

APPENDICES

APPENDIX 1

SURVEY DATA SAMPLE CHARACTERISTICS SOCIO-ECONOMIC PROFILE OF FISHING COMMUNITIES

APPENDIX TABLES

FISH MARKETING SURVEY DATA

1. Occupation

Type	% of respondents
Processing	6
Processing and trading	26
Trading	55
Fisher/Trader	8
Other	5

2. Trading Product

Product	% of respondents
Fresh fish	53
Dried fish	21
Smoked fish	8
Mix of above	18

3. Type of fish mostly traded

Type	% of respondents
1. Nile perch	17
2. Tilapia	16
3. Sardines	13
4. Changu	9
5. Migebuka	6
6. Mbasu	5
7. Vibua	4

4. Processing Methods

Method	% of respondents
Frying	30
Sun-drying	20
Salting	13
Smoking	16
Mix of above	21

5. Processing Facility Ownership

Facility	% of respondents
Own facility	70
Borrowed/rented	23
Shared	7

6. Motive for processing and fish trade

Motive	% of respondents
1. To earn a living	69
2. Inheritance	10
3. Profit	7
4. Other	14

7. Reasons for buying arrangement

Reason	% of respondents
1. Not getting guarantee from some seller	26
2. Depends on price offered in the Market	20
3. Buy from auction market	10
4. Same sellers offer discounts	9
5. Have small capital to buy from market	6
6. Others	30

8. Business transactions a month

Days	% of respondents
Up to 20 days	12
Over 20 days	57

9. Amount of fish traded/day

Amount	% of respondents
Up to 10 kg	13
Up to 20 kg	19
Up to 50 kg	27
Up to 100 kg	11
Up to 500 kg	14
Up to 1 ton	6
Over 1 ton	10

10. Who do fish traders sale to?

Customers	% of respondents
Direct to Consumers	46
Non-local traders	15
Local traders	10
Fishing Company	1
Mix of above	28

11. Good and Bad season Income

Amount	Good season % respondents	Bad Season % respondents
1. Up to Tshs.10,000	6	21
2. Up to Tshs. 50,000	33	50
3. Up to Tshs.100,000	30	13
4. Up to Tshs. 500,000	26	15
5. Up to Tshs. 1 million	4	0.5

12. Market information is obtained from peers 75% of respondents attested to that.

13. Problems faced

Problem	% respondents
1. Small capital	25
2. Market	17
3. Transportation	10
4. Poor storage	12
5. Decrease in amount of fish	4
6. Poor security	4
7. Health hazards	3
8. High export taxes	2
9. Unstable prices	2
10. Poor work facilities	2

FISHER HOUSEHOLDS SURVEY DATA

1. Relationship between big fishers/industries and small –scale fishers

Relationship type	% of Respondents
1. None	29.4 + 2.5+39
2. Bad	9
3. Good	10
4. Market	3.5
5. Assistance	2.0
6. Other	The rest % age

2. Cheating practice by buyers

Status	% respondents
1. A problem (a lot of cheating)	28%
2. Not a problem (i.e. no cheating)	72%

3. Working Gears high prices

Opinion	% respondents
1. A problem (high prices)	44
2. Not a problem (prices are OK)	56

4. Gear Detractions & Confiscation by big fishers

Status	% respondents
1. A problem	20
2. Not a problem	80

5. Working Gear Theft Problem

Status	% respondents
1. Rampant	47
2. Not a problem	53

6. Confiscation of fishing Gear by Government

Status	% respondents
1. A big problem	13
2. Not at all	87

7. Produce taxes a problem

Opinion	% respondents
1. No	69
2. Yes	31

8. Fish landing sanitation

Situation	% respondents
1. Bad situation	19
2. Good state	81

9. Road Reliability

Status	% respondents
1. Not reliable	50
2. Reliable	50

10. Transport situation

Status	% respondents
1. A problem	48
2. Not a problem	52

11. Product marketing reliability

Status	% respondents
1. Reliable	46
2. Not reliable	54

12. Fresh Fish Expenditure per week (last week)

	Category	Fresh Fish expenditure % respondents	Exp. Sardines %	Exp. Chicken %	Exp. On Beef %	Exp. On Goat meat %	Exp on pork %
1	Did not but	7	51	78	68	95	97
2	Up to	7	25	-	2	-	-
3	Tshs.500.-	10	11	5	7	2	1
4	Up to	55	12	16	21	3	2
5	Tshs1000.-	14	1	1	2	-	-
6	Up to Tshs5000.-	6	-	-	-	-	-
	Up to Tshs.10000						
	Over Tshs 10,000.-						
		100	100	100	100	100	100

13. Number of Meals per Day

Number	% respondents
1. One Meal	2
2. 2 meals	48
3. Three meals	50

14. Earnings per month

Amount	Good months (6 months)	Poor month (6 months)	Cumulative %	
			Good months	Poor months
1. Up to Tshs.10,000/-	5	20	5	20
2. Up to Tshs. 20,000/-	6	15	11	35
3. Up to Tshs. 50,000/-	18	26	29	61
4. Up to Tshs.100,000/-	24	18	53	79
5. Up to Tshs.200,000/-	19	10	72	89
6. Up to Tshs.300,000/-	10	5	82	94
7. Up to Tshs.500,000/-	9	4	90	98
8. Over Tshs.500,000/-	9	2	100	100

15. Other Income Generating Activities

Activity	% respondents
1. None	32
2. Farming for food	33
3. Farming for food and cash	20
4. Business	8
5. Other	7

16. Occupation Fishers + Processor

Activity	% respondents
Fish Processing	21
Fish Only	79

17. Fish Sales Customers

Customer	% respondents
1. Beach Traders	60
2. Fishing Co.	13
3. Auctioning	9
4. Direct to Consumers	8
5. Local Market	5
6. Others	5

18. Sell to same trader?

	% respondents
Yes	14%
No	86%

19. Major household Economic Activities

Activity	% respondents
1. Fishing (family)	35.0
2. Fishing (employee)	16.0
3. Fishing (employer)	15.0
4. Fishing + Agriculture	22.5
5. Service provider	3.0
6. Others	8.5
Total	100.0

20. Other sources of Income

Source	% respondents
1. None	62
2. Agriculture related activity	14
3. Business/trade	14
4. Craftsman	3
5. Transport	2
6. Other	5

21. Monthly household Income from fishing only

Income category	% respondents
1. Between Tshs.13,000 – 60,000/-	28
2. Between Tshs. 21,000 – 30,000/-	17
3. Between Tshs. 60,000 – 100,000/-	16
4. Between Tshs.11,000 – 20,000/-	13
5. Less than Tshs.10,000/-	11
6. Other	15

22. Income from other sources

Income category	% respondents
1. Less than Tshs.10,000/=	30
2. Between Tshs. 11,000 – 20,000/=	20
3. Between Tshs. 21,000 – 30,000/=	18
4. Between Tshs. 31,000 – 60,000/=	20
5. Between Tshs.61,000 – 100,000/=	8
6. Other	4

23. Duration in Fishing

Years	% respondents
1. <10 years	58
2. Up to 15 years	16
3. Up to 20 years	13
4. Up to 30 years	7
5. > 30 years	6

24. What is your role as a fisher?

Role	% respondents
1. Boat owner + fisher	44
2. Fishing employee	32
3. Renter of Gear (goats, nets etc)	22
4. Other	2

25. Major catch Species

Specie	% respondents
1. Nile Perch	22
2. Sardine	19
3. Tilapia	1
4. Changu	5
5. Migebuka	4
6. Tasi	4
7. Kolekole	3
8. Mbasas	3
9. Other	

26. Type of Boat used

Boat	% respondents
1. Canoe without engine	85
2. Boat with engine	14
3. Don't use boat	1

27. Fishing Gear used

Gear	% respondents
1. Gill nets	34
2. Handline /hook	19
3. None	19
4. Beach	3
5. Shark nets	4
6. Ring net	4
7. Scoop net	4
8. Fish	4
9. Other	9

28. Ownership of Gear Used

Status	% respondents
Own	57
Don't own	23
Hired	10
Shared	11

FISH CONSUMPTION SURVEY DATA

Appendix Table1: Interviewed Consumer Households by Place of Residence

S/N	Region and distribution			District	Division
	Region	Number	%		
1	Mwanza	101	14.7	Mwanza	Nyamagana, Ilemela
2	Mara	99	14.3	Musoma (U)	Musoma
3	Kigoma	100	14.5	Kigoma (U)	Kigoma N., Kigoma S.
4	Mbeya	101	14.7	Mbeya (U)	Iyunga, Sisimba
5	Dar-Es-Salaam	99	14.3	Kinondoni, Temeke and Ilala	Oysterbay
6	Tanga	87	12.6	Tanga	Pongowe
7	Mtwara	103	14.9	Mtwara (U)	
	Total	690	100		

Source: Field Survey

Appendix Table2 : The Distribution of Fish Consumers by Age

S/N	Age Group (Years)	Number	%
1	Up to 18	13	1.9
2	19 to 25	78	11.4
3	26 to 35	213	31.1
4	36 to 45	176	25.7
5	46 to 55	120	17.5
6	56 to 65	62	9.1
7	Above 65	23	3.3
	Total	685	100.0

Source: Field Survey

Appendix Table 3 : Fish Consumers according to Education Levels

S/N	Education Levels	Number	%
1	None	43	6.2
2	Primary School (1-IV)	98	14.2
3	Primary School (VII-VIII)	291	42.2
4	Secondary School (1-IV)	174	25.2
5	Secondary School (V-VI)	35	5.1
6	Post Secondary/Certificate	13	1.9
7	Diploma	9	1.3
8	Degree	15	2.2
9	Functional Literacy	12	1.7
	Total	690	100.0

Source: Field Survey

Appendix Table 4: Frequency of Eating Fish in Households Per Week

Fish Eating	Fresh Fish		Salted Fish		Fried Fish		Sardines	
	Frequency	%	Frequency	%	Frequency	%	Frequency	%
Once	116	19.8	187	56.8	131	42.8	184	36.8
Twice	144	24.5	93	28.3	68	22.3	144	28.8
Three	148	25.2	33	10.0	51	16.7	65	13.0
Four	83	14.1	8	2.4	31	10.2	41	8.2
Five	35	6.0	2	0.6	10	3.3	15	3.0
Six	12	2.0	1	0.3	2	0.7	7	1.4
Daily	48	8.2	0.0	0.0	10	3.3	39	7.8
Never	1	0.2	5	1.5	2	0.7	5	1.0
Total	587	100.0	329	100	305	100.0	500	100.0

Source: Field Survey

Appendix Table 5: Fish Value per Shopping

S/N	Range of Value/Amount (Tshs)	Fresh Fish		Salted/Dried Fish		Fried Fish		Sardines	
		Frequency	%	Frequency	%	Frequency	%	Frequency	%
1	Up to 500	173	27.5	171	48.9	115	37.6	393	70.6
2	500 to 1000	202	32.1	131	37.4	115	37.6	114	20.5
3	1000 to 2000	153	24.3	41	11.7	62	20.3	30	5.4
4	2000 to 5000	80	12.7	7	2.0	11	3.6	18	3.2
5	5000 to 10000	17	2.7	0	0.0	3	1.0	1	0.2
6	10000 to 20000	5	0.8	0	0.0	0	0.0	1	0.2
7	Over 20000	0	0.0	0	0.0	0	0.0	0	0.0
	Total	630	100.0	350	100.0	306	100.0	557	100.0

Source: Field Survey

Appendix Table 6: Household Monthly Income

S/N	Range of Income (Tshs)	Frequency	%
1	Below 10000	19	2.8
2	11000 to 20000	22	3.3
3	21000 to 30000	58	8.6
4	31000 to 60000	151	22.4
5	61000 to 100000	170	25.2
6	101000 to 150000	98	14.5
7	151000 to 200000	34	5.0
8	201000 to 300000	37	5.5
9	301000 to 500000	13	1.9
10	Above 500000	12	1.8
11	Reluctant to divulge	29	4.3
12	It Varies	31	4.6
	Total	674	100.0

Source: Field Survey

Appendix Table 7: A Summary of Descriptive Information of Fish consumers.

Item	Consumers Lake Tanganyika				Consumers Lake Victoria				Consumers Lake Nyasa				Consumers Coastal Areas			
	N	Min	Max	Mean	N	Min	Max	Mean	N	Min	Max	Mean	N	Min	Max	Mean
Household Size	100	1	18	6.91	200	1	20	5.63	101	1	16	5.77	285	1	12	4.91
Members below Primary education	100	0	7	2.41	200	0	14	1.82	101	0	7	1.6	272	0	9	1.56
Members with Primary education	100	0	7	2.27	200	0	8	1.74	101	0	7	1.78	285	0	10	1.48
Members above Primary education	100	0	9	0.85	200	0	9	1.45	101	0	8	1.66	285	0	9	1.63
Fresh Fish value per shopping	96	200	2000	759.90	186	150	7000	1186.29	71	300	4000	1331.83	275	200	15000	1993.82
Dagaa value per shopping	99	200	5000	776.77	167	100	5000	414.37	81	100	6000	520.99	206	100	25000	804.61
Salted Fish value per shopping	77	200	3000	623.38	104	100	3000	842.31	89	200	2500	708.54	76	100	400	726.97
Fried Fish value per shopping	10	100	2000	860	130	150	8000	1015.77	25	200	3000	1022.80	138	100	6200	782.97
Last month expenditure on food	100	10000	165000	54.408	174	3000	700000	51984.48	100	4410	120000	44750	287	3500	600000	75545.05
Minimum monthly Income	98	10000	200000	64714.29	185	2500	1100000	58073.51	94	2000	201000	52542.55	257	2000	700000	85123.35
Maximum Monthly Income	98	12000	300000	111321.43	187	4000	120000	107331.02	94	18000	360000	106755.32	258	4000	1500000	131259.69

Source: Field Survey

**APPENDIX II
SAMPLE VILLAGES PROFILES**

7.7 Village Inventory

Institution/ Community	Nature of Group	Potentialities	Characterisation of problems and needs	Opportunities/Achievements	Emerging Issues
1. Kigombe - Tanga	Fishing Community	<ul style="list-style-type: none"> • Have plenty of sea resources • NGOs operating • Willingness of the people to participate at community issues • Have wide and basic knowledge of many developmental issues 	<ul style="list-style-type: none"> • Price fluctuation of their catches • Unreliability of the markets for their produce • lack of fishing gear supply • Lack of out board engine mechanic • Lack of safe and clean water • Lack of secondary schools, post secondary schools & literacy classes • Lack of credit facilities 	<ul style="list-style-type: none"> • Have conserved the environment 	<ul style="list-style-type: none"> • Unstable prices • Unreliable markets • lack of sewage system and sanitation • 5 %of levy collected is brought back which is peanut • Fishing gears are unavailable
2. Kunduchi - Dar- Es-Salaam	Fishing Community	<ul style="list-style-type: none"> • Have formed economic groups/activities 	<ul style="list-style-type: none"> • No Bus/large trucks/lorry (overland) • lack of fishing gear supply • lack of outboard engine mechanic • Lack of carpenter/boat building & repair • lack of weighing scales • lack of fish processing facilities 	<ul style="list-style-type: none"> • Built modern houses • High awareness on the importance of education & education facilities 	<ul style="list-style-type: none"> • Some TPDF members still use illegal fishing methods/practices • Fish prices are not guaranteed • Cheating practices are rampant due to the presence of the middlemen (Madalali) - No weighing scales used in this case • 60 % of the HH don't have toilets • Water born and water related diseases are common • The fine imposed to illegal fishers of Tshs. 10,000/- is too small to deter one from practising the same • The village government is not involved in controlling

					<p>illegal fishing</p> <ul style="list-style-type: none"> • No levy collected is ploughed back to the community • People should be involved on decisions and plans related to the sea. •
3. Mlingotini - Pwani	Fishing Community	<ul style="list-style-type: none"> • Willingness for development ventures after being sensitised • 20 % levy is brought back to the community's development issues. 	<ul style="list-style-type: none"> • Unreliable roads during rainy season • Lack of permanent roofed market • Lack of retail drug/shop • Lack of maize mill • Lack of hardware shops • No fuel supply stations • lack of fishing gear supply • Lack of out board engine mechanic • No school institutions, except one primary school • No credit facilities • No preserved breeding grounds • Soldiers participate in illegal fishing methods • No weighing scales • No processing facilities • Lack of good health and sanitary conditions • Unavailability of fishing gears 	<ul style="list-style-type: none"> • Built modern residential houses • Installed electricity in some of their houses • Construction of toilets among various households 	<ul style="list-style-type: none"> • Unaware of existing rules and regulations governing the fishing sector • Need for a permanent patrol on the sea shore • Modern fishing facilities can reduce illegal fishing • Fishing gears should be loaned to the fisher folks and be repaid through community work
4. Mulusenyi - Rugezi Mwanza (Ukerewe)	Fishing Community	<ul style="list-style-type: none"> • 20 % is brought back and used in development matters, e.g. village P/S 	<ul style="list-style-type: none"> • Lack of permanent market stalls • Lack of fishing processing facilities • Lack of general retail shops • Lack of retail drug/medicine • Lack of maize mill 	<ul style="list-style-type: none"> • Assistance for clean and safe water • Expansion of P/S facilities • Health centre required • Maize mills required • Need for good quality legal 	

			<ul style="list-style-type: none"> • lack of hardware shops • Lack of fuel supply stations • Lack of fishing gear lack of out board engine /mechanic • lack of electricity • lack of secondary schools, tertiary education • lack of houses for P/S teachers and classrooms • No extension fisheries officers • Low prices for their catches • Poor health & sanitation, e.g. most HH don't have toilets • Poor relationship between big fishermen and traders • No credit facilities • Fishing gears are available but too expensive • Diarrhoea & bilharzia are common diseases during rainy season • lack of safe and clean water • Piracy is rampant in the lake 	<p>fishing gears</p> <ul style="list-style-type: none"> • Credit facilities for affordable securities • Security in the lake to avoid piracy 	
5. Bwai - Kumsoma - Musoma Rural MARA	Fishing Community	<ul style="list-style-type: none"> • Existence of Women Savings & Credit Association • Existence of BMUs • 20 % levy is ploughed back for developmental purposes • People are largely involved in most decisions with regard to their lives 	<ul style="list-style-type: none"> • Lack of roofed permanent market stalls • Lack of fuel supply lack of fishing gear supply • Lack of out board engine mechanic • lack of safe and clean water • Lack of electricity • Majority of people suffer from Bilharzia, malaria and typhoid • Lack of secondary & technical schools • Shortage of P/S teachers , 	<ul style="list-style-type: none"> • Are building a Police Station • Have their own TISHARI • Have a road passable throughout the year • Have plenty of fish 	<ul style="list-style-type: none"> • Prices for their catches - too low • Bad relationship between big fishermen and traders • lack of credit facilities despite the high demand • Cheating practices are common in the weighing scales • Prices for fishing gear are too high and their availability not

			<p>classes and text books</p> <ul style="list-style-type: none"> • Lack of a Police station • Lack of a court facility • Lack of a mosque 		<p>guaranteed</p> <ul style="list-style-type: none"> • The present health centre is too small to cater for an increasing population • HIV/AIDS is taking a heavy toll of the fishing community population • Cholera is also a problem; e.g. 9 people died last time due to the disease. • Quality of education is too low due to the shortage of teaching staff
6. Sota - Tarime MARA	Fishing community	<ul style="list-style-type: none"> • Existence of BMUs for preserving the lake ecosystem • 20 % of the levy is brought back and used in building classrooms • Community participation is high on health related issues 	<ul style="list-style-type: none"> • Roads are seasonal • The only means of transport is by Taxi - Mini Bus • No access to water transport • Lack of a permanent roofed market stall • Lack of fuel supply • lack of fishing gear supply • lack of out board engine mechanic • Lack of safe and clean public water supply • lack of medical facilities • Lack of Secondary and technical schools • problems of parents paying fees for their children due to HH hardships • Shortage of classrooms and housing for teachers • Lack of a Primary Court • lack of Credit facilities 	<ul style="list-style-type: none"> • Have built 2 Primary Schools 	<ul style="list-style-type: none"> • Most of crimes are committed in the lake at night • Cheating practices in weighing scales is an order of the day and no body cares to rectify the situation • Poor quality education due to poor facilities and lack of teachers • There are still illegal fishermen

			<ul style="list-style-type: none"> • lack of modern fish processing facilities • Low prices for fish catches, e.g. 400/- for a Kg of Nile perch • lack of permanent toilet facilities by many villagers • lack of credit facilities • None availability of fishing gears, hence the use of local gear • Poor social services , e.g. health, education and water • lack of education with regard to the spread of HIV/AIDs • Most of the people are generally poor • 		
7. Nyabuzera - Biharamulo KAGERA	Fishing Community	<ul style="list-style-type: none"> • Accessible by land and water transport • Have a preserved fishing breeding ground • Existence of BMUs 	<ul style="list-style-type: none"> • Lack of permanent roofed market stalls • Lack of maize mill • Lack of fuel supply • lack of fishing gear supply • lack of out board engine mechanic • lack of carpenter/boat building repair • lack of safe and clean water • lack of electricity • lack of medical facilities • lack of school facilities • lack of credit facilities • Prices for fish catches is too low e.g. a kilo of Tilapia costs 200/- while that of Nile perch costs 300/- - 400/- • Big fishermen force other small fishermen out of fish areas • Cheating practices are high and 	<ul style="list-style-type: none"> • Fishing and fish 	<ul style="list-style-type: none"> • Need for seminars on fishing activities and how to enrich their operations • Need improved services in building boats, fish processing, smoking and packaging as well as affordable prices for the equipment • Fisheries officers should t more in terms of technical training and social mobilisation for community participation

			<p>endemic</p> <ul style="list-style-type: none"> • Fishing gears are e.g. fishing nets are extremely high • Lack almost all basic social services • Existence of water born and water related diseases e.g. cholera, Bilharzia • lack of marketing outlets especially during high catches 		
8. Nyamkazi - Bukoba Urban KAGERA	Fishing Community	<ul style="list-style-type: none"> • Near Bukoba Town • Existence of a BMU for conserving and preserving the lake environment • Availability of both water and road transport throughout the year • Majority of fishermen use boats with powered engines 	<ul style="list-style-type: none"> • Lack of a permanent roofed market stall • lack of a maize mill • lack of fuel supply • lack of fishing gear supply • lack of • outboard engine mechanic • Lack of carpenter/boat building and repair • Lack of a medical facility • lack of a police and primary Court • Lack of credit facilities • Lack of fish processing facilities • Unfair price given by businessmen to fishermen • bad relationship between big fishermen and small artisanal fishermen • Credit facilities are lacking • Fishing gears are available at a higher price • Cheating practices are rampant • Illegal fishing is still practised • Though many people are aware of HIV/AIDS but still they do practice unsafe sex and many 	<ul style="list-style-type: none"> • Succeeded in getting rid of illegal fishing • have succeeded in conserving the lake ecosystem 	<ul style="list-style-type: none"> • Laws need to be amended to empower BMUs to persecute illegal fishermen • The present rules and regulations are good the only problem is for the official entrusted to enforce them they normally bend them on their own favour. • The fishing communities should be involved by the government to act as watch dogs for dishonest officials • They would like to have their own equipment and raw materials for building boats, fish processing, smoking and packaging.

			<p>people are dying in big number</p> <ul style="list-style-type: none"> • malaria, diarrhoea and typhoid fever are common diseases facing the community 		
9. Kinagi - Bumbile Biharamulo KAGERA	Fishing Community	<ul style="list-style-type: none"> • Plenty of lake resources, e.g. fish and Sardines • Presence of a BMU • Level of awareness on community participation is very high among the villagers 	<ul style="list-style-type: none"> • Lack of reliable water and road transport • Price fluctuation of their catches • Unreliability of the markets for their produce • Lack of fuel supply • lack of fishing gear supply • Lack of out board engine mechanic • Lack of safe and clean water • Lack of educational facilities • Lack of credit facilities • No any medical facility • lack of landing sites • lack of weighing scales • lack of fish processing/trading facilities • The prices are too low compared to labour charges • health and sanitation is generally poor • Bad relationship with govt. officials whom they accuse of collecting levy at the time they don't have the money • Their relationship with big fishermen is extremely bad, e.g. they drawn some fishing gears of small fishers or confiscate their fishing gears, leave alone others being beaten • Cheating practices are common and people have gone to an extent of reporting the matter to the 	<ul style="list-style-type: none"> • None 	<ul style="list-style-type: none"> • Big fishermen claim to own part of the lake and go to an extent of refusing small fishermen from fishing in their self declared empires • They would like to see 50 % of the levy accrued from their locality is brought back to their developmental activities

			<p>Police</p> <ul style="list-style-type: none"> • The prices for fishing gears are too high for small fishers to afford • There is literally no any social service in the islands • HIV/AIDS is claiming a heavy toll of the fishing population • Typhoid fever, malaria and Diarrhoea are the leading killer diseases 		
10. Nyakalilo - Sengerema MWANZA	Fishing Community	<ul style="list-style-type: none"> • Have plenty of sea resources • NGOs & BMU operating • Willingness of the people to participate at community issues • Accessible to water transport • Have a fish preserved breeding ground • Presence of 18 boats powered with engines • Presence of 48 fishermen with 62 non powered engines • Presence of 174 fishing labourers without fishing gears • Have a big unused electrical generator for producing electricity • Willingness of the community members to participate in community works • 	<ul style="list-style-type: none"> • Land transport is a problems & roads are impassable during rainy season • Lack of a modern roofed permanent market stall • Lack of a carpenter/boat building/repair workshop • Lack of clean and safe water • Presence of water born and water related diseases, e.g. Bilharzia, malaria and hookworms • Lack of credit facilities • Existence of illegal fishing methods and practices, e.g. small nets with less than 5", water splashing, poisonous fishing & the use of MAKOKOLO • Lack of fish processing facilities • Prices for their fish catches are unreasonable, e.g. Tshs. 350/- per kilo of a Nile perch • Poor health and sanitary conditions • Govt. officials need to cement their relation with members of BMUs • Bad relationship between fishermen and traders 	<ul style="list-style-type: none"> • Have built 1 P/S • Have contributed Tshs 3 million for rehabilitating their Health Centre • Rehabilitated a road of 4 Kms • 	<ul style="list-style-type: none"> • Cheating practices with regard to prices of fish catches are high and there is currently a case of that nature under the Police • Land laws are at the advantage of Illegal fishermen despite votes caste by the people implicating them • Seminars should be conducted to enlighten BMUs and other members of the Community

			<ul style="list-style-type: none"> • Lack of credit facilities • Presence of many preventable diseases, e.g. Bilharzia, Malaria, Hookworms, HIV/AIDS • 20 % levy is not brought back to the village development activities 		
11. Lugata - Sengerema MWANZA	Fishing Community	<ul style="list-style-type: none"> • Access by land and water transport • Have a landing beach • Have a common market • Have a Village Committee for Environment and Sanitation which encourage s people to keep their surroundings clean • There is currently good relation between big fishermen and traders 	<ul style="list-style-type: none"> • Lack of a permanent roofed market stall, • Lack of a hardware shop, • Lack of fuel supply station • Lack of fishing gears supply • Lack of out boat engine mechanic • Lack of carpenter/boat building and repair workshop • Lack of safe and clean water • presence of communicable diseases, e.g. malaria, Diarrhoea and Bilharzia • lack of electricity from the National Grid • Still some fishermen are using illegal fishing methods and practices • Lack of fish processing modern facilities • Low prices for their produce/catches • Lack of credit facilities • Many weighing scales used for weighing fish catches are tempered to exploit fishermen • The prices of fish gears are too high apart from their availability • Adequate basic social services still lacking 	<ul style="list-style-type: none"> • Have a lading beach & a common market • Reliable water transport 	<ul style="list-style-type: none"> • Lack of reliable fishing market • Lack of credit and loan facilities for the fishing communities
12. Katonga-Kigoma	Fishing Community	<ul style="list-style-type: none"> • Near Kigoma town 	<ul style="list-style-type: none"> • Malaria, typhoid and cholera fever are common diseases 	<ul style="list-style-type: none"> • Have fish landing sites 	<ul style="list-style-type: none"> • Presence of armed robbery in Lake

		<ul style="list-style-type: none"> • Accessible to health and education facilities • Availability of Community Based Organization • Willingness of the community to participate in development issues. • Readiness of community on cost sharing of social services • Have accessible road throughout the year • Existence of good relationship between fisheries and government officials 	<ul style="list-style-type: none"> • fever are common diseases facing the community • Shortages of education facilities (classrooms, teachers, desks) • Sexuality and HIV/AIDS issues becoming a problem • Lack of credit facilities • Lack of fish breeding grounds • Lack of weighing scales • Lack of extension services/fisheries officers • Lack of fishing gear supply • Lack of out board engine mechanic • High prices of fishing gears 	<ul style="list-style-type: none"> • participated in the construction of secondary school • Participated in the construction of water supply systems • Market cleanliness including construction of public toilet 	<ul style="list-style-type: none"> • robbery in Lake Tanganyika cause frequent loss of fishing gears (Since 1999 community lost 130 million Tshs.) • Unaware of existing rules and regulations governing the fishing sector • No by-laws for serving fishing sector • Community need to own and manage boat for patrol purposes <ul style="list-style-type: none"> • People are very eager and ready for community participation works. • The aim it to form Katonga Fisheries Unity in the near future
13. Kipili – RUKWA	<ul style="list-style-type: none"> • Fishing Community 	<ul style="list-style-type: none"> • Plenty of lake resources • 80 % of its residents are involved in fish and fish related activities • Accessibility to water transport • Lack of cheating practices • Willingness of the community to participate in community works • Good relationship with 	<ul style="list-style-type: none"> • Unreliable road transport • Permanent roofed market lacking • No retail drug/medicine • Lack hardware shops • Outboard engine mechanic missing • No electricity • Lack of weighing scales • Lack of safe and clean water supplies 	<ul style="list-style-type: none"> • Constructed one Primary School and one Secondary School • Involved in the construction of wells and solar energy for safe of water • Increased food production 	<ul style="list-style-type: none"> • Lack of modern fish processing facilities • Lack of weighing scales • Unreliability of market outlets for their fish produce

		fisheries officers	<ul style="list-style-type: none"> • Deforestation as a result of wood fuel • Lack of medical facilities • Presence of communicable diseases • Shortage of Primary school and Secondary School Staff • Lack of teaching and other school facilities • No student passed to Secondary school since 1980 - 2000 • Poverty is rampant • Low prices and unreliability of market for their fish • Lack of credit facilities • Lack of fishing gear shops • Inefficient management of the lake ecosystem • High illiteracy rate • Need for enforcement of the existing laws and regulations with regard to illegal fishing methods and practices • Village leaders are also involved in illegal fishing practices and methods • 20 % levy is not ploughed back to the community • Lack of fishing equipment • Lack of agricultural extension services • 		
14. Kajunjumele Kyela - MBEYA	• Fishing Community	<ul style="list-style-type: none"> • Availability of a number of fish species • Presence of preserved fish breeding grounds 	<ul style="list-style-type: none"> • Unreliable land transport • Only 5 % are involved in fishing and fish related activities • Unavailability of permanent roofed market 	<ul style="list-style-type: none"> • Sensitisation of the community against bad customary practices • Increased food production • Construction of a dispensary at a ward level 	<ul style="list-style-type: none"> • Village government leaders are involved in illegal fishing practices and methods • High rate of illiteracy and ignorance among

			<ul style="list-style-type: none"> • Lack of general retail shops, hardware shops, tea rooms/restaurants, bars, fuel supply, fishing gear supply, out board engines mechanic, carpenter/boat building and repair • Lack of clean and safe water • Lack of medical facilities • Presence of communicable diseases • General level of poverty and ignorance on the part of the parents with regard to education • Parents discouraged by child labour and lack of concentration in school activities • Low incentives to teachers 	dispensary at a ward level	<p>the members of the community</p> <ul style="list-style-type: none"> • Presence of child labour
15. MCHINGA II – LINDI VIJINI _ LINDI	<ul style="list-style-type: none"> • Fishing Community 	<ul style="list-style-type: none"> • Reliable transport • Availability of a number of sea resources • Willing to participate in self-reliance activities 	<ul style="list-style-type: none"> • High dependency ratio • Lack of permanent roofed market stalls • Lack of retail drug/medicine shops, food kiosks, hardware shops, fishing gear supply, out board engine mechanic • Low fish prices • Lack of credit facilities • Lack of electricity • Lack of clean and safe water supply • Medical facilities lacking • Lack of Primary School teachers • Inadequate classrooms • Dropouts increases as some pupils join fisheries activities • Lack of preserved fish breeding grounds • Use of illegal fishing methods 	<ul style="list-style-type: none"> • Built a Secondary School • Have formed fishing groups • Involved in salt mining activities 	<ul style="list-style-type: none"> • HIV/AIDS is becoming a major threat for the survival of the fishing communities • Village officials have prepared bills which will assist stopping theft and abuses in the village • Would wish to be assisted in modern fish processing facilities

			<ul style="list-style-type: none"> • Lack of weighing scales • Lack of health officers Lack of boats, out boat engines and fishing lamps • Presence of local fish processing facilities and methods 		
16. MSIMBATI – MTWARA RURAL - MTWARA		<ul style="list-style-type: none"> • No credit facilities • Unavailability of water transport • Lack of permanent roofed markets, general retail shops, medicine shops, maize mills, fuel supply • Lack of out board engine mechanic • Lack of weighing scales • Lack of modern fish processing facilities • Lack of safe and clean water supply • Presence of communicable diseases • Shortage of Primary school teachers, only 4 instead of 12 in a school • High rate of truancy among pupils • Need for more primary school teachers to increase the quality of education • Youth unemployment is high 	<ul style="list-style-type: none"> • Have succeeded to stop illegal fishing practices • Have also prohibited the haphazard harvest of mangrove trees 	<ul style="list-style-type: none"> • Presence of a committee dealing with the management of ocean's ecosystem is an added advantage 	<ul style="list-style-type: none"> • Youth unemployment is very high

7.8 Institutional and Focus Groups

Institution/ Community	Nature of Group	Potentialities	Characterisation of problems and needs	Opportunities/Achievements	Emerging Issues
1. Kunduchi Fisheries training Institute - Dar-Es-Salaam	Training Institution	<ul style="list-style-type: none"> • Have capacity to train modern fishing methods and practices 	<ul style="list-style-type: none"> • Upgrading training to more advanced levels • Updating its education scheme 	<ul style="list-style-type: none"> • Have trained most of the fisheries officers in this country as well as extension officers 	<ul style="list-style-type: none"> • Application of illegal fishing methods by some of the fishermen
2. Kunduchi Environmental and Development (KUED) - Dar-Es-Salaam	Environmentally oriented	<ul style="list-style-type: none"> • Have the potential to create environmental awareness to the community, prevent environmental hazards caused by air pollution, mining, combat dynamite fishing and industrial waste 	<ul style="list-style-type: none"> • Problems facing marine conservation is poverty, ignorance, illiteracy and marine degradation • Conducting specialised courses related to environmental conservation • Attending short and long term training on environmental conservation issues • Procurement of modern teaching aids • Organise Video show programmes • Establishing awareness to various stakeholders 	<ul style="list-style-type: none"> • Have succeeded in stopping pollution in Salasala Quarrying site • Have been able to counsel the impact of fishermen using dynamite for fishing 	<ul style="list-style-type: none"> • Training needs for various stakeholders with regard to environmental issues
3. Mradi wa Mazingira wa Hifadhi ya Mazingira wa Mwambao - TANGA	<ul style="list-style-type: none"> • Environmentally oriented 	<ul style="list-style-type: none"> • The community where the group works is aware of the importance of the ecosystem because they depend on the sea for their livelihood • Villagers co-operate very closely with the group in preserving and protecting the sea ecosystem, e.g. identifying and reporting illegal fishermen 	<ul style="list-style-type: none"> • Shortage of financial resources to perform the group's duties effectively • Most fishermen have obsolete fishing gears and cannot increase their income to eradicate their poverty situation • Would like to get fishing training on modern fishing facilities • Training for the way of managing groups as well as finances accrued thereafter • The price for MWAMI 	<ul style="list-style-type: none"> • Have succeeded in planting Mwami, Mikoko and other types of trees along the sea shore to preserve the ecosystem • Managed in controlling fish ecosystem and illegal fishing style 	<ul style="list-style-type: none"> • Many people would like to see formation of co-operative society (saving & credit) for the fishing communities • There is also a consensus on establishing community fisheries facilities for common use

			<p>products is too low and the market is non-existent</p> <ul style="list-style-type: none"> • Fish feed on the MWAMI planted by the group 		
4. Federation Association of Women Entrepreneurs Tanzania - FAWETA TANGA	<ul style="list-style-type: none"> • Women Entrepreneur Group 	<ul style="list-style-type: none"> • Have potential to alleviate poverty through petty business, e.g. selling Buns, fish, etc. • Have the knowledge of doing business and the intention of succeeding 	<ul style="list-style-type: none"> • Have no facilities to upgrade women who have formed developmental groups • Have no initial capital to establish their own business • PRIDE & POVERTY AFRICA don't reach them because of their level of poverty • Lack of a marketing place for their products • Lack of general cleanliness • Training need for fund mobilisation, doing business and hygiene 	<ul style="list-style-type: none"> • Have succeeded in organising the groups 	<ul style="list-style-type: none"> • The society should be sensitised on the role of women in the society
5. Kitanga Development Foundation - TANGA	<ul style="list-style-type: none"> • Developmental oriented NGO 	<ul style="list-style-type: none"> • The community is positive and see the importance of the NGO in alleviating their poverty • Have the potential to sensitise the community on conserving the environment 	<ul style="list-style-type: none"> • Lack of modern working technology in their daily activities • Poor inputs (nets, vessels, etc.) • Shortage of financial resources 	<ul style="list-style-type: none"> • They are finalising the registration of their group to a legally recognised institution to facilitate the development of Kigombe Village 	<ul style="list-style-type: none"> • The group's major goal is to alleviate and/or eradicate poverty to its members
6. Tanga Coastal Zone Conservation Development Programme TANGA	<ul style="list-style-type: none"> • Environmentally oriented group 	<ul style="list-style-type: none"> • Have the capacity to train various stakeholders to manage coastal resources • Have the potential to develop, implement and monitor collaborative coastal and marine management plans • The community is highly aware of the importance of the coastal and marine ecosystem 	<ul style="list-style-type: none"> • Destructive fishing practices are still rampant 	<ul style="list-style-type: none"> • The programme has been very successful because of application of sound technical basis and effective participation of stakeholders • The programme is one of the most successful one in the West Indian Ocean and Internationally • Specialisation in marine science especially coral reefs and reef fish management 	<ul style="list-style-type: none"> • Need for establishing co-operative societies and common fishing facilities for the fishing communities

<p>7. Fisheries management Component of LVEMP - Nyamagana MWANZA</p>	<ul style="list-style-type: none"> • Environmentally oriented group 	<ul style="list-style-type: none"> • Have the potential to protect, conserve, develop and rationally exploit the lake/marine fishery resources and environment fully • The group uses a bottom up approach in implementing its duties 	<ul style="list-style-type: none"> • Usage of illegal fishing gears by some of the fishermen • Increased free access to fishing • Encroachment to breeding and nursery grounds 	<ul style="list-style-type: none"> • Fish catches have increased as a sign of success in preserving the lake ecosystem • The number of fishermen using legal gears has also increased • The community has been increasingly been involved in the management of the resources through BMUs • Need for training on fisheries laws and regulations to fishermen • Need for fisheries extension officers with mass communication skills • Need for establishment of fishing co-operative societies 	<ul style="list-style-type: none"> • The importance of improved fish quality and safety assurance • Need for the enforcement of the rules and regulations governing the fishing sector • Existing conflict between big fishermen and small ones
<p>8. MISIWO - Musoma Urban MARA</p>	<ul style="list-style-type: none"> • Savings & Credit 	<ul style="list-style-type: none"> • There is already organised savings and credit facility for poverty eradication 	<ul style="list-style-type: none"> • Members don't return the loans on time • Co-operative officials don't know the meaning of co-operatives and hence they normally give false advises on running them • Negative government outlook towards NGO's • The co-operative is good but is encountered by individualistic problems • Big fishing companies continue to make small fishermen even more poorer • There is a negative connotation that fisheries officers are enemies of the fishermen because they always confiscate their working 	<ul style="list-style-type: none"> • Fishing levy is too high the government should reduce it • The problem of fishing by poison seem not to have been given a solution yet • the government should import facilities which could be used to detect between a poisoned and a non poisoned fish 	

<p>9. Mkendo Wavuvi Samaki - Multi Purpose Co-operative Society Musoma Urban MARA</p>	<ul style="list-style-type: none"> Marketing Trading Group 	<ul style="list-style-type: none"> Have an experience in fishing and selling (fresh fish) and buying dried fish from the community Have the capacity and experience of training business education related to fishing activities to its members and the community at large 	<p>facilities</p> <ul style="list-style-type: none"> Currently the group doesn't involve itself in fishing due to lack of fishing gears Theft on fishing gears Illegal fishing is still practised though to a lesser extent The lack environment and sanitation is not encouraging Need of having Savings and Credit facilities for assisting the poor and disadvantaged groups to sustain in their daily life Ned for a common facility for the small fishermen that will assist them in counteracting the purse power of fisheries companies in the fishing sector. 	<ul style="list-style-type: none"> People have been able to report and even apprehend people using illegal fishing gears 	<ul style="list-style-type: none"> There are big problems between fishing companies and small artisan fishermen, e.g. the former use their purse power to make them as foreigners in their own lake/land There is a need for the government to continue employing fisheries extension officers for sustainable fishing development There is an emergence of time and again killings among the fishing communities, e.g. there a belief that there is no government existence in the islands and hence the state of lawlessness prevails.
<p>10. LANESO - MARA</p>	<ul style="list-style-type: none"> Environmentally oriented 	<ul style="list-style-type: none"> It has committed members in the fight to protect and preserve the lake' ecosystem through education and by way of examples The community perceives LANESO as a potential force in the war against water hyacinth, illegal fishing and soil conservation as well as checking if industries no longer pollute the lake 	<ul style="list-style-type: none"> Due to poverty people still uses illegal fishing methods and practices. This is despite the fact of knowing the impact of using such methods and practices for the sustainable future of the lake resources There is a difficult of establishing fishing co-operatives because many people have the experience of the dying co-operative societies, e.g. NYANZA, SHIRECU, KNCU, etc. 	<ul style="list-style-type: none"> Industries have improved their sewage systems hence controlled high rate of water pollution to the lake Illegal fishing methods and practices have to a certain extent been able to be controlled The community has been motivated to plant trees in order to conserve the lake's environment 	<ul style="list-style-type: none"> There is bad relation between fisheries officers and the fishermen. The later sees the former as a policeman looking for bribe There is an allegation that fisheries officers are used to taking bribes from the fishermen The fish sold by fishermen to the

		through their activities	<ul style="list-style-type: none"> • Many fishermen are permanent migrants they don't stay in one place for ever • There is a need to continue giving education among the community in the lake's conservation efforts and the fight against HIV/AIDS • Need to have books, video tapes geared towards the improvement of the lake's ecosystem • Need to have stable financial resources for smooth operation of its activities 		<p>companies is by loan and not cash</p> <ul style="list-style-type: none"> • And the cheating practices among the fishing companies on the fishermen produce are too high.
11. Maendeleo ya Ardhi, Jamii na Hifadhi ya Mazingira Mara (MAJIMAMA) - Musoma Urban MARA	<ul style="list-style-type: none"> • Environment and Community Development Group 	<ul style="list-style-type: none"> • The group has been received and being perceived positively by the community because of the good things they are doing • The group normally networks with other environmentally and developmental oriented groups in its operation • The group has a legal status • The number of people joining the NGO as members is increasing drastically which is a good sign that the NGO is acceptable to the people 	<ul style="list-style-type: none"> • The community has been motivated to work with the group in performing its duties. However the group faces problems related to transport which is unreliable as well as communication system in general • Some community members have been demoralised by lip service NGOs which promised but failed to deliver • The NGO fails to implement all its plans because of lack of capital • Saving and credits societies are existing but many have died a natural death due to bad leadership, failure of the members to return the loan on time, etc. • The fishing co-operative is good but the problem is that many fishermen don't stay permanently in one place something, which 	<ul style="list-style-type: none"> • The NGO has succeeded in planting 4,000 trees to conserve the lake environment 	<ul style="list-style-type: none"> • Fishing companies buy fish catches from the smaller fishermen on credit and not cash • And the cash that is later on given after long follow is too low, i.e. the price of fish is too low, e.g. 300/- Tshs per Kilo of Nile perch • The relationship between a fisherman and the fisheries extension office is that f a cat and rat

			<p>makes it difficult to trace them in case they vanish away with group properties.</p> <ul style="list-style-type: none"> • Need for fisheries extension officers to live among the fishing communities in order to be near with them in case of problems that need their attention • Need for fishing gears to be obtained at a cheaper price to avoid people using illegal fishing gears 		
12. Bukasiga Fishing Company Society Ltd. - Ukerewe MWANZA	<ul style="list-style-type: none"> • Fishing Co-operative Society 	<ul style="list-style-type: none"> • Has a legal status • Highly respected and positively perceived by the community • Has the potential to eradicate poverty within the members of the community through increasing their income, creating employment and looking for reliable markets for the produce of the members 	<ul style="list-style-type: none"> • there is poor interaction between the fisheries officers and the fisher folks • Need to educate members, staff and committee members on the co-operative movements • Training of modern fishing methods to the members is also of paramount importance • Need to conduct business training among the co-operative members 	<ul style="list-style-type: none"> • Have succeeded to build an executive Guest House for the Visitors to the island • managed to plant trees and educating the members of the co-operative on the importance of the lake ecosystem 	<ul style="list-style-type: none"> • None
13. USAMAU SAVINGS & CREDIT COOPERATIVE SOCIETY LTD - Ukerewe MWANZA	<ul style="list-style-type: none"> • Savings & Credit Society 	<ul style="list-style-type: none"> • Legal recognition • Well accepted by the community and many more members are expected to join • Its members are involved in environmental conservation efforts of the lake, e.g. through planting trees, cleaning the beach, etc. • Good relationship with fisheries officers 	<ul style="list-style-type: none"> • Most fishers are not aware of the rules governing fishing in their areas. • The co-operative wish to introduce some training sessions for their members on various aspects of their activities 	<ul style="list-style-type: none"> • The group has successfully been contracted by the district council to collect levies/taxes and is doing the job very well. 	<ul style="list-style-type: none"> • There is a need of motivating members of the community and the general public on the importance of keeping the lake ecosystem clean.
14. TWEYEMBE WOMEN'S	<ul style="list-style-type: none"> • Women Fishing Group 	<ul style="list-style-type: none"> • Has legal status • Have the potential to 	<ul style="list-style-type: none"> • Unlawful fishing methods and practices 	<ul style="list-style-type: none"> • Satisfactorily - due to the theft of their nets 	<ul style="list-style-type: none"> • Big fishermen seem to be a menace to the

<p>FISHING ENTERPRISE - Muleba KAGERA</p>		<p>improve the status and role of women</p> <ul style="list-style-type: none"> The community has a positive perception of their business 	<ul style="list-style-type: none"> Use of prohibited fishing gears Presence of water hyacinth Theft of their fishing gears (nets) Some of their nets were destroyed by big fishing agents (Greek - Shera Camp - Iramba Island) Training need to enable members to financially manage their enterprises Training need on Project Write up Seminars on gender awareness/education Need of new fishing nets so that they can resume their fishing activities 		<p>women enterprise. For whenever they start fishing their fishing gears are either confiscated and/or destroyed by their agents</p>
<p>15. LANESO - KAGERA</p>	<ul style="list-style-type: none"> Youth, Women, Environmentally Oriented 	<ul style="list-style-type: none"> Legally registered group Has committed members Have relatively good facilities for performing their duties High involvement of the community in its duties 	<ul style="list-style-type: none"> Lack of training for fishermen No enough fishing gears, e.g. nets, engines, modern vessels No sufficient latrine No sufficient working tools, e.g. for water hyacinth manual removal Illegal fishing practices in the lake Pollution due to non availability of sanitation projects 	<ul style="list-style-type: none"> Achieved in implementing community participation in manual removal of water hyacinth in the lake To a large extent have succeeded to curb illegal fishing by some fishermen 	<ul style="list-style-type: none"> Capacity building training to various stakeholders and some official staff on how to conserve and protect the environment of lake Victoria Need for Environmental Impact Assessment
<p>16. LVEMP - Biharamulo KAGERA</p>	<ul style="list-style-type: none"> Environmentally oriented group 	<ul style="list-style-type: none"> Have a backing of LVEMP finances and assistance Incorporated with the Central and local govt structures 	<ul style="list-style-type: none"> Use of chemicals in fishing is still existing Occurrence of water hyacinth Application of under meshed fishing nets by some fishermen Lack of environmental awareness among the people Need to train some of the stakeholders on environmental In order to have an impact on 	<ul style="list-style-type: none"> Not quite successful since some fishermen are still operating with illegal fishing gears 	<ul style="list-style-type: none"> Protection and preservation of lake resources

			the management of lake resources, fisheries staff should be of higher level of education than it is now		
17. BMU KATOBOFU – Muleba - KAGERA	◆ Environmentally oriented group	◆ Have a backing of LVEMP organisation	<ul style="list-style-type: none"> ◆ Superimposed from above ◆ Have been unable to control the Big fishing companies (Geek, Solole Beach, Kitana) who use illegal fishing gears and the govt has remained silent despite their repeated reports ◆ They don't have modern fishing and processing gears for Sardines and Nile perch ◆ Don't have a reliable market for their products ◆ Need for training in modern fishing gears and their maintenance ◆ Training on sanitary and good quality fish ◆ There is bad relation with big fishers who harass small fishers by destroying their fishing gears and confiscating them; sometimes they drown them in water, threaten them with guns, beat them severely, etc ◆ There is too much piracy in the lake today 	◆ So far many fishermen are no longer using KATULI, nets with small eyes and fish poisoning	◆ Conflicts between big and small fishermen
18. Kagera and Agricultural Environment Management Project (KAEMP_ - Muleba - KAGERA	◆ Partially environmentally oriented project	<ul style="list-style-type: none"> ◆ Donor financed project ◆ Grassroots project ◆ Legally recognised ◆ Incorporated with local government structures ◆ Positively perceived by the people 	◆ None	<ul style="list-style-type: none"> ◆ Successes are evidenced by the increase number of villagers practising modern agricultural techniques ◆ Number of feeder roads constructed have increased ◆ Number of beneficiaries of safe and clean water has also 	◆ None

				increased drastically ◆ Water born and water related diseases have dropped drastically	
19. Fisheries Office (DRDP and LVEMP) – Muleba KAGERA	◆ Fisheries Management	<ul style="list-style-type: none"> ◆ Have well established structures of operation ◆ Have qualified manpower to perform their assigned duties and objectives 	<ul style="list-style-type: none"> ◆ Increased of fishing efforts ◆ Depletion of fish stock ◆ Deterioration of the ecological health of the lake as a result of rapidly growing population, clearance of natural vegetation along the shores, disappearance of several fish species native to the lake, prolific increase of algae and dumping of untreated effluent by several industries and use of prohibited fishing gears ◆ Inadequate of research information about lake ecosystem ◆ Inadequate/lack of fund to implement resource management activities ◆ Lack of capital for fishers to purchase modern fishing gears ◆ Need for training fishers on management of co-operatives objectives and regulations ◆ Integration of gender component amongst the fishing communities 	<ul style="list-style-type: none"> ◆ Illegal fishing gear and practices reduced/surveillance improved ◆ Participation of communities in fisheries resources management increased ◆ Abuse of lake environment reduced ◆ Awareness creation on environmental creation increased 	◆ Need for further research with regard to the lake ecosystem
20. LVEMP – TASK LEADER KAGERA	◆ Environmentally oriented	<ul style="list-style-type: none"> ◆ Have a backing of LVEMP finances and assistance ◆ Incorporated with the Central and local govt structures 	<ul style="list-style-type: none"> ◆ Inadequate funding for its activities ◆ BMUs not yet recognised by the laws of the land ◆ Lack of working facilities, hence illegal fishing with illegal gears is still rampant ◆ Immature Nile perch collected will cause the depletion of the 	<ul style="list-style-type: none"> ◆ Formation of savings and credit as well as co-operatives for fishers is vital ◆ Only wrong doers who don't want to co-operate with fisheries officers, but now most of the people in the community have good relationship with the officials 	

			<p>species</p> <ul style="list-style-type: none"> ◆ Trans boarder business increases illegal fishing in the islands ◆ Trans boarder fish export and fishing ◆ Immature fish still being caught by <i>illegal gears</i> ◆ Communities don't change immediately ◆ Harmonisation of laws is taking a long time hence people move from one place in country to another place ◆ Staff and communities especially BMUs should be trained on environmental issues e.g. through study tours, seminars, meetings, etc. 	<ul style="list-style-type: none"> ◆ The community and fisheries staff with the assistance of the governments for funding together with the neighbours could effectively manage the lake ecosystem and resources 	
21. Mwaloni Market Traders Development Society MWADESO MWANZA	<ul style="list-style-type: none"> ◆ Traders 	<ul style="list-style-type: none"> ◆ Have a legally recognised society ◆ It is an umbrella organisation of many smaller groups of traders ◆ Highly committed and motivated members 	<ul style="list-style-type: none"> ◆ Water weeds are still a problem ◆ Lack of modern working facilities ◆ Need for basic training on environmental management ◆ Need for sensitisation seminars for all lake stakeholders ◆ Need for basic and continuous education on leadership skills and other related subjects ◆ The relationship with big fishing firms is not good 	<ul style="list-style-type: none"> ◆ Have succeeded in creating unity among various stakeholders or nine groups operating at Mwaloni ◆ Have gone to an extent of empowering the artisan fishermen by giving them seed capital ◆ Have mobilised the groups to form savings and credit groups ◆ Have succeeded to create a common market facility for all traders/members 	<ul style="list-style-type: none"> ◆ Positive on the formation of a co-operative for the fishermen
22. Lake Nyanza Environmental and Sanitation LANESO - MWANZA	<ul style="list-style-type: none"> ◆ Environmentally oriented 	<ul style="list-style-type: none"> ◆ Legally registered group ◆ Has committed members ◆ Have relatively good facilities for performing their duties 	<ul style="list-style-type: none"> ◆ High level of lake pollution ◆ Bad fishing methods and practices ◆ Destruction of fishing spawning grounds 	<ul style="list-style-type: none"> ◆ The success has been relative because of inadequate working facilities as well as financial resources 	<ul style="list-style-type: none"> ◆ Training on environmental management of the lake ecosystem

		<ul style="list-style-type: none"> ◆ High involvement of the community in its duties 	<ul style="list-style-type: none"> ◆ Over-fishing ◆ Need for training in fish culture to reduce Over-fishing ◆ Training on sustainable fishing practices ◆ Training on pollution mitigating measures ◆ Training on the conservation of wetlands ◆ Continuous public awareness creation on fisheries management 		
23. BMU NTAMA – LUGATA SENGEREMA	◆ Environmentally oriented	<ul style="list-style-type: none"> ◆ Have a backing of LVEMP organisation ◆ Willingness to conserve and protect the lake ecosystem 	<ul style="list-style-type: none"> ◆ Theft of fishing gears ◆ Armed robbery in the lake ◆ Bad relationship between big and small fishers ◆ Diminishing number of fish catches which makes fishermen to be nomads ◆ Lack of modern fishing gears ◆ Training on running co-operatives Training on modern fishing methods and seasons 	<ul style="list-style-type: none"> ◆ The idea of co-operative society for the fishermen is good provided it is not hijacked by the well to do and elite ◆ The government should provide loans to small fishers to buy nets instead of running an operation to confiscate 300 nets while the operation could have cost the govt 20 million shillings ◆ Awareness campaigns should be run to educate the mass on the impact of illegal fishing gears for themselves and their future generation 	
24. BMU NYAKALILO SENGEREMA	Environmentally oriented	<ul style="list-style-type: none"> • Have a backing of LVEMP organisation • Willingness to conserve and protect the lake ecosystem 	<ul style="list-style-type: none"> • Lack of working facilities; e.g. Patrol boats, sport lights life jackets, etc. • Doesn't have legal power to persecute the culprits outside their areas of jurisdiction • Need for co-operative training and advanced fishing methods 	<ul style="list-style-type: none"> • Many fishers have ceased using illegal fishing gears 	<ul style="list-style-type: none"> • People have no confidence with the way the govt manages the lake resources, e.g. the govt doesn't take any action to protect small fishers bullied by big fishers, the prices for their catches are too low compared to

					<p>what big companies get</p> <ul style="list-style-type: none"> • The levy collected from them is not brought back to their areas of domicile for developmental purposes
25. JUHUDI GROUP – NYAMKAZI BUKOBA URBAN KAGERA	<ul style="list-style-type: none"> • Men and Women Fishing Group 	<ul style="list-style-type: none"> • Willingness to co-operate • Committed to their group objectives 	<ul style="list-style-type: none"> • Theft of their fishing gears • Lack of substantial capital to expand their activities • Most grants and loans have been targeting the rich than the poor • Lack of training on how to run organisations/groups • The price for their produce/catches is very low 	<ul style="list-style-type: none"> • Their organisation is still infant and therefore cannot make impact evaluation 	<ul style="list-style-type: none"> • The govt. should make follow up to big fishermen who own part of the lake and prohibit other fishermen from using the same area, e.g. in Bumbile a Greek owns his own water body which he patrols it with armed soldiers • Big fishers are using freights of boats and too long nets contrary to the fishing regulations
26. UPENDO GROUP - KIGOMA	<ul style="list-style-type: none"> • WOMEN TRADERS 	<ul style="list-style-type: none"> • Organised group • Willingness to expand their activities to advanced business in processing and distributing Sardines • Are aware of the importance of the lake ecosystem for their livelihood 	<ul style="list-style-type: none"> • Environmental degradation of Lake Tanganyika • Need training on book keeping • Training need on advertising their products • Training need on lake environmental conservation • Need for packaging and transporting education training for Sardines/fish products 	<ul style="list-style-type: none"> • Group's income has increased 	<ul style="list-style-type: none"> • Training related to their group's orientation
27. DAYA GROUP - KIGOMA	<ul style="list-style-type: none"> • TRADERS 	<ul style="list-style-type: none"> • Have a goal to expand their trade nationally and internationally • Registered and organized 	<ul style="list-style-type: none"> • High insecurity in the lake, e.g. plundering • Poor fishing methods • Poor tools and facilities 	<ul style="list-style-type: none"> • Already acquired market as far as Congo, Zambia, Burundi and Rwanda • They obtained a loan/credit 	<ul style="list-style-type: none"> • Need for fishing cooperative society • Collective ownership of basic facilities for

		<p>group</p> <ul style="list-style-type: none"> • Have ten years experience in the trade • The community and group members regard the lake and its ecosystem as very important economic base to the local community and the whole nation because is the source of food/protein and finance 	<ul style="list-style-type: none"> • Lack of credit facilities to the members of community who could borrow to employ themselves in the sector • Obsolete ways and tools of processing and storing Sardines/fish • Need training for capacity building in their group 	from CBI	the fisher folk
28. WOMEN STONE II GROUP - KIGOMA	• WOMEN TRADERS	<ul style="list-style-type: none"> • The don't buy small prohibited fish by law • Have good relationship with fisheries officers 	<ul style="list-style-type: none"> • Low working capital • Unavailability of reliable markets for their produce • Lack of fish processing facilities • Government is uncooperative despite its lip service on eradicating poverty • Need for new fish training methods • Need for training on looking for markets for their produce • Training on book keeping 	• None	<ul style="list-style-type: none"> • Formation of Cooperative Societies (Credit and Savings) once assisted to do so • Collective ownership of basic facilities for the fisher folk
29. MANDUNDO GROUP - KIGOMA	• TRADERS	<ul style="list-style-type: none"> • Have potential of trading and fishing • The community has positive perception with the group • Organised group 	<ul style="list-style-type: none"> • Low working capital • Unreliable market • Processing and packaging of their process is unreliable • Need for a loan from a Bank and other donors • Need of training for expanding their business and markets • Need for book keeping training 	<ul style="list-style-type: none"> • Have a qualified accountant • Against mismanagement of group's resources 	<ul style="list-style-type: none"> • Formation of Cooperative Societies (Credit and Savings) once assisted to do so
30. TANGANYIKA GROUP ENTERPRISES - KIGOMA	• TRADERS of dried fish and Sardines	<ul style="list-style-type: none"> • Willing to have collective capital • Positive perception from the people because they sell their commodities to the neighbours on credit 	<ul style="list-style-type: none"> • Poor fishing equipment • High insecurity - routing and plundering done to the fishermen • Poor facilities for processing fish and Sardines • Unreliable markets for their 	<ul style="list-style-type: none"> • Have a constitution that guide their activities • Good relationship with fisheries officers 	<ul style="list-style-type: none"> • Wish to have the formation of credit and savings societies as well as common facilities for the fisher folk

		<ul style="list-style-type: none"> • The group and the community regard the lake as the main source of people's income and living (source of protein/food, base of many traders' commodities/economy) • Have already acquired a trading license 	<ul style="list-style-type: none"> produce • Foreign traders from neighbouring countries such as DRC do disturb their current source of commodity by not following the market procedures as a result the prices at the source rise drastically • Lack of developed market centre • training need on modern fishing and trading tactics among the community members 		
31. Lake Tanganyika Catchment Reforestation and Education (TACARE) - KIGOMA	<ul style="list-style-type: none"> • Environmentally oriented 	<ul style="list-style-type: none"> • Registered NGO • Diversified activities, e.g. environmental education for youth, savings and credit schemes, health and education, etc. • Positively perceived by the community members 	<ul style="list-style-type: none"> • Rapid degradation of the natural resources, e.g. deforestation for domestic as well as for fish processing activities • Soil erosion and causing sedimentation which has affected the lake ecosystem, e.g. some fish species are diminishing such as KUHE • Lack of constant and viable co-ordination between relationship between fisheries officers and the community and other fisheries stakeholders • Training on modern fishing methods • Sensitisation on formation of groups and co-operative societies • Training on lake environmental education and impact of illegal fishing methods 	<ul style="list-style-type: none"> • Community development projects and savings and credit schemes established in 20 • Tree nursery services in 30 villages in Kigoma region • raising environmental awareness in 20 villages and schools outside of the project villages, etc. 	<ul style="list-style-type: none"> • Formation of Savings and Credit Co-operative Society is the only effective approach that has a positive impact on community development • Ownership of a common fishing facility for the fisher folk creates a sense of ownership and eases management
32. WOMEN GROUP - RUKWA	<ul style="list-style-type: none"> • WOMEN GROUP 	<ul style="list-style-type: none"> • Experience in trading fish and Sardines • Positively perceived by the community 	<ul style="list-style-type: none"> • Lack of capital • Lack of modern fishing gears • Lack of reliable market • Use of illegal fishing gears • Plundering on the lake by people 	<ul style="list-style-type: none"> • None so far due to lack of capital 	<ul style="list-style-type: none"> • Second the ideas of formation of savings and credit facilities for the fisher folk as well as the common facility

			<ul style="list-style-type: none"> from Zaire • Unfriendly relationship between fisheries officers and the community and other fisheries stakeholders • Lack of fishing industries • Training need on modern knowledge of fishing and related activities 		for the same
33. MSIMBATI WOMEN GROUP - Mtwara	• WOMEN GROUP	<ul style="list-style-type: none"> • Positively perceived by the community • Have won confidence from shop owners who provide them with nets on credit 	<ul style="list-style-type: none"> • Lack of modern fishing facilities • Use of illegal fishing gears, e.g. Makokoro • Training on modern fishing techniques and marketing • Financial management training 	<ul style="list-style-type: none"> • Have been able to pay school fees for their children and buy other household essentials 	<ul style="list-style-type: none"> • Support savings and credit facilities formation as well as common fishing facility for the fisher folk but need serious management
34. MAENDELEO - Mtwara	• Fishermen GROUP	<ul style="list-style-type: none"> • Long servicing group and recognised by the village government 	<ul style="list-style-type: none"> • Inadequate fishing gears • Modern training techniques and practices on fishing gears • Business management training • Need for integrating fisheries aspects in our Primary School Curriculum 	<ul style="list-style-type: none"> • None 	<ul style="list-style-type: none"> • None

D. REPORT

NATIONAL STAKEHOLDERS WORKSHOP

JAPAN INTERNATIONAL CO-OPERATION AGENCY

**MINISTRY OF NATURAL RESOURCES AND TOURISM
FISHERIES DIVISION
UNITED REPUBLIC OF TANZANIA**

**Report of
A National Stakeholders Workshop
For
The Master Plan Study on Fisheries Development
In
The United Republic of Tanzania**

Venue: TANESCO Training Centre – Morogoro

Date 30th October 2001 to 1st November 2001

**SYSTEM SCIENCE CONSULTANTS INC.
OVERSEAS AGRO-FISHERIES CONSULTANTS CO. LTD.**

1.0 Background:

The background study on fisheries Development in The United Republic of Tanzania started in January 2001 for an 18-month period. (Jan.2001-May 2002). It is executed by two Japanese consultant Companies (SSC and OAFIC) with Fisheries division of the Ministry of Natural Resources and Tourism as a National Counterpart. It is funded by JICA. The project aims to prepare a Fisheries Master Plan that will provide guidance on priority areas for fisheries sector development.

The study team has just completed its interim report that provides ideas for the Master Plan.

This National workshop is held so that the ideas in the interim report will be discussed and agreed by stakeholders. The interim report suggests a number of proposals as priority projects and it aims to discuss these together with the basic concepts and agree on them in a participatory manner. To achieve this various stakeholders have been invited to the workshop among them fishermen, processors traders, some donors and fisher associations.

2.0 Over all Aims.

The workshop had three overall aims as follows;

1. To accord an opportunity for various stakeholders involved in Fisheries in Tanzania to get together.
2. To recognise the roles and responsibilities of each stakeholder.
3. To exchange opinions and ideas to seek ways for developing Tanzanian Fisheries for sustainable future

2.1 Specific objectives

1. To share ideas and come to a mutual agreement on Fisheries Development Master Plan (Interim stage) among all stakeholders
2. To affirm as well as analyze concepts and select priority strategies and projects for further study.

3.0 Methodology

The workshop used participatory processes to achieve the above objectives these included group work and plenary presentations, plenary discussions, panel discussions and question and answer method. In the groups, all were encouraged to talk to ensure they participated. Discussion groups were formed based on water bodies to ensure discussion on localities that people understood well.

4.0 Workshop Process

Participant introductions

The workshop began with participant introductions facilitated by the Fisheries Department counterpart Coordinator. Seventy people were in attendance including the master plan team of Consultants and Counterparts. Represented too were fishermen, processors, marketers and some donor organizations (See list of participants in annex V). In attendance was Mr. Nishizaki from JICA Tokyo as well as Mr. Thomas Maembe, Director of Fisheries.

Opening of the workshop

The Director of Fisheries Department- Mr.T.Maembe opened the workshop, on behalf of The Permanent secretary in the Ministry of Natural resources and Tourism Mr.P Luhanjo. He reiterated that this workshop was a national event, which will go to the annals of history as very important for the Master plan has come when it is highly needed. He encouraged the participants to give their full attention and prioritize their projects according to water bodies and take care of the different sectors (Production, Processing, marketing). He thanked JICA for supporting the whole exercise and wished everyone well (see full speech in annex VI).

Speech by Mr. Nishizaki-JICA TOKYO representative.

Mr. Nishizaki gave a speech and gave a background of the project (full speech in the annex VI).

Nomination of workshop Chairman.

Mr. R. Mapunda, Assistant Director Fisheries in charge of Planning was then nominated as the chairman for the workshop. He took up the duty of the smooth running of the proceeding for the remaining time of the workshop.

JICA team interim report presentations

This was led by Mr. S. Yamamoto who gave an overview of the Master Plan – that it is an 18-month exercise. He also shared the basic concepts and strategies, which were based on the field findings of phase 2 work and were seen by the team as key to the development of the masterplan. These served as the basis for the group work discussions.

Three team members Mr Fujiki, Sato and Iida then presented in detail some findings of phase 2 as well as suggested priority projects (see full presentations in annex I - III). A question and answer session ensued to clarify points from the participants

- In response to the views presented by the participants, Mr. Iida observed that it is fishery officers in Tanga who suggested a project for processing dagaa. Because dagaa is cheap, they felt that people could afford it. Yet the eventual price of dagaa should include the cost of processing. Dagaa is generally cheap and the price from different sources is generally the same. But if processing is adopted by one area, it will increase the difference in price from one area to another.
- Responding to views from participants, Mr. Sato observed that the production of "clarias" species should be encouraged. It is true that there is a lot of "clarias" at river Mara. But "clarias" is liked not just for bait but also as food.
 - Weights are usually interrupted with after they have been checked. Therefore the inspection of weighing scales is not enough.
 - The collection of statistics is important and will be emphasized.
 - Taxation is an issue to be pursued by the Ministry, Fishery department.

Panel Discussion.

A panel discussion was held to raise key issue for the different water bodies and sectors. Members included- fisherman from marine, fisherman from Inland, Processors Association, District fisheries officer and one Fisheries division representative.

Points raised by participants in the panel discussion are enlisted below.

- There is a need to promote the change the type of canoes from the traditional dugout canoes to planked ones.
 - On propagation of fish species in L. Nyasa, he is skeptical about the success since the fish is found at the Lake has been the reason for environmental degradation
 - General improvement of landing sites is necessary for fisheries around L. Nyasa.
 - There is also a need to provide credit to fishing groups. This should be provided in form of a revolving fund.
 - At L. Nyasa, there is also a need for the new technologies proposed for sardine preservation in areas around other water bodies.
- Lift net is associated with light fishing at night. The timing of this activity with fishing in the evening is different. In addition "clarias" are currently being obtained from Uganda. Has this source of "clarias" been studied?
 - Due to the decline in fish catch, fishermen are known to join nets vertically in order to catch more fish. At the bottom of the joined nets, they may place nets of small mesh sizes, which is illegal.
 - In order to get the commitment of processors to sustainable fishing, a law should be enacted to bind fish processors to invest in fish farming.

- Exploring for a wider market for tilapia is not agreeable. It will deny the people an affordable source of nutrition. Similarly, an illegal fishing method for tilapia, which is being practiced, may be promoted as a result of an expanded market.
 - The distribution of projects should be fair so as to include areas such as Mara, Kagera, etc., rather than concentrating most projects in one area. This is because in the past, a larger than fair proportion of projects have gone to Mwanza.
 - Fish wars between fishermen and between processors have led to the depletion of fishing fingerlings. Another way in which fish wars have contributed to the depletion of fish stocks is through the pricing mechanism, where attractive prices have reduced the concern for sustainability, with fishers catching fish without discrimination.
 - BMU security groups have been doing great job in the Lake region. However, they need education / enlightenment about the law and other regulations so that they can be more effective. Projects should introduce youth fishers group like the ones in Kigoma.
 - A common fish market can promote the control and supervision of weighing scales. Pricing will also be fair.
 - Fish from Tanzania is often smuggled to Uganda where the buyers offer prices as high as Tsh1, 200 against prices of Tshs600 to 700 in Tanzania.
 - Credit provision is a good idea.
 - Through community participation, fishing communities could assist in the collection of fish statistics. Community members in their communities should discuss the projects being proposed in the master plan. This would enable people to develop a sense of ownership and commitment. Similarly, community participation would be helpful on issues regarding statistics.
- Currently, the limit of the amount of fish that should be fished is not known. Yet a lot of time and money has been used to know how much fish we have. These expenses are born by the processors and fishers. Meanwhile, a lot of discussions about plans concerning the distribution of fishing have been held.
- Regarding sustainable fishing, the participant, who is also the chairman for a processors association, reiterated his commitment to lead a campaign against line fishing because this type of fishing catches the parent fish.
 - A need to enforce the use of hooks larger than size 7 and 8, and not beyond that, is useful in ensuring sustainable fishing.
 - Conflict in fishing is fueled by small-scale fishers. But the important question is what can be done? Options available range from stopping the use of small mesh nets and jailing processors who support such fishers. It is fishers who gain most from fishing compared to the processors. They have lower costs unlike the processors.
 - Differences in prices of fish in Uganda and Tanzania arise from the fact that prices in Uganda are less than the 15% tax imposed in Tanzania. In addition, Uganda's freight charges are 25% less than in Tanzania, which charges a host of other type of taxes to fish processors and transporters. Over all, the price differential adds to about 60US cents.
- Knowledge of fishermen is vital in a loan programme. Sometimes, those who are not knowledgeable also repay their loans. The individual nature of the fisherfolk could be a reason for their difficult loan repayment behaviour.
- Dar es Salaam fishers have increased their production but when this happens, there is a problem of marketing. Processing by applying a different technology is needed. More effort in increasing production through a different technology is needed. Because the traditional fishing practice is dominant, there is a need to change to more modern practices.
 - Co-operatives have to change from the past. They need their own efforts by savings so as to be assisted.
 - An increase of sardine production should go hand in hand with processing of the sardines i.e. smoking (mackerel) and sun drying (sardines).
 - The building of a landing site at Dar es Salaam should correspond with the development of subsidiary jetties all over the Coastal landing sites. Improved access roads are equally important in the transportation of fish to Dar es Salaam.

- Experience suggests that people at the Coast are more reluctant to repay loans compared to fishermen at the lake region.
 - Increase of production should go hand in hand with emphasis on processing e.g. canning
 - Loans should be given to people with education/awareness or provision of loans should be accompanied with awareness raising. Between education and ignorance, what comes first? Addressing awareness/education addresses ignorance at the same time. The two have to go together.
- Making his final contribution, the Director of Fisheries Department emphasized the fact that issues concerning small scale fishers are regarded as important all over the country. Equally important, is the establishment of co-operatives and savings and credit societies. If the current plan is implemented well, we will succeed in our objectives. Participation of fishers in managing fishery resources is a good point to be followed up and implemented. This view is guided by the belief that it is the fishing communities themselves can solve most of their problems. Right now, the department is working on revising the fisheries act in order to facilitate the participation of fishing communities. Fish farming is important in increasing the supply and availability of fish. Therefore, it should be given due emphasis.
- Aquaculture is being recommended and is a highly commendable idea. It can contribute to higher incomes and also nutrition for the people.
 - For fish quality and clean landing sites is important. The quality of fish products and improvement of landing sites go together, People should also change our attitudes towards the quality of fish.
 - While international standards have to be met, local standards also have to be maintained i.e. in dagaa processing through drying or the adoption of new technology.
 - The policy on fish export promotes the sell of fish only where there is an excessive supply. Nile perch for example, has been in surplus supply, and can therefore be exported. Meanwhile, there are no proposals for exporting other fish species.
 - The department is also preparing a book on fish cuisines/recipes, with the view of promoting the consumption of fish among the Tanzanian population.
 - The fish price issue has been well discussed. However, the policy of the Tanzanian government is that of market liberalisation such that the market will set prices through supply and demand. When people join co-operatives they can sell together and can determine better prices than individuals.
 - An emphasis of training and skills building to understand the laws and regulations for the youth and others that are older is vital. It is equally important to educate people and enlighten them about sustainable fishing. Although fish stock statistics are not available at present, through experience, fishers may be able to notice the deteriorating situation and act accordingly. However it is not good to wait for stocktaking where we have witnessed degradation (and less fish). Precaution should be taken early.
 - Lastly, fishers should disseminate what they learnt here and start working soon.

5.0 Outcome from Group Discussions.

The groups were formed based on water bodies and sent out to discuss the proposed concepts, strategies and projects. A detailed task sheet is shown below

1. Group formation based on water bodies.

Step 1

1. Read (and discuss) the whole concept paper.
2. What can you say about the overall concept? Affirm if it is conclusive and can stand on its own.
3. If not, What needs to be included in the basic concept?
(Give suggestions)

Step 2

- Look at the strategies
4. Do the strategies feed into and serve the basic concepts adequately? Affirm
 5. If not, what Strategy needs to change? Write down the change or the way the strategy should be?

- Suggest any other strategies that need to be included to build/ feed into the concept.

Step 3

- Look at the projects and scrutinize them
- Are they appropriate for your area?
 - Do they feed into the Strategy? Affirm. If not, What has been left out and you think should be included?
 - Prioritise the Projects for your water body. Give reasons for your priority. *(Keep in mind there will still be feasibility studies to evaluate your priorities and so they may change based on the findings. The reports of the feasibility studies will be shared in a national workshop in April 2002).*

Time budget:

3 hours

Suggested time use guideline:

Basic concept 1, with strategies and projects- 45 mins

2, 35 mins

3, 30 mins

4&5, 30 mins

GROUP NO 1 COASTAL

General Remarks:-

- M.P. does not refer to Biodiversity conservation.
- M.P. is focused on the lakes.
- M.P. is focused, in the marine sector, on Dar Es Salaam.
- Use participatory techniques for formulation of projects.
- Use existing Institutions d.

Basic Concept 1

Add: - Constraint

Poor fish distribution network

Add: Strategy

* Conservation of breeding grounds for the sustainability of the resource.

Add: Project 1.2

* Project should cover whole coastal area from Mtwara to Tanga.

Project 1.4

* Include Marine

* Include destructive fishing practices.

Add: Sub Sector 3 (2) Processing & Mark

* Provision of ice in the districts.

Add: Sub - Sector 4 (3) Aquaculture/Mari culture

* Seaweed farming/prawns etc.

Add: Project 1 - 16 - 2

Should cover total coastal area

Project 1 - 8 Establishment of a fiberglass construction workshop at Mbegani FDC.

Basic Concept 2

Add: Constraints

* Limited number of seaweed buyers

* Export market focused on Nile perch. Diversity products (including marine products).

Add: Strategy

* Increase number of seaweed buyers.

Basic Concept 3

Add: Constraint:-

- * High price of fishing gear
- * Difficulties in obtaining loans
- * Lack of knowledge on saving
- * Poor information dissemination

Add: Strategy:

- * Formation of cooperatives
- * Capacity Building among fishers on Credit/Saving/Bookkeeping skills
- * Improve dissemination of information
- * Use NGOs to facilitate the development of Credit schemes

Add: Project 3.1

- In the following areas: Muheza, Mafia & Lindi.

Basic Concept 4

Modify: *(3) ...data collection, including ecosystem data, processing
(4) Remove 1st sentence
(5) ... Water bodies, by closing of small specific areas for stock replenishment for the whole area by involving the resource users.

Add: Strategy:

- * Stock assessment is necessary for implementing quota system.

Add: Project 4.2

- * Include Marine system

Basic concept 5

Project 5 - 1

Extend from National Level to District level.

Original Project Priority

1.1	Dar Es salaam Harbour Project	(10)
1.2	Coastal Fish Development Project	(3)
1.4	Fish Patrolling Project	(1)
1.8	Expansion Dar Es Salaam Market Project	
1.12	Aqua/Mari culture Project	(7)
1.11.2	Pilot Project for Women in Processing and Marketing Project	(7)
1.16	On -Job Training Project	(2)
1.16.2	Purse seine Dar Es salaam Project	(9)
2.1	Quality Control Dar Es salaam Project	(6)
3.1	Capacity building Fish Comm. Project	(1)
4.1	Improve Flat. Info system Project	(5)
5.1	Just. Study, est. Fish Development Community Project	(8)
5.2	Revive Fish Institutes Project	(4)

GROUP NO. 2 COASTAL REGION

CONCEPT NO.1: IT IS SELF - SATIFYING: -

STRATEGIES - 1 - Increasing the production sector which still lacks information on the amount of fish stock. In order to implement this, it is necessary first to gather such information.

PROJECT NO. 2

Recommendations:

Co-operative education is essential for fishermen.

PROJECT NO. 4

Recommendations:

There should also be patrols for marine waters to save fishermen when they get trouble/problems.

PROJECT NO. 5

Recommendations:

Improvement of light fishing method should also be implemented for fishermen in marine water.

CONCEPT NO. 2 (IT IS SELF-SATISFYING)

Strategy No. 1

PROJECT NO. 1: Should read as:

Project for building fish quality control laboratory; in order to include marketing of fish at all levels.

PROJECT NO. 2

Recommendation: should read as:

Project on market research for fish exports (instead of Sangara alone).

Strategy No. 2:

Problem: No projects were classified.

Concept No. 4

Strategy No. 2:

Project No. 4:2

Add: Research on other fish should include also marine fish instead of Lake Victoria alone).

General recommendations:

Because training is the key factor to all issues, we recommend that it should be an independent concept.

Concept No. 1

	Priority
(1) Construction of Dar Es salaam fishing Harbour	(1)
(2) Coastal fisheries development	(3)
(3) Strengthening of fishing Patrol	(7)
(4) Financial support for young Fishermen	(4)
(5) Expansion of Dar Es Salaam fishing market	(11)
(6) Pilot Project for Women in Processing and Marketing	(6)
(7) Aquaculture development	(12)
(8) Short course /Job training programme for traditional Fishermen	(2)
(9) Reinforcement of purse Seine fishing in DarEs Salaam.	(8)
Concept No.2	
(10) Construction of quality inspection laboratory for fish products	(13)
(11) External Market research for Fisheries	(9)
Concept no.3	
(12) Capacity building of fishing communities	(5)
Concept no. 4	
(13) Improving Statistical information	(10)
Concept No. 5	
(14) In Statistical study on establishing of fisheries development committee and fisheries development fund	(14)
(15) Revival plan for fisheries training Institutes	(15)

COASTAL Final Priorities(Combined for the two groups)

MARINE

PRODUCTION	PROCESSING	MARKETING	CAPACITY BUILDING
1.2 (2)			Capacity building Fishing commodities
1.5 (3)			3.1 (1)
1.12 (7)	2.1 (5)		4.1 (4)
1.16.2 (8)	1.11.2 (6)		1.1 (10)
		2.2 (9)	
		1.8 (11)	1.16 (12)
			1.3 (13)
			5.2 (14)

GROUP NO. 3 LAKE VICTORIA

MODIFICATION

BASIC CONCEPT 1

FISH PRODUCTION - SUB SECTOR

1. PROJECT 1:3

Establish Fisheries Cooperatives For Nile Perch Fishery

Fisheries cooperative will be established in Lake Victoria (Sengerema??) in every region there should be one pilot zone (3 region of Mwanza, Mara, Kagera).

1. Project 1.4

Project for strengthen of fishing patrol.

To solve the problems of robbery of fishing gears, vessels, Engines, illegal fishing and fish trade.

1. Project 1.5

Fisheries Financial Support for young fishermen. Include Lake Victoria also.

2. Sub Sector Aquaculture

* two: Adaptable research should be encouraged.

PROJECTS

Project 3.1

2. Target area: Mwanza, Kagera, Mara (Three area)

3. Target Group:

- Nile perch long line fishermen and consumers.

Project 3.3

2. Target area: ... and Musoma district in Mara region.

PROJECT 3.6

9. Input:

- * VH F.radio ...x 14 district x 3 centers
- * Fishermen education - Fisheries Division
- * System support - Fisheries Division.

New Projects:

1. Establishment of fiberglass boat building on the Lake Victoria.
2. Reduction of Post harvest losses of dagaa (sardine) by improving preservation.
3. Clarias culturing for food and bait purposes.

PILOT AREA: Nyegezi Fresh Water Fisheries Training Institute.

4. Improvement of Landing beaches and feeder roads.
Possibilities of installing facilities like solar or and wind energy ice plant at the beaches.
5. Establishment of fresh water Eel culturing for export purposes.
6. Nile perch culturing/ for Lake restocking purposes so as to sustain Nile perch Export Market.
7. Fund for small sale fishermen loan fund.
* This fund should be a revolving fund to enable other fishermen to get loans.
8. Enlargement and improvement of surveillance groups (BMU's) in Lake Victoria.

**PROJECT PRIORITIES
CONCEPT 1**

Priority	Origin	Description
16	1.3	Establishing Fisheries Cooperative for Nile Perch Fishery.
18	1.4	Strengthening of fishing patrol.
20	1.5	Fisheries Support Project for young Fishermen.
21	1.8	Introduction of Fibre glass Fishing boat Production.
25	1.9	Project for Promotion of Fresh Tilapia Marketing.
8	1.10	Improvement of local fish processing facilities for Nile Perch left over from the processing plants.
12	1.11.2	Pilot Project for women in processing and marketing.
24	1.12	Improved utilization of Dagaa in Lake Victoria.
22	1.13	Improvements of bait fish supply for Nile Perch long line fishing.
23	1.14	Fishing Technique modernization
1	1.16	Short course on the job training

Concept 2

Priority	Origin	Description
4	2.1	Construction of quality inspection laboratory.
13	2.2	Market research for exported product.
10	2.3	Development of major landing sites and its feeder roads.
19	2.4	Establishing Freshwater Eel farming.
17	2.5	Establishing Nile Perch fingerling production for restocking in the Lake.

Concept 3

Priority	Origin	Description
3	3.1	Project for Capacity Building of fishing communities.
9	3.2	Introduction of Revolving Fund Project.

Concept 4

Priority	Origin	Description
11	4.1	Improving statistical information.
6	4.2	Nile Perch resource management
	4.3	Promotion of Existing Co-management of Fisheries Resources

Concept 5

Priority	Origin	Description
8	5.1	Institutional study on establishing of Fisheries Development Committee and Fisheries Fund.
2	5.2	Revival Plan of Fisheries Training Institute.

NATIONAL LEVEL PROJECTS

Priority	Origin	Description
6	1.1 B	Revival Plan of Fisheries Training Institutes.
5	1.2 B	National Fish Marketing Improvement Project.
9	1.5 B	Aquaculture Development Project.

LAKE VICTORIA Final Priorities

1. Concept 1 Projects and concept 5 projects.
2. Concept 3 projects.
3. Concept 2 projects and National level projects.
4. Concept 4 projects.

PRODUCTION	PROCESSING	MARKETING	CAPACITY BUILDING
4.2 (6)	1.10 (7)	1.2 B (5)	1.16 (1)
2.5 * (14)	1.11.2 (10)		5.2 (2)
1.13 (18)	1.12* (20)	2.2 (12)	3.1 (3)
	1.17 * (22)	1.9 (21)	2.1 (4)
			3.2 * (8)
			2.3 * (9)
			4.1 (10)
			1.3 (13)
			1.4 (10)
			1.5 (16)
			1.8 * (17)
			1.14 (19)

* New Projects.

GROUP No: 4 LAKE TANGANYIKA

Basic concept number 1:

Add/Modify to read:

- Food self sufficient for Fish demand by increasing Production.

PROBLEMS

Add: Traditional customs and food taboos for some People, which prohibit them from eating different types of Fish.

STRATEGIES

- Assistance to all Fishing types in terms of Technology and Financial means.
- Promotion of awareness and educate them in formulation of Credit facilities e.g. SACCOS.

Projects

- 1-5.1 To be for both young Men and Women. The project to be implemented to both regions of Kigoma and Rukwa.
- 1-5.2 Construction of mooring jett facilities to be done at Kirando /Tongwa, Kabwe, Kipili, Wampembe.
- 1-4 Add: Project for Lake Tanganyika Surveillance and patrol in Tanganyika.
- 1-11 To be involved with the rest of other species apart from Dagaa and to be carried on both regions of Kigoma and Rukwa.
- 1-11-2 To be implemented under project 1-5
- 1-15 To be implemented in both regions (Kigoma and Rukwa)

Basic concept no.2: Accepted

Strategies

- Should also include Dagaa

Project

2-2: Should also involve market Research of Dagaa

PROBLEMS

Market research is lacking for dagaa

Basic concept No. 3:

This is based on the overall objective of the master plan

Basic concept no.4: Accepted

Strategies

Control of issuing fishing Licences and export (Quota system) should also be applied to other fish species, which are also for export.

Projects.

- 4-1 It is important national wide but not accorded /given priority
- 4-2 Research on stock assessment should also aim in other water bodies besides Lake Victoria

Basic concept no. 5: Recast to read

Fisheries administration and management.

Strategies: Accepted

Projects: Both accepted

Lake Tanganyika Project By Priorities

<u>Production</u>	<u>Processing</u>	<u>Marketing</u>	<u>Capacity Building</u>
7.(4-2) Lake Tanganyika Stock Assessment project.	(1-11) Processing Technology Project for Kigoma and Rukwa regions.	5. (2-2) Project for Dagaa Export Market Research.	1. (1-4) Project for establishment of Lake Tanganyika Patrols
8. (1-15) Project for sustaining Light fishing method on Lake Tanganyika.			2. (1-11) Processing Technology Project for Kigoma and Rukwa regions.
			3. (1-5) Financial Assistance Project for the youth (Men and Women)
			4. (1-6) Project for construction of Ship mooring facilities
			6. (4-1) Project for the Improvement of Statistics.
			6. (4-2) Lake Tanganyika Stock Assessment project.
			9.(5-2) Revival plan for training institutes

GROUP No 5: LAKE NYASA

Priorities

1. To improve Liuli fisheries development centre and TAFIRI- Kyela so as to facilitate Training
2. Fisherfolk communities formation
3. Research on Mbasa Mbelele and Ngumbo fish species
4. To culture fingerlings for ranching on the Lake
5. To plant trees

Concept no.1: It is good, feasible and sustainable. Additional of few comments

- Project**
- 1-2: Should be included on Lake Nyasa
 - 1-4: Should be for all major water
 - 1-5: Micro-Initial public offering (see below)

Concept of Capitals (MIPO)

- There are many people along Lake Nyasa Shore line who are either fishers -but interested to invest in fisheries.
- Better to initiate the selling and buying of shares for the interested individuals along the shore line.

- 1 Families buying shares
- 2 Individuals buying shares
- 3 Lake shore/Outsiders buying shares
E.g. (1) Families 30,000@contribute10,000/=
(2) Outsiders 1000 @contribute 100,000/= will give Tshs. 100,000,000/= (3) Well wishers /Donors giving 10,000,000/=

TOTAL: 3,410,000,000/=

Activities aimed at from the contributed money

- (1) Boat building for each fisher community as a loan.
- (2) Installation of wind mill parks for electricity supply for cold rooms facilities.
- (3) To buy materials which will enhance fish transportation up to the markets.
- (4) To initiate tourists records
- (5) Finance activities should be properly managed with committed Leadership.

1-7: Should include Iringa and Mbeya regions

1-4: Lift nets should be incorporated on Lake Nyasa for Sardine fishing with light attraction

1-15: Include Lake Nyasa into the project.

1-16: Improve Liuli fisheries development centre for the purpose of Plank boat building and training fisheries and fish processors

Concept No.2: Agreeable

Put addition of Ornamental fish from Lake Nyasa

Concept no. 3: Sustained

Should incorporate tourism and tree planting activities. Planted trees will help on in environmental conservation as it will replace trees harvested for boat building.

Concept no.4: Agreed

- -Research activities should incorporate all neighbouring countries (Malawi, Mozambique and Tanzania)
 - -Research should focus on fish behaviour and ecology
- 4-3: Fisheries regulation on closed seasons and closed areas should be reinforced.
- Include fish like

- (1) Ngumbo-Barbus species
- (2) Mbebele -Opsaridium species

Concept 5: Sustained.

Projects

- 1-6 Include Iringa & Mbeya regions
- 3-1 Fisher folk training for achieving the stipulated goals.
- 5-2 Incorporate MIPO/SACCOS**
- 5-2 (6) Page 33:Research on the behaviour and Ecology of Fish should be done before fish culturing breeding. This is to check where ranches fish can migrate to neighbouring Countries without returning if those countries have favourable whether and ecological niches
- 5-2 (7) To incorporate Tanzania, Malawi, Mozambique and Japan
- 5-3 To improve Liuli fisheries development centre in order to provide training for fishers and fish processing knowledge to fish traders.
TAFIRI-Kyela: Should be incorporated for training provision for small-scale fisher folks.

PROJECTS PRIORITIES

1. Improvement of Liuli Fisheries development Center/TAFIRI - Kyela so as to facilitate fisher folks training and planked boat building. [5-2]
2. Fisher folks communities formulation [1-7]
3. Research on Mbasa, Mbebele & Ngumbo [3-1]
4. Finger lings production for Lake – ranching [4-1]
5. Tree planting and bio-diversity conservation. *
6. Dagua processing improvement - installation of dry-air blowing system or coal * 1-17 utilization. * (awareness and equipment's needed)
7. Light attraction fishing improvements in Lake Nyasa for dagaa. [1 - 15].
8. Marketing of Ornamental fish (2 - 1*)

Priority Project & Ranking:-

1. 1-4
2. 1-11
3. 1-5
4. 1-6
5. 2-2
6. 4-1
7. 4-2
8. 1-15

LAKE NYASA Final Priorities

PRODUCTION	PROCESSING	MARKETING	CAPACITY BUILDING
4-3 (5)	1-17* (6)	2-1* (8)	1-7 (1)
1-5 (7)			5-2 (2)
			3-1 (3)
			4-3* (4)

SUGGESTIONS

- 1 Master plan has not given equal consideration in all major Lakes and had ignored small LAKES completely.
- 2 There is no inter-Sectoral incorporation even for the sector, which seems to have some potentiality for the implementation of the projects e.g. Forest and agricultural departments.

7.0 Workshop Closure.

The workshop was closed by Mr. Kimaro, Assistant Director Fisheries department in charge of Surveillance. He thanked the participants for their good work and promised them that the priorities will be checked. He wished them safe journey home and closed the workshop (see full speech in the annex)

- At the end of the workshop, Mr. Yamamoto thanked all the participants for the work done during the last 3 days, which will be useful in accomplishing this Master Plan. Next, the Study Team will undertake a feasibility study of these projects to assess their viability according to the priorities proposed in the workshop. This will then be collected together and included in the final report to be completed next year. First, the report will be given to the fisheries department, which will distribute it to all the districts. He reported that he will come back around March/April to attend a final report presentation meeting. This time during the workshop, the experts on the JICA Study Team were quiet so that they could listen to you.

- An Assistant Director in charge of Planning and Development in the Fisheries Department, Mr. Mapunda thanked the sponsors of the workshop and the facilitators for giving directions on how to conduct the workshop. He also thanked all the participants for their valuable discussions and contributions. The contributions will definitely be useful in helping the plan to move forward. Lastly, he thanked the secretariat and all those who provided useful logistical service at the workshop.

- An Assistant Director in charge of Surveillance in the Fisheries Department Mr. Kimaro expressed his gratitude on behalf of the Ministry of Natural Resources and Tourism and all the participants. He thanked the facilitators for leading the process to this extent, and the different groups for their assessments of the interim Master Plan. Lastly, he thanked JICA for making the workshop a reality, and the secretariat for taking care of the logistics.

8.0 Observations and recommendations

The team of facilitators made the following observations regarding the workshop:

- That the workshop was fully successful as the objectives were fully met.
- That proposed concepts, strategies and projects were improved added and prioritized.
- That though the participants were representative, there was need to bring in more artisanal fishermen vis a vis grassroots stakeholders. If this is not possible, then it would be advisable to hold Zonal workshops before the National forum.

And recommendations

- Those in the next National workshop as much as possible, invite the same participants for continuity.
- Need to follow the priorities given for feasibility analysis to ensure legitimacy and sustainability.
- Rename Concept 3 as Capacity Building and Human Resource Development and Utilization for high quality livelihoods in fisher communities. Analyze this at 3 levels –National, District and Community.

Conclusions.

The workshop was well attended and participants were very happy with it as well as the organizers. It has definitely set the stage for the next stage of feasibility studies and has therefore given direction to The Master Plan.