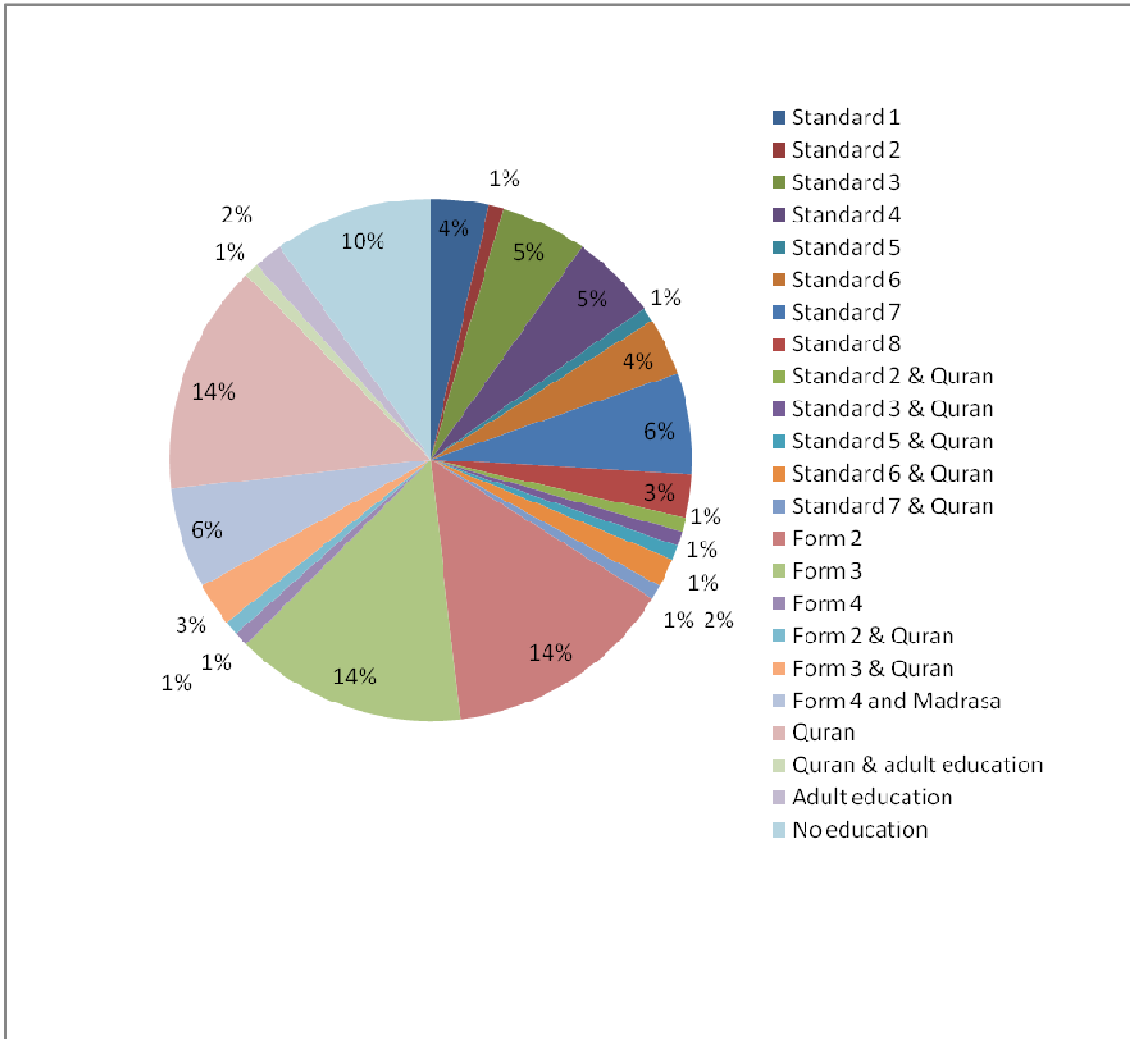


Figure 2: Proportion of the educational levels of the respondents

The consultant also asked on what the professions of the fathers was and 60% of the respondents indicated that their fathers were fishermen (Figure 3). There were other professions mentioned like a cook, a policeman, a trader and a businessman. The latter two professions were however not specified and therefore the consultant can not specify the type of business/trade the fathers were conducting. Others were farmers, ranging from animal husbandry to cultivation of crops while others were carpenters who carved boats and other wooden material.

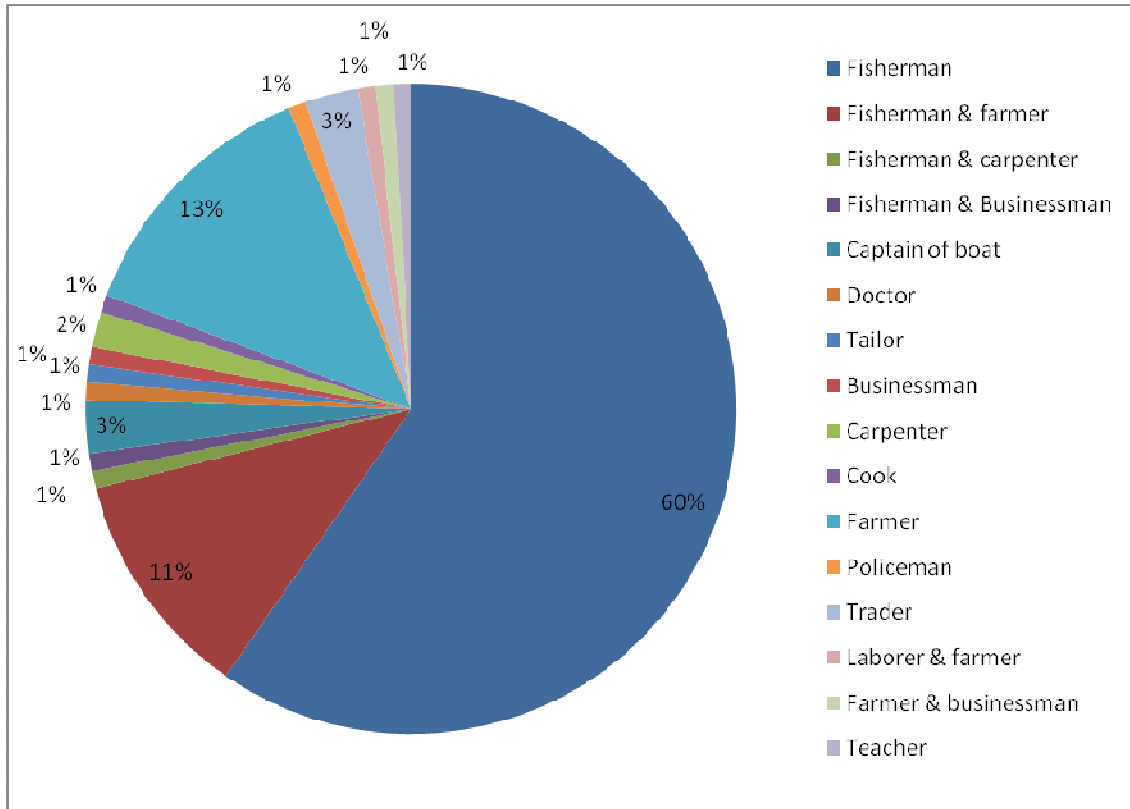


Figure 3: The proportion of the respondent's fathers' profession

Most of the fishermen had spent over 15 years fishing (88%). Of these, the most common fishing grounds included Tumbatu Island, Chumbe, Bawe, Mafia, Dar es Salam, Stone Town, Popo Island, areas between Pemba and Tanga, Mwana wa Mwana and Nungwi. 45 fishermen indicated that they fish near Nungwi, Mwana wa Mwana and Tumbatu Island. From all the respondents, the preferred fishing grounds included Mafia, Tanga, Dar es Salam, Tumbatu Island, Bawe, Chumbe, Changuu and Mwana wa Mwana with 33 of the respondents stating that they preferred to fish near Nungwi, Mwana wa Mwana and Tumbatu.

When asked within what type of ecosystem and environment the fishermen like to fish, some mentioned that they fish near coral reefs or where there is sea grass. In these sites the fishermen have observed dolphins, octopus, whales, turtles and birds with 19 of the fishermen indicating that they saw dolphins and 5 stating that they saw whales.

Forty one percent (41%) of the respondents engaged in farming as another form of livelihood activity. Other alternative forms of livelihood included trading, carpentry, builders, healers (not specified), teachers; businessmen, tailors and divers (Figure 4).

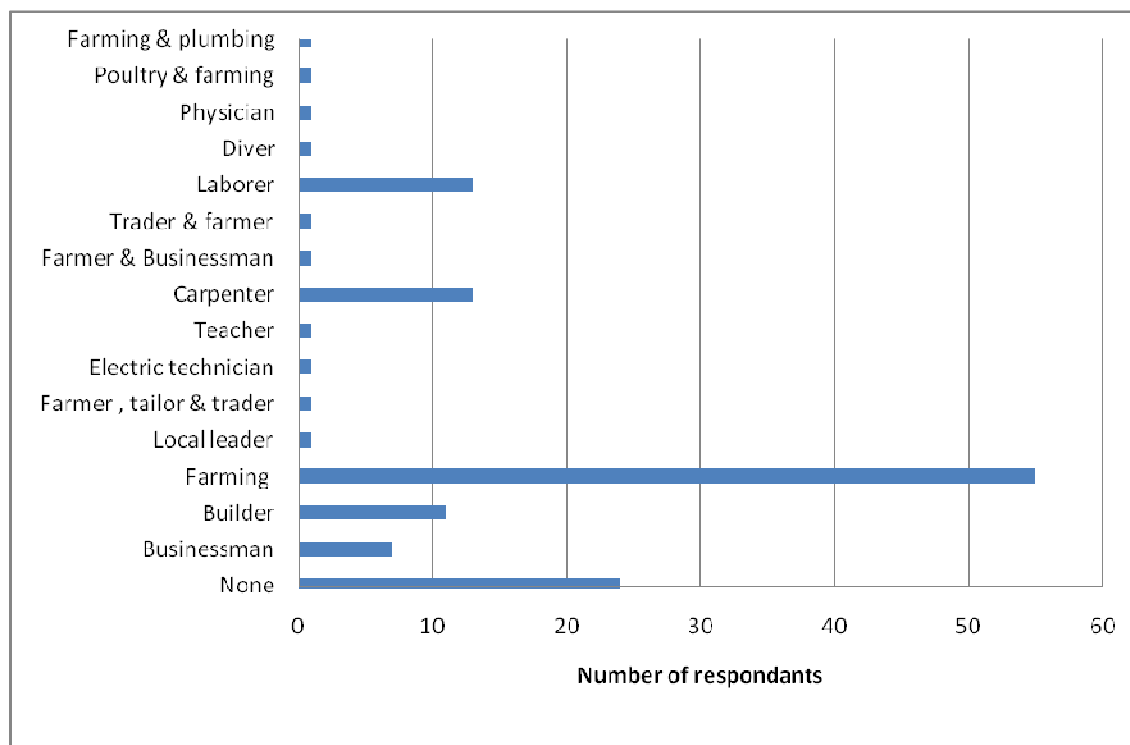


Figure 4: Other livelihood activities that the respondents are engaged in

Livelihood through fishing

Eighty percent (80%) of the fishers indicated that the income they received from fishing was insufficient. Only 9% of the fishers considered the income sufficient while 11% stated that it was moderate. Another study (Ministry of Livestock and Fisheries Development and Ministry of Agriculture (Mainland), Livestock and Environment (Zanzibar), 2008)¹; indicated that the number of fishers has increased by 25% in spite of the failure of the resource to meet all their basic needs. Though this is a generalised result, there is indication that the fishing pressure is increasing and therefore a need to curb or find alternative livelihood activities for the fishers in Zanzibar as the fish stocks will continually decrease and not meet the fishers demand.

Some of the fishers indicated that they would want to engage in alternative forms of livelihoods and of these, 60% indicated that they would want to engage in farming – be it animal husbandry, poultry or cultivation (Figure 5). 10% of the fishermen indicated that they would want no other for of livelihood and would like to continue fishing. Others however indicate professions such a businessman, tourism, carpentry, driving and construction.

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

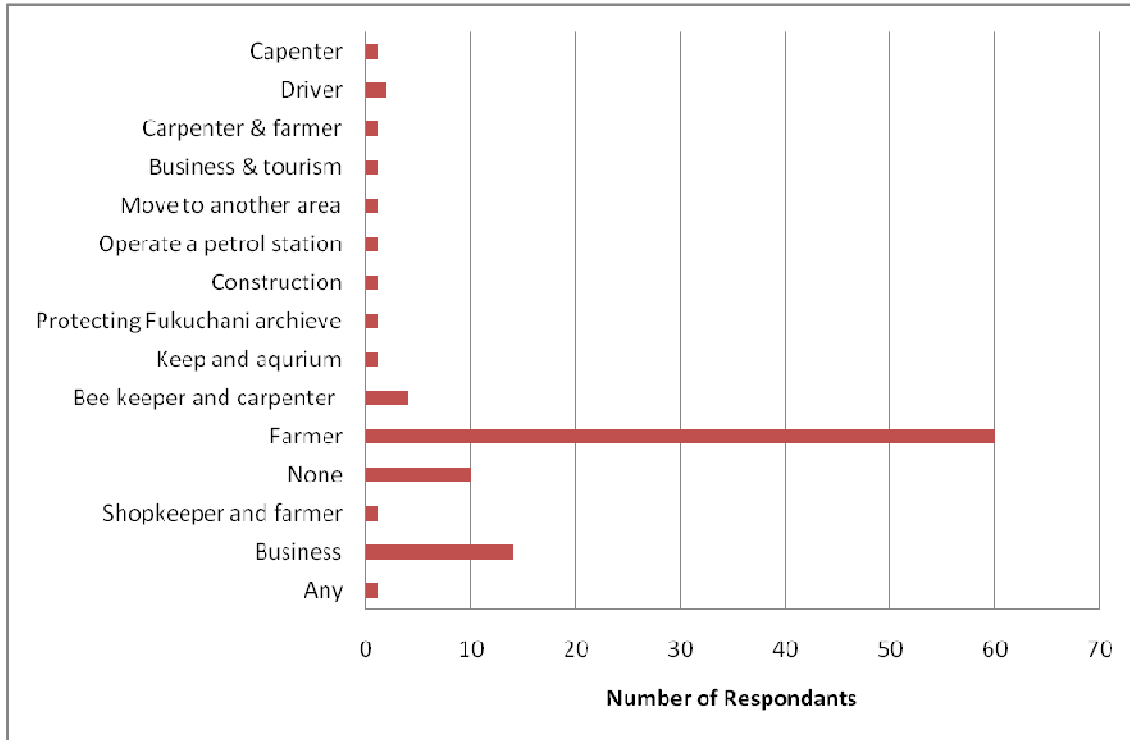


Figure 5: The suggested livelihood activities for the Fishermen

The fishers indicated that tourist like to visit places like Mwana wa Mwana, Uvunge, Kendwa, Nungwi, Funguni, Uso wa mepani and all coastal areas except Kiongwe. There was no reason given on why Kiongwe was not an ideal tourist destination.

Organisation in the fisher community

The fishing community is organised into association for some areas within and around Tumbatu Island. Seventy five percent (75%) of the fishermen where organised into associations while 25% where not part of an association. Thirty six percent (36%) of the fishermen do not own boats while 46% of them own their own boats and 14% hire and 4% are community boats.

The fishers fish for subsistence and also to gain income from the fish catches. The fish that they sell is sold at markets such as the Mkokotoni, Stone Town, Dar es Salam, Fukochani, Kunduchi, Nungwi, Tanga, Bwekundu, Malindi, Kizimkazi, Bwekundu, and on ferry boats. Forty-one percent (41%) of the fishermen sell over 50kg of fish 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. The fishermen keep their fish on boats or in sacks as they do not have freezers or other methods of keeping their fish for long. Forty two percent (42%) of the respondents stated that they do not keep the fish while 40% stated that they keep the fish on boats. Only 1% of the fishermen stated that they sundry the fish.

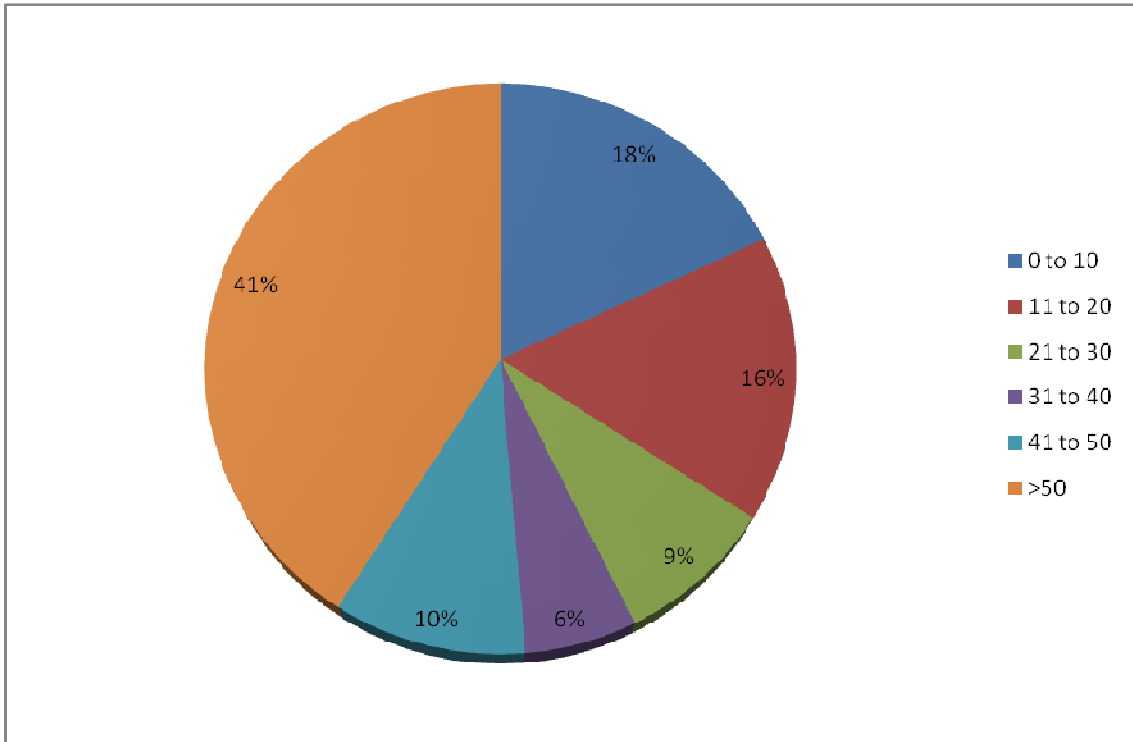


Figure 6: Fish sold by the fishermen in kilograms

The fishing gear used by fishermen included lines, traps and nets – though the mesh sizes were not stated. Thirty eight percent (38%) of the fishermen used nets while thirty nine percent (39%) of the fishermen used lines (Figure 7). Other fishers mentioned that they used spear gun fishing and some gas cylinders (though this method is highly destructive, particularly to the coral reefs). There was however a realisation of the dangers that some of the fishing gear had on the fishing resources by the fishers.

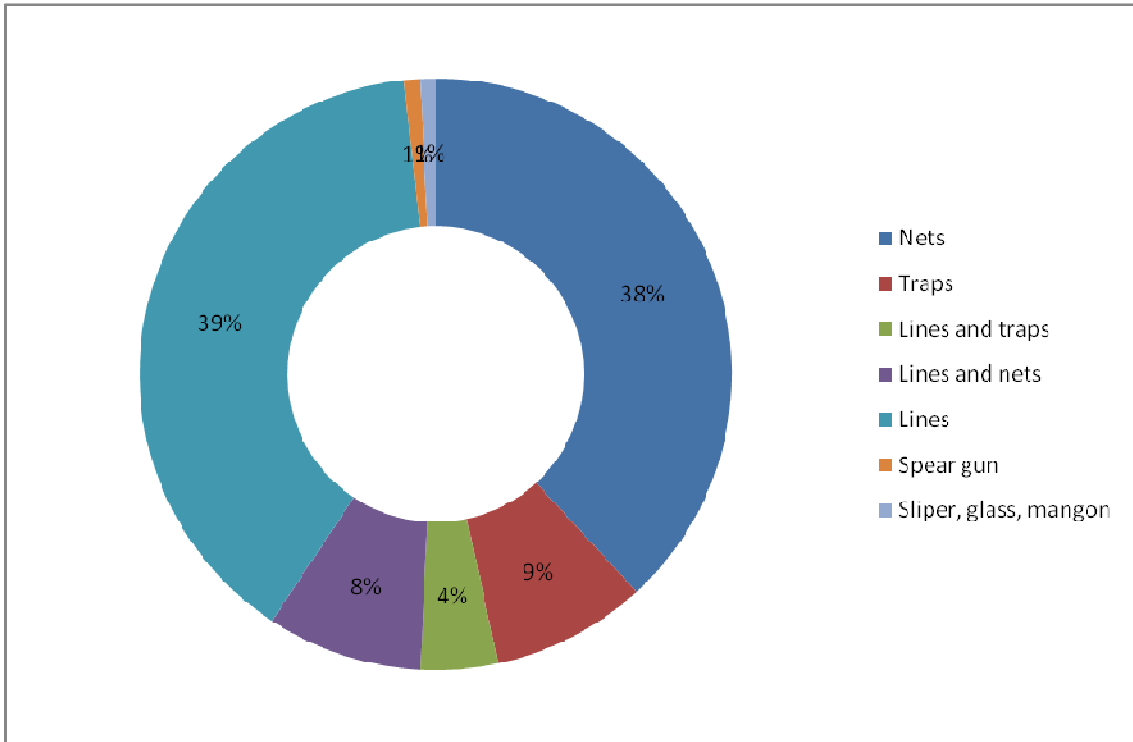


Figure 7: Fishing gear used for fishing

The majority of the fishers, 57%, used canoes as a fishing vessel. Only 12% of the respondents had fishing vessels with engines (Figure 8).

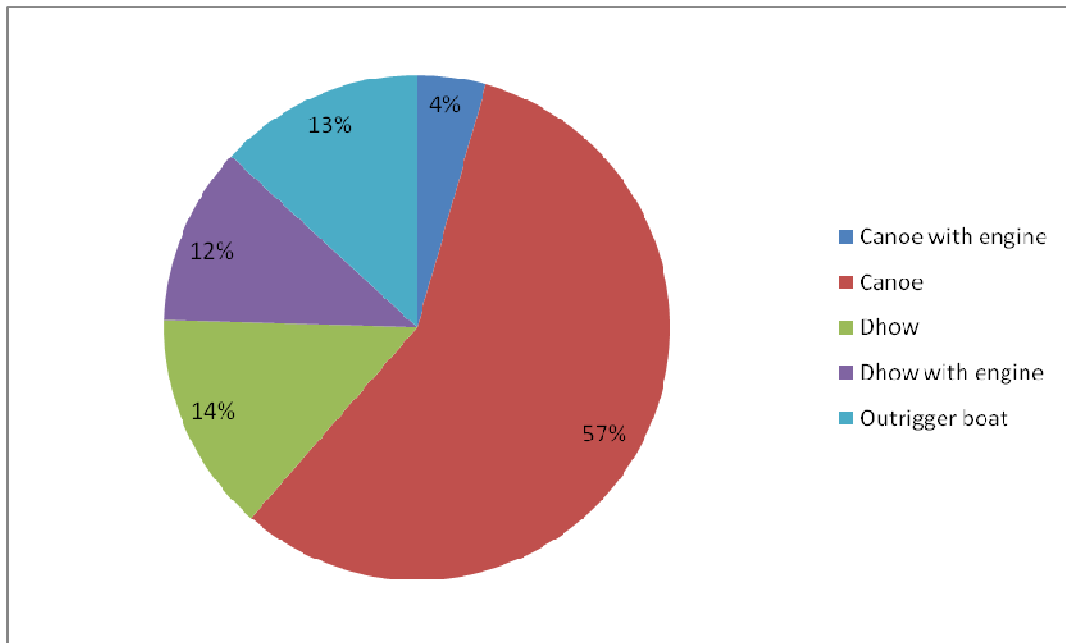


Figure 8: The different type of fishing vessels used

Figure 9 shows an overview of the different group sizes in which the respondents work together. It was most common to fish in groups of 2 to 5 people together (62%). Only thirteen percent of the fishers fished alone. The other fishermen fished in larger groups, some in groups of 10 or 15 while other groups exceed 19 people on a boat. Nine percent (9%) of the fishers stated that they fished in groups of over 19 people.

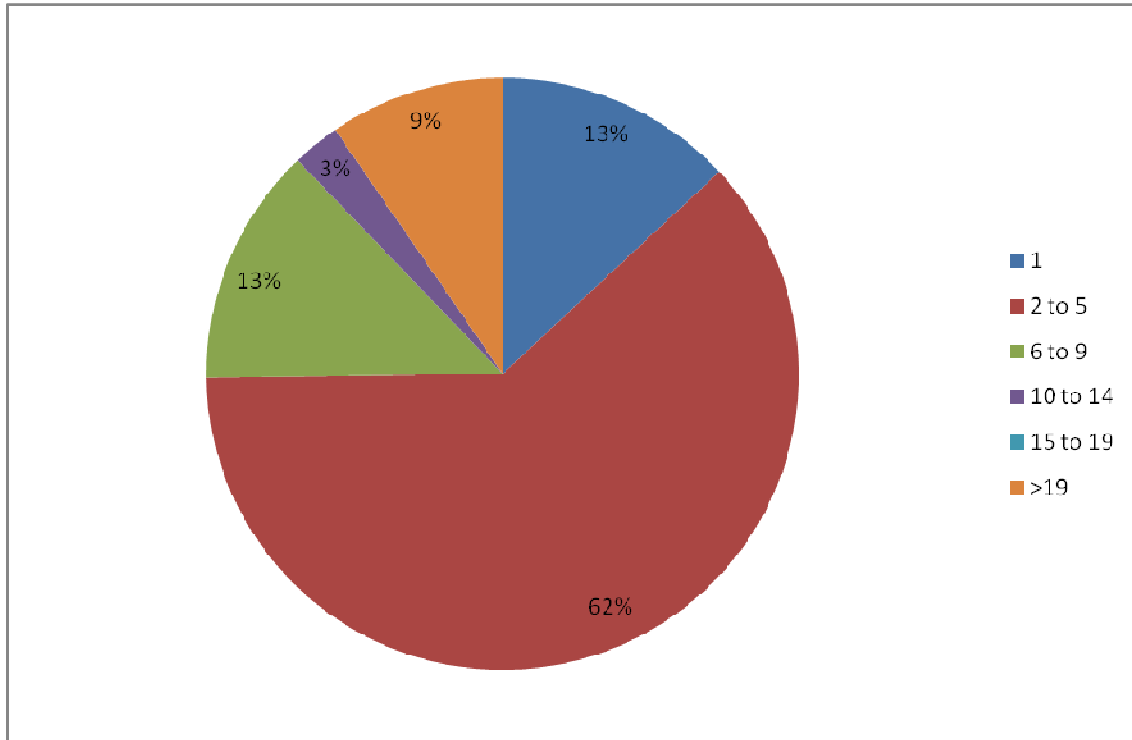


Figure 9: Group sizes of the fishermen interviewed

The fishers also indicated that they face a number of problems while they are fishing. Some of the problems stated included a lack of good boats, fishing gear, people cutting their nets, accidents with larger boats, conflict between the fishermen and divers and other tourists, strong wind and other environmental factors. There were some fishers who indicated that taxes that they pay are a problem and that the amount of fish that they catch is insufficient for their daily sustenance. Others indicated that the problem was with the Department of Fisheries who sent people to at times stops them from fishing.

Views of the resources

All the fishers were aware of the decline in fishing resources over the past 5 and 10 years. All of them indicated that they had seen a decline in the amount of fish over the years. The stated reasons that the fishers gave for this observed decline included, overfishing and therefore an increase in fishing pressure, the use of spear fishing and increase in the number of fishers who used nets and who had better fishing equipment. Others indicate that the destruction of coral reefs as a result of a Tsunami was causing the decline while other blamed this environmental damage to dragging nets and increase in human population which resulted in an increase in fishing pressure. Illegal fishing, more people from the north coming to fish,

prices of fish on the market, an increase in tourism, hotels and diving and the fishermen's behaviour were also stated as root cause for the decline. In addition, Kojani fishermen and their methods were also stated as a reason for the decline in fishing resources.

The 'Tragedy of the Commons'

Information from this survey indicates a high fishing pressure within and close to the proposed TMCA. Over 40% of the fishermen interviewed here fish inside the proposed Marine Conservation Area and over 20% of these would like to continue fishing there. There are also fishermen that come from all ends of the Unguja Island as well as from Pemba to fish in the proposed area and some respondents stated that they fish with fishers from Dar es Salam. There is therefore an urgent need to put in place some control measures for the fishers that fish in this area. Regulations and legislations would need to be put in place at the same time as the creation of the TMCA – otherwise it may be fruitless for the MCA to be created while the fishing pressure still continues to be too high or even increase even further in the area.

Mechanisms and frameworks to create a sense of ownership among the fishermen who live and fish near the proposed TMCA needs to be put in place. This may be done through proper consultation with the fishers and when the management plan for the MCA is being created. One suggestion would be to register all the fishers in and around the proposed TMCA and register and mark their fishing vessels so that they are the only ones who are able to access the resources and fish in the demarcated TMCA.

Threats to the environment

The fishers indicated some of the issues that they perceive as threats to the environment. Some of the issues mentioned were the cutting of mangroves. These mangroves were said to be in Vinje, Tumbatu, Jambazani, Sheka, Uvuvi, Kikokwe, Makoba, Mtunda and Ng'ombe. Other factors such as destructive fishing methods like the use of spear gun fishing, dragging nets, setting nets around coral reefs and catching all types of fish were also mentioned among the threats to the environment. In addition, illegal fishing, diving, ignorance of the fishing community, a lack of public awareness, **Lack of conservation**, sand mining, tourism and a sugar factory that did not dispose of its waste correctly were also stated as the threats to the environment.

These threats indicated by the fishers illustrate the fact that fishers know of the issues that need to be addressed in order for them to sustainably obtain the fishing resources that they depend on so much. Over utilisation and unregulated use of the resources provide the premise for which to develop mechanisms that will ensure the sustainability of the fishing resources for the fishers.

Attitudes toward a possible MCA

It is therefore not surprising that 79% of the fishers thought that creating a conservation area is a good idea. Sixteen percent (16%) were unsure while 5% thought it a bad idea. The stated reason for the dislike or acceptance of an MCA by the fishers centred mainly on the effect that establishing the MCA would have on their livelihoods. Some of the reasons stated for the need for an MCA include, an increase in income, creating a better future for their children, improvement in livelihood as this will ensure development, saving the environment and the

fish, protecting the environment, stop fishers who use illegal fishing methods like small size mesh nets, gas tanks and also reduce the number of fishers who have engines on their boats who travel from far. Those that felt it a bad idea indicates that the creation of the MCA may result in the people having poor lives, decrease people's standards of living, decrease fish and as a result people may starve. By and large, the majority of the people thought the creation of the MCA was a good idea and basing it on that, and further consultations, the client may be able to create and demarcate an MCA in an area that is well recognised by the fishers and an area that all the parties agree on.

APPENDIX IVB: Socio-economic data collected in the field

	Interview 1	Interview 2	Interview 3	Interview 4	Interview 5	
PERSONAL DETAILS						
1	Name	Makame Haji Makame	Juma Shah Juma	Kwamis Pandu	Mohammed Sima Juma	Sheha Ali Sheha
2	Age	56	37	34	46	56
3	Dependants	9	5	11	8 people	4
4	Education	Duran	Quran	Standard 3	Quran	Quran
5	Time fishing	35 years	23 years	18 years	25 years	45
6	Father's job	Fisherman	Fisherman	Fisherman	Fisherman	Fisherman
7	Length of stay	56 years	37 years	34 years	46 years	56
8	Other activities	None	None	Business	Making building material	
9	Income from fishing	None	None	Insufficient	None	Insufficient
LOCATION						
10	Fishing ground	Tumbatu, Chumbe, Bawe, Mafia, Dar es Salam	Kilimajuu, Wamba, Wakati, Tanga	Dar es Salam (Umbuji), Ranga	Tumbatu, Zanzibar town, Mafia, Dar es Salam	Popo, Kiliaja, Kwanua, Rega, Ras Bole, Mwana, Intertidal waters
11	Place preferred for fishing	Mafia	Tanga	Karage (Dar es Salaam), Kafeni	Zanzibar Town, Bawe, Changu, Chumbe	Popo, Kiliaja, Kwanua, Rega, Ras Bole, Mwana, Intertidal waters, Mainland (Taga)
12	Type of ecosystem/species	Coral reef, Tutle and fishes	Coral reef, Squid, Octopus	Sand and Coral Reefs	Coral Reef, Turtle, Dolphin	Mixed Coral Reefs, Sea grass and Sand
13	Problems in the area	Problems with the boat engine	Fish but do not get any benefits from it	The gears used for fishing is very small	People cutting their nets, wind and Ferries	Dragging fishing gear
14	Other fishermen	Kidoti, Potoa, Muande	Numgwi, Mnambale, Fukuchani, Bumbwini	Yes, Kunduchi	Nungwi, Fukuchani, Bumbwini, etc	

METHOD AND GEAR						
15	Type of boat	Ngwanda with engine	Mtumbwi – Tanga	Canoe	Dhows	Dhow
16	Work alone or as group	4 people	Group of 4 – 5 people	Alone	Group of 7 – 8 people	
17	Gear and method used	3.5 inch nets	Madema	Fish lines and Dema	Nets with 3 – 3.5 inch nets	Fish trap
18	Ownership of boat	Community boat	Hire	Yes	Community	No
19	Fishers Association	Yes, Ushiziko Songa Mbele	Yes	Yes, Uvivini Corporative	Yes, a lot	Yes, 1
CATCH ANALYSIS						
20	Type of organisms fished	Mbasi, Nduazo, Jodazi, Sehewa, Kolekole, Papa	Tasi, Pono, Mkundaji, Buyemba, Changu	Songoro, Taa, Karambisi, Changu, Papa	Changu, Tasi, Pono, Nyarodo, Kolekole	Changu, tasi, Pono, Cheva, Kangeja
21	Fish sale	Mkokotoni fishmarket, Town, Dar es Salam, Tenga, Mafia	Mkokotoni	Yes, Kunduchi and on Ferries	Mkokotoni fish market, Fukuchani fish market	Mkokotoni or the village
22	Amount of fish sold per day	0 – 60kg	0 – 70 kg	40 kg	0 – 250kg	Up to 8 kg
23	How fish is kept	Freeze in an ice-box	Do not keep		Do not keep	Do not keep
FISHING STOCK						
24	Fish stocks compared to five years ago	Made more money with fishing 5 years ago but now there are no more fishing	Got more fish 5 years ago	More money received but less fish now	More fish five years ago	
25	Fish stock compared to 10 years ago	More fish then	Got much more fish 10 years ago	Fish stock is bad now	More fish ten years ago	More fish 10 years ago
26	Reasons for change	Overfishing	Because of Junga and gun fishing	Fisherman stopped fishing destructively	More fisherman and the use of nets and machines	More fisherman and most of the people form the northern region fish in Tumbatu
27	Most common fish in the area	Mbasi, Sehewa	Tasi	Songoro	Mbawa (Tembo)	Tsunami

28a	Views on conservation	It's a good idea	Depends on the method though people need more knowledge about conservation	Good idea for the communities	It's a good idea but depends on the method employed	Good idea if the rules and guidelines are clearly defined
28b	Effect on livelihood	Divers also need to be restricted as they are killing the ecosystem	No effect	Will not affect livelihood		We may be able to catch more fish and bigger fish
29	Possible alternative activities	Any	Mfugaji	Business	Shopkeeper and Farmer	Fishing in other areas
CONSERVATION AREA						
31	Conservation area demarcation	Ranga, KwaMwana, Uthani	Mwana, Rasini, Popo, Makutani	Mwana wa Mwana upto Mayale	Kwa Mwana, Tumbatu	Tumbatu, East of Tumbatu, Kendwa and Mwana wa Mwana
32	Areas liked for fishing	Mafia because they are a lot of fish that are accessible	Tanga because the people there have a lot of experience in fishing	Where there are a lot of fish	Bawe, Chumbe, Changu because there are a lot of fish	Popo, Kiliuja, Kwanua, Rega, Ras Bole, Mwana, Intertidal waters
33	Fish market location	In Tumbatu	In Tumbatu	Yes	Yes	No
34	Areas liked by tourists	Mwana and in Tumbatu as well	KwaMwana	Kilimajuu, Uvunje, Kwamwana	Kwa Mwana and Kendwa	Mwana
35	Mangrove sites	Vinje Tumbatu	Jambazani, Mvinje, Sheka Uvuvi		All around Tumbatu	Kikokwe, Njio ya Chii, Jogawali
THREATS TO THE ENVIRONMENT						
36	Threats to the environment	None	It's not a big deal	Coral reefs are destroyed by destructive fishing gear	Cutting the Mangrove and the use of the fishing gun	Spear gun, dragging, setting nets around the Coral reefs, Catching all types of fish

	Interview 6	Interview 7	Interview 8	Interview 9	Interview 10
PERSONAL DETAILS					
1	Hassan Mwadini Haji	Khamis Pandu	Pengwa Ali	Juma Mond	Sihima Hassan Juma
2	46	34	31	36	40
3	10	11	10	7	12
4	Form 4	Standard 3	Form 3	Form 3	Form 4
5	25 years	18 years	20 years	27 years	21 years
6	Fisherman and Farmer	Fisherman	Carpenter		Fisherman
7	46 years	34 years	31 years	36 years	40 years
8	Farming	Businessman		Livestock keeping	No
9	Insufficient	Insufficient	Insufficient	Insufficient	None
LOCATION					
10	Ngonya, Mwala said, Boza, Kwa Mwana wa Mwana, Nungwi	Dar-es Salam (Umbuji), Ranga	Makutani, Kijini, Dikoni, Kiomoni	Makutani, Kijini, Dikoni, Kiomoni	Tumbatu, Kizimkazi, Nungwi
11	Mwana wa Mwana and nungwi	Dar-es Salam(Karage), Kafeni	Pungume	Tanga	Tumbatu
12	Coral Reefs, Sand	Sand and Coral reef	Stones and leaves	Coral reefs, Leaves	Shells and Octopus
13	Fisherman using nets and divers	Has small fishing gear	No communication with other people and no engines on the boats	No engine on boats and when there is a lot of wind they lose a week's labor	People from ferry boats cut the nets
14	Nungwi, Fukuchani, Mwambale, Kidoti	Yes, Kunduchi	Yes, Matemwe, Kichangani, Fukuchani, Mkokotoni	Yes, Kibeni, Kivunge, Potoa, Shangani	From Nungwi, Donge Fukuehani
METHOD AND GEAR					
15	Dhow	Canoe	Canoe	Canoe	Ngarawa
16	4	Alone	8	08-Jul	Alone
17	Handling and nets	Lines and Dema	Nets	Nets	Madema
18	Community boat	Yes	No	No	No
19	Yes, 2	Yes, Uvuvini cooperative	Yes, Juwatu	Yes, Junatu	Yes
CATCH ANALYSIS					
20	Nguru, sahera, Mbazi, Papa, Kole kole, Longwe	Songoro, Taa, Karambisi, Changu, Papa	Taa, Songoro, Kolekole, Fatundu, Kamba	Taa, Sagoro, Kolekole, Fatundu, Komba	Changu, Mkundaji, Tasi, Pono

21	Yes, Nungwi, Mkokotoni	Yes, Kundichi, Fery	Yes, Mkokotoni	Yes	Mkokotoni
22	0 – 60kg	40kg	50kg	50kg	0 – 10 kgs
23	Hire a freezer				Do not keep
FISHING STOCK					
24	More fish five years ago	More fish but less profit then	Better fish catch 5 years ago	Better fish catch 5 years ago	More fish five years ago
25	More fish ten years ago	More fish but less profit then	Excellent fish 10 years ago	Excellent fish 10 years ago	Much less now
26	More people are fishing	Destructive fishing	Destructive fishing and Tsunami	Destruction of coral reefs and Tsunami	More fisherman
27	Sehera, Jodari, Nguru	Songoro	Changu	Changu	
28a	Good Idea, the area will be protected allowing fish to breed	Good idea	Good idea	Good idea	Depends on the Method
28b	Will obtain bigger fish after some time	No effect	It will increase income after some time	His children will have a better and fertile sea	illegal fishing
29	Farming and fishing in deep sea	Businessman	Farming and Poultry	Farming and poultry	Beekeeping and Poultry
CONSERVATION AREA					
31	Nyangale Reef upto Mwana wa Mwana	Mwana wa Mwana, Mayale	Popo up to Kimara ndega	Popo up to Kinarandege	Tumbatu
32	Deep sea		Calm sea		Tumbatu, its near the family
33	Yes	Yes	Yes	Yes	Need a fishmarket on Tumbatu
34	West of Mwana and Bunga	Kilimajuu, Uvunje, Mwana wa Mwana	Nungwi	Nungwi	Tumbatu kwe Mwana, Kikolwe
35	Kikokwe (very little), Njayacheni, Kumirananjiri		Kikokwe	Kikokwe	
THREATS TO THE ENVIRONMENT					
36	Illegal fishing (dragged nets, spear guns, anchor)	Coral reefs are destroyed by destructive fishing methods	Beaches, Coral reefs are being threatened	Beaches, Coral reefs are being threatened	Cutting the Mangroves

	Interview 11	Interview 12	Interview 13	Interview 14	Interview 15
PERSONAL DETAILS					
1	Kombo Sheha Kombo	Juma Haji Kombo	Khamis Hija	Juma Mond	Pengwa Ali
2	38	50	45	36	31
3	7	12	20	7	10
4	Form 3	Form 3	Form 4	Form 3	Form 3
5	20 years	22 years	27	22	20 years
6	Fisherman	Fisherman	Fisherman		Carpenter
7	38 years	50 years	45	36	31 years
8	No	No	No	Livestock husbandry	None
9	None	None	Insufficient	Insufficient	Insufficient
LOCATION					
10	Tumbatu Jongwe	Tumbatu Jongoe	Makutani, Kijiri, Dikoni, Kiomoni, Rianyuma	Makuti, Kijini, Dikoni, Kiomoni	Makutani, Kijini, Dikoni, Kiomoni
11	Tumbatu	Tumbatu Jongoe	Msasani	Tanga	Pungume
12	Shells and Octopus	Dolphin, Coral reef	Corals, Mudis, Seaweeds	Corals, leaves	Stones, leaves
13	People from ferry boats cut the nets	People on ferries cut their nets	No guidance on fishing and instruments to fish with	Their boats do not have engines and it's hard to fish when there are strong winds	Not able to communicate with others and there do not have engines on their boats
14	Mangwapwani, Dongwe, Matemwe, Mkokotoni	Nungwi, Matemwa, Boiyowe	Mkokotoni, Bumbini, Mangapwani, Muwanda, Nungwi, Potoa	Kileni, Kivunge, Potoa, Shangani	Matemwe, Kichangani, Fukuchani
METHOD AND GEAR					
15	Dhow with Tanga	Walk, do not own a boat	Canoe	Canoe	Canoe
16	Group of 5 – 6	Alone	8 people	7 – 8 people	Group of 8 people
17	9 Inch nets	Mshipi	Nets	Nets	Nets
18	Yes		Yes	No	No
19	Yes 1	Yes	Yes, Juwatu	Yes, Junatu	Yes, Juwatu
CATCH ANALYSIS					
20	Taa, Makoe, Nyengwa, Pungu		Taa, Nyenga, Tuguu, Gaogao, Sharifu, Pungu	Taa, Sogoro, Kolekole, Falundu, komba	Taa, Songoro, Kolekole, Fatundu, Kamba

21	Mkokotoni fish market	Changu, Tasi, Chole Tumbatu	Mkokotoni, Dar es Salam, Tanga	Yes	Yes Mkokotoni
22	0 – 50kg	0 – 5 kg	50 kg	50kg	50kg
23	Do not keep	Do not keep			
FISHING STOCK					
24	More fish five years ago	A lot more fish five years ago	More fish five years ago	More fish five years ago	More fish five years ago
25	Much less now	A lot more fish 10 years ago	Much more fish ten years ago	More fish ten years ago	Excellent amount of fish ten years ago
26	Uzamiaji usingo gase (juya)	More fisherman and illegal fishing	More fisherman	Destroyed the Coral reefs, Tsunami	Destructive fishing methods and the tsunami
27	Changu, Chole, Mbawe	Tasi	Chewa	Changu	Changu
28a	Depends on the method of conservation	Tumbatu	Good idea	Good idea	Good Idea
28b	People cut Coral and sometimes kill fish species	People cut Coral and sometimes kill fish species	Will help him increase his income after some time	His children will have a better and fertile sea	Will help increase income after sometime
29	Live stock, Poultry	Carpenter or Beekeeping	Livestock husbandry, Beekeeper	Framing and Poultry	Farming and Poultry
CONSERVATION AREA					
31	Kisiwa Chapopo - mtonameli	Tumbatu	Popo upto Kinarandege	Popo upto Kinarandege	Popo upto Kinaradega
32	Tumbatu because its near the family	Tumbatu because its near home		Areas that have an easy access to the market	Areas with a calm sea and fish
33	Need a fish market in Tumbatu	Need a fish market in Tumbatu	Need a fish market in Tumbatu	Yes	Yes
34	Tumbatu kwa Mwana	Mwana	Matawe	Nungwi	Nungwi
35	Kikokwe	Kikokwe	Kikokwe	Kikokwe	Kikokwe
THREATS TO THE ENVIRONMENT					
36	Cutting Mangroves	Cutting Mangroves	Threats to the beaches and Coral Reefs	Beaches and Coral Reefs	Beaches and Coral Reefs are under threat

	Interview 16	Interview 17	Interview 18	Interview 19	Interview 20
PERSONAL DETAILS					

1	Nyange Makame	Kona Juma Ali	Molid Sherif Haria	Ali Jecho Ali	Juma Ali Foum
2	53	48	35	40	39 years
3	7	12	2	6	6
4	Form 2	Form 2	Form 4	Form 3 and Quran	Form 3 and Quran
5	27	32	Since 1988	Since 1983	21 years
6	Fisherman	Fisherman	Fisherman	Fisherman and Farmer	Farmer
7	53	48	35 years	40 years	39 years
8	Farming and the local leader	Local leader		Farmer, Tailor and Trader	Electrical technician
9	Insufficient	Insufficient	Insufficient	Insufficient	Insufficient
LOCATION					
10	Tumbatu, Tanga, Dar es Salam, Kenya	Mwamba Saidi, Boza, Ngonya, Bunga	Mwamba wa Mwale, Bwechawo, Koongoni	Mwambe wa maole, Koongoni, Bwechano	Koonjoni, Bwechau, Moale
11	Tanga	Maziwe (Dar es Salam),		Maole	Koonjoni, Bwechau, Moale
12	Stones, Grass	Grasses and stones	Coral reef, Sea grass	Coral and sea grass	Coral reef and sea grass
13	Wind and when the sea is calm	Fishing gear with an engine on the boats	Fishing using drag nets	Dragging of nets, Spear gun fishing	Fishing using dragged nets
14	Tanga, Kidoti, Botoa, Mwambale, Kendwa	No	Mkokotoni, Mateme, Bumbwini, Fokotoni	Mkokotoni, Matewe, Fukuchani, Bumburi, Kwinje	Mkokotoni, Fukuchani, Muwanje, Potoa, Matenwe
METHOD AND GEAR					
15	Canoe	Out Riga Canoe	Canoe	Canoe	Canoe
16	5 people	4 people	3	3	4
17	Dema, Line fishing	Small fishing lines and nets	Traps	Traps	Nets
18	No	No	Yes	Hire	Hire
19	Yes, Nia Nsema	Yes, Tasaf and Nianjema	15 groups	4 cooperatives	15 groups
CATCH ANALYSIS					
20	Tasi, Changu, Pono, Mikundaji, Puju	Songoro, Taa, Papa, Changu, Fatundu, Mafume	Changuu, Tasi, Pono, Mkundaji, Makoe	Changu, Tasi, Pono, Kundaji, Makoe, Nyega	Tasi, Pono, Mkundaji, Changu, Makoa
21	Yes, Tanga, Mkokotoni, Tumbatu	Yes, Mkokotoni	Yes, Mkokotoni	Yes, Mkokotoni	Yes – Mkokotoni
22	50 kg	30kg	2 kg	0 – 1.5 kg	2 -3 kg
23		In the Freezer	Do not keep	Do not keep	Do not keep

FISHING STOCK					
24	More fish 5 years ago but less money	More fish 5 years ago	Low catch now	Low catch now	Low catch though high prices
25	More fish 10 years ago less money	More fish 10 years ago	High catch then	High catch then	Used to catch a lot of fish
26	Great demand of the fish, more fisherman, destructive fishing methods	More people who fish, more fishing methods and gear particularly destructive ones	Environmental damage due to net dragging	Environmental damage caused by illegal fishing (nets/utupa poison)	Damaged environment
27	Tasi, Changu	Tasi, Changu, Tafi	Changu, Chole	Changu Chole	Changu
28a	Good Idea	Good Idea	Good Idea	Good idea	Good idea
28b	I wouldn't disturb our livelihoods	It doesn't affect livelihoods	Will improve catch size and income	Will improve livelihoods by getting more income	Will not affect livelihood
29	Farming	A tree planting project	Fishing elsewhere or in the deep sea	Deep sea fishing	Farming and fishing in other areas
CONSERVATION AREA					
31	Mwana wa mwana until Makutani	Kwa Mwana wa Mwana upto Funguni (Sandbank)	Moale to Minara Mwili	Maale and Manea nuril (Bumbwini, mwana)	Outside Tumbatu along the two lighthouses
32	Areas with more fish	Areas with more fish	In conservation areas with legal gear	Maale and Manea nuril (Bumbwini, mwana)	Same area using legal fishing gear
33	Yes, they would like a fish market in Tumbatu	Yes	Yes	No, Mkokotoni is sufficient	No
34	Kinunduni, KwaMwana	Bunga	Moale, Mwana wa Mwana	Maale	Mwana wa Mwana
35	Kapani, Kikwokwe	Fundioni	Kikokwe	Kikokwe	Kikokwe
THREATS TO THE ENVIRONMENT					
36	All the beaches are dead	Erosion	Dragged net and nets around corals	Spearfishing (Octopus), Dragging nets, Poison, Anchors and Cutting the Mangrove	Dragging nets, diving, spear gun and gases

	Interview 21	Interview22	Interview 23	Interview 24	Interview 25
PERSONAL DETAILS					
1	Khanis Hija	Juma Haji Kombo	Kombo Sheha Kombo	Silima Hassan Juma	Makame Sheha Vuki
2	45 years	50 years	38	40	33
3	20	12	7	12	10
4	Form 4	Form 3	Form 3	Form 4	Quran
5	27 years	22 years	20 years	21 years	24 years
6	Fisherman	Fisherman	Fisherman	Fisherman	
7	45 years	50 years	38 years	40 years	27 years
8		None	None	None	Nothing
9	Insufficient	Insufficient	Insufficient	Insufficient	Insufficient
LOCATION					
10	Makutani, Kijini, Dikoni, Kiomoni, Pwanyuma	Tumbatu Jongwe	Tumbatu Jongwe	Tumbatu, Kizimkazi, Nungwi	Mombasa Kenya, Mafia, P.B.A, Kizimkazi
11	Msasani	Tumbatu Jongwe	Tumbatu	Tumbatu	Mombasa Kenya
12	Coral, mud, Sea weed	Dolphin, Coral reefs	Shells and Octopus	Shells and Octopus	Mbawasi, Papa, Tenga, Sehewa
13	Weak instruments and engines and no communication	People on ferry boats cut their nets	Ferry boats cut their nets	Ferry boats cut their nets	Kuzama Bila Usaidizi and large boats
14	Yes, Mkokotoni, Bumbwini, Mangapwani, Mwanda, Nungwi, Potoa	Yes, Nungwi, Dongwe, Matemwe	Yes, Mangapwani, Dongwe, Matemwe, Mkokotoni	Yes from Nungwi, Dongoe, Fukuchani	Yes there are
METHOD AND GEAR					
15	Canoe	None	Dhow with an engine	Ngarawa	Dhow with Tangas
16	8	Alone	5 to 6 people	Alone	4 people
17	Nets	Mshipi	Net with 9 inche	Madema	6 inches nets
18	Yes		Yes	No	Hire from Mr Ali Mkubwa
19	Yes, Juwatu	Yes	Yes, only 1	Yes, only 1	Yes
CATCH ANALYSIS					
20	Taa, Nyenga, Tuguu, Gaogao, Sharifu, Pungu	Changu, Tasi, Chole	Taa, Makoe, Nyengwa, Pungu	Changu, Mkundaji, Tasi, Pono	Mono, Jodari
21	Yes, Mkokotoni, Fery in Dar-es Salam, Tanga	Tumbatu	Mkokotoni Fish Market	Mkokotoni	Nungwe market
22	50kg	0-5kg	0-50kg	0-10kg	90 – 100kg

23			Do not keep	Do not keep	In the boats
FISHING STOCK					
24	Better catch then	Better catch then	Better catch then	Better catch then	Fish have decreased now
25	Excellent catch then	Excellent catch then	Excellent catch then	Excellent catch then	Fish have decreased now
26	Fishing pressure	Fishing pressure and illegal fishing	Fishing methods	Fishing pressure	Tourism, Hotels and Diving
27	Chewa	Tasi	Changu, Chole, Mbawa		
28a	Good Idea	Tumbatu	Depends on the conservation method	Depends on the conservation method	It's a good idea
28b	It will help increase income after sometime			Legal fishing	Need to know who the family will be fed
29	Livestock keeping, Keeping Bees	Carpenter and keeping bees	Poultry and Livestock keeping	Bee keeping and Poultry	
CONSERVATION AREA					
31	Popo up to Kinarandeg	Tumbatu	Kisiwa Chapopo to Mtonamali	Tumbatu	Tumbatu but few people should use it
32	Where there are a lot of fish	Tumbatu	Tumbatu	Tumbatu	Kizimkazi because they is a lot of fish
33	Yes	Yes, in Tumbatu	Yes	Yes	A fish market is a good idea
34	Matawe	Mwana wa Mwana	Tumbatu, Mwana wa Mwana	Mwana wa Mwana	Mnemba, Kichafi, Mabwe, Tumbatu, Makutani
35	Kikokwe	Kikokwe	Kikokwe	Tumbatu, Mwana wa Mwana, Kikokwe	Tumbatu
THREATS TO THE ENVIRONMENT					
36	Beaches, Coral reefs are being destroyed	Cutting Mangroves	Cutting Mangroves	Cutting Mangroves	Uneducated fishing techniques and tour operators

	Interview 26	Interview 27	Interview 28	Interview 29	Interview 30
PERSONAL DETAILS					
1	Makwengu Ali	Idrisa Mussa Haji	Kibabe Makame	Makame Mkadara	Makame Ali

	Haji		Adibu	Daru	Juma Mwambali
2	40	55	65	28	56
3	15	9	11	30	2
4	Form 2	Form 4	Illiterate	Standard 7	Standard 2 and Quran
5	22 years	27 years	50 years	10 years	41
6	Farming and carpenter	Fish trader	Fisherman, Farmer	Labourer and Farmer	Fisherman
7	40 years	55years	65years	18years	56 years
8	Carpenter, build boats	Teacher, Farmer	None	Fish Trader	Farming
9	Sufficient	Moderate	Average	Sometimes its sufficient sometimes its not	Insufficient
LOCATION					
10	Between Pemba and Tanga	Coastal areas, Intertidal areas	Deep water (mnemba, mfa hanutu, Kipwani, Chechele, Kipwacha rejina, Gonjoni	Mnemba , Tumbatu	Hanga, Kipwamsa
11	Maji Makuu	Coastal areas, Intertidal areas	Sasere, Dokwa (Redsnaper) Domopara, Mdenji, Songoro, Change, Nguru	Nungwi & the Indian Ocean	Hanga, Kipwamsa
12	Jodazi, Mbawasi, Papa, Tenga, Sehewa and Nguru	Sea grass, coral reef, sand areas	Coral, sea-grass, sand, kokoto, mirinja	Jodari, Nguru, Sehewa, Mikule	Corals
13	People from large boats and ferries take nets and sometimes cause accidents	The areas are damaged and there is a lot of sand	Sand on corals	People who use engine boats, ferries and other bigger boats cut their nets	Conflicts between the fisherman and tourist on net cutting
14	From P.B.A and other areas	From Tumbatu, Mkajuni, Bumawini and Tanga	Matemwa, P mchap	From P.B.A and other areas	Kilindi, Kijinda, Mkokotoni
METHOD AND GEAR					
15	Dhows with engines	Canoe	Dhow	Local boat with Tanga	Canoe
16	4	3 – 4 people	3 to 4 people	Work in a group	2 – 4 people
17	Nets	Fishing line, nets	Handlines	Nets	Fish traps
18	Hire a boat	Own boat	Businessman	Hired boats	Yes as an association
19	Yes	Up to 6	Yes 7	Yes	Yes
CATCH ANALYSIS					

20	Nyavu ze kutenga	Vibua, Changu, Tasi, Kangaju			Kangaja, Tasi, Puju
21	Nungwi	Nungwi	Nungwi	Nungwi, villages and in Town	Yes, Zanzibar Town
22	200 – 600kg sometimes nothing	40 kg	10 – 100kg	Up to 200kgs	10 – 50kg
23	Keep on the boat	Covered in a canoe	Keep in deep freezer	Do not keep, sometimes they have to throw away	Sun dry
FISHING STOCK					
24	Great decrease now	Greatly decreased now	Average catch now	Fish have greatly decreased such that now its even hard to get more than 2 fish	Decreased catch now
25	Great decrease now	Greatly decreased now	Decreased now	Greatly decreased now	
26	Pressure from increase in human population	Destruction of the coral, to many fisherman, Mbungo (use of surrounding nets, shark nets and handlines)	Use of light, surrounding net, gas	More people are fishing	Increased fisherman and fishing effort, illegal fishing in the Coral reef
27	Nguru, Jodari,		Changu, Tasi, Sasare, Sansuli, Jodari na	Jodari and other small fish	Kangaja, Tasi, Puju
28a	It's a good idea	A good idea to save the environment and fish	A good idea, it protects the environment	Maybe good for the government but not for the local fisherman	Good idea that will bring great profit
28b	More tourists and divers are not good and Uvuviwa Maboti	Will help fisherman get bigger fish	Regulations on using handlines	People increasingly put waste on the beach. Uvuaji wakasa kiholela uchimbaji mchanga kwenye fukwe	No effect
29	Nothing	Nothing		Mnarani aquarium	
CONSERVATION AREA					
31	Tumbatu Island	From the coast line 15km	Renco to Miranawa to Miraba Saich	Tumbatu	Njeya, Mwamba Saidi, Kipwa msa na Hanga, Kunyoosha
32	Nungwi	Areas that are not overexploited		Nungwi because its nearer	Hanga, Kipwa msa

33	Yes because there are benefits	Yes, in order to let fisherman sell their products		Yes, because it can be a multipurpose area that the fisherman can use like fuel for the boats	
34	Nungwi, Mnemba and in coral	Kipwari, Mnemba, Bweju	Mnarani, Tumbatu, Msilitiwi, Jongowa, Hanga	Mnarawi diving area	Kilindini, Mwana wa Mwana
35	None in Nungwi			No Mangrove in Nungwi	
THREATS TO THE ENVIRONMENT					
36	Lack of education on fishing techniques and tour operators	Illegal fishing, anchors, use of gas	Illegal fishing, Gas and Anchor	No, but we don't have enough education	Nets tied on rocks or around coral reefs

	Interview 31	Interview 32	Interview 33	Interview 34	Interview 35
PERSONAL DETAILS					
1	Khamis Kombo Khamis	Sheha Mussa Hijja	Haji Usi Ali	Issa Zubeir Makame	Khamis Haji Haji
2	30	30	30	45	57
3	20	8	6	17	23
4	Islamic education	Standard 3		Standard 8	Form 3 and Quran
5	15 years	24 years	25 years	20 years	30 years
6	Fisherman	Fisherman	Fishing	Farming	Farming
7	30 years	30 years	30 years	45 years	57 years
8	Nothing	Farming		Farming and own a business	Fishing, Trading and Farming
9	Insufficient	Insufficient	Is sufficient to feed the family	Sufficient but not enough	Insufficient
LOCATION					
10	Nungwi, Mazizini, Mwana wa Mwana	Mazizini, Nungwi, Mwana wa Mwana	Fukuchani, Kizimkazi, Dar es Salaam, Tanga, Shimoni Mombasa Kenya	Fukuchani	Mwana wa mwana, Mfuhanku, Mwamba Said, Jamba Kavuu, Kizimkazi
11	Mazizini	Mazizini	Kizimkazi to Dar es Salaam	Fukuchani and Kidoti	Mwana wa Mwana
12	Dolphins, Whales	Dolphin, Turtle	Nguru, Mbasi, Tonga, Papa, Sehewa, Jodari	Changuu doo	Sand, Silt and deep water
13	Other people destroy fishing gear	Yes, destruction on Coral caused by fishing nets	Big ships cut our nets, accidents with ferries		

14	Pemba, Kiembe Samaki	Tumbatu, Fukuchani	From Nungwi, Matemwe, Pemba fish at Kizimkazi	From Kendwa, Mkokotoni and Stone town	Mkokotoni, Nungwi, Fumbati
METHOD AND GEAR					
15	Wooden boat	Wooden boat	Dhows with engines	Dhow	Dhow
16	Group	3 Group	Group of 4	3	4 to 5 people
17	Fish traps	Fish traps	Large nylon nets	3 by 2 inches nets	Drift nets and hand lines
18	Yes	No	Only the captain of the boat	Own boat	Yes
19	No	No	Yes	Yes	Yes, 4
CATCH ANALYSIS					
20	Puju, Kundaji, Changu, Paragunda, Pono	Kundaji, Paragunda, Changu, Chewa	Nguru (King fish), Mbasi (King fish), Sehewa (Mackerel), Tenga (Skat), Amburia (King fish sp.), Ndowaro (Sword fish)	Changu Doa (<i>Lethrinus sp.</i>)	Mbasi (King fish sp.), Jodari (Tuna), Sehewa (Mackerel), Nguru (King fish)
21	Yes, Mazizini, Zanzibar Town	Zanzibar Town	Ai Fukuchani Market, Dar es Salaam, Stone town, Nungwi	Fukuchani and Stone Town	Fukuchani and Zanzibar Town
22	10-20kg	5-10kg	50 – 200kgs	10 – 12 kg	60kg
23	In the boat	In the boat	Not kept but they sell all the fish in one day		In crushed ice
FISHING STOCK					
24	It was good then	It was good then	Amount of fish caught now has decreased	Fish have generally decreased in numbers now	Depends decreased near the shore now
25	It was much better then	It was much better then	Has greatly decrease now	Decreased now	Increased catch 10 years ago
26	Scrolling of the net to the fishing area	Many fisherman some with bad fishing gear	Change in mode of transportation – engine boats can move faster and there are more boats	Use of small nets and illegal fishing and some fishermen fish everything	Fisherman trap fish before they get to the coral reefs
27	Puju, Kangaja, Pono		Changu chole (<i>Lethrinus sp.</i>), Sororo (<i>Lethrinus sp.</i>), Koane (Rock fish), Changu (Emperor), Misusa (<i>Sphyrina sp.</i>), Chewa (Grouper)	Mbasi (King fish), Jodari (Tuna), Sehewa (Mackerel), Kanadi (King fish)	Mbasi (King fish), Jodari (Tuna), Sehewa (Mackerel), Nguru (King fish)

28a	It will be a problem for them	It's a good idea	Conservation is good because illegal fishing should not continue	Conservation is a good idea, will enable the ecosystem to recover	Good idea
28b		May result in him being poor	No effect to livelihood	There is no conservation therefore there are less fish	Not affected
29		Farming	Farming, livestock husbandry, Carpenter, businessman	Protecting Fukuchani archive	Fish in other areas

CONSERVATION AREA

31	He does not like	From RAs, Nungwi to Bumbwini	Tumbatu to Fukuchani	Mkokoto, Tumbatu Mnarani, Kendwa	100m from Tumbatu
32	Mazizini	Mazizini because there is a lot of income	Nungwi because its near to Fukuchani and there are a lot of fish	Fukuchani, Kendwa	Mwana wa mwana, Mfuhanku, Mwamba Said, Jamba Kavuu, Kizimkazi
33	Yes	Yes	Would like a fish market so as to enhance sells of fish	Would like a fish market and help to finish the one in Fukuchani	Yes
34	Mwana wa Mwana, Hanga, Kiwani	Kendwa, Nungwi and Mwana wa Mwana	Kwa Mwana Kichwani, archives and caves	Matemwe, Nungwi Mnarani	Mwana wa Mwana
35		Kigunda	Deburi and Kigunda	Kigunda and Deburi	Mkokotoni, Bumbwini

THREATS TO THE ENVIRONMENT

36	Some of the tourists cut fishing gear when in the sea	Yes, ignorance of the fishing community	No threats	No threats	Illegal fishing, tourism, anchor
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	Interview 36	Interview 37	Interview 38	Interview 39	Interview 40
PERSONAL DETAILS					
1	Haji Moh'd Khamis	Haji Narua Haji	Ali Vuai Ali	Hussein Kibabe Makame	Khami Omar Abdula
2	26	37	38	26	42
3	5	8	10	2	7
4	Form 4 and Quran	No education	Form 3	Form 2	Standard 7
5	13 years	23 years	24 years	5 years	26 years
6	Fishing	Fisherman	Fishing and Farming	Fishing	Farming

7	26 years	28 years	38 years	26 years	42 year
8	Keeps chickens	Business man	Farming	House construction	Farming
9	Insufficient	Sufficient	Insufficient	Sufficient	Insufficient
LOCATION					
10	Mwana wa Mwana, Mkondo wa Nungwi	Nungwi, Kinaminana, Kengeja in Pemba	Nungwi, Tumbatu, Mnemba Island	Nungwi	Deep Sea, Mwana wa Mwana, Nungwi, Kizimkazi, Bumbwini
11	Mkondo wa Nungwi	Nungwi	Nungwi	Nungwi	Mwana wa Mwana
12	Coral reefs	Birds and Fish	Fish and birds	Birds and Fish	Dolphin, Whale, Turtle
13		Lack of fishing gear		Cutting of fishing net	People on bigger boats cut their nets
14	Tumbatu, Mkokotoni and Nungwi	Pemba, Bumbwini, Mkinajuni and Matemwe	Tazari, Kigunda, Mfukuchani, Matemwe, Tumbatu	Tazari, Mfukuchani	Tazari, Nungwi, Mkokotoni, Zanzibar Town
METHOD AND GEAR					
15	Dhow	Wooden boat	Dhow	Wooden boat	Wooden boat
16	4 to 5 people	Group of 5 people	Group	Group	Group
17	Gill nets	Fishing net	Fishing net	Fishing nets	Fishing net
18	Yes	Yes	Hire	Hire	Hire
19	Yes	Yes	Yes	Yes	Yes
CATCH ANALYSIS					
20	Nguru (King fish), Jodari Tuna), Kanadi, Panje (King fish), Sehewa (Mackerel), Papa (Shark)	Mbasi (King fish), Sehewa (Mackerel), Jodari (Tuna), Nduwaro (Sword fish), Panje	Mbasi, Jodari, Sehewa, Tenga, Papa, Mbono, Saleh	Tenga, Nduwaro, Mbawasi, Jodari	Jodari, Mbasi, Sehewa, Nguru, Kanadi, Kolekole, Amburia Vinengo
21	Yes, Fukuchani market	Yes	Nungwi fish market	Yes, Nungwi	Yes at Mfukuchani
22	0-20kg	50-200kg	50-60kg	20 – 30kg	20-50kg
23	Do not keep	In the boat	Keeps on the boat	Keep on the boat	Keep on the boat
FISHING STOCK					
24	Decreased catch now	Was good five years ago	Was good 5 years ago	Was good 5 years ago	Was good 5 years ago
25	Increased catch then	Was much better 5 years ago	Was excellent 10 years ago	Was excellent 10 years ago	Was better 10 years ago

26	Illegal fishing and more fisherman going to fish	Fishing pressure, too many fisherman	More fisherman	More fisherman including fishing vessels	More fisherman and too many people who depend on the sea
27	Nguru (King fish), Jodari (Tuna), Kanadi (King fish), Panje, Sehewa (Mackerel), Papa (Shark)	Jodari (Tuna) and Mbawasi (King fish sp.)	Jodari, Mbasi, Tenga, Sehewa	Jodari	Jodari, Mbasi, Sehewa, Kanadi
28a	Good idea	There are no problems	It's not a bad idea	Good Idea	It's a good idea
28b	It may affect livelihood	It hasn't	Might result in poor lives	Decrease in income	Decrease income
29	Poultry keeping	Business man	Farming	House construction	Farming

CONSERVATION AREA

31	Kendwa, Tumbatu lighthouse-100m south and 150m to Mangapwani	Mwana wa Mwana till Bumbwini	Mnemba to Kipwani	From Bumbwini to Funguni	Mkokotoni until Nungwi
32	Mwana wa Mwana, Mkondo wa Nungwi	Yes	Nungwi, Tumabtu, Mnemba	Mwana wa Mwana because of the Southern monsoon	Bumbwini because of the north south monsoon
33	Yes	Hanga, Mnemba, Chakatuni	Yes	Yes	Yes
34	Funguni, Mwana wa Pwani, Pungume, Tumbatu	Kikokwe, Tumbatu, Bumbwini	Kipwani, Mnemba, Hanga, Minana	Kipwani, Mnemba and Mwana wa Mwana	Nungwi, Kendwa
35	Kigunda, Fukuchani, Mkokotoni – Kiongwe, Makoba		Tazari, Kigunda, Mkokotoni, Tumbatu	Mwana wa Mwana and Mkokotoni	Deburi

THREATS TO THE ENVIRONMENT

36	Dragging nets, Spear gun, Sea cucumber fishing and Anchor	Community conflicts on different fishing gear	No threat	Political issues	Public awareness is lacking as there is already conflict among people
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	Interview 41	Interview 42	Interview 43	Interview 44	Interview 45
PERSONAL DETAILS					
1	Kudura Kidume Hamdu	Omar Moha Haji	Saliah Mohd Haji	Ramadhan Ali Mussa	Haji Makame Khami

2	30	45	65	43	70
3	2	7 people	20	13	5
4	No education			Standard and Quran	Quran
5	6 years	25 years	45years	20 years	50 years
6	Fishing and Farming	Fishermen	Fisherman	Fisherman	Fisherman
7	10 years	30 years	65years	43 years	70 years
8	Farming	Farming	Farming maize	Farming	Farming
9	Insufficient at times	Insufficient	Insufficient	Insufficient	Insufficient
LOCATION					
10	Mwana wa Mwana, Bumbwini, Kizimkazi	Potoa, Mtwara, Tanga	Mtwara, Mafia, Pangani, Tanga, Nungwi, Kwa Mchinje, Masiwe,	Machangura, Dambwe, Mchinje, Kipua Mussa, Chumbe, Bawe	Ngonya, Pwakuu, Fungu, Nyenge
11	Kizimkazi, Bumbwini	Mafia	Mafia	North East	Depends on the fishing point
12	Turtles, Whales and Dolphins	Mzia, Papa, Nguru, Vibua, Saladini, Changu, Chewa, Kifua tundu, Kinyauchi	Nguru, Jodari, Chewa, Faa tuu, Changu	Corals, Sea grass and Silt	Coral reef, Sea grass and Sand
13	Ferries travelling to Pemba destroy their nets	Accidents with large boats	Sometimes there are no fish and accidents with large boats	Cutting of lines	Nothing
14	Mkokotoni, Nungwi, Tumbatu	From Mtwara, P.B.A., Tumbatu	P.B.A., Bumbwini, Stone town	Fukuchani, Dar-es Salam, Tumbatu	Zanzibar Town and neighboring villages
METHOD AND GEAR					
15	Wooden boat	Engine powered boat	Ngwanda with engine and Tanga	Fishing boat	Boat
16	4 people	12	3	14	2 to 3 people
17	Nylon fishing net	Mshipi, net fishing saladini (mtando) and hand line	Hand line	Fishing nets	Fishing traps and Nylon fishing nets
18	No	Hire the boat	Own boat	Worker	Yes
19	Yes	Yes	Yes	Yes, 2 associations	Yes
CATCH ANALYSIS					
20	Mbasi, Nguru, Jodari, Sehewa, Kolekole, Mbono		Nguru, Vibua, Saladini	Tuna, Macherel, anchovy, sardine	Nguru, Jodari, Sehewa, Tasi, Changu, Kolekole,

					Kundaji
21	Yes, at Mfukuchani	Stone town, Dar es Salaam, Fukuchani and Nungwi	Bwekundu & Stone town	Yes, Mzambani	Yes-mkokotoni, Zanzibar Town
22	120-300kg	100 – 200kg	200 – 300kg	30-100 buckets	10-20 kg
23	Keep in boat	Freeze the fish if they are far from Mafia	Do not keep	Do not keep	Do not keep
FISHING STOCK					
24	Was good 5 years ago	Decrease in the number of fish now	Decrease in fish numbers now	Decreased catch now	Decreased catch now
25	Was better 10 years ago	Decrease in the number of fish now	Decrease in fish numbers now	Decreased catch now	Decreased catch now
26	More fisherman and there is a lack of awareness	More boats, more people fishing and vuvi wa kukota	Too many fisherman with their own boats	Increased fishing effort and damage to the environment	Increased fishing pressure
27	Sehewa, Mbasi, Jodari	Fatundu, Nguru, Jodary, Vibua with Dgoaa Chageni	Kifua tundu, Chewa, Kulakula, Changu	Changu, Fatudu, Kwana	Ngonya, Pwakuu, Fungu, Nyenge
28a	It's a good idea	Efforts could help people obtain good equipment for fishing.	Good for the area	Good idea	
28b	He may end up being poor	Translate Swahili	It may stop other fisherman who use nets and gas tanks for fishing and reduce the number of engine boats that are allowed in the fishing areas	Will have an effect only if not properly organised	
29	Farming	Farming and businessman	Operate a petrol station	Nothing else since other alternatives do not provide a lot of money	
CONSERVATION AREA					
31	From Nungwi to Bumbwini	Would not like a conservation area		20km off Tumbatu	300m from Tumbatu
32	Bumbwini because there are no reefs	Mungoni, Tumbatu, because it is close to home	Nungwi because there are a lot of fish in that area	Machangura, Dambwe, Mchinje, Kipua Mussa, Chumbe, Bawe	Ngonya, Pwakuu, Fungu, Nyenge
33	Yes	Do not use the	Would like a fish	No	Yes

		fish market	market in Potoa		
34	Nungwi, Mwana wa Mwana	The beaches and villages	Tumbatu, Kimunduni, Kiwani, Makutani	Machingwa, Kipwa musa	Mwana wa Mwana
35	Mchanga male	Mangrove in Kiimapanga, Potoa, Bwekundu	Diko la Kae, Kidiko ukwaju	Kinu cha Panga, Mto wa maji	
THREATS TO THE ENVIRONMENT					
36	Communities lack awareness	Nothing	Najwa and nets	Dragging nets and Anchors	

	Interview 46	Interview 47	Interview 48	Interview 49	Interview 50
PERSONAL DETAILS					
1	Ussi Sheha Ussi	Haji Majame Haji	Kona Ali	Suleiman Juma Marama	Juma Faki Ramadhan
2	48	30	35	45	35
3	15	7	8	14	8
4	Standard 2	No education	Standard 3	Standard 6	Standard 7
5	32 years	24 years	10 years	35 years	28 years
6	Fisherman	Fisherman	Fishing	Fisherman	Fisherman and Farming
7	33 years	30 years	35 years	45 years	31 years
8	Farming	Farming	Farming	Farming	Farming
9	Insufficient	Insufficient	South moonson – sufficient;	Sufficient	Insufficient sometimes
LOCATION					
10	Nungwi, Tumbatu, Jasini and Bumbwini	Kipumbwi, Mwana wa Mwana, Manga Pwani	Tumbatu, Kwamwane & Ukume	Tanga or Bangamoyo, Mafia	Nungwi, Tumbatu and Mwera Tanga area
11	Bumbwini and Tumbatu	Kipumbwi	Ukume	Mkondoni	Nungwi area
12	Tenga, Turtle, small fish	Dolphin, Mbasi, Jodari, Nguru, Sehewa	Changu Chori, Mkundaji, Pono	Nguru, Jodari, Tasi, Sehewa	Corals and fish
13	Problems with engine on the boat	Problem with the engine	Use a lot of energy for Kafi in small boat and also big ships cut their nets.	Large boats are cutting the nets	Disturbance of rangers
14	Zanzibar Town, Main Land, Tanga	Manga Pwani, Stone Town, Tumbatu	From Tumbatu and Mkokotoni	Mainland, north of Uyoja, P.B.A	Yes, from Potoa, Pita na zako, Kivunge
METHOD AND GEAR					

15	Wooden boat	Wooden boat	Kidau	Dhow	Dhow
16	4	15	2 people	4 people	Work in a group
17	Line with lamp	Dagaa	Kafi and man power	Mishipi and Jarife	Fishing net, Ring method
18	No	No	On boat	Own boat	No
19	Yes	Yes	Yes	Yes, more than one	Yes
CATCH ANALYSIS					
20	Fatundu, Chewa, Jodari, Nguru, Mahongine, Papa	Vibua, Upapa, Nguru, Jodari, Nduwaro		Jodari, Nguru, Sehewa	Vibua, Upapa, Nandu Ngozi, Dagaa, Nduaro, Mbasi, Chewa and Jodari
21	Yes, Potoa	Mkokotoni and Potoa	Mungoni, Mkokotoni, Bwekunduni	Mkokotoni, Nuyowi, in the village	Yes, sell at Mwangi
22	50-300kg	100-400kgs	20kg	40 – 60kg sometimes 0 -5 kg	50-300kg
23	Keep on the boat	In the boat	Do not keep, for selling and eating in one day	Do not keep fish	Keep in boat
FISHING STOCK					
24	Decreased catch now	Was good then	The amount of fish caught has decreased now	The amount of fish has decreased now	It was good then
25	Decreased catch now	Was much better then	Decreased now	Decreased now	It was much better then
26	Increased fishing pressure	More fisherman	More fisherman and situation has changed	More fisherman	Fisherman changed their fishing methods
27	Kibua	Vibua, Nguru, Upapa	Changu Chori	Joradi, Nguru, Saladini	Vibua
28a	Good idea	It's a good idea	A good idea though there is need for people to clarify the concept and how it will affect livelihoods	Good for the people and the resources	No effort about conservation in the area
28b	Will not have an effect	Fisherman with small boats may have a problem	Without conservation people have changed their fishing habits resulting in reductions of fish numbers	Divers destroy the resources and also people who fish with gas tanks	Life is hard
29	Farming	Farming	Farming and opening of small businesses like shops	Farming	Farming and school Madrassa teacher

CONSERVATION AREA					
31	From RAs Nungwi, to Manga Pinani	From Nungwi to Tumbatu Island	Tumbatu to Nungwi	Nunowi to Mangapwam	Nungwi to Mfukuchani
32	Bumbwini	Kipumbwi because there are a lot of fish	Mafia, they obtain big fish	Kwenye, Mkondo	Nungwi because its closer to the reef
33	Yes	Yes, Has a good impact	Would like a fish market	Would like another market in another part of the village	Yes and there is good impact
34	Nungwi, Kiwani, Mwana wa Mwana	Nungwi & Mnemba Island	Mwane, Tumbatu and Kiwani	Beach areas	Nungwi area
35	Potoa, Dikolakai, Mkokotoni	Mtowamaji, Mkokotoni, Kiembeni	Diko la Kaz Kaskazi and Diko la Baufu Masande	Kima Panga, Kiembeni	Mtowa Maji Mkokotoni
THREATS TO THE ENVIRONMENT					
36	Lack of conservation	Need for public awareness	Big boats that pass through Nougua and dirty water from hotels	No but there is a need to protect the sea	No problem

	Interview 51	Interview 52	Interview 53	Interview 54	Interview 55
PERSONAL DETAILS					
1	Makame Haji Ali	Silima Juma Silima	Ali Mngwazi Haji	Rammedhlari Salenia Ussi	Molid Shela Milidadi
2	35	45	48	27	39
3	4	17	10	6	4
4	Standard 7	No educational level	Quran	Quran	Form and Quran
5	15 years	30 years	37	15 years	15 years
6	Boat captain	Farming and Business man	Fisherman	Farmer	Tailor
7	35 years	35 years	48	23 years	39
8	Works at the garage	Farming	Farmer	Cargo Handler	None
9	Insufficient	Insufficient	Insufficient	Insufficient	Insufficient
LOCATION					

10	Mwana wa Mwana, Bumbwini, Pungume, Nungwi, Pangani-Tanga, Kwale	Mwana wa Mwana, Mazizini, Mnemba	Popo Kipyachamaranda , Kipiwa cha mwanda, Tumbatu, Bwechewi, Majale	Bawe, Nyanjole, Kame, Asunini, Mauriburi, Salilia	Bawe, Faratu, Mrara, Bubwini
11	Bumbwini, Mwana wa Mwana, Nungwi	Mwana wa Mwana	Bwechawo, Mayele, Mwanda, Uso wa membe, Potoa	Nyanjale	Bubwini
12	Vibua, Saladini, Pandu, Ngozi, Sehewa, Mede, Tonge	Dolphin, Whale, Turtle, Crabs	Sea grass & corals – nwada corals	Sea-grass, Coral, Mud	Deep water
13	No problem	Strong winds	Decrease in number of fish	Problems between fisherman	Cutting of nets
14	Tanzania Mainland	Nungwi, Bumbwini, Tazari, Mfukuchani	From Kibani, Kiongwe, Jongowe and Potoa	Asuni, Kana	Malindi
METHOD AND GEAR					
15	Dhow	Dhow	Canoe	Outrigger boat	Boat with engine
16	Work in a group	Work in a group	2 or more people	8	6
17	Fishing net with a pressure lamp	Line	Handline	Handling, purse seine	Gill net
18	No	No	Hire	Hire	Cooperative
19	No	Yes – Bura Kuamini	No	Cooperative	Yes 1
CATCH ANALYSIS					
20	Vibua, Ngura Ngura, Saladini, Pandu, Ngozi, Kolekole, Sehewa	Njana (Changu), Mishe, Nguru, Kolekole, Fatundu, Numba	Changu (madini), Ngisi, Chewa	Kundaji, Mikule, Mikoje, Mlizi, Vibua	Jodari, Nduoro, Nguru, Sehewa, Mbasi, Papa
21	Stone Town, Dar es Salam	Mkokotoni fishing market	Yes at Mkokotoni	Malindi, Kilinani	Malimdi
22	300kg	25-80kg	8 – 10kgs	50 – 100kg	3 – 10
23	Freezer	In the boat	In the boat	Keep in sacks	Do not keep
FISHING STOCK					
24	Was good 10 years ago	It was good then	Decrease in the number of fish caught but there is more money		Increased as we now use boats
25	Was great 10 years ago	It was better then	Decrease, but income was much less then and didn't satisfy the demand	Decreased now	Before less catch as there were no boats

26	Many boats	Too many fisherman	Poverty	High fishing pressure	Use of modern methods
27	Vibua, Utonge, Kolekole, Pandungozi, Upapa	Njana (Changu)	Changu dizi	Kundaji, Mikule, Mikoje, Mlizi, Vibua	Sehera, Nguru
28a	It was good	It's a good effort	It's a good idea for the future use of resources	Good, it stops the use of illegal gear	Good idea
28b	No other livelihood	Does not affect livelihoods	There will be a negative impact if the area is closed without any use	Lack of fishing gear	Will improve our catch
29	No	Farming	Fishing in another area where fish is available	Poultry	Deep sea fishing when supported

CONSERVATION AREA

31	Mwana wa Mwana till Mkokotoni	Ras Nungwi, Mwana wa Mwana	1000m from Tumbatu westwards, Ukuwa Miranda	Just outside Changuu (west)	Outside Mazizini, Bawe, Changuu, Bububu
32	Pungume, Bumbwini, Uvinje, Nungwi and Maziwe	Mwana wa Mwana because of the currents	Popo Kipyachamaranda, Kipiwa cha mwanda, Tumbatu, Bwechewi, Majale	Bawe, Nyanjole, Kame, Asunini, Mauriburi, Salilia	Same area with good management
33	Yes, has a good impact	Yes, Has a good impact	Yes would like a fish market	Yes but an improved market	Malindi but improved
34	Nungwi, Mnemba	Nungwi, Mwana wa Mwana, Mnemba	All the areas mentioned here but there is more demand	Fungumi Bawe	Faeatu, Mtozi, mewe
35	Mti wa Maji	Kinywa Panga – Pita na Zako, Mkokotoni	Potoa Kae, Kidilus mizi, Kuyira da pagea – mkokotoni, mtokauyi, mwanda, popo	Salihia	Mtohodi, Malinana

THREATS TO THE ENVIRONMENT

36	No threat	No threat	Dragging, nets, spear gun, illegal fishing	Sand mining, Garbage, Spear gun, Dragged nets	Sand mining, Coral mining, Dragging nets and spear gun fishing
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	Interview 56	Interview 57	Interview 58	Interview 59	Interview 60
PERSONAL DETAILS					
1	Abdulla Seif	Shaibu Ussi	Yussuf Masoud	Fakih Haji Faki	Ali Kassim kombo

2	42	47	24	45 years	70 years
3	7	8	6	6	6
4	Standard 8	Standard 8	Standard 6	Form 2	Quran
5	3	20 years	5 years	20 years	55 years
6		Fisherman	Businessman and Fisherman	Doctor	Boat captain
7	30	27 years	4 years	45 years	10 years
8	Business	None		Diving	No
9	Insufficient	Sufficient	Insufficient	Yes, meets my needs	Insufficient
LOCATION					
10	Matoro	Dar-es Salam, Pwakuu, Boribo, Tambale, Magambe, Manjena, Bumbwini	Dar-es Salam, bagamoyo, Mnara wa mbao, Boribo, Magambe	Mkokotoni	Kipumbwi, Malindi, Kizimkazi, Kwamwana and Bumbwini
11	Matoro	Dar-es Salam	Boribo	Mkokotoni	Bumbwini
12	Rocks	Mud	Sand	Octopus, Squid, Dolphin, Coral reefs	Coral, Tutles, Birds, ets
13	Sometimes do not get fish	Pays a lot of Taxes and sometimes local traders in Bagamoyo	Boat engine problems	No equipment for fishing	Has no engine on the boat
14	Yes	Yes, Mtoni, Forodhani	Yes, Dar-es Salam, Magambe	Tumbatu, Nungwi, Fukuchani	Zanzibar Town, Pemba, Mainland and Tumbatu
METHOD AND GEAR					
15	Canoe	Out rigga Canoe	Out rigga canoe	Dhow with an engine	Dhow
16	4	3	3	Group of 8 – 10 people	4 people
17	Lines	Lines and nets	Nets and lines	Sliper, glass, Mangon	3 inch nylon net
18	Yes	No	No	Yes	No
19	No	Yes, Jumuiya ya Uvuvi ya Matoro	Yes	Yes	Yes
CATCH ANALYSIS					
20	Changu Chaa	Kibua, Saladini, Tonge, Upapa	Saladin, Vibua, Ngurwa Ngurwa, Upapa, Tongekwatonge	Majongoo, Octopus, Nguru, Changu	Jodari, Nguru, Sehena, Mapange, Vinengo (Small sharks)
21	Yes to neighbors	Yes, Malindi, Ferry	Yes Malindi, Ferry and Bagamoyo	Mkokotoni	Yes, Mkokotoni
22	15 kg	300kg	300kg	0 – 15kg	35 – 100kg

23	Freezer	Sack	Plastic bag	Do not keep	In the boat
FISHING STOCK					
24		It was better then	Better then	Much less now	Much less now
25		It was much better then	Much better then	Much, much less now	Much less now
26	No change	Punishment from God	Prices at the market	More fisherman	More fisherman
27	Changu Chole	Kibua, Saladin	Saladin	Changu	Nguru, Ana Jodari
28a	Very nice	Very good idea	Not good	Depends on the method of conserving	A good idea
28b	Not effect	No because he usually fishes very far		Legal fishing	Will enable a better way of life
29	Businesses	Small business	Shop	Keeping livestock and Chickens	Nothing
CONSERVATION AREA					
31	Forodhani up to Chukwani	Kizing, Bawe, Changuu, Matoro		Mnanda	From Baine Island to Mnemba Island
32	Near their home		More profitable	Mkokotoni because its nearer home	Bumbinini because there are a lot of fish
33	Yes	Yes, they can collect taxes and increase employment	Yes, people will get employment	Yes, another in Mkokotoni	Yes
34	Fungu Karume (Paje)	Paje, Nyange	Fungu Nyange	Nungwi, KweMwana	Kina Minana
35	Mazizini	Mazizini, Matoro	Kizingo, Majanini	Mkokotoni - Muwanda	Mkokotoni upto Bumbinini
THREATS TO THE ENVIRONMENT					
36	Corals, killing small fish using nets	Erosion	Corals are destroyed	Cutting Mangroove, Uchimbaji, Mchanga	No threats

	Interview 61	Interview 62	Interview 63	Interview 64	Interview 65
PERSONAL DETAILS					
1	Ali Yussuf Juma	Othman Ujudi Jano	Rajab Ali Haji	Makame Ali Oma	Simali Suha
2	26 years	27 years	48 years	50 year	35 year
3	None	2	17	15	15

4	Form 2	Standard 5	Standard 6 and Quran	Form 3	Standard 4
5	4 years	10 years	32 years	6 years	25 years
6	Fisherman	Fisherman	Farmer	Fishing	Farmer
7	26 years	27 years	48 years	50 years	35 years
8	None	Farmer	Farmer	Farming	Farming
9	Insufficient	Insufficient	Insufficient	Insufficient	Insufficient
LOCATION					
10	Mkokotoni, Bawe, Bumbwini, Tumbatu, Nungwi	Kwamwana, Bumbwini and Nungwi	Outside Boza, In the open sea, Mafia, Dar-es Salam, Taga, Kenya	Mwana wa mwana, Bubwini, Mnerani, Kizimkazi, Fimba	Open sea
11	Mkokotoni	Kwamwana	Where there is the north east monsoon	South of Umuja	Kizimkazi, Mafia, Dar-es Salam, Mnarani, Nungwi
12	Coral reefs, Beach banks, Mangrove	Turtle, Dolphin, Coral	Open sea	Fishing in the open sea	Jodari, Sehewa, Mbasi, Hamburia
13	No problems	No engines on boats	Not recognized in Dar-es Salam	Conflicts with passing ship	Bigger ships destroy dhows
14	Bumbwini, Kama, Mangapinani	From Tanga, Nungwi, Bumbwini, Mkokotoni	Nungwi, Kigambe, Pangani	Fukuchani, Bubwini, Tumbatu, Nungwi, Mjoni	Yes, Big fishing vessels
METHOD AND GEAR					
15	Wooden boat	Wooden boat	Dhow	Boat	Dhow with Tanga
16	3people	5 people	4 to 5 people	4	In group
17	Line and round fish net	Fishing net	Gill net	Gill net	5 inch nylon net
18	No	No	Yes	Hire	No
19	No	Yes, cooperative		Yes, 4 associations	Yes
CATCH ANALYSIS					
20	Nguru, Vubua, Madagaa, Saladini	Kole kole, Nguru, Mbaasi, Vhumbwi, Jodari, Sehewa and Mziha	Mapanje, Mbasi, Kole kole	Sehewa, Uguru, Jodari, Mbasi, Kanadi	Nguru, Kanadi, Kole kole, Mzia, Kihaluro, Chape
21	Yes Malindi	Zanzibar town and Mkokotoni	Yes	Mkokotoni	Mkokotoni
22	30 – 150kg	50 – 100kgs	0-100	3-10kgs	20-300kg
23	In the boat	Keep in the boat	Do not keep	Do not keep	In the boat
FISHING STOCK					
24	Was good then	Was good then	Decreased catch	Decreased now	Decreased catch

			now		this time
25	Was much better then	Was much better then	Increased catch then	Increased catch then	Decreased catch this time
26	Many fisherman	Poor fishing gear including a lack of boats to go out into the sea	Increased fishing effort	Increasing fishing pressure and habitat destruction	A lot of fisherman
27	Nguru	Nguru, Jodari, Sehewa, Maasi and Mziha	Mapanje, Mbasi, Kole kole	Sehewa, Uguru, Jodari, Mbasi, Kanadi	Nguru, Kanadi
28a	A good idea	Not good	Depends on the method of conservation	Depends on the conservation method	Good idea to protect the sea
28b	Not affected	Has not affected livelihoods	Only of there is complete closure	Depends on whether there is support provided	
29	Business	Farming	Farming and livestock husbandry	Move to another area	Animal husbandry business
CONSERVATION AREA					
31	Bumbwini, Changuu	Fungu refu, Nungwi	A few meters west of Tumbatu and more to south Makube	400m outside Tumbatu	Tumbatu
32	Mkokotoni because there is more fish	KwaMwana	Outside Boza, In the open sea, Mafia, Dar-es Salam, Taga, Kenya	Mwana wa mwana, Bubwini, Mnerani, Kizimkazi, Fimba	Kizimkazi because there is a lot of fish
33	Yes	Yes	Good idea will get more money	Depends	No, there are no benefits
34	Manvhubi, Changu, Bawe, Stone Town	Fungu refu	Mwana wa mwana, Uso wa membe	Sensitive fishing grounds	Fungu Refu
35	Manvhubi, Kinazini, Mpigatua	Fungu refu – mwanda	Kidoti, Fukuchani, potoa, Sheugani, Kuembeni, Mkokotoni, Mwanda, Bubwini, Mto wa Pwani	Cutting Mangrove, Destruction of Corals, Sand mining, Nets tied around corals	Mkokotoni, Muwanda
THREATS TO THE ENVIRONMENT					
36	No threats	Cutting mangroves and taking sand to the coastline	Sand mining, Mangrove cutting and dragging net	Anchors and tourism	No
	Interview 66	Interview 67	Interview 68	Interview 69	Interview 70
PERSONAL DETAILS					

1	Khamis Kundi	Ali Nyange Ali	Pangu Ame Pangu	Bakari Ussi Ame	Machano Juma Haj
2	65 year	47	57	63	43
3	9	7 people	13 people	12	7
4	Standard 4	Standard 7	No education	Quran	Form 2
5	50 years	27 years	45 years	16 years	16 years
6	Business	Boni Captain	Fisherman	Fishing	Farmer
7	65 years	45 years	57 years	63 years	43 years
8	Own a small restaurant	Cultivation – Farming	Cultivation	Farming and keeping chickens	Farming
9	Insufficient	Insufficient	Insufficient	Insufficient	Average
LOCATION					
10	Mkokotoni, PBA, Kizimkazi, Tanga, Mafia	Nungwi, Bumbwini, kwa mwana and Mazizini	Nungwi, Kwa mwana, Bumbwini and Kizimkazi	Kijamba kwasaidi, Boza pwani, mchiyi maziwa, Kijamba saidi	Boza kubwa, Kipwani and other open sea areas
11	Mkokotoni because it is near their home	Kwa Mwana – Tumbatu	Kwa Mwana	Kijamba kwasaidi, Boza pwani, mchiyi maziwa, Kijamba saidi	Boza kubwa, Kpwani and other open sea areas
12	Nduwaro, Nguru, Jodari	Turtles, Dolphins, Birds	Coral, Dolphin, Birds	Deep water	Open sea areas
13	Change of weather	Poor fishing methods, boats and gear	Poor Fishing gear	Passing ships	Passing ships
14	From PBA and Tanga	Bumbwini, Tanga, Mkokotoni, Kojani, Zanzibar Town, Mainland	Tumbatu, Bumbwini, Mkokotoni, Tanga	Tumbatu, Mwanda, Mkokotoni	Mkokotoni, Mwanda, Tumbatu, Mahoba
METHOD AND GEAR					
15	Dhow with Tanga	Canoe	Canoe	(Boat) Mashua	Boat with an engine
16	In group	5 or more people	Group of 6 people	3 to 4 people	3 to 4 people
17	3 inch nylon net	Fish line with a pressure lamp	Fishing net (round net)	Drifting net	Drifting gill net
18	No	Yes	No	No	Hire
19	Yes	No	No except fisherman's committee	Yes	Yes
CATCH ANALYSIS					
20	Mapanje, Sehewa, Songoro, Kole kole	Nguru (King fish), Jodari (Tuna), Cheina, Kolekole (Caranx)	Kolekole (Caranx), Nguru (King fish), Mziha (Mullet), Changu (Lethrinus),	Changu (Lethrinus), Hongwe (Cat fish), Kolekole (Caranx), Fatundu (Red snapper)	Kolekole (Caranx), Nguru (King fish), Kanadi (King fish), Papa (Shark)

			Jodari (Tuna)		
21	Mkokotoni fish market and Stone Town	Mkokotoni	Yes, Mkokotoni and Zanzibar Town	Yes	Yes
22	10 – 200kg	40 – 50 kg	30 – 250 kg	10-40kg	15-60kg
23	Do not keep	In the boat	In the boat	Do not keep	Do not keep
FISHING STOCK					
24	No more fish now	It was good five years ago	It was good five years ago	Decreased catch now	Decreased catch now
25	Decrease catch now	It was better ten years ago	It was better ten years ago	Increased catch then	Increased catch then
26	More fisherman and tourist	More people fishing	Many fisherman with different fishing gear	Fishing pressure and destruction of the environment	Increasing fishing pressure and damage of the corals
27	Nduwaro, Sehera, Nguru	Jodari (Tuna)	Kolekole (Caranx) and Jodari (Tuna)	Changu (Lethrinus), Hongwe (Cat fish), Kolekole (Caranx), Fatundu (Red snapper)	Kolekole (Caranx), Nguru (King fish), Kanadi (King fish), Papa (Shark)
28a	Good idea	It's not good	Its not good	Afraid, do not know what will happen	Suspicious – if well managed then there is no problem
28b		Will make us suffer	Will make us poor	If there is complete closure, it will affect livelihood	If there is complete closure the people will starve
29	Business and tourism	Cultivation	Cultivation	Off-shore fishing if supporting equipment is given	Farming
CONSERVATION AREA					
31	Tumbatu	He would not like a conservation area	From Mnemba to Baine	2-3km behind the coast	2 miles outside Tumbatu
32	Mkokotoni, because its nearer home	Kwa Mwana, has a lot of fish	Kwa Mwana	Kijambari kwa saidi, Boza pwani, Mchiyi maziwa, Kijamba saidi	Boza kubwa, Kipwani and other open sea areas
33	No	Yes	Yes	Yes, will enable fisherman to sell fish more easily	Yes
34	Nungwi and Kendwa	Kwa Mwana	Kwa Mwana	Kijamba saidi, Mchinje maziwe	Boza kubwa, Mwana wa Mwana
35	Mkokotoni, Kiongwe and Bumbwini	Mkokotoni	Mkokotoni	Mkokotoni, Mto wa pwani, Mwanda, Bumbwini	Mkokotoni, Mto wa pwani, Mwanda, Makoba

THREATS TO THE ENVIRONMENT					
36	No	No threat	Conflict from community and tourist sites	Dragged nets, drifting nets and Anchors	Nets and Anchors

	Interview 71	Interview 72	Interview 73	Interview 74	Interview 75
PERSONAL DETAILS					
1	Khamis Ali	Mbarouk Haji Ame	Makame Jecha Makame	Hassan Ali Said	Haji Makame Haji
2	55	55 years	36	49	62
3	6	7	5	5	6
4	Standard 6	Standard 3	Form 2	Form 3	Quran
5	14 years	30 years	18 years	15 years	43 years
6	Fisherman	Fisherman	Fisherman	Farmer	Fishing
7	20 years	55 years	36 years	49 years	55 years
8	None		Farming	Farming	
9	Insufficient		Insufficient	Moderate	
LOCATION					
10	Nungwi, Mkokotoni	Kizimkazi, Mafia	Nungwi, Kwamwana, bumbwini, Mazizini and Makani	Boza kubwa, Outside Kiyongwe, Kijandani, Mwamba Said	Fukuchani, Nungwi
11	Nungwi, Mkokotoni	Kizimkazi, Mafia	Nungwi and Kwa Mwana	Boza kubwa, Outside Kiyongwe, Kijandani, Mwamba Said	Fukuchani, Nungwi
12	Coral	Coral reef	Coral Reefs, Birds, Dolphin	Coral reefs	Nguru, Ngisi
13	None	None	Poor fishing gear	Passing ships	No problems
14	Mkokotoni, Nungwi	Stone Town, PBA and Mafia	Yes, Bumbwini, Pemba, Tanga, Zanzibar Town	Mto wa Pwani, Mkokotoni, Bubwini, Murando	Stone town and Bagamoyo
METHOD AND GEAR					
15	Outrigger boat (Ngalawa)	Planked boat	Dhow	Mashua	Dhow with Tanga
16	4 to 6 people	6-8 people	In a group	3 to 4 people	5 to 6 people
17	Handling	6 inch handling net	Fishing net	Hand line	6 inch net
18	No	No	No	Yes	No
19	Yes	Yes	No	1 fishing committee	Yes
CATCH ANALYSIS					

20	Jodari (Tuna), Changu (Lethrinus), Papa (Shark), Sehewa (Mackerel)	Nguru, Changu (Lethrinus), Jodari (Tuna), Sehewa (Mackerel)	Kole Kole, Nguru, Jodari, Tenga, Changu	Changu, Fatundu, Kolekole, Chewa	Jodari, Nguru, Sehewa
21	Mkokotoni and Stone Town	Stone Town and Nungwi	Mkokotoni	Mkokotoni	Mkokotoni, Stone Town, Nungwi
22	0-75kg	0 – 300kg	50 – 300kgs	0-10kg	0-75kg
23	Do not keep	Do not keep	In the boat	In the boat covered with a piece of clothe	
FISHING STOCK					
24	Decreased catch now	Decreased catch now	Good five years ago	Decreased catch now	Decreased number of fish now
25	Increased catch then	Much better 10 years ago	Much better ten years ago	Increased catch then	Decreased number of fish now
26	Cutting mangrove, Increased fishing pressure	Increased fisherman	More fisherman	More fisherman	Too many fisherman
27	Jodari (Tuna), Changu (Lenthrinus), Papa (Shark), Sehewa (Mackerel)	Mkokotoni	Jodari	Changu, Fatundu, Kolekole, Chewa	
28a	Depends on the method of conservation	Depends on the method employed	It's a good Idea	Has doubts	Depends on method
28b	Depends on the method of conservation	Depends on the method employed	It will decrease people's standards of living	If the areas is totally closed then they will starve	Depends on method
29	Livestock husbandry and bee keeping	Beekeeping and Farming	Cultivation	Farming	Carpenter and farming
CONSERVATION AREA					
31	Fukuchani	Nungwi	Mnemba to Bumbinini	Outside Tumbatu and the coastal area	Fukuchani, Tumbatu
32			Kwa Mwana, Tumbatu	Boza kubwa, Outside Kiyongwe, Kijandani, Mwamba Said	Outside the Tumbatu
33	Yes	Yes	Yes	Yes	Yes
34	Bumbwini, Fukuchani	Nungwi, Kendwa, Fukuchani	Kwa Mwana	Mwana wa mwana, Boza kubwa, Kijamba said	Matemwe, Nungwi

35	Bumbwini	Bumbwini	Mkokotoni	Mwanda, Bibwini, Mto wa Pwani	Bubwini
THREATS TO THE ENVIRONMENT					
36	Cutting Mangroves	Cutting of mangoves	Lack of conservation awareness	Dragged nets and Anchors	Nylon nets around coral

	Interview 76	Interview 77	Interview 78	Interview 79	Interview 80
PERSONAL DETAILS					
1	Jum Kona Haji	Juma Malik Yussuf	Ali Rashid Rajad	Juma Haneni	Issa Msaenga
2	54	88	32	40	35
3	11	9	1	8	5
4	Standard 6 and Quran	Madrasa (Informal education)	Standard 7 and Quran	Standard 4	Form 2
5	41 years	70	20 years	20 years	5 years
6	Trader		Fisherman		Teacher
7	54 years	88 years	32 years	40 years	35
8	Farming and keeping local chickens	Physician, massuse, Fungus treatments		Poultry and Farming	Farming, Plumbing
9	Insufficient	Sufficient	Insufficient	Insufficient	Insufficient
LOCATION					
10	Boza Kubwa, Kijambani, Mwamba Said, Fumba, Kizimkazi, Tanga	Kipumbwi, Bagamoyo, Kilwa	Mwanda said, Boza, Male	Bandarini Mwambaoni	Tumbatu, Dar es Salam
11	Boza Kubwa, Kijambani, Mwamba Said, Fumba, Kizimkazi, Tanga	Bagamoyo	Mwamba Said	Nungwi	Mwana wa Mwana
12	Coral and sand	Rocks	Coral reef	Mangrove, Chewa, Chandaza, Chaa	Jodari, Changu, Matumbawe
13	Entangled nets	Rapid change in weather	Dragging net fishing	Mahonda Factory spreads poison	Fish
14	Tumbatu, Bumbwini, Mkokotoni	Yes, Maruhubi, bububu	Tumbatu, Mkokotoni	Donge, Mchangani	No other fisherman
METHOD AND GEAR					
15	Fishing boat	Boat	Boat	Canoe	Canoe

16	3 to 4 people	Alone or with 2 people	4	3	3 to 4 people
17	Gill net	Line	Longline	Lines	Lines and nets
18	No	Yes	No	Yes	No
19	Yes	No	Yes	Yes	Yes
CATCH ANALYSIS					
20	Jodari, Sehewa, Fatundu, Hongwe	Changu, Kolekole, Taa, Karambisi	Dibwara, Taa, Nguru, Papa, Kolekole	Jodari, Nduaro, Nguru, Koana	Jodari, Nduaro, Koana, Chaa, Changu, Ngisi
21	Yes, Landing site, Mkokotoni, Hongwe	Yes, Malindi	Yes, Mkokotoni	Yes, Mkokotoni	Yes, depends where they fish
22	20-50kg	2 bundles	0-50kg	120kg	1 bundle
23	Do not keep		Do not keep		
FISHING STOCK					
24	Decreased number of fish now	A lot of fish then but less money	Decreased catch now	Better 5 years ago	Better 5 years ago
25	Decreased number of fish now	Plenty of fish then but less money	Decreased catch now	Much better 10 years ago	Much better 10 years ago
26	Too many fisherman and boats	More money for a few fish	Spear fishing, Different fishing methods	Tsunami	Destructive fishing gear
27	Jodari, Sehewa, Fatundu, Hongwe	Changu, Kolekole, Karambisi, Taa	Shark	Jodari	Mkongge
28a	Confusing	Good idea	Good Idea	Good because it will help planting of mangroves and people will stop cutting the mangrove as well	Good
28b	If the areas is totally closed then they will starve	Not affected	Depends	They will get more fish	Will gain more profit
29	Farming and keeping cattle	Driver	Deep sea fishing	Poultry	Farming, vanishing
CONSERVATION AREA					
31	2-5 miles off the coast		2 miles from the coast	Yombe, Madongoni	Coast
32	Outside this boundary	Areas with more fish	Deep sea	Calm areas	
33	Yes	No	Yes but should have road access	Yes, Nungwi	Yes
34	Boza, Kubwa, Kijambani	Changuu	Boza, Mwamba Said, Mwana wa Mwana	Pwawani (Mbongoni)	

35	Mkokotoni, Mwanda, Bumbwini	Kinazini, Maruhubi, Mtoni	Mwambani, Palia mpunga, Mkupwa, Pangaani, Kapili, Mchuni, Mangisani	Dikokuu, Pangani, Mtomrefu, Changaani	Mafufuni
THREATS TO THE ENVIRONMENT					
36	Dragging nets, Anchor and Gas	Mangroves are destroyed	Dragged net, Mangrove cutting, Sea grass	Sugar factory	Cutting of mangroves to prepare charcoal

	Interview 81	Interview 82	Interview 83	Interview 84	Interview 85
PERSONAL DETAILS					
1	Machano		Mshanga Mbiande Juma	Amour Mzee Abdulla	Abdella Juma Macheno
2	39		47	50	57
3	7		6	10	6
4	Form 2		Standard 3 and Quran	Form 2	Quran
5	35 years		32	15 years	43 years
6	Fisherman		Farmer	Fisherman	Farmer
7	39 years		47	50 years	55 years
8	Farming			None	Farmer
9	Sufficient		Insufficient	Insufficient	Insufficient
LOCATION					
10	Boza, Micheweni		Boza, Boyani, Tidal area, Nyutoni, Mkehereni	Mchinjemazive, Boza Kiongwe, Boza Pwani, Kijamboni kwa Said, Salima, Boza Kubwa	Boza, Kijambani, Vipwani, Deep sea
11	Micheweni		Micheweni, Boza	Mchinjemazive, Boza Kiongwe, Boza Pwani, Kijamboni kwa Said, Salima, Boza Kubwa	Boza, Kijambani, Vipwani, Deep sea
12	Mud and Stones		Coral reef, mud	Coral and mud	Coral reef
13	Chombo, Kwaheribika, Change of weather		Night fishing and illegal destruction	None	Drift netting conflicts
14	Mangabani, Bwani, Mkunjani, Stone Town		Tumbatu, Nungwi, Stone Town	Mkokotoni, Nungwi, Fukuchani	
METHOD AND GEAR					

15	Ngalawa		Outrigger boat	Boat with an engine	Outrigger canoe
16		4	3 to 4 people		4
17	Lines		Handline	Handling	Handling
18	No		Yes	Yes	Businessman
19	No		Yes	Yes	Yes
CATCH ANALYSIS					
20	Changu, Koana, Dimaro, Mkure, Jodari, Nguru, Panji		Jodari, Nderero, Sehewa, Koana, Bumbwini	Changu, Jodari, Sehewa, Kolekole, Fatundu, Hongwa	Changu, Hongwe, Kolekole, Dumbwara, Halundu
21	Yes, Mkokotoni		Mkokotoni, Makonye	Yes	Yes
22	4 bundles		7kg	0-50kg	0-10kg
23	Sacks			Do not keep	Do not keep
FISHING STOCK					
24	Better 5 years ago		Low catch now	Decreased catch now	Decreased catch now
25	Much better 10 years ago		Low catch now	Decreased catch now	Decreased catch now
26	Destructive fishing gear		Increased fishing gear	Increased fishing pressure, cutting of mangroves	Increased fishing pressure
27	Koana, Mikonge		Koani, Mhonge	Changu, Jodari, Sehewa, Kolekole, Fatundu, Hongwa	Changu, Hongwe, Kolekole, Dumbwara, Halundu
28a	Good		Good Idea	Depends on the method	It depends
28b			No effect	Depends on the method-handling should be allowed	If closed then there are no negative effects
29	Poultry		Deep sea fishing, Farming, Livestock keeping	Livestock keeping, Poultry and Off-shore fishing	Deep water fishing, livestock keeping and agriculture
CONSERVATION AREA					
31	Nyuruteni to Tumbatu		Boza, Nyantoni	100m from Fukuchani, Mangapani and 500m from Kiongwe	2-3 miles from the coast
32	Boza		Boza	Outside these areas: Mchinjemazive, Boza Kiongwe, Boza Pwani, Kijamboni kwa Said, Salima, Boza Kubwa	Boza, Kijambani, Vipwani, Deep sea
33	Yes			Yes	Yes

34	No		Nyatoni	Kipwa Mwanda, Kipwa Mvindo, Dindi, Mahonje	Kipwa Mwanda, Ras Kiongwe, Mole
35	Yombe, Dumakuku, Kiwani		Yombe, Pengele, Kiwapili	Mwanda, Bumbwini, Mkokotoni	Kipange, Bumbwini, Mkokotoni
THREATS TO THE ENVIRONMENT					
36	Drags nets, Cutting mangrove, destructive fishing and poison		Dragged nets, Mangrove cutting, Poison from cutting trees, Sewage from sugar factory caused fish to die	Mangrove cutting, Dragging nets, Anchors, Gas and Spear gun	Spear fishing and dragging nets

	Interview 86	Interview 87	Interview 88	Interview 89	Interview 90
PERSONAL DETAILS					
1	Salum Khamis	Salum khamis	Abdalla mzee abdalla	Malik mwinyi usi	Juma nassor juma
2	45 years	28 years	42 years	31 years	42 years
3	5	1	5	3	6
4	Form 11	Form 11	S t d IV	Form 11	Form 111
5	28 years	6 years	20 years	17 years	32 years
6	fishermen	fishermen	fishing	fishermen	fishermen
7	45 years	24 years	42 years	31 years	42 years
8	farming	Carpenter	-	-	farming
9	A little bit enough	Some season is sufficient but some season insufficient	insufficient	insufficient	sufficient
LOCATION					
10	Kwa mwana and nungwi	Kwamwana and nungwi	Mkokotoni,town ,kizingo	mkokotoni	Tumbatu, nungwi, bumbwini
11	Kwa mwana	Kwamwana tumbatu	mkokotoni	mkokotoni	Kwa mwana, tumbatu
12	Sea cucumber dolphin	Birds, dolphin, turtles	Changu,jodari vibua, dagaa	Nguru,changu,lala dini	Birds, dolphin, turtle
13	strong wind	Weak gear	Lack of equipment	No problem faced	They do not have good gear and method
14	Potoa, kidoti, mkokotoni and nungwi	Bumwini,tazari,m kokotoni,tumbatu and nunwgi	Mangapwani,po toa, town	Mwangappwani,to wn	Zanzibar town,mangapwani ,nyanjale
METHOD AND GEAR					
15	canoe	canoe	canoe	boat	canoe

16	4 fishermen	3 fishermen	4-5 fishermen	4 fishermen	2-3 fishermen
17	Lake of lines and fuel	lines	lines	lines	lines
18	no	no	no	no	yes
19	no	no	yes	yes	no
CATCH ANALYSIS					
20	Nguru, kolekole, mzia, njana	Dimbwara, kolekole, njana, taa, songoro	Honwe, paramamba, fatundu	Nguru, changu, vibua	Changu, dimbwira, kolekole, komba, tasi
21	Yes, mkokotoni market	Yes, mkokotoni market	mkokotoni	Mkokotoni, town	Mkokotoni
22	40kgs-200 kgs apprx	30kgs – 50 kgs	100kgs-300kgs	50 kgs – 500 kgs	10-100 kgs
23	In the boat	In the canoe	none	In the canoe	In the canoe
FISHING STOCK					
24	It was better then	It was good then	It was good	Better then	It was good then
25	It was best then	It was best then	It was best then	Best then	It was best then
26	Allot of fishermen who fish destructive way of fishing	The higher the of fishermen	Allot of fishermen demand on sea	All rural people engaged in fishing	Destructive fishing
27	He fish big King fish	dimbwara	Changu and jodari	Saladin and vibua	Changu
28a	Good if it will implementing	No conservation effort	Well, and we will be better of	Its good	Good
28b	Not affect livelihood	It will affect livelihood if there will be no good arrangements	If no it will be no secured	Not affect	Not affect
29	Farming	Carpenter	Poultry	farming	Farming
CONSERVATION AREA					
31	From mnemba island to changuu island	All coastal area in Zanzibar	Tumbatu	muanda	Mnemba, mangapwani
32	kwambana	Kwa mwana tumbatu	Mkokotoni course he gain allot more fish	Mkokotoni, near by home	Kwa mwana
33	Yes	yes	yes	No need	yes
34	No	no	none	no	no
35	Mwanda and mkokotoni	Msikitini and mto wa chewa	kiongwe	muanda	Bumbwini mkokotoni
THREATS TO THE ENVIRONMENT					
36	No threat have ever seen	No thereat	none	People slash mangroves	No threat

	Interview 91	Interview 92	Interview 93	Interview 94	Interview 95
PERSONAL DETAILS					
1	Salum juma haji	Ramadhan mwinyi	Amour abdalla	Abdalla ali	Ibrahim hamdan
2	45 years	62 years	33 years	32 years	45 years
3	4	11	6	5	5
4	standard	no	Form 11	S t d V11	Form 111
5	30 years	30 years	6 years	19 years	18 years
6	cooker	police	none	Farmer	fishermen
7	37 years	62 years	33 years	32 years	25 years
8	Charcoaled	farming	faming	Farmer	farming
9	In sufficient	insufficient	insufficient	insufficient	sufficient
LOCATION					
10	mangapwani	Mangapwani ,bumbwini, tumbatu, changuu	mangapwani	mkokotoni	Mkokotoni, deep sea
11	mangapwani	bumbwini	mangapwani	ndagoni	mkokotoni
12	Coral reef, turtle, dolphin	Coral,tutle,dolphin	stones	Changu, kolekole	Njana, kolekole, mizia
13	Weak of engine	Strong waves	Lack of machines	He is not faced any problem	I usually did have big problem
14	Dar-esalam, bumbwini	Mangapwani, bumbwini, mkokotoni, Zanzibar town	Dar-es Salam, mkokotoni	Bumbwini, town	Kiomba mvua, town, fukuchani
METHOD AND GEAR					
15	canoe	boat	Out Riga canoe	canoe	Canoe
16	4 fishermen	3 fishermen	4 fishermen	4-5 fishermen	4-5 fishermen
17	line	line	lines	lines	Lines
18	yes	yes	yes	yes	No
19	no	no	yes	yes	Yes
CATCH ANALYSIS					
20	Dagaa, vibua, vodari, nguru	Vibua, nguru, jodari, fatundu, sehewa	Nguru, jodari, sehewa, kolekole, vibua	Fatundu, tambisi, makuwazi	Madimbwara, jodari, sehewa
21	Ye, mchangani, mkokotoni, pwani		Yes, mangapwani	Mkokotoni fish market	Yes,mkokotni
22	200-800 kgs	15- 20 kgs	25 kgs apprx	10 kgs- 15 kgs	5 bundles
23	Do not keep	Do not keep	Keep in a bucket	Do not keep	Do not keep
FISHING STOCK					
24	Was good then	It was good then	It was better then	Was better then	It was better then
25	Was best then	It was best then	It was best then	Was best then	It was best then

26	Many fishing method	Many fishermen	nature	Allot fishermen come in our place	Allot of fishermen
27	Dagaa and vibua	nguru	Kingfish,hongwe	kambisi	Changu,nguru
28a	Is good idea	Good idea	Good idea	It is good idea	Better
28b	Not affect	Not affect	Will not affect	Not affect	Not affect
29	farming	farming	business	Poultry	Poultry
CONSERVATION AREA					
31	Ngungwi up changuu island	Mangapwani, bumbwini	mangapwani	muanda	Muanda, tumbatu, mangapwani
32	mangapwani	Bumbwini, his gear are capable to reach the area	Mangapwani is near by home	Muanda because it is near by home	Mkokotoni,becourse near by fish market
33	yes	yes	Good idea	yes	yes
34	mangapwani	Mangapwani	mangapwani	no	no
35	none	No mangrove	nyanjale	Bumbwini mkokotoni	Kiongwe, kipange
THREATS TO THE ENVIRONMENT					
36	none	No threat	Beach erosion	Mangroves cutting	Mangroves cutting

	Interview 101	Interview 102	Interview 103	Interview 104	Interview 105
PERSONAL DETAILS					
1	Khamis Faki Maliki	Mahadhi Mjumbe	Ali Juma	Khamis Ame Zubeir	Makame Abudhari Ame
2	32 years	42 years	30 years	51 yeas	45 years
3	2	5	2	4	3
4	Form 11	From 111	Adult education	standard	standard
5	5 years	23 years	15 years	21 years	20 years
6	farming	none	fishing	fishermen	fishermen
7	Since he was born	Since he had born	Since he was born	51 years	45 years
8	farming	Farming, contractor	farming	cultivator	no
9	insufficient	insufficient	insufficient	insufficient	insufficient
LOCATION					
10	Male , Boza	Bandari ya Mwambaoni	USo wa Membe for north monsoon wind, for south monsoon wind Vundwe.	Kwa mwana and Kizimkazi	Bumbwini, Nungwi, Kwa Mwana, Bawe
11	Male	Fungu Mbaraka	USo wa Membe	Kizimkazi	Kwa Mwana

12	Changu (Emperor), Koana (Rock fish), Ngisi (Squid), Pweza (Octopus)	Mangroves, Crab, Seafood.	Rocks	Turtle, Dolphin, Whale.	Birds, Turtle, Dolphin
13	People from the Department of Fisheries sometimes stop them to fish	no	Rapid change of weather. Also conflict with nearby fishermen	Poor fishing gear	
14	Yes, Tumbatu, Mkokotoni, Mafufuni, Makoba	Yes, Mchangani, Donge, Potoa	Yes, Mkokotoni, Fukuchani, Nungwi.	Bumbwini, Michungwani Makoba	
METHOD AND GEAR					
15	Canoe	Outrigger canoe	Canoe	Canoe	Canoe
16	alone	5 fishermen	2 fishermen	4 fishermen	3 fishermen
17	line	Lines, nets	lines	lines	lines
18	yes	Yes, Mradi wa Uvuvi – (Fishing project) shehia - Mafufuni	yes	no	yes
19	yes		no	no	no
CATCH ANALYSIS					
20	Changu (Emperor), Koana (Rock fish), Ngisi (Squid), Pweza (Octopus)	Jodari (Tuna), Nduaro (Sail fish), Sehewa (Mackerel), Nguru (King fish), Panadi (King fish), Panje	Njana, Komba, Janja, Koana (Rock fish)	Jodari (Tuna) Nguru (King fish), nduaro (Sword fish), Mbaasi (Sword fish), Koana (Rock fish)	Jodari, Mbasi, Koana (Rock fish), Nduaro (Sword fish)
21	Yes, Mkokotoni, Stone town, Malindi	Yes, Mkokotoni	Yes, old Stone town market	Yes, Mkokotoni and kizimkazi	Yes, Mkokotoni
22	1 bundle	2 bundles	1 Bundle	50kg-150 kg approximately	50 kg-150 kg
23	basket	-	In the basket	In the boat	In the boat
FISHING STOCK					
24	It was good then	It was better then	It was better then	It was good then	It was good then
25	No idea	It was best then	It was best then	It was better	It was better then
26	People from Kojani come from town and use destructive gear	Kojani fishing	none	Fishermen change behavior	He do know
27	Koana (Rock fish)	Koana (Rock fish)	Changu (Lethrinus)	Jodari (Tuna)	Jodari (Tuna)
28a	It is good idea	It will help them very well	none	It is good idea	It is good idea
28b	He will gain more fishing if they will do conservation	He will benefit well	none	It does not affected his livelihood	no
29	farming	Animal keeping	farming	Small business	Cold keeper

CONSERVATION AREA					
31	Male until Mnarani	Mwambao wa Mwana-Mangapwani	none	Nungwi, Bawe island	From Mnemba up to Changuu
32	Male because he usually get fish (Ngisi [Squid])	Fungu Mbaraka there are lot of fish	Nearby home	Kwa Mwana is very near to home	Kwa Mwana is so close to home
33	Yes, they will get employment	Yes, they will sell their fish near home village	no	yes	yes
34	No	Kwa Mwana, Makutani, Tumbatu	no	Mangapwani	No site to visit
35	Dikoni	Mchi mkubwa, Kiwapili, Mwambaoni, Mangisani, Kiongwe	Mangisani, Mkokotoni	Dikoni, Mwambaoni, kwa Buji	Dikoni Mwambaoni
THREATS TO THE ENVIRONMENT					
36	People from Tumbatu come to destroy mangroves during night	Perishing of some of species	none	Political Conflict	Mangroves cutting

	Interview 106	Interview 107	Interview 108	Interview 109	Interview 110
PERSONAL DETAILS					
1	Ali Ame Juma	Ame Juma Khamis	Haji Ame Juma	Mjombe Haji Ali	Abdi Juma Juma
2	40 years	45 years	28	40	49
3	11	3	6	4	6
4	none	None	Standard 4		
5	10 years	25 years	17 years	30 years	30 years
6	Fishermen and farming	Fishermen and Farming	Businessman, Dhow	Fisherman	Fisherman
7	20 years	45 years	28 years	40 years	49 years
8	farming	Farming	None	Farming	Farming
9	insufficient	insufficient	Insufficient	Insufficient	Insufficient
LOCATION					
10	Bumbwini, Uzi	Uso wa Membe,	Uso wa Membe (Bumbwini), Uzi	Cheju, Urejua, Bumbwini	Tumbatu-Kichanga Chumvi
11	Bumbwini	Bumbwini,	Bumbwini	Bumbwini	Kichanga Chumvi
12	Coral reef	Mkokotoni, Tumbatu	Coral reef	Turtle and Coral reef	Coral reef, Turtle

13	Bumbwini	Tumbatu	Problem of equipment for fishing	Net	Big Ships disturb and cut the nets
14	Turtle, Birds	Turtle, Dolphin, Whale	None	No	Mkokotoni and Nungwi
METHOD AND GEAR					
15	Small boat	Small wooden boat	Canoe with a sail (Mtumbwi with Tanga)	Canoe with a sail (Mtumbwi with Tanga)	Canoe (Kiboti with Makafi)
16	alone	alone	2	2	Alone
17	lines	line	Spear gun	Trap	Hand line (Mishipi)
18	yes	yes	Yes	Yes	Yes
19	no	no	Yes	Yes	No
CATCH ANALYSIS					
20	Changu (Empior), fatundu (Snapper), karambisi (Travallys), chewa (Caranx)	Yes, Mkokotoni	Changu (Emperor) Jodari (Tuna)	Njana (Lethrinus sp.), Nguru (King fish), Ngisi (Squid), Kaa (Crabs)	Changu (Emperor), Ngisi (Squid), Mkore (Sphyrina)
21	Yes, in Zanzibar town	10 kgs-15 kgs	Mkokotoni, Stone Town	Mkokotoni, Stone Town	Mkokotoni, Stone Town
22	2-5 kg approximately	In the boat	0-2kg	0-2kg	0-1kg
23	In the boat	It was good	Not kept	No	Do not keep
FISHING STOCK					
24	It was good then	It was better then	Decreased number of fish now	Decreased greatly now	Now there is no fish
25	It was better then	Because of pull fishing net	Decreased number of fish now	Decreased greatly now	Decreased greatly now
26	Divers fishers and pulling fishing nets	Changu chole (Lethrinus)	Use of small nets	More fishing pressure	There are a lot of fisherman in our area
27	Changu (Emperor)	It will be good	Changu (Emperor), Ngisi (Squid), Mikule (Sphyrina), Kado		Changu (Emperor)
28a	Is fine	It will be difficult if government will not provide big boat to go deep sea	Yes its better and people would like to be a part of it		It depends on the method
28b	Will not affect	Faming and animal keeping			Depends on the method
29	farming		Keeping livestock		Keep cattle

CONSERVATION AREA					
31	All coastal areas except Kiongwe	Mangapwani and Changuu Island	It depends	Depends on the conservation method	No suggestions
32	Bumbwini	Tumbatu is near home.	Mangapwani near our home	Bumbwini	Bumbwini
33	Yes	-	None	Mkokotoni	No
34	Mangapwani	Mangapwani	Nungwi, Kiwengwa	Nungwi, Kendwa	Nungwi, Mangapwani
35	Pangani - Kiyongwe	Tunda Ngome-Pangani.	Bumbwini	Bumbwini, Makoba	Mangisani, Bumbwini
THREATS TO THE ENVIRONMENT					
36	Fishermen from Bumbwini use destructive fishing method	A lot of Mangroves being destroyed by different people around our home area.	No	Cutting of Mangrooves	None

	Interview 111	Interview 112	Interview 113	Interview 114	Interview 115
PERSONAL DETAILS					
1	Kai Mali Kai	Kombo Makame Haji	Pandu Ame Machano	Ame Abuzari Ame	Ame Machano Yussuf
2	50	50	45	45	75 years
3	15	6	4	8	4
4	Quran and Adult education	Quran	Standard 7	Standard 3	none
5	Many years	15 years	20 years	30 years	15 years
6	Fisherman and Farmer	Fisherman	Fisherman	Farming	Fishermen and farming
7	50 years	50 years	45 years	45 years	20 years
8	Farming	None	None		farming
9	Insufficient	Insufficient	Insufficient	Insufficient	insufficient
LOCATION					
10	Dazi, Bawe, Fungu, Karume, Mele, Boza	Chapwani, Uso wa Membe, Kichanga Chui, Mangisani, Mwamba Munai, Boyari, Uyanga, Boza Kubwa	Mwana wa Mwana	Bandari Mambaoni	Mwambaoni and Tumbatu
11	Boza, Male, Uyanga	Sand, Coral and Sea grass	Deep sea	Kishuani, Tumbatu	Tumbatu
12	Damaged coral reef	Dragging nets	Coral reef, Turtle	Coral reef, Turtles, Nguru (King fish)	Turtle, Coral, Dolphin
13	Fisherman who drag nets	Mkokotoni		Problems with the bigger ships	Strong wave

14	Zanzibar Stone Town		Mkokotoni, Nungwi, Fujoni	No	Kiongwe, Mkokotoni, Kiongwe Kidogo
METHOD AND GEAR					
15	Canoe (Hori/Matumbari)		Canoe (Mtumbwi)	Outrigger canoe with a sail (Ngalawa with Tanga)	Canoe
16	1 to 2 people		Alone	3	alone
17	Hand line (Mishipi)	Nets – set them up in a line	(Hand line)Mishipi	(Hand line)Mishipi	Line and straps
18	Yes	No	Yes	Yes	yes
19		Yes	Yes, from Tassif	Yes	no
CATCH ANALYSIS					
20	Njana (Lethrinus sp) Changu (Emperor), Makowe (Sphyrina), Buluba, Makoe (Sphyrina)	Tasi (Siganus), Changu (Emperor)	Jodari (Tuna), Koana (Rock fish), Nduaro (Sword fish), Changu (Emperor)	Tuna, Changu Chole (Lethrinus sp.), Chewa (Grouper), Ngisi (Squid)	Mkure (Sphyrina), Koana (Rock fish), Changu (Emperor)
21	Mkokotoni, Stone Town	Stone Town	Mkokotoni	Mkokotoni, Bumbwini	Yes, at Mafufuni market
22	0-50kg	0-10kg	0-50kg	0-20kg	10kgs-15kgs
23		Store in a freezer	None	None	In the boat
FISHING STOCK					
24	Decreased catch now	Decreased catch now	Now fish is hard to get	Decreased in the number of fish now	It was good then
25	Decreased catch now	Decreased catch now	More fish then	Decreased in the number of fish now	It was better then
26	Illegal fishing and the use of a spear gun	Increased number of fisherman and illegal fishing	Illegal fishing	There is a great number of fisherman	The more we the more the fishermen
27		Mikonje, Mikule (Sphyrina), Ngisi (Squid), Pweza (Octopus)	Changu (Emperor)	Changu Chole (Lethrina sp.)	Changu (Emperor) and Koana (Rock fish)
28a	Good Idea, especially protection against illegal fishing	Depends	Conservation will help us	It's a better idea	It is good
28b		Depends		Nothing	Will not affect
29	Farming	Off-shore fishing if supported	Farmer	Farming and livestock husbandry	Chicken keeper
CONSERVATION AREA					

31	200 meters from the coast	Outside Boza, 1000m off the coast	Kichwani, Mnarani – Mangapwani	Depends on the method	Mnemba Island-Changuu Island
32	Dazi, Bawe, Fungu, Karume, Mele, Boza	Intertidal zone	Bumbwini because its near home	Bumbwini because its near home	Tumbatu
33	Yes	No	Need a fish market	Yes, need a fish market	yes
34	Boza	Boza, Kipwa Cha Kati, Mwamba Said	Mangapwani	Dikoni, Bumbwini	Mangapwani
35	Mangisani, Dundwa, Mwanda, Janga	Mangisani, Mwambaoni	Bumbwini, Mafufuni		Kwa Buji, Pakia Mpunga
THREATS TO THE ENVIRONMENT					
36	Dragged nets, diving and cutting of mangroves (e.g. Kiwani)	Dragging nets, Night divers	Fisherman use small nets and also cut down the Mangrove	None	Cutting of mangroves by the people from other area.

	Interview 116	Interview 117	Interview 118	Interview 119
PERSONAL DETAILS				
1	Juma Ali Juma	Haji Khamis Haji	Simai	Ramadhani Sheha
2	55 years	32 years	30 years	22 years
3	5	4	Standard 6	3
4	none	Std 1V	15 years	Informal education
5	34 years	17 years	none	8 years
6	Fishermen and cultivation	faming	-	-
7	45 years	32 years	15years	8 years
8	farming	farming	farming	farming
9	insufficient	insufficient	insufficient	insufficient
LOCATION				
10	Bumbwini, Tumbatu, Uzi, Bawe, Changu.	Mkunguni, Bumbwini, Kizimkazi, Mazizini, Bububu	Bandari ya kwa Bwandau	Bandari ya kwa Bwandau
11	Bumbwini	Kizimkazi	Mwambaoni, Ngome Kipwani	Mwambaoni, Ngome Funguni,
12	Dolphin, Whale and Birds.	Dolphin, Turtle	rockes	Rocks, stones
13	Poor fishing gear	Strong waves though they waste their time on the sea.	Sometimes he feel ill and no other fishermen to help him.	While get diseases no fast aid in their boat to save his life

14	Mkokoni Bwekundu	Tumbatu, Kojani	Fisherman from Kojani and from Stone Town	Kojani people
METHOD AND GEAR				
15	Canoe	Canoe	Canoe	Outrigger canoe
16	2 fishermen	4 fishermen	alone	1 fisherman
17	Line	Line	line	lines
18	Yes	yes	yes	yes
19	No	no	Yes, Fishing committee - Kidanzini	yes
CATCH ANALYSIS				
20	Njana (Lethrinus sp.), Mbewa, Chewa (Grouper), Utope, Nyavi, Songoro (King fish), Fatundu (Snapper), Changu chole (Lethrinus sp.).	Jodari (Tuna), Koana (Rock fish), Mikule (Sphyrina sp.) Nduaro (Sword fish)	Changu (Emperor), Njana (Lethrinus sp.)	Changu (Emperor), Mikure (Sphyrina sp.), Karambisi (King fish)
21	Zanzibar town	Mkunguni Bumbwini	Yes, Fish port (Bandarini)	Yes, Fish port (Bamdarini)
22	15 kgs-20 kgs	10 kgs—30 kgs	Yes, 1 bundle	5 bundles
23	In the boat.	In the boat	In the canoe	In the canoe
FISHING STOCK				
24	It was good then	It was good then	It was better then	It was better then
25	It was better then	It was best then	It was best then	It was best then
26	Many fishing gear	Bad fishing	Kojani fisherman's way of fishing	Kojani fishing is the fundamental reasons
27	Njana (Lethrinus sp.)	Nduaro (Sword fish), Jodari (Tuna), Koana (Rock fish)	Chaa (Gar fish)	Chaa (Gar fish) and Changu (Emperor)
28a	It will good idea but other people will come and disturb the area	good idea	Good	Good idea
28b	Yes, it will affect our livelihood	Not affect	Well for him	Nothing affected
29	Faming	Chicken keeper	Small shop	shopkeeper
CONSERVATION AREA				
31	From Mnemba up to Changuu Island	Bumbwini, Mangapwani	Boza up to the sand bank	Boza, Funguni (Sand bank)
32	Bumbwini it is close to home	Kizimkazi because a lot of fish	Small gear and poor method of fishing	Small gear
33	No	yes	yes	yes

34	No	Mangapwani	Mangapwani, Mnazi Mrefu, Kisima Cha Mangapwani	Mangapwani, Mnazi Mrefu,
35	Mtunda Ng'ombe	Makoba	-	
THREATS TO THE ENVIRONMENT				
36	No idea.	Mangroves are destroyed	Small nets destroy corals in the sea.	Local divers and small nets users