

付表1 タンザニア国漁業関連年表

年	国家経済関連の出来事	年	漁業関連の出来事
1884	本土ドイツ領		
1890	ザンジバル・ペンバ島オマーンのスルタン支配下から英保護領		
1920	本土英任統治、信託統治	1955	Mahima Agriculture Centre 設立
1961	本土タンガニーカとして独立	1950-60	ナイバ-子のビクトリア湖導入
1962	本土共和制		
1963	ザンジバル・ペンバ島、ザンジバルとして独立		
1964	1月 ザンジバル、クーデターで人民共和国		
1964	4月 ニエレレ大統領のもと連合共和国成立		
		1966	Mbegani Fisheries Development Centre 設立
		1967	Kunduchi Fisheries Institute 設立（設立当初の学生は13名、2年間のコース）
		1967	Nyegezi Fisheries Research Institute、実験加工工場として設立（1978年から実状の訓練校として開校）
		1970	漁業法（Fisheries Act）施行
		1979	ダルムス大学での Marine Science 学科の設立
1982-84	構造調整計画	1980	水産研究所（TAFIRI）設立
1985	ムウニ大統領選出		
1986-88	経済復興計画、世銀/SAL、IMF/SAF	1987	最初のナイバ-子の輸出始まる（ケニア）
1989-91	第2次経済復興計画	1989	領海及び排他的水域法施行：200海里EEZ導入。
1990	国家投資法、投資促進センター設立		
1991	協同組合法 銀行及び金融機関法：民間商業銀行の参入自由化		
1991			
1992	公社・公団法：300以上の公社公団の精算・民営化の目標	1992	タンザニアでナイバ-子輸出開始
1992-94	5万人の公務員（全体15%）削減	1992	カラ州水産開発プロジェクト（KDFDP）開始
1993	作目別公社法：農産物流通自由化	1993-99	NORADの支援による Mbegani Fisheries Development Centre の拡張
1993-	転回計画先行予算		
1993-95	カアコ市場地域、無免許路上商人立退きめぐり暴動	1994	Fisheries Regulation 94 施行 ビクトリア湖での商業トール漁業禁止、5m以下の目合の刺網禁止、地引網禁止。
1995	ムカパ大統領選出		
1995	州レベル政府の縮小化		
1996	州レベル政府の縮小化		
		1998	フレームサーベイ（沿岸）
		2000	フレームサーベイ（ビクトリア湖）
		2001	漁業法（Fisheries Act）見直し

付表2 湖の地理情報

湖名	湖面総面積 (km <sup>2</sup> )	海岸線 (km)	湖面 の海拔 (m)	気温 (C)	年間 降水量 (mm)	平均 深度 (m)	最高 深度 (m)	容量	魚の 種類
ビクトリア湖	68,800	3,500	1,134	20-25	1,034	40	80		200
タンガニーガ湖	32,945 (内タンザニア は 13,510)	約 800 (内タンザニアは 84% : 670 を領有)	773			570	1,470	18,880	200
ニヤサ湖	29,750								300

注：降水量は1999年のもの。また、タンガニーカの情報は一部 <http://www.fao.org/fi/ltr/gen.htm> から入手。

付表3 全国人口予測

年	人口(人)
1998	31,953,426
1999	32,931,442
2000	33,952,136
2001	35,013,440
2002	36,112,684
2003	37,246,156
2004	38,349,576
2005	39,420,144
2006	40,460,032
2007	41,471,256
2008	42,455,868
2009	43,501,240
2010	44,559,396
2011	45,625,492
<b>2012</b>	<b>46,694,552</b>
2013	47,761,536
成長率1998-2013年 (%)	49.47

出所：UNFPA

付表4 1988年人口センサスに基づく州別人口予測

州	1998年予測値	2003年予測値	2008年予測値	2013年予測値	成長率 1998-2013年 (%)
タンガ	1,755,161	2,030,294	2,326,724	2,664,633	51.82
タボラ	1,428,831	1,666,642	1,930,443	2,236,388	56.52
シンギダ	1,063,130	1,228,758	1,419,455	1,639,463	54.21
シニャンガ	2,533,555	2,999,393	3,534,170	4,166,978	64.47
ルクワ	980,725	1,164,529	1,378,883	1,637,261	66.9
ルブマ	1,067,539	1,224,503	1,393,624	1,583,848	48.36
ムトワラ	1,112,072	1,235,593	1,364,433	1,502,414	35.1
ムワンザ	2,621,119	3,048,589	3,486,815	3,967,641	51.37
モロゴロ	1,603,489	1,831,905	2,083,649	2,371,748	47.91
ンベヤ	2,019,269	2,336,673	2,678,958	3,070,923	52.08
マラ	1,361,225	1,600,270	1,839,815	2,083,342	53.04
リンディ	804,174	900,995	1,011,061	1,136,058	41.27
キゴマ	1,178,196	1,387,606	1,623,636	1,881,784	59.72
キリマンジャロ	1,660,396	2,013,082	2,419,021	2,909,453	75.23
カゲラ	1,772,739	2,059,092	2,359,679	2,670,422	50.64
イリンガ	1,647,077	1,910,736	2,186,082	2,496,536	51.57
ドドマ	1,659,049	1,896,514	2,146,830	2,422,460	47.34
コースト	732,880	802,854	881,584	961,800	31.24
アルーシャ	1,955,941	2,355,793	2,834,228	3,422,587	74.98
ダルエスサラーム	2,015,006	2,389,294	2,788,234	3,219,005	59.75

出所：UNFPA

付表5 東アフリカ3ヶ国における栄養摂取状況の推移

	カロリー (kcal/day)	タンパク質 (g/day)	脂肪 (g/day)	肉類の消費		魚類の消費		水産物のタンパク質 摂取への貢献度 (%)
				1人当 り消費量 (kg/year)	肉類由来の タンパク質 (g/day)	1人当 り消費量 (kg/year)	魚類由来のタンパク質 (g/day)	
アフリカ平均	2,411	59.7	49.7	14.2	5.5	6.8	2.0	16.0
ケニア	1,886	48.9	45.5	13.7	5.4	4.5	1.4	9.4
タンザニア	1,940	46.8	30.4	9.5	3.7	9.4	3.2	32.7
ウガンダ	2,238	49.8	31.3	10.3	3.8	8.6	2.6	28.8

出所：FAO 年間統計

付表6 漁民・漁船・漁具数の推移

		1991	1992	1993	1994	1995	1996
漁民数		76,952	61,497	61,943	61,666	75,516	75,621
漁船数		24,245	19,955	20,976	19,361	22,464	22,976
漁具数	刺し網	242,398	123,428	155,594	155,537	189,544	178,723
	地引き網	2,610	1,972	2,064	2,064	1,693	1,693
	リフトネット	1,010	717	945	945	1,403	1,403
	リングネット	104	92	92	92	221	221
	Hook/Hand Line	594,016	476,158	474,763	474,763	1,693,032	1,699,874
	巻き網漁船	467	-	-	-	-	-

出所：水産局統計

注：巻き網漁船（商業用と工業用の合計）

付表7 船外機価格3ヶ国比較

（価格はシリング換算）

単位：Tsh.100万

	ケニアでの価格	ウガンダでの価格	タンザニアでの価格
YAMAHA 8HP		1.41	0.85 (5HP)
YAMAHA 15HP	2.28	1.73	1.4
YAMAHA 25HP	2.85	2.25	1.7
YAMAHA 40HP	3.65	2.82	2.1

出所：本調査団による

付表8 キリンサイ養殖生産の推移

年	総生産 (mt)	タンザニア生産 (mt)	タンザニアのシェア (%)	平均単価 (US\$/kg)
1990	21,469	1,200	5.6	0.26
1991	24,503	1,800	7.3	0.24
1992	23,687	2,500	10.6	0.23
1993	22,679	2,500	11.0	0.25
1994	20,207	3,000	14.8	0.25
1995	17,243	4,000	23.2	0.27
1996	21,031	3,000	14.3	0.36
1997	18,240	3,000	16.4	0.33
1998	18,597	5,000	26.9	0.29
1999	25,118	7,000	27.9	0.29

出所：FAO Year Book 1999

付表 9 都市部における魚・肉類の嗜好性

好まれる魚・肉類			嫌いな魚・肉類		
1	牛肉	1,311	1	豚肉	487
2	鮮魚	1,160	2	塩干魚	271
3	鶏肉	785	3	鶏卵	191
4	ヤギ肉	421	4	ヤギ肉	188
5	ダガー	289	5	ダガー	140
6	豚肉	195	6	鮮魚	88
7	鶏卵	117	7	鶏肉	66
8	塩干魚	117	8	牛肉	23

出所：漁村社会経済調査

注：生産地に近い都市部において 690 人を対象にした調査。数値は嗜好の 1 位から 3 位までを加重加算した点数。

付表 10 ダルエスサラーム市民の肉類・魚類の摂取頻度  
(前日に肉や魚を食べた人の頻度)

〔昼食〕

	牛肉	ヤギ	ニワトリ	鮮魚	干魚	ダガー	魚合計
貧民層	13.7	0.0	0.0	0.9	2.6	4.3	7.8
中間層	21.8	0.0	0.0	9.6	5.1	6.4	21.1
富裕層	20.6	0.0	0.0	10.0	0.0	0.0	10.0

〔晩食〕

	牛肉	ヤギ	ニワトリ	鮮魚	干魚	ダガー	魚合計
貧民層	12.8	0.0	0.0	2.6	8.5	4.3	15.4
中間層	23.7	0.6	0.0	7.1	7.1	11.5	25.7
富裕層	30.0	0.0	3.3	10.0	0.0	6.7	16.7

出所：Tanzania Food and Nutrition Center, November 2000

付表 11 水産物と他の肉類の価格比較

単位：Tsh./kg

鮮魚	塩干魚	ヤギ肉	牛肉
1,271	1,544	1,323	998

出所：タンザニア統計局

付表 12 水産物の輸出先別数量及び金額の推移 1998-2001 年

[量]

単位：Ton

輸出先	1998年	1999年	2000年	2001年	増減率(%)
ヨーロッパ	20,583	14,481	33,113	30,372	147.56%
アフリカ	9,228	6,254	5,878	9,773	105.90%
アジア	2,907	4,890	2,481	3,297	113.41%
中近東	1,720	1,045	258	934	54.29%
アメリカ	934	2,626	916	2,159	231.08%
合計	35,373	29,296	42,646	46,535	131.55%

[金額]

単位：Ton

輸出先	1998年	1999年	2000年	2001年	増減率(%)
ヨーロッパ	54,409,092	31,731,968	65,315,345	68,362,660	125.65%
アフリカ	6,250,693	3,360,906	2,191,738	12,566,146	201.04%
アジア	7,498,277	12,012,172	5,737,749	8,677,386	115.73%
中近東	4,081,946	2,646,420	681,188	2,469,848	60.51%
アメリカ	2,296,423	6,017,313	1,632,823	4,386,150	191.00%
合計	74,536,431	55,768,779	75,558,843	96,462,190	129.42%

出所：Tanzania Revenue Authority

付表 13 タンザニアの総輸出入と水産物の比率の推移 1992-2000 年

単位：100 万ドル

年	総輸出額			水産物			全輸出に占める水産物の比率(%)
	輸出 (百万ドル)	輸入 (百万ドル)	バランス	輸出 (百万ドル)	輸入 (百万ドル)	バランス	
1992	397.0	1,316.6	-919.6	6.2	n.a.	n.a.	1.6
1993	439.3	1,274.9	-835.6	9.6	n.a.	n.a.	2.2
1994	519.4	1,309.3	-789.9	22.5	n.a.	n.a.	4.3
1995	682.9	1,340.5	-657.6	22.2	n.a.	n.a.	3.3
1996	763.8	1,212.6	-448.8	61.8	n.a.	n.a.	8.1
1997	752.6	1,148.0	-395.4	70.2	n.a.	n.a.	9.3
1998	588.5	1,366.0	-777.5	83.5	0.14		14.2
1999	541.0	1,418.6	-877.7	68.8	0.17		12.7
2000	662.7	1,536.3	-873.43	64.5	n.a.	n.a.	9.7

出所：MNRT 及び JETRO

付表 14 タンザニアの水産物の輸出の推移とその構成比の変化

	水産物全体 US\$ (million)	ナイルパーチ フィレ	エビ	その他
1990	6.3	-	5.4	0.9
1991	8.0	-	6.8	1.2
1992	6.1	-	4.8	1.3
1993	9.6	3.2	4.9	1.5
1994	22.5	8.6	6.0	7.9
1995	22.2	13.1	5.1	4.0
1996	61.8	52.3	5.5	4.0
1997	70.2	54.8	4.3	11.0
1998	83.5	65.8	10.8	6.9
1999	61.8	52.0	5.1	4.7
2000	64.5	45.9	5.6	13.0

出所：天然資源観光省水産局

付表 15 EAC3 ケ国における投資環境の比較

	タンザニア	ケニア	ウガンダ
法定最低賃金 (US\$/month)	37.50	60.41	50-100
電気代 (工場価格:KVA 当り)	7.44	1.35	5.37
水道代 (工場価格:1L 当り)	0.025	0.049	0.960
電話設置工事 (US\$)	128.14	21.29	67.11
輸送 (トラック新車価格)	137,520	2,845-140,825	56,376-132,886
燃料 (ガソリン 1L 当り)	0.68	0.7	0.81
税金 (VAT)	20%	18%	17%

出所：JETRO

付表 16 カエンゼ村水揚げ基地仕様

	規模	建設費	備考
栈橋及び搬入道路		Tsh.39.8 百万 (材料費 Tsh.28.1 百万、 建設労賃 Tsh.11.7 百万)	スチール製で水面の浮動があり予 算があればコンクリート製の恒久 栈橋としたい。
浮栈橋	(L)25m x (W)10m x (D)2m	28 百万 Tsh.	基地内の搬入道路あり
事務所建物	3 室 + 便所	10.8 百万 Tsh.	3000 L のウォーター - タンク 施設周囲にフェンス 40m x 90m

出所：本調査団による聞き取り調査

注：他の 6 ケ所の浮栈橋は (L) 12m x (W) 10m x (D) 1.2m で湖岸に設置されずに沖合いに繋留されているものもある。現在繋留場所として、湖畔の漁村コミュニティ 52 ケ所がエントリーしている。

付表 17 年間漁業統計作成のための水域・県別サンプリング水揚げ地の数

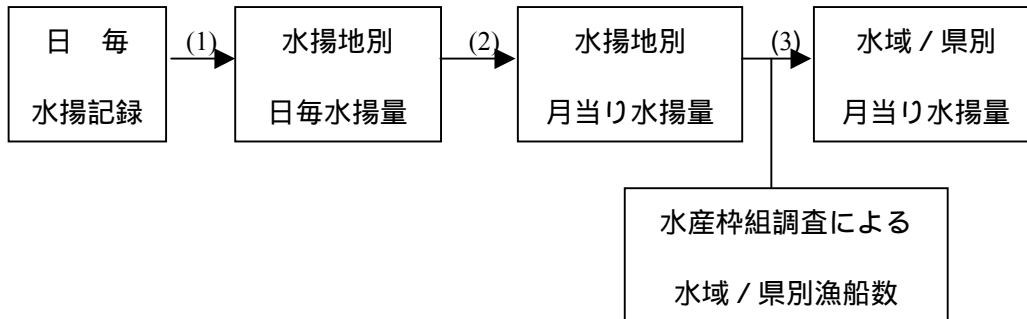
水域 / 県		水揚げ地数	
		全体	サンプル
a)海水面			
1	Tanga	46	5
2	Coast	83	4
3	DSM	16	3
4	Lindi	38	4
5	Mtwara	27	1
-	合計	210	17
b)ビクトリア湖			
1	Kagera	140	6
2	Mwanza	210	8
3	Mara	101	4
-	合計	451	18
c)タンガニーカ湖			
1	Kigoma	88	11
2	Rukwa	60	6
-	合計	148	17
d)ニャサ湖			
1	Mbeya	10	3
2	Iringa	6	6
3	Ruvuma	88	5
-	合計	104	14
e)ムテラ・ダム			
1	Iringa	16	4
2	Dodoma	14	4
-	合計	30	8
f)ニユンバ・ヤ・ムング・ダム			
1	Kilimanjaro	4	1
2	Arusha	4	1
-	合計	8	2
g)小規模内水面			
1	Arusha	n.a.	4
2	Dodoma	n.a.	3
3	Iringa	n.a.	4
4	Shinyanga	n.a.	5
-	合計	n.a.	16
-	総合計	951	92

出所：天然資源観光省水産局



付表 18 県別水揚量の推計

サンプリングされた水揚地における日毎水揚記録 (Daily Records of Fish Landed) に基づき、水域 / 県別の月間水揚量が以下の手順で推計される。



手順 (1)	手順 (2)	手順 (3)
各水揚地の水揚量の日毎合計 (dvl) が求められる。	各水揚地の月当り水揚記録日数 (rday) が計算される。	水産枠組調査結果より各水揚地の漁船数 (sboat) および水域 / 県の漁船総数 (rboat) をとりだす。
	各水揚地の月当り水揚量の合計 (rvl) が求められる。 $rvl = \sum dvl$	水域 / 県内の各水揚地の漁船数の合計 (tsboat) および月別水揚量の合計 (tmvl) を求める。 $tboat = \sum sboat : tmvl = \sum mvl$
	各水揚地の平均日別水揚量 (avl) が求められる。 $avl = rvl / rday$	水域 / 県において漁船 1 隻当り平均月間水揚量は一定であるとし、水域 / 県の月別水揚量 (rmvl) を次式により推計する。 水域 / 県の月別水揚量 $= \frac{\text{全水揚地の月別水揚量の合計}}{\text{水域 / 県の漁船総数}} = \frac{tmvl}{tsboat}$ すなわち $rmvl = tmvl / tsboat * rboat$
	各水揚地の月当り水揚量 (mvl) が計算される。 $mvl = avl * nday$ ; $nday = \text{当該月の日数}$	

魚種別水揚量、漁法別水揚量についても同様の方法で水域 / 県別の推計が可能である。また、水揚総額についても同様の推計が可能である。

付表 19 貧困指標の全国・農村・漁村比較

項目	全国 2000	農村 2000	漁村 2001
<b>THE SOCIO-ECONOMIC STATUS OF HOUSEHOLDS</b>			
Average Household Size			
Number of dependants (age of 15-60)	5.4	5.5	Approx. 6.5
Distribution of Households by Source of Drinking Water (%)			
Piped water in the house	3.9	0.8	2.1
Private pipe outside the house	17.4	7.9	2.0
Communal pipe	18.2	19.0	33.8
Protected water source	15.9	18.6	13.5
Unprotected water source	44.4	53.2	41.7
Others	-	-	6.9
Distribution of Households by Type of Toilet (%)			
Flush Toilet	1.9	0.3	2.1
Pit	90.7	91.4	82.2
No toilet/ other	7.4	8.3	15.8
Distribution of Households by Construction Materials – House floor (%)			
Earth	76.5	89.8	68.8
Concrete	22.3	9.0	21.4
Other	1.2	1.2	9.8
- House roof (%)			
Grass/ mud	58.7	71.0	62.6
Metal sheets	39.9	28.3	32.8
Asbestos/ tiles	1.4	0.8	0.2
Other	-	-	4.4
Percentage of Households Reporting Ownership of Selected Consumer Goods (%)			
Telephone	1.0	0.0	1.4
Refrigerator	2.4	0.6	1.0
Sewing machine	3.9	1.9	4.7
Television	2.3	0.3	2.1
Video	1.8	0.3	1.5
Watch	31.4	25.2	44.6
Radio/ cassette	45.0	39.0	56.2
Electric/ charcoal iron	23.7	18.5	22.6
Electric/ gas stove	2.4	0.5	29.0
Other stove	41.8	30.8	20.8
Motor vehicle	1.0	0.6	0.5
Bicycle	31.7	32.0	30.7
<b>EDUCATION AND OTHER SERVICES</b>			
Distribution of Households by level of Education of the Household Head			
None	28.2	31.5	11.0
Std 1-4	17.3	18.7	17.4
Std 5-8	42.5	40.3	62.3
Form 1-4	4.6	2.9	6.6
Form 5+	3.3	2.0	0.4
Other	4.1	4.7	2.3

出所 : National Bureau of Statistics TANZANIA and Oxford Policy Management Ltd. UK (2001) Trends in Poverty and Social Indicators: Tanzania 1991/92-2000 A Preliminary Analysis (Final Draft)

JICA Study Team for Fisheries Development Master Plan (2001) Socio-economic Survey of Fishing Communities in Tanzania Mainland

付表 20 組合と協同組合の比較

団体名	組合 ( Society )	協同組合 ( Cooperative Society )
登録先	内務省 ( Ministry of Home Affairs )	組合市場省 ( Ministry of Cooperatives & Marketing )
登録先組織	DSM 本省に Registrar 1 名、 State Attorney 1 名、 Society Officers 2 名が配属される。	Dodoma 本省に Registrar 1 名と Assistant Registrars 4 名が配属される。また各州 ( 20 州 ) に Assistant Registrars が配属、各県及び区 ( ダルエスサラームに限って ) に数名の組合職員 ( Cooperative Officers ) が配属される。
担当職員人数	4	85 ~ 100
法律	組合法 1954 ( Societies Chapter 337 of the laws )	協同組合法 1991 ( Co-operative Societies Act 1991 )
定義	'Society' includes any club, company, partnership or association of ten or more persons whatever its nature or object but does not include; (a) company registered under the Companies Ordinance or any company which has complied with the requirements of section 321 of that Ordinance, (b) any company, council, authority, association, board or committee lawfully constituted or established under Royal Charter, or Royal Letter Patent, or Applied Act, or any law for the time being in force in Tanganyika, (c) any Lodge of Freemasons regularly constituted under any of the registered governing bodies of Freemasons in the United Kingdom of Great Britain and Northern Ireland, (d) any trade union registered under the Trade Unions Ordinance, (e) any company, association or partnership consisting of not more than twenty persons, formed and maintained for the sole purpose of carrying on any lawful business, (f) any co-operative society registered under the Co-operative Societies Ordinance, and (g) any society which the President may, by order published in the Gazette, declare not to be a society for the purposes of this Ordinance.	An association of persons who have voluntarily joined together for the purpose of achieving a common need through the formation of a democratically controlled organization and who make equitable contributions to the capital required for the formation of such an organization, and who accept the risks and the benefits of the undertaking in which they actively participate.
登録方法	書類 7 点 ( Application letter、 組合員全員に確認された組合規則 2 部、 メンバーのリスト、 組合規則を組合員に確認を行う会合の報告書、 Form 二部 ( SO.1 及び SO.2 )、 Office bearer の CV、 及び DC、 RC、 Parent Ministry 等からの推薦状 ) を本省に提出。また団体の組合登録料として、 Tsh.40,000 ( local )、 US\$500 ( foreign ) を支払う。以上の書類が登録官によって確認された後、承認が行われると組合登録証が発行される。	書類 5 点 ( Application letter、 組合員全員に確認された組合規則 4 部、 メンバーのリスト、 二回の会合 ( Cooperative Office の出席が条件 ) の報告書、 組合運営資金の根拠 ) を区の Cooperative Officer に提出。団体の組合登録料 Tsh.5,000 を支払う。それに加え、 組合の運営資金にあわせた share の設定、 事務局の設置、 会計年度末の会計検査官による検査の設定、 組合のボードメンバーとして Chairperson、 Secretary、 Treasurer、 Rep. members 7 名、 合計 10 名の選択、 Cooperative Officer による登録希望団体の活動場所と活動内容の確認が行われる。その後、登録官による承認が行われると協同組合登録証が発行される。
最低組合人数	10 人	10 人 ( 特殊な業種のみ 4 名以上の団体でよしとする )
継続条件	毎年一回の会合を開き、その報告書及び会計報告、年会費 ( Tsh.10,000 もしくは US\$20 ) を内務省に提出する。	毎年 6 月と 12 月に 2 回会合を開き、運営管理に関する活動、会計報告を協同組合員及び組合職員に行う。この会合で選挙が行われボードメンバーが 3 年を任期に選出される。以上に挙げた条件等を怠ると組合は活動停止中とみなされ、この状態が 3 年以上続くと組合登録は破棄される。
全国登録数	Approximately 8,559	4,253

出所：組合法 1954、協同組合法 1991 及び関係者聞き取り調査

付表 21 2000/2001 年度タンザニア全国州別・セクター別単協数

州	水産業		農業生産		SACCOS		畜産業		建築業		鉱物業		工業		その他	
	A*	I**	A	I	A	I	A	I	A	I	A	I	A	I	A	I
ARUSHA	0	0	36	49	58	9	1	5	0	0	0	0	9	1	2	2
DAR ES SALAAM	4	0	20	2	103	39	6	0	2	11	0	0	35	0	8	6
DODOMA	0	0	0	15	30	6	0	0	0	9	0	0	0	0	14	6
IRINGA	5	0	61	56	59	8	0	0	0	0	0	0	13	7	3	0
KAGERA	1	4	216	1	75	20	26	0	1	0	0	0	0	4	2	1
KIGOMA	2	0	25	16	3	4	0	0	0	0	0	0	0	0	3	0
KILIMANJARO	0	0	120	0	69	0	5	0	0	0	0	0	9	0	28	0
LINDI	0	0	76	0	18	0	0	0	0	0	0	0	3	0	33	0
MARA	0	0	149	0	9	0	1	0	1	0	0	0	1	0	6	0
MBEYA	15	1	138	0	105	0	19	0	0	0	0	0	30	0	7	0
MOROGORO	0	0	56	20	24	2	1	0	3	0	0	0	15	0	9	0
MTWARA	2	0	124	3	18	4	0	1	0	2	0	0	3	2	0	1
MWANZA	13	5	342	1	19	3	2	0	6	0	0	0	4	4	16	0
PWANI	0	0	91	2	17	5	4	1	0	0	0	0	93	8	100	0
RUKWA	9	1	56	3	15	1	2	0	0	0	0	0	2	0	2	0
RUVUMA	0	0	95	15	27	2	0	0	0	0	0	0	0	0	0	0
SHINYANGA	3	0	497	9	26	3	5	6	2	0	0	0	4	0	4	0
SINGIDA	0	0	43	11	10	0	1	0	1	0	0	0	2	1	1	0
TABORA	5	0	211	16	22	32	1	0	0	0	0	0	2	3	2	0
TANGA	0	0	42	0	38	0	9	0	0	0	0	0	10	0	28	0
Total	59	11	2,398	219	745	138	83	13	16	22	0	0	235	30	268	16

出所：2001、Ministry of Cooperatives and Marketing

\*現在活動中

\*\*現在活動停止中

付表 22 3つの漁業訓練施設の予算及び年間受講料

	ムベガニ漁業開発センター	クズチ漁業訓練センター	ニゲジ内水面漁業訓練学校
2000/01 年度の予算	126,000,000	80,000,000	56,000,000
年間受講料	3,750,000	4,387,000	11,540,000

出所：水産局

付表 23 3つの漁業訓練施設の過去5年間の総卒業生の数

漁業訓練施設	1996/97	1997/98	1997/99	1999/00	2000/01	設立以後の合計卒業生数
<b>ムベガニ漁業開発センター</b>						
<b>Fish Processing Department</b>						
2 year Fish Technology Diploma Course	30	36	28	32	40	
2 year Fish Technology Certificate Course					25	
1 year Aquaculture Certificate Course						
Short Course						
<b>Natural Science Department</b>						
2 year Master fisherman Diploma Course			24		38	
2 year Fishing Technology Certificate Course			20		30	
18 month Class 4/3 of Competence						
6 month Class 4 of Competence						
Short and Tailor-made Courses						
<b>Marine Engineering Department</b>						
2 year Marine Engineering (Mechanical) Diploma Course	36	29		38		
2 year Marine Engineering (Refrigeration) Diploma Course	22	17		24		
1 year Class 3 of Competence						
1 year Marine Refrigeration Engineering Specialist Course						
1 year Marine Electrical Engineering Specialist Course						
1 year Marine Electronic Engineering Specialist Course						
Short Course						
<b>Boat Building Department</b>						
2 year Boat Building Diploma Course	8	6	4	7	11	
2 year Boat Building Certificate Course	5	3		4	5	
Short Courses						
<b>クズチ漁業訓練センター</b>						
1 year course						
2 year course	17	12	11	7	16	2,700
3 year course						
Other courses						
合計	17	12	11	7	16	2,700
<b>ニゲジ内水面漁業訓練学校</b>						
1 year Fish Culture Certificate Course		1	1	1		3
1 year Fish Handling, Processing & Quality Control Certificate Course		3	4	4		11
1 year Refrigeration Certificate Course					14	14
2 years Fisheries Certificate Course	19	12	14	12	21	78
Other short courses	1232	246	72	1290	93	2933
合計	1251	262	91	1307	128	3039

出所：各漁業訓練施設

付表 24 天然資源観光省 2001 年度予算

収入		Approved Estimates		
Administration and General		22,803,000		
Wildlife		5,558,458,000		
Forestry and Beekeeping		4,009,542,000		
Fisheries		3,470,383,000		
Tourism		625,703,000		
Antiquities		79,100,000		
Total		13,765,989,000		
經常予算	職員数	Approved Estimates		
		人件費	その他	合計
Administration	328	248,032,400	751,245,200	999,277,600
Finance and Accounts	83	73,445,700	278,501,700	351,947,400
Policy and Planning	10	12,359,900	298,401,700	310,761,600
Wildlife	883	609,687,800	2,150,713,000	2,760,400,800
Forestry and Beekeeping	1,976	1,328,788,000	2,285,071,100	3,613,859,100
Fisheries	204	185,367,200	2,434,556,000	2,619,923,200
Tourism	43	46,710,400	245,783,600	292,494,000
Antiquities	47	42,892,000	129,516,700	172,408,700
Sub-Total	3,574	2,547,283,400	8,573,789,000	11,121,072,400
TAWIRI	30	39,658,400	85,871,100	125,529,500
TAFORI	156	249,337,600	100,000,000	349,337,600
TAFIRI	170	274,006,400	100,000,000	374,006,400
TTB	31	141,831,900	1,273,519,100	1,415,351,000
National Museum	98	158,568,500	14,834,200	173,402,700
Marine Parks	29	98,670,700	0	98,670,700
Sub-Total	517	962,063,500	1,574,224,400	2,536,287,900
Grand Total	4,091	3,509,346,900	10,149,013,400	13,658,360,300
Total	12,270	10,528,050,700	30,445,040,200	40,973,090,900
開発予算		Approved Estimate		
		Local	Foreign	
Policy and Planning		321,205,000	3,100,000,000	
Wildlife		-	1,044,024,000	
Forestry and Beekeeping		-	1,221,440,000	
Tourism		-	145,833,000	
Grand Total		321,205,000	5,511,297,000	

出所：天然観光資源省

付表 25 水産物の目的別予算配分 2001/2002

Objective	Targets	2001/2002
1. To Coordinate and review Policies and Legislation and Monitor their Implementation	1. To Review Registrations	34,900
	2. To Ensure the Better and Timely Services	453,538
	3. To raise and maintain the quality of fish and fishery product	510,315
	4. To Coordinate, Monito and Evaluate the Sectoral Implementation	936,207
2. To create an enabling environment that will lead to active participation	1. To conduct 524 Public awareness campaign	79,690
	2. To strengthen the fisheries information system	102,325
	3. To facilitate establishment of 20 and support 603 BMU	6,145
	4. To support the Kingolwire Fish Culture Center	256,518
3. To undertake human resources development and institutional capacity building	1. To coordinate 10 applied fisheries research programmes	9,580
	2. Improve the working skills of 300 staff	18,560
	3. To improve the skills of staff and conduct 9 training programme for fishermen	227,835
	4. To support the three fisheries training institutes	389,330
4. To protect natural resource	1. To conduct 1000 sueveilance patrol to protect resources from illegal use	130,635
5. To promote and strength regional and international cooperation	1. To support co-ordinance and participate meetings	28,625
	2. To participate in one collaboration initiative	1,940
	3. To conduct consultation	13,444
	Grand Total	3,199,588

付表 26 水産物輸出、ロイヤリティー、水産局予算の推移

年	出来事	漁業生産	漁民数	水産物輸出	水産局予算
		(tons)		(1000 US\$)	(Tsh. Million)
1950s	Introduction of Nile perch				215.3
1960s	Production of Nile perch 100,000 tons				
1970	Fisheries Act				
1970s	Production of Nile perch 100,000 tons				
1980	TAFIRI Act				
1982	Local Government (District Authorities) Act				
1983	FAO: Kigoma credit facility				
1980s	Production of Nile perch 500,000 tons				
1986	Economic Recovery Programme				
1987	LVEMP start				
1989	Economic & Social Action Plan				
ditto	Territorial Sea & Exclusive Economic Act				
1991		326,713			
1992	KDFDP start	335,501			
1993	Rolling Plan	331,467	61,943		
1994	Marine Park & Research Act	268,792	ditto		
1995		258,212	75,612		
1996	Private investment in processing plant (LV): US\$ 49.5 million	356,800	ditto	52,906	
1997	National Fisheries Policy & Strategy Statement	356,960	ditto	64,212	193.6
1998		348,000	78,672	72,468	1,842.40
1999	Village Land Act	310,000	ditto	61,790	1,828.70
2000					1,620.80
2001					2,619.90

出所：天然資源観光省水産局



付表 27 水産分野の課税システム

		Charge Basis	Collected by	Objectives	Charge Rate
Local or district level	Annual Fisher License	per fisher per year	DFO	Local government revenue Statistical indicator	1,000/- to 3,000/-
	Vessel Registration Fee (<11m)	once off	DFO	Local government revenue Effort management	1,000/- to 5,000/-
	Vessel License Fee	Annual	DFO	Local government revenue Statistical indicator Management mechanism	800/- to 3,000/-
	Trading License	Annual	Treasurer	Local government revenue	6,000/- to 30,000/-
	Fish Levy (Nile Perch)	per Kg	Private Agent	Local government revenue	5/- to 10/-
	Fish Levy (Dagaa)	per sack (35 Kgs)	Private Agent	Local government revenue	200/- to 600/-
	Fish Levy (Others)*	auction value	Treasurer	Local government revenue	10%
	Landing Fee (Fishing Vessel)	per landing	Private Agent	Local government revenue	200/- to 300/-
	Landing Fee (Collector Vessel)	per day	Private Agent	Local government revenue	1,000/- to 3,000/-
Central level	Vessel Registration (>11m)	once off US\$ per Kg advalorem	RFO	Management measure Central government revenue	52.4 (<15m) 53.0 to 54.8 (>15m)
	Export Royalty		RFO	Central government revenue Resource use tax	
	Fillets (Fresh/chilled/frozen)				0.15
	Dry Nile Perch				0.18
	Fish maws (Dry)				0.36
	Belly flaps (Fresh/chilled)				0.075
	Off cuts (Fresh/chilled)				0.075
	Fish meal (Dry)				0.012
	Fish frames				0.009
	Dagaa (L. Victoria)				0.042
	Dagaa (L. Tanganyika)				0.072
	Aquarium fish				6%
	Sea shells				6%

出所：天然資源観光省水産局

付表 28 州別經濟狀況

Study area	Region	Population		GRDP	per Capita	Average contribution	Industries Value Added	Electricity	Water urban	Number of Fishermen
		1988 Census	1995 Estimate	1994	1994	1980-94	1999	1999	1998	1998/99**
			1000	million Tsh.	Tsh.	%	million Tsh.	Mill. KwH	M3/Day	
Coastal	Tanga	1,283,636	1,590.4	92,821	60,021	5.52	9,589	129	24,000	4,480
	Pwani (Coast)	638,015	774.3	17,033	22,624	1.00	2,163	6		8,042
	Dar es Salaam*	1,360,850	1,651.5	335,847	197,107	20.33	67,738	771		5,250
	Lindi	646,550	784.7	29,253	38,340	2.00	55	6	1,128	2,640
	Mtwara	889,494	1,079.5	62,491	59,533	3.27	31	15	5,000	2,056
Victoria	Kagera	1,326,183	1,653.0	80,537	50,105	4.60	1,040	16	7,515	5,637
	Mwanza	1,878,271	2,280.2	107,553	48,508	7.67	5,757	72	34,000	16,385
	Mara	970,942	1,178.3	50,127	43,748	3.47	1,366	19	9,560	10,381
Tanganyika	Rukwa	694,974	843.4	66,160	80,669	3.13	5	9		3,056
	Kigoma	853,263	1,043.5	30,545	30,103	2.53	45	8	10,600	5,594
Nyasa	Ruvuma	783,327	950.6	48,565	52,537	3.33	365	10	8,510	4,481
	Iringa	1,208,914	1,467.1	92,021	64,502	5.53	8,622	87	8,500	3,561
	Mbeya	1,476,199	1,791.5	84,903	48,737	6.00	4,443	67	18,000	1,770
Small water	Dodoma	1,237,819	1,502.3	57,856	39,604	3.07	1,026	37	20,000	1,150
	Arusha	1,351,675	1,640.4	145,192	91,024	7.80	19,066	162	40,000	n.a.
	Kilimanjaro	1,108,699	1,345.5	72,898	55,716	3.67	8,663	109	20,500	n.a.
	Morogoro	1,222,737	1,525.6	88,073	59,370	4.67	14,546	98	19,000	1,043
	Singida	791,814	960.9	51,995	55,664	2.87	120	9	1,500	962
	Tabora	1,036,293	1,257.7	55,012	44,984	3.40	768	22	10,500	1,365
	Shinyanga	1,763,960	2,151.5	110,353	52,746	5.80	2,079	40	6,000	368
Total		22,523,615	27,471.9	1,679,235	n.a.	99.66	147,487	1692	n.a.	78,221

出所:2001, Ministry of Cooperative and Marketing

\*in action at present

\*\*no action at present

付表 29 県別漁業関連収入の推移

## タンガ県

Year	Weight (ton)	Value (1000 Tsh)	Fishing Levy (1000 Tsh)	Collection rate	License (1000 Tsh)
1995	398.3	141,370.6	7,646.1	n.a.	2,035.0
1996	481.3	180,207.5	12,030.7	n.a.	2,358.1
1997	330.3	101,496.0	9,874.1	n.a.	4,750.2
1998	435.9	172,179.0	7,857.1	n.a.	4,811.9
1999	628.5	328,830.0	6,650.1	n.a.	5,043.9
2000	951.7	464,273.9	9,244.4	n.a.	4,589.8

出所：Tanga District Fisheries Officer

## ムヘザ県

Year	Weight (ton)	Value (1000 Tsh)	Fishing Levy (1000 Tsh)	Collection rate	License (1000 Tsh)
1995	n.a.	n.a.	n.a.	n.a.	n.a.
1996	n.a.	n.a.	n.a.	n.a.	n.a.
1997	263.5	59,886	671.0	n.a.	n.a.
1998	210.4	94,627	526.4	22	n.a.
1999	269.7	125,432	474.5	11	n.a.
2000	n.a.	n.a.	n.a.	8	n.a.

出所：Mheza District Fisheries Officer

## イララ区

Year	Weight (ton)	Value	Fishing Levy (1000 Tsh)	Collection rate	License (1000 Tsh)
1995	26,188.86	n.a.	9,008.5	n.a.	5,378.5
1996	n.a.	n.a.	10,432.3	n.a.	7,384.5
1997	n.a.	n.a.	33,783.5	n.a.	13,834.9
1998	n.a.	n.a.	18,071.6	n.a.	6,890.6
1999	n.a.	n.a.	20,047.9	n.a.	7,399.1
2000	n.a.	n.a.	39,955.1	n.a.	35,300.1

出所：Ilala District Fisheries Officer

## キノンドニ区

Year	Weight (ton)	Value (1000 Tsh)	Fishing Levy (1000 Tsh)	Collection rate	License (1000 Tsh)
1995	n.a.	n.a.	n.a.	n.a.	n.a.
1996	167.8	142,766	n.a.	n.a.	n.a.
1997	62.1	77,136	n.a.	n.a.	n.a.
1998	57.2	42,042	2,298.3	100.3	714.8
1999	60.3	40,496	2,350.6	100.2	1,100.5
2000	104.8	83,184	3,257.9	100.1	1,120.1

出所：Kinondomi District Fisheries Officer

テメケ区

	Amount (1000 Tsh)	Revenue Collection (1000 Tsh)	Collection rate (%)*
1998	692.3	n.a.	n.a.
1999	419.8	n.a.	n.a.
2000	683.0	25.0	3.7
2001	590.8	456.6	77.3

出所：Temeke District Fisheries Office

注：Only Fisheries License

バガモヨ県

Year	Weight (ton)	Value (1000 Tsh)	Fishing Levy (1000 Tsh)	Collection rate (%)	License (1000 Tsh)
1995	4,181.3	20,294.2	2,900	56	1,300
1996	3,071.0	14,614.2	3,700	60	1,500
1997	1,734.3	13,420.2	4,500	54	1,800
1998	2,974.3	14,614.2	5,000	90	2,000
1999	1,415.8	20,294.2	5,900	90	2,400
2000	1,214.6	18,765.6	6,000 (7,857.5)	95	3,000 (2,349.0)

出所：Bagamoyo District Fisheries Officer

マフィア県

Year	Weight (ton)	Value	Fishing Levy (1000 Tsh)	Collection rate	License (1000 Tsh)
1995	n.a.	n.a.	n.a.	n.a.	n.a.
1996	n.a.	n.a.	3,601.3	n.a.	656.8
1997	n.a.	n.a.	2,719.5	n.a.	1,763.4
1998	n.a.	n.a.	4,948.5	n.a.	4,225.0
1999	n.a.	n.a.	5,271.8	n.a.	2,724.4

出所：Mafia District Fisheries Officer

リンディ県

Year	Weight (ton)	Value (1000 Tsh)	Fishing Levy (1000 Tsh)*	Collection rate (%)	License (1000 Tsh)
1995	2,000	300,000	373.2	n.a.	n.a.
1996	2,190	350,000	508.9	n.a.	n.a.
1997	3,903.6	702,648	859.5	n.a.	n.a.
1998	4,200	840,000	1,070	n.a.	n.a.
1999	3,903	819,630	1,465	n.a.	n.a.
2000	4,500	1,125,000	1,530.9	n.a.	n.a.

出所：Lindi District Fisheries Officer

注：including product cess and license fees

ブコバ県 (Urbanのみ)

Year	Weight (ton)	Value (1000 Tsh)	Fishing Levy (1000 Tsh)	Collection rate	License (1000 Tsh)
1995	182.9	18,290	n.a.	n.a.	n.a.
1996	286.1	28,510	n.a.	n.a.	n.a.
1997	239.1	23,910	n.a.	n.a.	n.a.
1998	284.2	85,260	5,600.0	n.a.	362.3
1999	326.1	114,135	2,982.0	n.a.	592.3
2000	1,909.2	671,210	5,910.6	n.a.	630.2

出所：Bukoba District Fisheries Officer

付表 30 ダルエスサラーム魚市場における水揚税徴収率

単位：Tsh.

	1 月	2 月
漁獲高の 5% 徴収料金	11,246,695	6,551,630
水揚げから推計されるべき徴収料金	54,070,649	86,205,658
徴収率	20.8%	7.6%

出所：ダルエスサラーム区役所

付表1-31 タンザニアにおける水産部門プロジェクト

## 海面漁業におけるプロジェクト

分野	名称	期間	ドナー
1 資源管理	Tanga Coastal Zone Conservation Development Programme (TCZCP)	Phase I : 1991 - 1993 Phase II : 1994 - 1998 Phase III :	Irish Aid / IUCN
	概要	本計画は、住民が依拠する環境の健全性を改善し、海岸資源利用の選択を多様化することにより、タンガ州の海岸村落の生活向上の強化を目指すものである。フェーズⅠは例示・案内段階であり、フェーズⅡは実証段階であった。フェーズⅢの目的は、県行政、資源利用者、その他の利害関係者により海岸および海洋資源の管理を改善された協力的なものとするにある。	
2 環境	Kunduchi Integrated Coastal Area Management Project (KICAMP)	-----	-----
	概要	聴取段階において、海岸の課題を同定化し、これらの課題に取り組む戦略が開発された。同定化された優先課題は海岸観光事業開発、侵食、ダイナマイト漁業が含まれる。	
3 環境	Mafia Island Marine Park (MIMP)	1994 - 2000	NORAD / WWF
	概要	MIMPは、WWFの技術支援およびNORADの資金援助のもとに、水産局により運営された。最初の作業は公園域内におけるダイナマイト漁業の問題に焦点を当てることであった。これに続いて、MIMPは、公園管理計画を改定し、公園管理協議会を設置するために、マフィア島村落と密接に行動することを計画した。	
4 村落開発	Rural Integrated Project Support (RIPS)	Phase I : 1988 - 1993 Phase II : 1994 - 1998 Phase III :	FINNIDA
	概要	RIPSはタンザニア・フィンランド政府間の開発協力であり、リンディ州およびムトララ州における村落開発を支援している。全体目標は、これらの地域の住民の生活を満足いく維持可能なものに改善することにある。主要構成要素は1)公共サービス開発、2)行政開発、3)小企業開発、4)参画方式開発である。	
5 環境	Rufiji Environment Management Project	Phase II : 1998 -	NORAD
	概要	本プロジェクトの目標は、ルフィジ下流の森林、林地、湿地帯の「賢明な利用」により長期的な保全を促進することである。生物の多様性が保全され、危機にある生態機能が維持されて、更新可能な自然資源は維持可能なように利用され、地域住民の生活は保障かつ向上される。プロジェクト対象域はルフィジ県内の川の氾濫により生態系が影響を受けるところ（氾濫原およびデルタ）およびセロス禁猟区の下流部であり、特に重要ないくつかの高地の森林もまた含まれている。	
6 環境	Integrated Coastal Management for Tanzania (ICM)	1997 - 2002	USAID / URI / TCMP
	概要	ICMは、州および県レベルで活動している現行の沿岸資源管理計画をもつタンザニア政府および効果的な沿岸管理体制を確立しようとしている民間部門およびNGO共同体の努力を支援することを目指している。その目標は次のとおり。1) 国家および地域レベルの双方で沿岸の問題に効果的に適用される意義あるICM政策を策定すること、2) 沿岸の経済的機会を明らかにするために、維持可能な活動を政府、実業および村落により定義・適用させること、3) 効果的な地域ICMへの国家的支援を機能化するための機構を適切にすること、4) 組織および人材のICMに関する能力を向上させること、5) 世界的なICMによりタンザニアの沿岸管理の経験の特徴づけること、およびそれを世界的なICMに貢献させること。	
7 能力向上	Capacity Building in Planning and Co-management of Tanzanian Prawn Fishery	2001 - 2002	FAO
	概要	タンザニアの企業的小規模エビ漁業はこの数年間深刻な管理上の問題に直面している。DOF（含TAFIRI）は、生態・経済的および組織的な足掛かりを堅実にするための緊急支援を必要としており、FAOは本プロジェクトを提唱した。長期的目的は、タンザニアの沿岸エビ漁業管理体制を効果的に毎年作動させるために、DOF、企業的小規模漁業、加工部門の内部で管理能力および責任を発展させることである。プロジェクトの即時目的は、企業的小規模漁業および零細漁業から選定された2箇所のパイロット地域をカバーする最初の年次エビ漁業管理計画を設定し、実施することにある。	
8 市場	Project for Construction of Integrated Fish Market Complex, DSM	1999-2001	Japan
	概要	DSM魚市場開発計画を策定するに際しては、収入形成、貧困削減といった国家開発計画の戦略を相当考慮に入れた。また、現存の魚市場での聞き取り調査で開示された現在の問題および要望を考慮すると、水産物流通および鮮魚の損耗の除去を改善すべきである。これらの目的で、魚市場はハンガ・ビーチに次の施設・機材を附設して建設するものとした。1) 水揚岸壁、2) 護岸、3) せり会場、4) 小売市場、5) 魚荷揃え場、6) 魚フライ加工場、7) 野菜・雑貨売場、8) 燃料小売場、9) カフェテリア、10) 水供給および衛生施設、11) 電力供給施設、12) 道路および駐車場、13) その他関連施設（公共便所、ごみ捨場等）	

## ヴィクトリア湖におけるプロジェクト

分野	名称	期間	ドナー
1 水産開発およびクレジット	Integrated Development of Fishing Villages in Kagera	1991 -1994 1995 - 1999	FAO / UNDP FAO / Netherlands
取組	本プロジェクトの主要目標は次のとおり。1) 水産回転資金 (FRCF) および国家銀行機関である組合・村落開発銀行 (CRDB) と共同して運営される現金販売機能を通じて、漁業助成へのアクセスを改善すること。2) 漁村の収入獲得機会を増大させること。3) 代替漁業技術を試すこと。4) 魚の販売を増加させること。5) DOFの行政業務を支援すること、特にカゲラ州における水産資源の管理・保全に関する業務を支援すること。6) 漁村/農村への支援を開発あるいは拡張することに興味のある第三者に対して仲介者・促進者となること。なお、1995年より本プロジェクトは 'District Rural Development Programme (DRDP)' の一部としてオランダに引き継がれた。		
2 資源管理	Lake Victoria Fisheries Research Project	Phase I : 1989 - 1990 Phase II : 1995 - 2001 Phase III :	EU
取組	本プロジェクトは次の5つの要素からなる。1) 水産の調査および管理に関するLVFO委員会への支援および科学的協会への支援を通じた組織強化。2) 資源評価 (音響、トロール、刺網による調査、およびそれに関連した生態学的・統計的研究)。3) 栄養網。4) 基礎情報収集および漁獲後の研究 (漁業の栄養物摂取および健康への影響を含めて) を通じた管理戦略の社会・経済的評価。5) 適当な村落構造およびパイロット村落管理の主導の評価を通じた参画過程の開発。		
3 環境	Lake Victoria Environment Management Project (LVEMP)	Phase I : 1997 - 2002 Phase II : 2002 -	WB / GEF
取組	本プロジェクトはケニア、タンザニア、ウガンダのヴィクトリア湖沿岸3国を共同参加国として含んでおり、湖の生態系の回復を目指している。全体目的は次を含む。1) 湖の便益の維持可能な利用を最大化すること (食物、雇用、所得、安全な水の支給、無疾病環境の維持)。2) 生物多様性および遺伝学上の資源を保全すること。3) 環境劣化を制御・反転させるために、国家的管理計画との調和を図ること。		
4 人的資源開発	A Human Resource Development Programme (2000 - 2005)	1999 - 2005	Common-wealth Secretariat
取組	人的資源開発 (HRD) は、特定の仕事の目的を達成するのに必要な人々の育成を計画し、系統的に試行するものである。単に訓練の必要性を同定化するよりもむしろ枠組の中で、効率的な計画と運営の必要性が取り扱われる。これによりわかりやすく複合的な計画が保証される。		
5 市場	The Project for the Construction of Kirumba Fish Market Complex	Planning: Applied in June, 2000	Requested to Japan
取組	本プロジェクトは、以下を通じて、ムアンザの都市部住民への鮮魚・干魚の質・量を改善することを目指している。1) 次記の支給によるキルンバにおける既存魚市場の活動の改善; 干魚・鮮魚の屋根付き取扱場、卸売市場、小売市場、魚加工場、製氷設備、貯水庫等。2) 地域漁民が魚を安全に荷揚げ・積み降ろししたり、船を係留できるような小規模突堤の建設。3) レストラン、駐車場、水・燃料供給施設、格納庫、衛生施設といった関連施設を建設によるキルンバ魚市場の全体環境の改善。4) 車輛および船の支給により水産職員が全活動を監視・調整できるようにすること。		
6 品質管理	The Project for Construction of Fish Quality Control and Assurance center	Planning: Applied in July, 2000	Requested to Japan
取組	不適切な水産物検査ならびに品質管理機構を改善するために、無償援助により、DSMに国管照会試験所の建設およびムトワラの試験所の向上が日本に要請されている。本プロジェクトはまた水産物流通のすべての段階において水産物取扱および衛生管理に関する訓練を行うこととしている。		

## タンガニーカ湖におけるプロジェクト

分野	名称	期間	ドナー
1 水産調査	Lake Tanganyika Fisheries Research and Development Project	1972 - 1978	FAO/UNDP
	概要	<p>概略の目標は、以下の事項を通じて、漁獲および漁獲後のすべての局面を発展させることにある。1) 水産資源の評価および恒久的監視体制の立案。2) 商業的に重要な魚種の生態学的特長について調査。3) 漁業規則の導入に関する勧告。4) 改善された統計システム。5) 改善された漁法（企業的ならびに零細）。6) 改善された加工・流通システム。7) 投資の可能性に関する助言の獲得。</p>	
2 水産開発	Fisheries Development Project	1976 - ca. 1980	IDA
	概要	<p>IDAは、タンガニーカ湖漁業センター（共同企業体）の設置に対して技術支援と施設を提供し、関連活動（村落漁業計画、湖内運送施設、流通および環境破壊の研究）を支援するためにクレジットを与える。魚受取所がキゴマに建設されたが、稼動することなく、現在は放棄されている。</p>	
3 クレジット	Integrated Technical Assistance and Credit for Artisanal Fisheries	1983 - 1993	FAO / Netherlands
	概要	<p>全体目標は、漁具の輸入と回転信用助定計画により、漁業生産の減退傾向をくい止め、キゴマ州の漁民の生活水準を改善することである。プロジェクト評価は、おおよその目的は満たされたが、不利な運営条件（不十分な通信、輸送）が主な制約であったと結論している。組織設立および普及活動強化の長期的効果を予定したが、完全に達成されていない。</p>	
4 水産開発	Inland Fishery Planning Development and Management Project (IFIP)	1989 - 2001	FAO/UNDP
	概要	<p>主要な内水面域において漁業資源の更に効果的かつ合理的な活用を促進することを目指す地域プロジェクトの1つ。共有水体に対する管理と計画について広範囲によく文書化された研究であり、タンガニーカ湖とヴィクトリア湖を含んでいる。国家部門の概観および特別な漁業の状態の現地調査を多く含む。</p>	
5 水産調査	Lake Tanganyika Research Project (LTR)	1992 - 1999	FINNIDA / FAO
	概要	<p>LTRの目的は、湖の生態学的生産および漁業の潜在力を調べることであり、ならびに現在および将来の人類の福祉および生態学的保全の必要性に資する漁業資源の最適な管理のための様式を地域規模で考案することである。LTR調査計画の主な要素は、流体力学、湖沼学、魚類・動物プランクトン生態学、遠隔探査、魚類発生学、法制度研究、社会経済学を含んでいる。</p>	
6 生物多様性	Lake Tanganyika Biodiversity Project	1995 - 2000	UNDP/GEF
	概要	<p>主な目的は、4 沿岸国を含んだ地域的基礎環境管理計画を作成することであり、これを通じて環境汚染は制御され、湖の生物多様性は維持されることとなる。プロジェクトは次の5つの要素からなる。1) 生物多様性 - 種、種群の調査、および絶滅の危機にあるものを決めること。2) 環境汚染 - 汚染源、影響、可能な防止方法の同定。3) 沈降分離 - 影響の監視、および可能な改良方法の評価。4) 社会経済。5) 環境教育。最後の2つは、漁業および農業の実践、可能な保存水域とその局地的接近可能性の評価、法的課題を含む。</p>	
7 水産開発	Lake Tanganyika Regional Fisheries Programme (TREFIP)	2002 - 2006	AfDB/FAO
	概要	<p>TREFIPの全体目的は、' Framework Fisheries Management Plan (FFMP)' およびその基礎をなす手順を完全に実施することである。TREFIPは、地域漁村住民との協力関係を樹立することを主に強調しているが、これは第1に漁業産業自体の効率と管理の条件を直接に改善するためであり、第2に、村落レベルにおいて、一般に不足または不十分となっている施設および設備を改善するためである。</p>	



## ニアサ湖におけるプロジェクト

分野	名称	期間	ドナー
1 生物多様性 / 保全	Lake Malawi Project	1995 - 1999	WB / SADC / GEF
	概要	マラウィ、モザンビーク、タンザニアの3カ国にわたるGEFプロジェクトであり、生物多様性の保全ならびに湖およびその集水池の維持可能な利用に関する単一化された戦略を開発することを目指している。プロジェクトの主な科学的側面は、系統(分類学)的な湖の生態学および保全 / 公園計画である。社会経済的および開発的側面は、村民の自覚の形成、試験所建設、保護区域に対する戦略の準備である。	
2 資源管理	Lake Nyasa Trans-frontier Natural Resources Management Area Programme	Planning (1999- )	PPF / WWF
	概要	1999年の初期に ' Trans-frontier Natural Resources Management Area (TFNRMA) ' の概念が導入され、ニアサ湖におけるTFNRMAの主な目標は次のとおりである。1) 観光開発により地域村落に仕事を創設して貧困を緩和すること。2) 盆地の生態学的多様性を保全すること。	
3 保全	Lake Malawi/ Nyasa/ Nyasa Ecoregion - Based Conservation programme	-----	WWF
	概要	本プロジェクトの目的は、保全に対して生態領域を基礎としたアプローチを開発することであり、ここに生物多様性の目標は ' 生態学的保全計画 ' にあるといえるが、湖の保全・管理への複合的アプローチを促進する努力を要する。	
4 資源評価	Pelagic Fish Resource Assessment Project on Lake Malawi / Niassa	1987 - 1994	UK / SADC
	概要	本プロジェクトの目的は次のとおり。1) 湖における浮魚(沖合)資源の大きさ、分布、季節性およびその構造と生態を評価すること。2) 水産管理に資するために、浮魚資源を持続させている栄養基盤およびその発生量、分布、変化性に影響している要因を調べること。3) 浮魚魚種を目標とした新漁業の潜在的維持可能漁獲量を定めること。4) 浮魚漁業の利用および持続可能な管理のために適宜かつ経済的に可変な戦略を決定すること。	

## その他の地域

分野	名称	期間	ドナー
1 水産投資	Zanzibar Fisheries Investment Project	1994 - 1999	FAO / AfDB
	概要	本プロジェクトは、漁業生産、加工、流通を促進することを目指している。また、地域漁民部門の付加価値を増加させ、生産者、加工業者、流通業者がよりよい価格と高収入を実現できるようにするために、漁獲および漁獲後の連鎖に沿って海産物の品質を改善することを特に目指している。本プロジェクトは主に民間業者向けであり、一連のクレジットは銀行制度を通じて主として長期貸付による財務的資本投資に対し利用可能である。可能なプロジェクト要素は次のとおり。1) 漁業生産への投資。2) 水産物の取扱、加工および流通への投資。3) 水産物投入産業への投資。4) 組織的支援サービスへの投資。	
2 マスタープラン	The Master Plan Study on Fisheries Development in the United Republic of	2001-2002	Japan
	概要	本調査の目的は次のとおり。1) 次記の施策を組み込んだマスタープラン(目標期間: 10年間)を策定すること; 漁民の安定収入を増加させること; 漁業資源をさらに効果的に利用すること; 漁民組織および政府双方の能力を強化すること; 漁業資源を保全すること。2) 本調査の実施を通じて水産局およびタンザニアのその他政府機関にマスタープランをいかに策定し、実施するかについて技術移転を行うこと。	

付表 32 ビクトリア湖における資源管理手法

	漁船数総量規制	加工工場生産規制	漁獲量規制
管理指標	漁船登録ライセンス	A. フィレー出荷量 B. 原魚入荷量	漁獲量
管理方法	水産局発給の漁船登録ライセンス数を制限する。	A. 現状通りのインスペクターによる出荷量検査 B. インスペクターによる入荷時計量立ち会い	BMU 主導により、管轄漁船の漁獲量を毎日計量し、管理する。
長 所	水産局による管理が容易。 漁船同士の過当競争を抑えられる。	A. 管理が容易。 工場側の高付加価値製品開発意欲の惹起。 B. 管理が容易。 買付・集荷過程での品質管理マインドの強化。 高歩留まり、高付加価値製品の生産。	漁獲量をダイレクトに管理することが出来る。 BMU に漁獲可能性を割り当てた場合、漁民の BMU メンバー化、すなわち組織化の強力な起爆剤となる。
短 所	無登録船の横行が予想され、取締り強化の必要性が生じる。 一隻あたりの漁具数が増え、必ずしも正確に漁獲量が管理できる保証はない。 船大工に失職の恐れあり。	工場外流通分（零細加工含む）はカウントされないので、総漁獲量の管理は出来ない。 工場側はリジェクトや残滓を減らす努力をするので、これらに依存する零細加工業者に失職の恐れあり。	漁民組織に管理を委託するには現状で組織力が不十分。 BMU による漁獲データの水産局への迅速な収集体制がない。 BMU 割り当て漁獲を巡って熾烈な漁獲競争が起こる。

出所：本調査団による聞き取り調査

付表1-33 水産物の輸出量及び金額

Product	1997			1998			1999		
	Quantity kg	Value		Quantity kg	Value		Quantity kg	Value	
		TShs.	US \$		TShs.	US\$		TShs.	US\$
Prawns	61,131.0	79,496,790.30	128,537.70	223,639.00	259,170,761.60	390,976.10	1,154,181.00	3,788,215,145.10	5,127,641.90
Lobsters	36,008.0	263,685,602.80	426,807.40	25,999.00	162,581,125.20	255,145.90	161,962.00	611,764,945.00	818,511.90
Live Lobsters									
Crabs	12,848.0	28,518,990.60	46,460.60	17,882.00	66,674,500.00	99,295.00	4,819.00	18,321,220.00	24,696.70
Octopus	638,046.0	1,029,216,002.50	168,584.40	595,783.00	702,011,119.20	1,055,637.10	574,522.00	977,816,816.80	1,357,380.60
Squids	12,523.0	152,064,190.80	250,738.00	12,567.00	20,256,972.80	30,493.90	35,005.00	74,583,797.20	107,571.70
Sea shells	183,172.0	83,592,295.00	324,979.10	154,893.00	19,856,620.80	29,859.10	250,006.00	64,212,429.30	85,538.80
Beche de mer	254,435.0	420,487,768.90	1,156,297.50	872,926.00	133,860,000.00	21,722.00	93,439.00	194,352,449.60	255,513.50
Fish maws							77,162.00	88,364,984.50	122,808.90
Fish offals	194,993.0	235,258,122.60	390,450.00	199,974.00	237,305,110.80	389,169.00	90,050.00	13,805,263.50	181,574.50
Shark jaws	650.0	3,389,316.00	5,525.00	254.00	2,841,983.30	4,273.60			
Marine Fish fillet	14,906.0	18,269,326.20	29,812.00	10,321.00	15,541,032.30	24,248.00			
Dried Nile Perch	143,477.0	65,036,318.40	107,662.90	12,288.00	211,061,705.40	331,307.80	402,509.00	91,442,209.10	128,454.30
Dried sardines	1,531,419.0	676,285,415.40	1,110,235.40	693,329.00	357,194,085.60	556,980.50	665,240.00	302,031,437.40	523,019.20
Nile Perch fillet	23,075,905.0	33,125,889,871.50	54,821,414.10	36,386,214.00	43,258,023,811.90	65,727,795.00	23,757,462.00	37,554,505,909.00	51,992,752.52
Nile Perch jaws	869,187.0	1,563,572,143.30	2,590,811.80	500,504.00	1,076,000,927.90	1,629,494.00			
Nile Perch carcass	530,472.0	253,481,895.30	411,276.30	456,080.00	50,318,799.80	78,209.30	156,300.00	19,167,692.30	25,159.80
Nile Perch chips	112,760.0	48,741,243.40	79,649.20				384,250.00	68,932,604.30	95,986.00
Nile Perch offals							280,080.00	469,966,991.00	594,976.00
Nile Perch belly flaps	2,522,516.0	928,857,841.50	1,527,835.00	2,792,600.00	965,148,516.00	1,477,436.60			
Shark belly flops							715.00	5,519,354.50	7,705.00
Nile Perch fish meal	764,802.0	194,000,138.90	320,028.70	1,002,768.00	1,333,620,349.10	203,075.00			
Fish powder							766,266.00	124,412,379.90	170,809.50
Nile Perch Oil	55,020.0	3,066,225.00	5,032.50	66,200.00	4,308,956.70	6,620.00			
Refrigerated fish							74,814.00	59,002,500.00	86,338.30
Fresh sardines									
Sea weeds	1,085.0	997,409.70	1,615.50						
Sub-Total	31,015,355.0	39,173,906,608.10	63,903,753.10	44,024,248.00	48,875,776,378.40	72,311,737.90	28,928,782.00	44,527,018,128.50	61,706,439.12
Acquarium fish	25536 Pieces	93,699,613.00	308,595.60	22439 Pieces	98,663,048.30	156,258.00	11822 Pieces	61,231,926.70	83,118.60
Grand Total		39,267,606,221.10	64,212,348.70		48,974,439,426.70	72,467,995.90		44,558,250,055.20	61,789,557.72

## 付 属 資 料

1. ケニア・ウガンダにおける漁民組織の活動事例
2. 個別プロジェクトの評価
3. 環境評価の手順及びその結果

## 付属資料 1

### ケニア・ウガンダにおける漁民組織の活動事例

漁村の貧困について本調査では、漁民間（仲買・工場含）における収益のアンバランスな配分と漁民の浪費行動による2点に原因を求めて聞き取りを実施している。このうちウガンダでは、大型漁民や工場からの搾取という言葉が聞こえず、大半が漁民の行動に説明を求めているのが特徴。ケニアでは両者が貧困の原因として同様に問題視されている。

定量的数値はないが漁船・漁具の所有に関してケニア・ウガンダでは差が見られる。ウガンダでは大型漁民・投資家が10-20隻の漁船を所有し漁獲、自船魚の回収、工場への販売を行っている。魚具は投資家が独自に調達しており、工場や仲買は漁具・船外機のクレジット等は一般に行っていない。また漁船からの買付を主業務にする仲介業者がケニアに比べ多くない。一方ケニアでは、自国水域のみならずウガンダ等からも買付を行う必要があり、仲介業者・エージェントが発達している。彼らは魚の確保のため工場の協力を得て、船外機・漁具を漁民にクレジットで供給する関係ができています。

ケニア、ウガンダともに行政から、漁民組合育成の難しさが指摘されているが、その発達には大きな差がある。ケニアでは一部の組合が組合員の漁獲を委託され、工場に販売するなど集団による価格交渉体制を持っており、また売上の一部を貯金するなど組織強化のための骨格が出来ている。また組合は、水揚浜の整備についても加工工場・政府と一定の交渉能力を持つと判断された。このような状況は調査に際しても、調査団が集会を依頼すれば組合委員など漁村の重要人物が直ぐに集まる点などに組織の強さが伺える。一方、ウガンダでは組合はほとんど存在していない状態である。タンザニアはむしろウガンダに近い状態か。

### ケニア、キスムの漁民コミュニティとの協議

- A. Wichlum/Bond District, Wichlum Fishermen Cooperative Society
- B. Liunda/Bond District, Centaral SAKWA Cooperative Society
- C. Uhanya/Bond District, Mr. Jack, Fish Agent
- D. Koginga Beach/Homabay District, Homabay Fishermen Cooperative Society, ZIWARI (womens group)

#### A. Wichlum/Bond District, Wichlum Fishermen Cooperative Society

Wichelum は Kisumu より約 1 時間半の距離。最も組織化が進んだ漁村の 1 つとして踏査。65 年に水揚浜として登録され、70-80 年代にかけて発達した漁村。漁船数は 118 隻、漁民数は 450 人。船主は漁業に従事せず漁民数に数えていない。内訳は下記のとおり。

別表 1-1 Wichelum 水揚浜における漁船及び漁民の概況

(1) ナイルパーチ漁船	90 隻、内 20 隻が船外機を装備、漁民は船外機付きが 5 人 / 船、帆船が 3 人 / 船で計 310 人。 刺網：86 隻（動力船は全て刺網） 延縄：4 隻
(2) オメナ（ダガー）漁船	21 隻全て無動力。船員は 4 人 / 船で計 84 人。
(3) ティラピア漁船	7 隻全て無動力。船員は 3 人 / 船で計 21 人。

出所：本調査団による聞き取り調査

特徴としては刺網の比率が非常に高いことがあげられるが、これらは漁民以外の投資によるものとのこと。

〔組合活動の概況〕

Wichlum Fishermen Cooperative Society は組合員数 896 人、資産として組合事務所、魚荷捌所、漁業監視事務所及び輸送トラック 1 台を保有する。組合員が上記漁民数より多いのは漁民でない船主が加わるため。下記は組合の組織であるが、基本的にこの構造は他の漁村の組合と同じである。

別表 1-2 Wichlum Fishermen Cooperative Society の組織概況

Management Committee	9 名( Chairperson から Treasure までの 4 人を含む )。組合員の投票によって選出。
Chairperson	1 名。Management Committee によって選出。
Vice-chairperson	同上
Secretary	同上
Treasure	同上
Worker	5 名。水揚魚の記録、販売作業。
Supervisor	2 名。監査を担当。組合からは独立した組織。

出所：本調査団による聞き取り調査

組合の最大の活動は、組合員の漁獲物( ナイルパーチ )を一括して、委託販売することにある。組合は委託料金として販売価格の 10% を徴収し、組合の活動資金としている。ほとんどの漁民が組合に販売を委託していることから、組合は極めて高い効率で資金を確保している。徴収された 10% の委託料金は、正確には 5% が組合の資金となり、残り 5% は組合員の個人口座に貯金される。後者がクレジットとして機能した場合は、SACCOS ( Saving and Credit Coop. Society)として機能するが、現在はそこまでの機能は持たない。組合により漁民は加工会社と値段交渉力を持ち(ただしケニアにおける魚価高は組合の交渉力のみではなく、加工会社間の高い競争力もあると考えられる。むしろ高い競争力が値段交渉を可能としていると考えるべきか) 委託料は組合の安定した資金を確保する手段として理想的な形態を持っている。

**B. Liunda/Bond District, Centaral SAKWA Cooperative Society**

Liunda は人口約 2,000 人の漁村。漁船数 55 隻、漁民約 200 人の規模。5 つの加工工場からトラックで買付に来るが回収には 2-4 日を要している。1980 年に水産局により魚荷捌所が建設され、水産局の事務所が併設される。上述 Wichlum と異なり延縄漁法が中心。これは 1 式 Ksh.10,000 ( Tsh.114,000 ) と刺網 Ksh.250,000 ( Tsh.2,850,000; 100set ) より投資が少なくて済むため、大型の投資家が漁村にいないことによる。平均的な漁獲漁は延縄で 40kg 程度とのことであり、調査時では大半が 20-50kg を水揚していた。餌は Kisumu 近郊の灌漑用水から捕獲される Clarias で、1 尾 Ksh.4 で 1 回あたり 2-300 尾を購入している。

別表 1-3 Liunda 漁村における漁船及び漁民の概況

(1)ナイルパーチ漁船	漁民数 120 人。漁船は全て無動力。 刺網：4 隻 延縄：36 隻
(2)オメナ(ダガー)漁船	10 隻。漁民数 40 人。
(3)地引網(ナイルパーチ)対象	5 隻。漁民数 40 人。
(3)ティラピア漁船	無

出所：本調査団による聞き取り調査

漁村の上げる課題としては、Liunda では延縄が多いことから特に、流網(漁船と流網が同時に移動)による延縄の破壊・紛失がもっとも強く上げられている。このような紛失に対し加工会社では釣針の支援を受けることもあるが、漁船・船外機、刺網等の支援はこれまで申し込まれたことはない。その他課題・希望としては、貯蔵施設、動力船、診療所、カバの増加による被害(攻撃を受ける)が上げられた。貯蔵に付いては雨期のアクセスが困難になることから、ナイルパー

チの価格が Ksh.10-15/kg にまで下がることを理由に挙げているが、輸送船による近隣の集荷場への搬送と集荷場における組合との協力を検討すべきであろう。女性に対して質問した場合でも回答は上記同様である。漁師が酒で金を使って、家計に金を入れないことは認めたが、これを改善する意志は強く見えない。もしクレジットにアクセスできたという問いには、学費、貯金、将来の投資に3分して使うとの堅実な回答。集会後、漁師から大盤振る舞いを受ける。

[ 漁業組合 / Beach Leadership Committee ]

組合の目的、構成は基本的に Wichlum に同じ。ただし収入不足から委員への手当ては現在未払いの状態。会員数は98人(Liundaのみでなく周辺漁村の支所含む)であるが、大半は船主。これは魚の委託販売を活動の主目的にしていること、会費は船主が支払うシステムであることが原因である。このため組合は船主の利益団体となっており、船子を含む漁民全般の社会福祉向上を図る組織の構造とはなっていない。Beach Leadership Committee の活動も Wichlum に同様。9人の委員には2名の女性が含まれている。

組合は魚販売の委託費を収入にしている以上、漁船数が Wichlum の半分の規模である Liunda では活動の制限は当然である。組合の機能的な活動には最低限の取扱量が必要であり、組合の存在は水揚浜の規模に係わる。小規模の水揚浜が分散している地域では、魚を集荷し一定規模の市場とそこに組合を整備する戦略を検討すべきであろう。

### C. Uhanya/Bond District, Mr. Jack, Fish Agent

同氏は6隻の集荷船を用い、ウガンダ水域を含め漁民から買付を行うと同じに、8隻のナイルパーチ刺網漁船を保有し漁獲を行う。懸案のエージェントによる漁民への漁具の貸し付けについては、以前は行っていたが、現在は行っていないとの回答。これには漁民が漁具を貸し付けても、漁獲物を横流ししたり、漁具と共に逃げてしまったりで、投資が回収できないことを理由に上げている(Ksh.1.2百万が未回収)。同様の話しは工場側からも聞かれており、ケニアでは漁具の貸し付けによる漁民の困込みは機能しなくなっているのかもしれない。ケニアでは狭い水域に17もの工場が集中しており、高い競争が漁民に有利に働いている環境にあるとも考えられる。またケニアには島が少なくエージェントの系列によるキャンプが作りにくい環境も影響していると考えられる。刺網の価格は Ksh.2,500 (Tsh.28,500)/set で通常漁船当たり 80-100 set を装備している。

### D. Koginga/Homabay District, Homabay Fishermen Cooperative Society and ZIWARI (women group)

Homabay は Kisumu から南西へ車で2時間半。漁船数は合計28隻。ティラピア漁船が12隻、ナイルパーチ刺網8隻、オメナ(Dagaa)漁船8隻の構成。また外部から延縄漁船2隻が水揚を行う。漁民組織としては Homabay Fishermen Cooperative Society が存在するものの活動的ではなく、漁獲物の販売は個々の漁民(船主)に委ねられている。その他の漁村同様 Beach Leader Committee (12委員)も存在するが、主に漁民間の問題調停及び社会環境改善に対しケースバイケースで対応がなされている。

組合組織の弱体さ、比較的小さな漁村規模、Kisumu からの距離等が影響し、7月14日のナイルパーチ浜値は Ksh.65 と、Wichlum の Ksh.78 と比べ約2割も低い価格となっている。この結果、浜で買付を行うエージェントは、工場価格 Ksh.85 との間に Ksh.20/kg のマージンを得ている。ナイルパーチ漁業のスケジュールは1500時に出漁、刺網を設置し洋上で待機した後、取上げ1100時帰港。エージェントもしくは工場の回収は一般に1600時までで、これに間に合わない水揚は1昼

夜常温に曝されることになり、価格低下の原因となっている。特に雨期に関しては、エージェントが来ない日もあり水揚地における貯蔵機能の整備が最大の課題として要望されている。しかし同規模の水揚地では整備の効率、エージェントもしくは工場の集荷を促すには規模が小さく、今後は周辺地域との協調により集荷センターの開発を検討する必要があると考えられる。

ZIWARI は 92 年に設立された女性グループ。当初は女性グループでの購買事業を目的に毎週集会時に Ksh.25 ずつ会費を徴収し資金を作り出した。その後会費は Ksh.50、100(94 年)と増加し、基金の用途も夫が死亡したときの資金的支援や子供の教育費など多様化している。98 年には LVEMP のマイクロプロジェクトが承認され、水揚地にトイレ(男女別各トイレ 2、シャワールーム 1) 給水施設を建設し(合計 Ksh.850,000=\$10,897 は標準的な草の根無償の 1/5 の規模、草の根無償も複数ヶ所のパッケージとして対応しなければこの規模は対応できないか) 使用料金(トイレ Ksh.5、水 Ksh.2/20L)を新たにグループの運営費として活用している。またグループでは、30 人の有志から週 Ksh.150 ずつ資金を募り 6m の漁船を建造(Ksh.120,000)し、漁民に貸し付けたが、漁民が漁獲物を横流しするなど、女性の漁業に関する知識の不足、直接乗船できない不利を克服できず失敗に終わっている。会員数は設立当初が 25 人、その後 30 人まで増加したが、現在は 15 人に低下している。20-30 人の規模では購買活動にもスケールメリットが発揮しにくく、会員の意欲低下が原因と思われる。

別表 1-4 ホマベイ県 (Homabay District) における水産量の推移 1997-2000

Species	1997 (mt, Ksh.)		1998 (mt, Ksh.)		1999 (mt, Ksh.)		2000 (mt, Ksh.)	
	mt	Ksh.	mt	Ksh.	mt	Ksh.	mt	Ksh.
Nile perch	127,909	5,391,765	219,282	7,880,263	13,952	544,522	158,587	6,871,721
Omena	122,595	2,981,015	141,316	3,700,387	4,965	99,300	83,058	1,579,160
Tilapia	73,918	3,752,475	198,677	12,479,110	26,851	1,422,689	245,256	11,544,604
Others								
Total	474,090	17,178,175	756,136	32,142,843	77,001	3,384,809	668,554	25,253,272

出所：Homabay District Fisheries Office



付属資料 2

個別プログラムの評価

1. 評価の手順

個別プログラムの評価に当たっては、以下の手順で行う。

主な経済便益と受益者の特定

経済的プログラムと社会的プログラムの峻別

経済的プログラムの便益の定量化

経済的プログラムのコストの経済価格への変換

経済的プログラムの経済的内部収益率の算定（参考値）

特に採算性の求められるプログラムの特定

財務的プログラムの財務的内部収益率の算定（参考値）

1.2 優先プログラムの便益とプログラムの特性

現在提案されている優先プログラムの便益とプログラムの特性は、以下のよう考えられる。

別表 2-1 優先プログラムの便益とプログラムの特性

地域	優先プログラム	主な便益	受益者	プログラムの種類	経済評価
沿岸	沿岸漁業小規模漁民能力強化プログラム	-漁獲量の増大 -品質向上 -組合強化	漁民 流通業者	経済	○
	タリスサーム漁業基盤改善プログラム	-水産業の振興 -環境改善	漁民 流通業者 DSM 住民	経済/社会	○
ビクトリア湖	ビクトリア湖小規模漁民能力強化プログラム	-ニゲシ訓練学校の組織強化	水産局職員 漁民	社会	×
	ビクトリア湖水産物流通改善プログラム	-就労日数の増加 -流通口の削減 -資源の効率的な利用	流通業者	経済	○
	ビクトリア湖水揚げ地整備プログラム	-組合強化	漁民	経済/社会	○
タガニカ湖	タガニカ湖ががー漁業・加工開発プログラム	-漁獲量の増大 -品質向上	漁民 流通業者	経済	○
ニヤ湖	ニヤ湖漁業普及強化プログラム	-環境改善	タガニカ国民	社会	×
全国	漁業金融支援プログラム	-漁民の能力強化 -MCI の能力強化	漁民	経済	○
	水産情報改善プログラム	-管理能力の強化	水産局職員 タガニカ国民	社会	×
	水産物輸出促進プログラム	-水産物輸出にむけての能力強化	水産局職員 タガニカ国民	社会	×
	養殖普及実施可能性調査プログラム	-水産物の安定的な国内供給確保	地域住民	社会	×
	水産マスタープラン実施のための訓練プログラム	-水産マスタープラン実施にむけての能力強化	水産局職員 タガニカ国民	社会	×
	水産資源共同管理能力強化プログラム				
	漁村貧困削減プログラム				
	水産訓練施設改善プログラム				

### 1.3 分析結果

#### 沿岸漁業小規模漁民能力強化プログラムの経済・財務評価

沿岸漁業小規模漁民能力強化プログラムは、フェーズ1では、沿岸中部（マフィア・バガモヨ）の漁業協同組合・漁民組織強化、若手漁民への実地訓練、流通の改善強化を進めることにより、漁獲量の増大と、漁民の所得増大を図るものである。フェーズ2では、フェーズ1の経験を沿岸南部地域に拡大し、同様の効果を期待するものである。

沿岸漁業のタンザニア漁業に占めるウエイトからみると、少なくとも20%の便益が期待できる。

- 漁獲量増大：US\$ 24,785,100 x 0.2 = US\$ 4,957,020
  - 所得増大：US\$ 206,621 x 0.2 = US\$ 41,324
- 計 US\$ 4,998,344

これに対し、経済価格に換算した費用は、3,021,948ドルと算定される。

しかし、別表に見るように、財務的には余り多くの利益を期待できない。マイクロクレジットを期待しているが、この利益率では返済に60年以上必要となる。

別表 2-2 沿岸漁業小規模漁民能力強化プログラムの財務（2012年）

Unit: US\$

	収入	支出	収支
DSM	41,096	39,384	1,712
Mafia	14,840	13,356	1,484
South	14,840	13,392	1,448

注：Southについては、Mafiaと同額の収入を想定した。支出については、ダルエスサラームとMafia計の収支比率を用いた。

#### ダルエスサラーム漁業基盤改善プログラムの経済評価

ダルエスサラーム漁業基盤改善プログラムは魚市場拡充コンポーネントとキブコニ・フロント漁船係留地改善コンポーネントから成り立つ。

魚市場拡充コンポーネントは、新マーケットの機能の補完と強化及び都市計画見地に立脚したプログラムの推進を目的としており、環境要素の強いプログラムとなっている。しかし、新市場の機能を補強・強化する製氷・貯蔵施設を含んであり、品質の向上、安全な水産物の国民への供給という経済便益を期待することができる。この便益の算定は非常に困難であるが、別表に見るように製氷・貯蔵施設については、約342,500ドル/年の需要を想定することができ、また500人を超える加工・流通業者の所得改善にも寄与すると思われる。

一方、キブコニ・フロント漁船係留地改善コンポーネントにおいても、漁民の作業環境改善と景観の改善が期待できる。漁船の利用料としては、約6,400ドル/年を想定することができる。

これに対し、経済価格に変換したプログラム費用は、約3.2百万ドルと定量化可能な便益を大幅に上回っている。しかし、ダルエスサラームの中心地の環境・景観改善の効果は計り知れないものがあり、その後の商業活性化などの基盤整備として、その重要性は大きい。

別表 2-3 ダルエスサラーム漁業基盤改善プログラムの財務（2012 年）

Unit: US\$

	収入	支出	収支
魚市場拡充	348,100	123,032	225,068
キブコニ・フロント漁船係留地改善	6,376	5,556	820
合計	354,476	128,588	225,888

注：魚市場の収入・支出の大半は製氷・貯蔵施設である。収入については、水揚地整備プログラムのニャムカジの氷販売額を日量 20 トンに膨らませた。一方、支出については、電気代と修繕費・減価償却費（機材費の 15%）を想定した。その他の、収入・支出は現在建設された新市場の計画収支の 10%と想定した。

## ビクトリア湖水産物流通改善プログラムの経済評価

ビクトリア湖水産物流通改善プログラムはキルンバ市場とナイルパーチ残さい処理の 2 つのコンポーネントからなりたっている。キルンバ市場は、操業日数の増加とロスの減少により 12%の取扱量の増加が期待できる。その価値は約 718,000 ドルと見込まれる。しかし、市場建設工事費が高く、別表のように財務的には MWADES0 の資金だけでは成り立たない。一方、ナイルパーチ残さい処理については、新たにムソマにおいて、日量 30 トンの処理が可能となり、便益に計上した年間 667,800 ドルの価値が期待できる。また、財務的には十分にプロフィタブルといえる。

別表 2-4 ビクトリア湖水産物流通改善プログラムの財務

Unit: US\$

	収入	支出	収支
キルンバ市場	28,669	223,155	-194,486
ナイルパーチ残さい処理	2,231,735	1,572,109	659,627
合計	2,260,404	1,795,264	465,141

注：キルンバ市場の収入は 2001 年の余剰推計額の 12%増し。支出は建物メンテナンス（工事費の 5%）のみ。ナイルパーチ残さい処理の収入は 3 工場の処理量計を 90 トンとし、単価 65 シリング/kg をかけて算定。支出については収入の 70%の製造原価に建物メンテナンス（工事費の 5%）を足したものである。

## ビクトリア湖水揚げ地整備プログラムの経済評価

ビクトリア湖水揚げ地整備プログラムは、衛生的観点から水揚作業の効率化をはかるものである。この便益としては、品質向上による外貨獲得、漁業組合設立による漁民の所得向上といった便益をもたらすが、計量化困難である。

財務的には別表のように十分にプロフィタブルといえる。この余剰分が組合員に還元されれば、の所得増加が期待できる。

別表 2-5 ビクトリア湖水揚げ地整備プログラムの財務

Unit: US\$

	収入	支出	収支
3 サイト合計	424,705	142,227	282,479

注：支出は、運営経費に建物メンテナンス（工事費の 5%）と機材メンテナンス（機材費の 10%）を足したものである。

## タンガニーカ湖ダガー漁業・加工開発プログラムの経済評価

タンガニーカ湖ダガー漁業・加工開発プログラムは、国民の重要な蛋白源であるダガーの生産

向上及び収穫後ロスの減少を目的とし、後者の便益としては、約4百万ドル/年が期待されている。これに対して、経済価格に変換された費用は約644,400ドルにすぎない。これは本プログラムが調査プログラムで、将来本格的なプログラムに発展する可能性を秘めているといえよう。

なお、調査プログラムで整備される加工作業場は、別表のようにキゴマ県が独自財源の3%を県水産開発基金として助成すれば、持続的に運営可能である。

別表 2-6 タンガニーカ湖ダガー漁業・加工開発プログラムの財務（2012年）

Unit: US\$

	収入	支出	収支
タンガニーカ湖ダガー漁業開発プログラム	11,076	6,854	4,221

注：支出は建物メンテナンス（工事費の5%）と機材メンテナンス（機材費の10%）の合計である。

#### 漁業金融支援プログラムの経済評価

漁業金融支援プログラムは、漁民が船外機や漁具などを調達できるクレジットスキームを確立することを目的としている。その意味では、漁獲増大や漁民の所得増大に効果あるとされている。しかし、漁民が借入返済可能な経営を遂行できなければ、逆に借金地獄におちる危険性を有するものである。このことは、当然のこととして、漁業組合強化を必然たらしめる。別表にみるように、想定される組合の利益率と NGO 依存の回収では、脆弱な県の負担が増大する。この事態を回避するためには、

- 漁民自身が経営改善努力をすること
- それを可能とする市場インフラ整備をおこなうこと
- 組合および県水産職員が的確な市場情報と経営技術を漁民に提供すること

が必要である。いわば、本マスタープランが相乗効果をもたらすことが、重要である。

別表 2-7 漁業金融支援プログラムの財務（2012年）

Unit: US\$

	収入	支出	収支
漁業金融支援プログラム	17,532	160,000	-142,468

注：収入は県独自財源の1%とダルエスサラーム漁業組合、キゴマ漁業組合の余剰金の85%を想定。

支出は金利補助（基金の5%/year）と NGO 管理委託費（基金の35%/year）

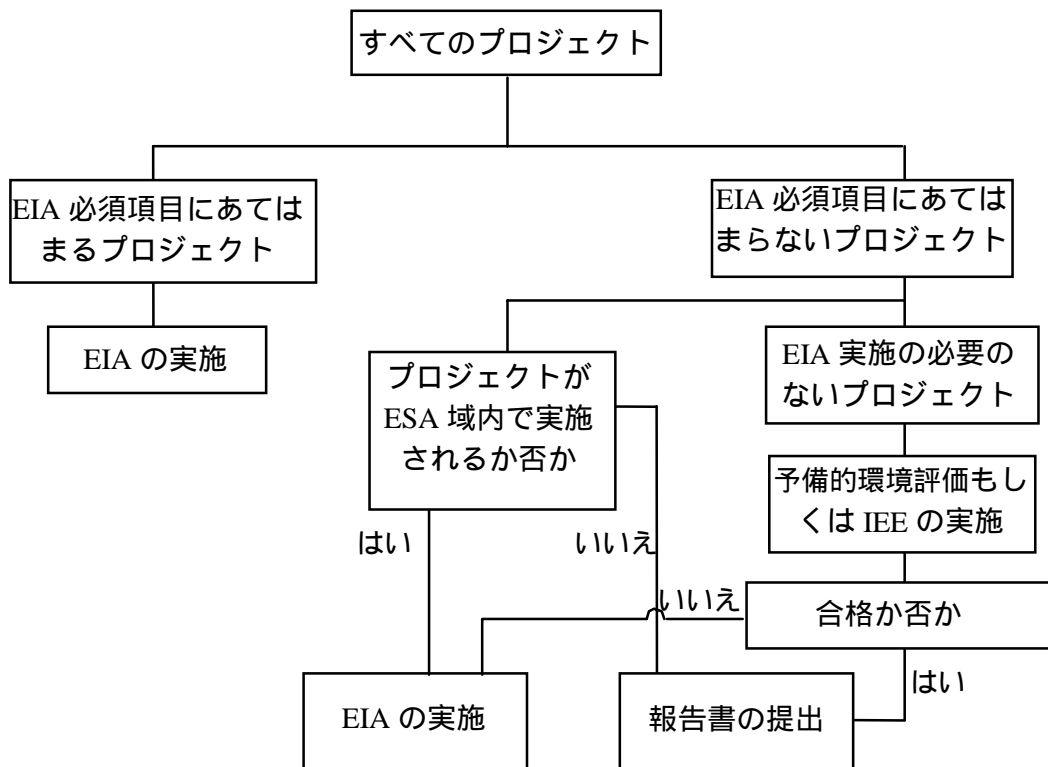
もし、漁民が金利補助を必要とせず、県ならびに組合が収入を3倍に引き上げ、NGOへの依存を大幅に減らすことができれば、収支はプラスとなる。

### 付属資料 3

#### 環境評価の手順及びその結果

##### 1. スクリーニング

あるプロジェクトが環境影響評価（EIA：Environmental Impact Assessment）を必要とするか否かの判断を行うためのスクリーニングの手順は、以下の別図 3-1 に示される。



別図 3-1 スクリーニングの手順

##### 2. 環境影響評価の実施必須項目及びその手順

タンザニア国 NEMC（National Environment Management Council）の提示する環境影響評価の手順に基づく EIA 必須水産業関連プロジェクトの項目は以下のとおりである。

- 中・大規模漁業
- 養殖漁業（魚類・海藻類・甲殻類の養殖）
- 外来種の導入
- 漁港の建築及び拡大
- 浜辺・河川流域の開発
- 分水界管理プロジェクト

（以上 6 項目を Appendix 1 とする）

登録を必要とする小規模漁業活動及び企業を以下に記す。なおこれらすべてが EIA を必要とするとは限らない。

- 魚種の養殖

- 海藻の養殖
- 水揚場
- 木材加工所（漁船建築場等）
- 市場（家畜及び各種産物）
- 技術協力

（以上 6 項目を Appendix 2 とする）

提案されたプロジェクトもしくはその構想は、「環境アセスメント登録用紙（Environmental Assessment Registration Forms）」と呼ばれる用紙を NEMC に提出した後、登録される。別図 2-2 に登録からプロジェクトが終了するまでの過程を記す。

上記した項目以外の、重大な環境影響を与えないと予測される、もしくは環境変化に対して脆弱な地域（ESA：Environmentally Sensitive/ Critical Areas）外の開発プロジェクトに関しては、タンザニアでは EIA の実施は義務付けられていない（別表 3-1 参照）。しかしながら ESA 域内、もしくはその周辺域に提案されたプロジェクトに対しては、EIA の実施は必須である。既存の情報と現地調査から得た情報に基づき、以下の項目を含む予備的評価が行われる。

- プロジェクト特性の記述
- 影響を受けうる地域の境界線の設置
- 地域環境・社会経済への影響の確認
- 影響の重要性の評価
- プロジェクト・デザインの修正もしくは本格 EIA の実施の考慮

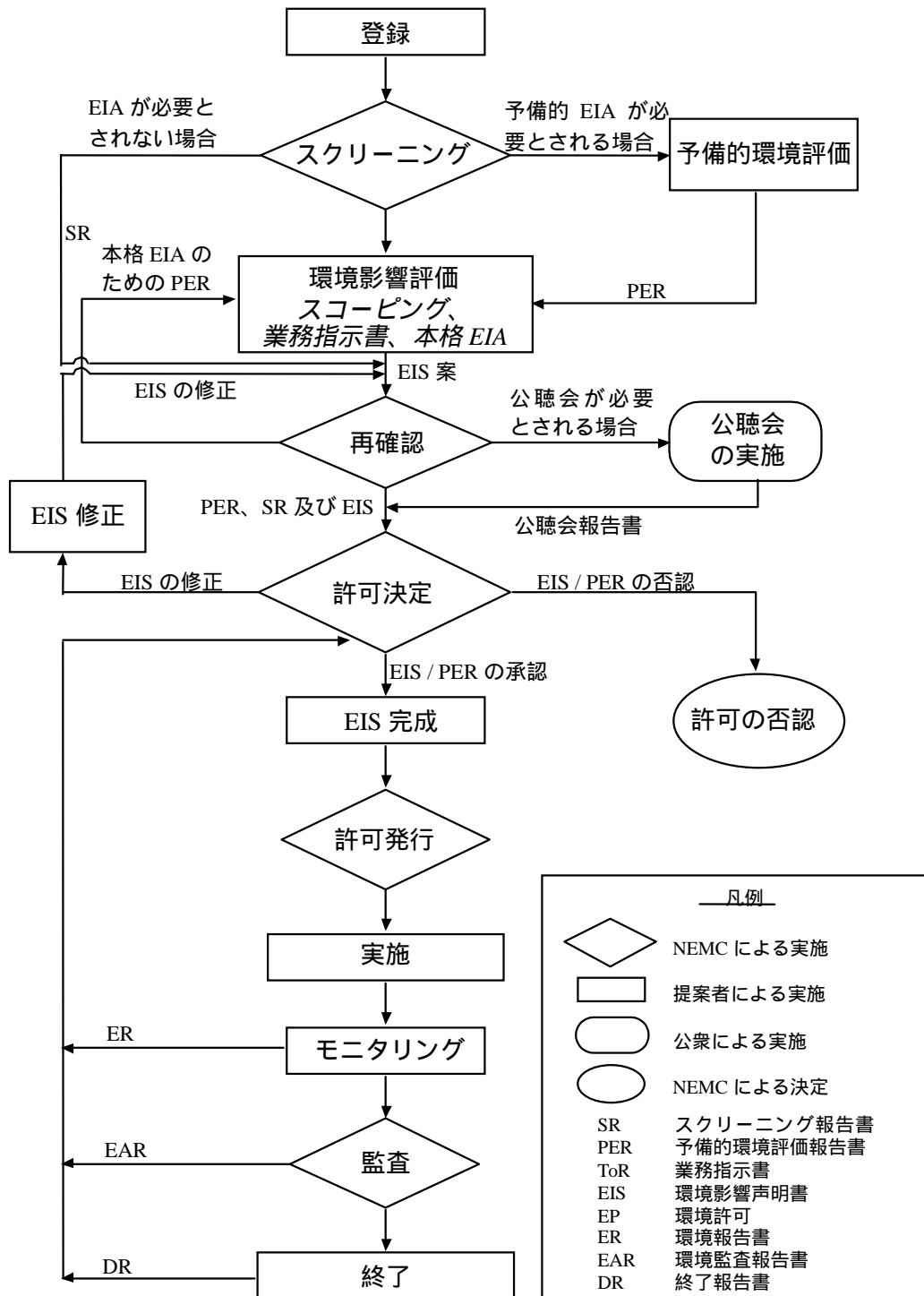
登録後、30 日の間に NEMC はプロジェクトのスクリーニングの報告書をプロジェクト提案者へ提出する。その結果は以下の 4 項目に分類される。

プロジェクトによる重大な環境影響が予測される場合、本格 EIA の実施が要請される。

プロジェクトによる環境影響が起りえると予測された場合、予備的環境評価（IEE に類似したもの）の実施が要請される。

プロジェクトによる重大な環境影響が予測されない場合、EIA の実施は必要とされない。

プロジェクト要請書が受理されなかった場合、つまり政策もしくは他の法的意向にそぐわないプロジェクトに関しては、それ以上の考慮は行われない。



別図 3-2 タンザニアにおける EIA の手順

別表 3-1：環境変化に対して脆弱な地域（ESAs）及び生態系

1. 自然災害が起こりやすい地域（地質学上の災害、洪水、嵐、地震、地すべり、火山活動等）
2. 湿地（氾濫原、湖沼、河川等）または以下の条件にあてはまる水域；
  - (a) 煉瓦造り等需要がある地域
  - (b) 保護地域内
  - (c) 野生動物の生息地もしくは漁業域
  - (d) 灌漑農地もしくは放牧地
3. 以下の条件にあてはまるマングローブ湿地帯；
  - (a) 原生林及び密生地域
  - (b) 主な河口域
  - (c) 伝統漁業域内及びその近辺
  - (d) 水食・風食に対する環境バッファゾーン
4. 侵食が起こりやすい地域
  - (a) 勾配の大きい丘陵地
  - (b) 非被覆地
5. 消滅の恐れのある貴重な伝統民族生活地域
6. 貴重種・絶滅の恐れのある動植物種の生息域
7. 文化的、歴史的、考古学的、もしくは科学的に重要な地域及び観光開発の可能性を持つ地域
8. 汚染地域
9. 砂漠化及び山火事が進行しやすい地域
10. 珊瑚礁及び海洋生態系
  - ・ 珊瑚礁
  - ・ 島
  - ・ 潟及び河口
  - ・ 大陸棚
  - ・ 海岸等
  - ・ 干満によって影響される地域
11. 以下の区画に指定されている地区；  
国立公園、流域保護区、森林保護区、野生動物保護区及び禁猟区、野生動物コリドー、及び温泉地域
12. 山岳地帯、集水域、及び帯水層
13. 主要な農耕地及び放牧地
14. 緑地帯及び都市部の公共のオープン・スペース
15. 史跡及び墓

なお、以上は定期的に再確認・修正されることとする。

### 3. 初期環境調査（IEE：Initial Environmental Examination）

#### 3.1 IEE チェックシート

初期環境調査（IEE）は、提案されたプロジェクト実施において将来起こりえる重大な環境インパクトの確認を目的とした、初期の段階での環境評価及びプロジェクト構成要素へのスクリーニ



ングからなる。プロジェクト実施の物理的・生態的資源への影響とその利用価値、及び社会・政治・文化的な課題に焦点をあて、将来起こりえる重大な環境インパクトの確認を行う。

IEE によって確認された重大な環境インパクトについては、実施機関がそれらについてより多くを理解し、代案の提示などによって緩和もしくは回避しえる方針を提案していくために、プロジェクト準備・実施期間にさらなる調査が必要とされる。

IEE の実施に際しては、「タンザニア国環境影響評価手順 ( Tanzania Environmental Impact Assessment Procedure )」の第 5 巻に記載されている「General Checklist of Environmental Characteristics」を環境資源のチェックリストとして利用する。

IEE における自然及び社会環境項目は以下のとおりである。

#### 自然環境項目

##### i) 物理的資源

- 水資源 ( 水面、地下水、水文学等 )
- 空気資源 ( 気候、風、気温、台風、空気の質等 )
- 土地資源 ( 土壌、土壌浸食・土砂堆積、肥沃度、地質、鉱物等 )

##### ii) 生態的資源

- 水生資源 ( 漁業開発、水生生物学等 )
- 陸生資源 ( 森林、植生、野生動物等 )
- 絶滅の恐れのある種 ( 貴重種 )

#### 社会環境項目

##### iii) 利用価値

- 浜利用 ( 住宅供給、市場、水揚場、加工場等 )
- 産業 ( 水産物加工産業等 )
- 水供給
- 交通
- 廃物処理
- 農業
- 洪水・排水管理
- 動力 ( 電力、燃料、薪 )
- 保養
- 鉱業 ( 鉄、リン、石油等 )
- 労働環境 ( 騒音、異臭、振動 )
- 土地利用
- 産業汚染による環境劣化

##### iv) 社会・政治・文化

- 環境に関する規則・法律
- 開発に関する国家政策及び方針
- 行政制度
- 共同体における社会組織、GIE 及び女性グループ ( 開発と女性の課題 )
- 貴重な生態系もしくは歴史・文化的価値のある地域への侵入
- 景勝地
- 入植 ( 適切な場合に限って )

### 3.2 IEE の結果

#### (1) ダルエスサラーム漁業基盤改善プログラム

##### A. 魚市場拡充コンポーネント

Activity & Impact On	Type of Impact	Mitigation	Significance of Impact
Relocation of existing users & facilities			
• Commercial areas	±ve	The relocation of the existing users & facilities will have both a positive and negative impact on the surrounding commercial areas. The -ve impact will be the lost of commercial activities that will impact on the surrounding commercial areas that may depend on the relocated market. The +ve impact will be better facilities that will be built in its place and the benefits accruing from the new facilities. To lessen the impacts, the relocation exercise must be conducted with general consensus of the existing users and relocated to a new location that is acceptable to all concerned/ affected.	Moderate
• Demography	-ve	The relocation exercise will affect the demography of the market users. This impact will be temporary in nature as the relocated users will be transferred back to the new market once construction is complete.	Slight
• Economy & employ-ment	-ve	The loss of economic activities with the relocation will be temporary. The activities will continue at the new temporary relocated area and eventually transferred back to the newly constructed market once it is completed. The relocation and subsequent return of the users must be conducted fairly with general consensus of the users to lessen conflicts and misunderstandings.	Significant
• Waste management	+ve	The waste management will improve with the new market facilities and more effective market management.	Moderate
• Visual pollution	+ve	The haphazard and unplanned existing layout will be replaced with the new market design to improve the visual landscape of the area.	Moderate
• Solid/ liquid wastes	+ve	The new market will have better facilities to improve waste handling and disposal.	Significant
Construction of facilities, utilities, drainage, etc.			
• Compatibility of use	+ve	Positive impact will be the compatibility of the new market with the existing surrounding activities in the area. The new design must take into account the other activities in the surrounding areas to harmonise/ integrate the market activities with these activities.	Moderate
• Economy & employ-ment	+ve	Employment will be generated by the construction activities although the impact will be of temporary nature. The construction labour force will also require services (food, living quarters, transport, etc.) in the area and these demands will impact positively on the local economy although this impact will also be temporary in nature. To minimise conflicts, the contractor should be encouraged to hire local labourers.	Significant
• Transport network, and risk and hazard	-ve	Negative temporary impacts such as increase constructional traffic flow to the area creating noise, dust and increase safety hazard to local inhabitants. Proper traffic control should be considered during the construction to ensure smooth integration of the constructional traffic into the main roads to minimise these negative impacts.	Moderate
Operation /Maintenance of the expanded DSM fish market			
Stall allocation - impact on:			
• Demography • Economy & employ-ment	±ve	The impact from the stall allocation may be positive or negative depending on the transparency and fairness of the allocation exercise. As not all existing users could be accommodated in the new market facilities, equitable and fair treatment must be ensured to reduce conflict and misunderstanding.	Significant
Marketing/ transport/ mamalisse/ food stall activities – impact on:			

Activity & Impact On	Type of Impact	Mitigation	Significance of Impact
<ul style="list-style-type: none"> <li>• Compatibility of use</li> <li>• Commercial area</li> </ul>	+ve	The location of the expanded DSM market within the area of existing ferry fish market will allow efficient and complementary integration of the market activities with the surrounding areas' activities. Due to the limited space in the area, activities that need not be located in this market complex area should be considered for relocation to other more suitable area. The more efficient market activities without the negative environmental problems will enhance the surrounding commercial areas.	Moderate
<ul style="list-style-type: none"> <li>• Economy &amp; employment</li> <li>• Health and safety</li> </ul>	+ve	The operation of the new expanded fish market will generate employment and economic benefits to market users. With better sanitary facilities, the food stalls will be more hygienic and serve healthy food. Proper management and maintenance procedure to maintain the cleanliness and hygiene of the market must be implemented, with also public awareness campaign to to achieve sanitary conditions in the market.	Moderate
Activities at the relocation site			
<ul style="list-style-type: none"> <li>• Compatibility of use</li> <li>• Commercial area</li> <li>• Economy &amp; employment</li> <li>• Waste management</li> <li>• Transport network</li> </ul>	±ve	The relocated market site must be chosen carefully considering the appropriateness of the chosen area to accommodate the relocated activities. The impacts on this relocated area could be positive or negative depending on the characteristics & suitability of the area, the process of relocation, the management & operation of the new area, and the permanency or temporary status of this new relocated market. The possible impacts listed on the left must be considered when selecting the relocation area. The general consensus of the relocated market users and also the residents in the relocated area must be obtained to lessen the negative impacts of the relocation exercise.	Moderate

## B. キブコニ・フロント漁船係留地改善コンポーネント

Activity & Impact On	Type of Impact	Mitigation	Significance of Impact
Relocation of existing users & facilities			
<ul style="list-style-type: none"> <li>• Commercial areas</li> </ul>	±ve	The relocation of the existing users & facilities will have both a positive and negative impact on the surrounding commercial areas. The -ve impact will be the lost of certain activities that the surrounding commercial areas may depend on such as the mamalishé stalls in the Kivokuni area. The +ve impact will be better facilities that will be built in its place and the benefits accruing from the new facilities. To lessen the impacts, the relocation exercise must be conducted with general consensus of the existing users and relocated to a new location that is acceptable to all concerned/ affected.	Moderate
<ul style="list-style-type: none"> <li>• Demography</li> </ul>	-ve	The relocation exercise will affect the demography of the area. This impact will be temporary in nature as the relocated users will be transferred back to the new front once construction is complete.	Moderate
<ul style="list-style-type: none"> <li>• Economy &amp; employment</li> </ul>	-ve	The loss of economic activities with the relocation will be temporary. The activities will continue at the new temporary relocated area and eventually transferred back to the newly constructed facilities once it is completed. The relocation and subsequent return of the users must be conducted fairly with general consensus of the users to lessen conflicts and misunderstandings.	Moderate
<ul style="list-style-type: none"> <li>• Waste management</li> </ul>	+ve	The waste management will improve with the new facilities and more effective management.	Moderate
<ul style="list-style-type: none"> <li>• Visual pollution</li> </ul>	+ve	The haphazard and unplanned existing layout will be replaced with the new front design to improve the visual landscape of the area.	Moderate

Activity & Impact On	Type of Impact	Mitigation	Significance of Impact
• Solid/ liquid wastes	+ve	The new facilities will have better facilities to improve waste handling and disposal.	Moderate
Construction of facilities, utilities, drainage, etc.			
• Compatibility of use	+ve	Positive impact will be the compatibility of the new facilities with the existing surrounding activities in the area. The new design will be able to better accommodate the activities in the area, and to harmonise/ integrate these activities with these of the surrounding areas.	Significant
• Economy & employment	+ve	Employment will be generated by the construction activities although the impact will be of temporary nature. The construction labour force will also require services (food, living quarters, transport, etc.) in the area and these demands will impact positively on the local economy although this impact will also be temporary in nature. To minimise conflicts, the contractor should be encouraged to hire local labourers.	Significant
• Transport network, and risk and hazard	-ve	Negative temporary impacts such as increase constructional traffic flow to the area creating noise, dust and increase safety hazard to local inhabitants. Proper traffic control should be considered during the construction to ensure smooth integration of the constructional traffic into the main roads to minimise these negative impacts.	Moderate
Operation /Maintenance of the Kivokuni Front			
Stall allocation - impact on:			
• Demography • Economy & employment	±ve	The impact from the stall allocation may be positive or negative depending on the transparency and fairness of the allocation exercise. As not all existing users could be accommodated in the new front facilities, equitable and fair treatment must be ensured to reduce conflict and misunderstanding.	Significant
Shore activities/ transport/ mamalisha/ food stall activities – impact on:			
• Compatibility of use • Commercial area	+ve	The location of the front within the area of existing fish market will allow efficient and complementary integration of the activities with the surrounding areas' activities. Due to the limited space in the area, activities that need not be located in this front area should be considered for relocation to other more suitable area. The more efficient activities without the negative environmental problems will enhance the surrounding commercial areas.	Moderate
• Economy & employment • Health and safety	+ve	The operation of the new front will generate employment and economic benefits to the users. With better facilities, the food stalls will be more hygienic and serve healthy food. The supply of fuel, ice and water will benefit the users and improve the sanitation of the handled fisheries products. Proper management and maintenance procedure to maintain the cleanliness and hygiene of the front must be implemented, with also public awareness campaign to achieve sanitary conditions in the beach front areas.	Moderate
Activities at the relocation beach front site			
• Compatibility of use • Commercial area • Economy & employment • Waste management • Transport network	±ve	The relocated market site must be chosen carefully considering the appropriateness of the chosen area to accommodate the relocated activities. The impacts on this relocated area could be positive or negative depending on the characteristics & suitability of the area, the process of relocation, the management & operation of the new area, and the permanency or temporary status of this new beach front. The possible impacts listed on the left must be considered when selecting the relocation area. The general consensus of the relocated beach front users and also the residents in the relocated area must be obtained to lessen the negative impacts of the relocation exercise.	Moderate

## (2) ビクトリア湖水産物流通改善プログラム

## A. キルンバ市場建設コンポーネント

Activity & Impact On	Type of Impact	Mitigation	Significance of Impact
Relocation of existing users & facilities			
• Commercial areas	±ve	The relocation of the existing users & facilities will have both a positive and negative impact on the surrounding commercial areas. The -ve impact will be the lost of commercial activities that will impact on the surrounding commercial areas that may depend on the relocated market. The +ve impact will be better facilities that will be built in its place and the benefits accruing from the new facilities. To lessen the impacts, the relocation exercise must be conducted with general consensus of the existing users and relocated to a new location that is acceptable to all concerned/ affected.	Significant
• Demography	-ve	The relocation exercise will affect the demography of the market users. This impact will be temporary in nature as the relocated users will be transferred back to the new market once construction is complete.	Moderate
• Economy & employment	-ve	The loss of economic activities with the relocation will be temporary. The activities will continue at the new temporary relocated area and eventually transferred back to the newly constructed market once it is completed. The relocation and subsequent return of the users must be conducted fairly with general consensus of the users to lessen conflicts and misunderstandings.	Significant
• Waste management	+ve	The waste management will improve with the new market facilities and more effective market management.	Moderate
• Visual pollution	+ve	The existing under developed facilities will be replaced with the new market facilities to enhance the visual landscape of the area.	Moderate
• Solid/ liquid wastes	+ve	The new market will have better facilities to improve waste handling and disposal.	Significant
Construction of facilities, utilities, drainage, etc.			
• Compatibility of use	+ve	The rationalised activities in the new market will make the market operation more efficient. Positive impact will be the compatibility of the new market activities with the existing surrounding activities in the area.	Significant
• Economy & employment	+ve	Employment will be generated by the construction activities although the impact will be of temporary nature. The construction labour force will also require services (food, living quarters, transport, etc.) in the area and these demands will impact positively on the local economy although this impact will also be temporary in nature. To minimise conflicts, the contractor should be encouraged to hire local labourers.	Significant
• Transport network, and risk and hazard	-ve	Negative temporary impacts such as increase constructional traffic flow to the area creating noise, dust and increase safety hazard to local inhabitants. Proper traffic control should be considered during the construction to ensure smooth integration of the constructional traffic into the main roads to minimise these negative impacts.	Moderate
Operation /Maintenance of the new Kirumba Mwaloni Fish Market			
Stall allocation - impact on:			
• Demography • Economy & employment	±ve	The impact from the stall allocation may be positive or negative depending on the transparency and fairness of the allocation exercise. As not all existing users could be accommodated in the new market facilities, equitable and fair treatment must be ensured to reduce conflict and misunderstanding.	Significant

Activity & Impact On	Type of Impact	Mitigation	Significance of Impact
Marketing/ transport/ mamalish/ food stall activities – impact on:			
<ul style="list-style-type: none"> <li>• Compatibility of use</li> <li>• Commercial area</li> </ul>	+ve	Operation of the new market will be more efficient and better complement/ integrate the market activities with the surrounding areas' activities. Due to the limited space in the area, activities that need not be located in this market complex area should be considered for relocation to other more suitable area. The more efficient market activities without the negative environmental problems will enhance the surrounding commercial areas.	Significant
<ul style="list-style-type: none"> <li>• Economy &amp; employment</li> <li>• Health and safety</li> </ul>	+ve	The operation of the new fish market will generate employment and economic benefits to market users. With better sanitary facilities, the food stalls will be more hygienic and serve healthy food. Proper management and maintenance procedure to maintain the cleanliness and hygiene of the market must be implemented, with also public awareness campaign to to achieve sanitary conditions in the market.	Moderate
Activities at the relocation site			
<ul style="list-style-type: none"> <li>• Compatibility of use</li> <li>• Commercial area</li> <li>• Economy &amp; employment</li> <li>• Waste management</li> <li>• Transport network</li> </ul>	±ve	The relocated market site must be chosen carefully considering the appropriateness of the chosen area to accommodate the relocated activities. The impacts on this relocated area could be positive or negative depending on the characteristics & suitability of the area, the process of relocation, the management & operation of the new area, and the permanency or temporary status of this new relocated market. The possible impacts listed on the left must be considered when selecting the relocation area. The general consensus of the relocated market users and also the residents in the relocated area must be obtained to lessen the negative impacts of the relocation exercise.	Moderate

#### B. ナイルパーチ工場残滓加工施設整備コンポーネント

Activity & Impact On	Type of Impact	Mitigation	Significance of Impact
Construction of Nile perch processing facilities, utilities, drainage, etc.			
<ul style="list-style-type: none"> <li>• Compatibility of use</li> <li>• Residential area</li> </ul>	+ve	The better facilities will improve the overall environment of the area thus benefiting the surrounding residential area and contribute to better compatibility of the usage of the area for Nile Perch processing.	Moderate
<ul style="list-style-type: none"> <li>• Economy &amp; employment</li> </ul>	+ve	The simple construction will only require a small temporary constructional labour force. The impact of this constructional labour force on the area will be minimal and also be temporary in nature. To minimise conflicts, the contractor should be encouraged to hire local labourers.	Slight
<ul style="list-style-type: none"> <li>• Visual pollution</li> <li>• Transport network</li> </ul>	+ve	The new facilities will positively impact on the visual landscape of the area. The improvement of the access road will also contribute positive benefits to the area.	Moderate
Operation /Maintenance of the Nile perch processing facilities			
Stall allocation - impact on:			
<ul style="list-style-type: none"> <li>• Demography</li> <li>• Economy &amp; employment</li> </ul>	±ve	The impact from the stall allocation may be positive or negative depending on the transparency and fairness of the allocation exercise. Equitable and fair treatment must be ensured to reduce conflict and misunderstanding.	Moderate
Processing activities – impact on:			
<ul style="list-style-type: none"> <li>• Compatibility of use</li> <li>• Residential area</li> <li>• Waste management</li> <li>• Solid/ liquid/ by-product waste</li> </ul>	-ve	The processing activities will have negative impacts in the area. To minimise these negative impacts, adequate water and suitably designed facilities to handle the waste discharged are to be provided. Better shelter to protect the products will thus reduce the spoilage and thus wastage.	Moderate

Activity & Impact On	Type of Impact	Mitigation	Significance of Impact
Administration & management – impact on:			
<ul style="list-style-type: none"> <li>• Economy &amp; employment</li> <li>• Waste management</li> <li>• Solid/ liquid/ by-product waste</li> </ul>	±ve	Positive or negative impacts will largely depend on proper management and maintenance procedure to maintain the cleanliness and hygiene of the processing area. Also public awareness campaign to achieve sanitary conditions in the area must be implemented.	Moderate

(3) ビクトリア湖水揚げ地整備プログラム

Activity & Impact On	Type of Impact	Mitigation	Significance of Impact
Landing facilities (jetty), ice maker, storage, handling area, services, etc.			
<ul style="list-style-type: none"> <li>• Compatibility of use</li> <li>• Commercial area</li> </ul>	+ve	The better facilities will improve the overall environment of the area thus impacting on nearby commercial area and contribute to better compatibility of the usage of the area for Nile Perch landing, marketing and distribution.	Significant
<ul style="list-style-type: none"> <li>• Economy &amp; employ-ment</li> </ul>	+ve	The small scale construction will only require a small temporary constructional labour force. The impact of this constructional labour force on the area will be minimal and also be temporary in nature. To minimise conflicts, the contractor should be encouraged to hire local labourers.	Moderate
<ul style="list-style-type: none"> <li>• Transport network</li> </ul>	+ve	The improvement of the access road will also contribute positive benefits to the area.	Moderate
Operation /Maintenance of the landing facilities			
<ul style="list-style-type: none"> <li>• Economy &amp; employment</li> <li>• Waste management</li> <li>• Solid/ liquid/ by-product waste</li> </ul>	±ve	Positive or negative impacts will largely depend on proper management and maintenance procedure to maintain the cleanliness and hygiene of the processing area. Also public awareness campaign to achieve sanitary conditions in the area must be implemented.	Moderate

Environmental resources	Physical resources		Ecological resources		Land Use/ Landscape		Cultural/ Socio-Economic		Infrastructure Services		Social Services		Present/future Pollution		Others	
	Land	Fresh Water System Marine and Estuarine Systems Climate	Fisheries Aquatic plant Forests/vegetative cover Terrestrial wildlife Endangered species	Compatibility for use Recreational Areas Residential Areas Commercial Areas Industrial Areas	Cultural Resources Demographic Economic & Employment Welfare Profile Health Profile Cultural Profile	Energy Water Waste Management Transport Network Education Housing Telecommunication Financial Institution Health Services	Emergency Services Recreational facilities Air Pollution Water Pollution Noise, vibration and lighting Visual Pollution Solid/ liquid by products wastes	Risk and Hazard Health & Safety Policy Consideration Awareness and Publicity Cumulative & Synergistic Effects Positive Enhancement								
Type of activities	Land	Fresh Water System Marine and Estuarine Systems Climate	Fisheries Aquatic plant Forests/vegetative cover Terrestrial wildlife Endangered species	Compatibility for use Recreational Areas Residential Areas Commercial Areas Industrial Areas	Cultural Resources Demographic Economic & Employment Welfare Profile Health Profile Cultural Profile	Energy Water Waste Management Transport Network Education Housing Telecommunication Financial Institution Health Services	Emergency Services Recreational facilities Air Pollution Water Pollution Noise, vibration and lighting Visual Pollution Solid/ liquid by products wastes	Risk and Hazard Health & Safety Policy Consideration Awareness and Publicity Cumulative & Synergistic Effects Positive Enhancement								
<b>Programme 2: Dar es Salaam Fisheries Infrastructure Improvement Programme</b>																
<b>1. Expansion of DSM Fish Market</b>																
<b>Execution / Construction</b>																
- Relocation/demolition of existing facilities					±2					±1				±2	±3	±3
- Construction of facilities	2			±2	±1					±2				±2	±3	±3
- Access road, utilities, drainage	±2			±2	±1					±2				±2	±3	±3
<b>Operation/ Maintenance</b>																
- Stall allocation					±3	±3				±3	±3			±3	±3	±3
- Marketing/ transport activities				±3	±3					±3	±3			±3	±3	±3
- Administration and Management					±3	±3				±3	±3			±3	±3	±3
- Mamalishu/ food kiosk/ stalls, etc.					±3	±3				±3	±3			±3	±3	±3
<b>Future Induced Effects</b>																
- Increase value of surrounding land				±3												±3
- Promote related activities nearby																±3
<b>Extension Activities</b>																
- Training /education/ capacity building					±3	±3	±3									±3
<b>Relocation Activities</b>																
- Activities at new relocation site				±3	±3	±3				±3	±3			±3	±3	±3
<b>2. Mooring Area (Kivokuni Front)</b>																
<b>Execution / Construction</b>																
- Construction of facilities	±2			±2	±2					±2				±2	±3	±3
- Access road, utilities, drainage	±2			±2	±2					±2				±2	±3	±3
<b>Shoreside Activities</b>																
- Boat mooring		1								±2						±3
- Supply of fuel, ice, water, etc.								±3								±3
- Boat building and repair																±3
<b>Operation/ Maintenance</b>																
- Stall allocation					±3	±3				±3	±3			±3	±3	±3
- Marketing/ transport activities				±3	±3					±3	±3			±3	±3	±3
- Administration and Management					±3	±3				±3	±3			±3	±3	±3
- Mamalishu/ food kiosk/ stalls, etc.					±3	±3				±3	±3			±3	±3	±3
<b>Future Induced Effects</b>																
- Increase value of surrounding land				±3												±3
- Promote related activities nearby																±3
<b>Extension Activities</b>																
- Training /education/ capacity building					±3	±3	±3									±3
<b>Relocation Activities</b>																
- Activities at new relocation site				±3	±3	±3				±3	±3			±3	±3	±3
<b>1. Expansion of DSM Fish Market</b>																
<b>Execution / Construction</b>																
- Relocation/demolition of existing facilities				±3										±3	±3	±3
- Construction of facilities														±3	±3	±3
- Access road, utilities, drainage										±3	±3					±3
<b>Operation/ Maintenance</b>																
- Stall allocation					±3	±3										±3
- Marketing/ transport activities					±3	±3										±3
- Administration and Management					±3	±3										±3
- Mamalishu/ food kiosk/ stalls, etc.					±3	±3										±3
<b>Future Induced Effects</b>																
- Increase value of surrounding land				±3												±3
- Promote related activities nearby																±3
<b>Extension Activities</b>																
- Training /education/ capacity building					±3	±3	±3									±3
<b>Relocation Activities</b>																
- Activities at new relocation site				±3	±3	±3				±3	±3			±3	±3	±3
<b>2. Mooring Area (Kivokuni Front)</b>																
<b>Execution / Construction</b>																
- Construction of facilities														±3	±3	±3
- Access road, utilities, drainage										±3	±3					±3
<b>Shoreside Activities</b>																
- Boat mooring				±3						±2						±3
- Supply of fuel, ice, water, etc.									±3	±3						±3
- Boat building and repair				±3												±3
<b>Operation/ Maintenance</b>																
- Stall allocation					±3	±3										±3
- Marketing/ transport activities					±3	±3										±3
- Administration and Management					±3	±3										±3
- Mamalishu/ food kiosk/ stalls, etc.					±3	±3										±3
<b>Future Induced Effects</b>																
- Increase value of surrounding land				±3												±3
- Promote related activities nearby																±3
<b>Extension Activities</b>																
- Training /education/ capacity building					±3	±3	±3									±3
<b>Relocation Activities</b>																
- Activities at new relocation site				±3	±3	±3				±3	±3			±3	±3	±3

Notes:  
(i) Numbers indicate magnitude of significant impacts: 3=major, 2=intermediate, 1=slight  
(ii) Positive numbers indicate positive impact, negative numbers indicate negative or adverse impact

別表3-2 ダルエスサラーム漁業基盤改善プログラム IEEチェックシート



Environmental resources	Physical resources		Ecological resources		Land Use/ Landscape		Cultural/ Socio-Economic		Infrastructure Services		Social Services		Present/Future Pollution		Others	
	Land	Fresh Water System Marine and Estuarine Systems Climate	Aquatic plant Fishes	Forest/vegetative cover Terrestrial wildlife Endangered species	Compatibility for use Recreational Areas Residential Areas Commercial Areas Industrial Areas	Cultural Resources Demographic Economic & Employment Welfare Profile Health Profile Cultural Profile	Energy Water Waste Management Transport Network Education Housing Telecommunication Financial Institution	Health Services Emergency Services Recreational facilities	Air Pollution Water Pollution Noise, vibration and Lighting Visual Pollution Solid/liquid/ by products wastes Risk and Hazard	Health & Safety Policy Consideration Awareness and Publicity Cumulative & Synergistic Effects Positive Enhancement						
Type of activities	<b>PROGRAMME 4: Fish Marketing Improvement Programme</b>															
	<b>1. Construction Of Kirumba Market</b>															
<b>Execution / Construction</b>																
- Relocation/demolition of existing facilities																
- Construction of facilities																
- Access road, utilities, drainage																
<b>Operation/ Maintenance</b>																
- Stall allocation																
- Marketing/transport activities																
- Administration and Management																
- Mambalsh/ food kiosk/ stalls, etc.																
<b>Future Induced Effects</b>																
- Increase value of surrounding land																
- Promote related activities nearby																
<b>Extension Activities</b>																
- Training / education/ capacity building																
<b>Relocation Activities</b>																
- Activities at new relocation site																
<b>2. Construction Of Local Nile Perch Processing Area</b>																
<b>Execution / Construction</b>																
- Construction of storage & shed facilities																
- Access road, utilities, drainage, etc.																
<b>Operation/ Maintenance</b>																
- Stall/shed allocation																
- Processing (drying, smoking, frying) activities																
- Surface water drainage discharge																
- Administration and Management																
<b>Future Induced Effects</b>																
- Acquire more land																
- Increase value of surrounding land																
- Promote related activities nearby																
<b>Extension Activities</b>																
- Training / education/ capacity building																
<b>1. Construction Of Kirumba Market</b>																
<b>Execution / Construction</b>																
- Relocation/demolition of existing facilities																
- Construction of facilities																
- Access road, utilities, drainage																
<b>Operation/ Maintenance</b>																
- Stall allocation																
- Marketing/transport activities																
- Administration and Management																
- Mambalsh/ food kiosk/ stalls, etc.																
<b>Future Induced Effects</b>																
- Increase value of surrounding land																
- Promote related activities nearby																
<b>Extension Activities</b>																
- Training / education/ capacity building																
<b>Relocation Activities</b>																
- Activities at new relocation site																
<b>2. Construction Of Local Nile Perch Processing Area</b>																
<b>Execution / Construction</b>																
- Construction of storage & shed facilities																
- Access road, utilities, drainage, etc.																
<b>Operation/ Maintenance</b>																
- Stall/shed allocation																
- Processing (drying, smoking, frying) activities																
- Surface water drainage discharge																
- Administration and Management																
<b>Future Induced Effects</b>																
- Acquire more land																
- Increase value of surrounding land																
- Promote related activities nearby																
<b>Extension Activities</b>																
- Training / education/ capacity building																

Notes: (i) Numbers indicate magnitude of significant impacts: 3=major, 2=intermediate, 1=slight  
(ii) Positive numbers indicate positive impact, negative numbers indicate negative or adverse impact

別表3-3 ビクトリア湖水産物流通改善プログラム IEEチェックシート

Type of activities	Environmental resources																																														
	Physical resources			Ecological resources			Land Use/ Landscape			Cultural/ Socio-Economic			Infrastructure Services			Social Services			Present/future Pollution			Others																									
	Land	Fresh Water System	Marine and Estuarine Systems	Climate	Fisheries	Aquatic plant	Forests/vegetative cover	Terrestrial wildlife	Endangered species	Compatibility for use	Recreational Areas	Residential Areas	Commercial Areas	Industrial Areas	Cultural Resources	Demographic	Economic & Employment	Welfare Profile	Health Profile	Cultural Profile	Energy	Water	Waste Management	Transport Network	Education	Housing	Telecommunication	Financial Institution	Health Services	Emergency Services	Recreational facilities	Air Pollution	Water Pollution	Noise, vibration and lighting	Visual Pollution	Solid/ liquid/ by products wastes	Risk and Hazard	Health & Safety	Policy Consideration	Awareness and Publicity	Cumulative & Synergistic Effects	Positive Enhancement					
<b>PROGRAMME 11: Lake Victoria Major Landing Beach Improvement Programme</b>																																															
Impact on Environment from Activities	- Landing facilities (jetty)		±3							3	3																																				
	- Ice machine, ice storage room																2						1												1			1									
	- Fish handling area/ Wholesale/ marketing area																							3												3											
	- Water supply, toilet, shower facilities																	2																													
	- Access road/ parking	2									3		3				3							3																					3		
	- Capacity building/ training/ extension																3	3	3																										3		
Impact of Environment on Activities	- Landing facilities (jetty)		3		3					3		3				3																										3					
	- Ice machine, ice storage room				3					3		3																																			
	- Fish handling area/ Wholesale/ marketing area									3																																					
	- Water supply, toilet, shower facilities																																														
	- Access road/ parking																																														
	- Capacity building/ training/ extension																									2																		3			

Notes:  
(i) Numbers indicate magnitude of significant impacts: 3=major, 2=intermediate, 1=slight  
(ii) Positive numbers indicate positive impact, negative numbers indicate negative or adverse impact

別表3-4 ビクトリア湖水揚げ地整備プログラム IEEチェックシート

## 添付資料

1. 調査団及び相手国側カウンターパートの構成
2. 現地調査日程表（第1次 - 第3次調査）
3. 面談者リスト
4. 収集資料リスト
5. 実施細則（S/W）及び実施細則協議議事録（M/M）
6. インセプションレポート協議議事録
7. インテリムレポート協議議事録
8. ドラフトファイナルレポート協議議事録

## 添付資料 1

## 調査団及び相手国側カウンターパートの構成

担当業務	相手国側カウンターパート氏名	調査団氏名	調査団所属先
総括	R. Mapunda	山本 幸生	SSC
水産経済	F. Sobo	馬場 宏造	SSC
沿岸漁業・流通・加工	L. Mkwizu	飯田 一寛	OAFIC
内水面漁業・流通・加工（ビクトリア湖）	D. Pande	佐藤 正志	OAFIC
内水面漁業・流通・加工（タンガニーカ湖、他）	R. Makenya	藤木 暢	OAFIC
漁村社会 1（内水面）	V. Mushi	B. Kyanya	OAFIC
漁村社会 2（沿岸）	R. Kullaya	G. Namwonja	OAFIC
漁民支援制度	I. Matemba	W. Scheffers	SSC
水産施設	-	谷 和明	SSC
環境	R. Mally	Tan Eng Guan	SSC
援助動向・調整	F. Sobo	岩崎 茂	SSC
業務調整	N. Jihulya	新村 有紀	SSC

添付資料 2

第一次現地調査日程表

日程	活動
1/20 土	1240 Tokyo 1725 Zurich (SR169) 2040 Zurich
1/21 日	ダルエスサラーム到着 2040 DSM (SR292)
1/22 月	JICA・大使館・大蔵省・天然資源観光省水産局表敬
1/23 火	水産局にてインセプションレポート協議
1/24 水	協議、ミニッツのサイン
1/25 木	世銀、FAO、UNIDO、FINNIDA 協議
1/26 金	JICA・大使館報告 リセプション
1/27 土	フィールド調査準備
1/28 日	団内打合せ
1/29- 月	フィールド調査 (ムワンザ)
2/3 土	データ分析
2/4 日	データ分析
2/5- 月	フィールド調査 (キゴマ、リンディ・ムトワラ)
2/11- 日	フィールド調査 (キエラ、タンガ、ムワンザ)
2/15- 木	フィールド調査 (キエラ、タンガ、ムワンザ、ムトワラ)
2/17- 土	フィールド・レポート作成
2/21 水	水産局にて C/P とフィールド・レポート協議
2/22 木	Steering Committee にて協議
2/23 金	JICA・大使館報告 2005 DSM
2/24 土	0455 London GWK (BA068) 1200 London HRW
2/25 日	0845 Narita (BA005)

第二次現地調査日程表

日程	活動
3/20 火	山本、岩崎、新村 成田出発 1240 Narita Zurich (SR169)
3/21 水	2040 Zurich
3/22 木	山本、岩崎、新村 ダルエスサラーム到着 0815 DSM (SR292) JICA、天然資源省水産局表敬
3/23- 金	フィールド調査開始
4/1 日	Kyanya、Namwonja ダルエスサラーム到着 Nairobi 0855 DSM (KQ480)
4/2- 月	団内打合、フィールド調査 (タンガ、キゴマ)
4/11 水	漁村社会経済実態把握再委託調査打合
4/16 月	山本、岩崎 ダルエスサラーム出発 1935 DSM (BA2068)
4/17- 火	フィールド調査 (ムワンザ、リンディ・ムトワラ、キルワ、クンズチ、ダルエスサラーム)
4/23- 月	再委託調査開始
5/18 金	山本 ダルエスサラーム到着 1155 DSM (BA2069)
5/19- 土	フィールド調査 (バガモヨ、キゴマ、キルワ、モロゴロ)
6/3 日	佐藤、藤木、馬場、タン ダルエスサラーム到着 0730 DSM (SR292)

6/4-	月	国内打合 フィールド調査(ムワンザ、タンガ・パンガニ、キエラ、マフィア、ムテラ)
6/14	木	Namwonja ダルエスサラーム出発 DSM (KQ481) 0950
6/16	土	Scheffers ダルエスサラーム到着 2225 DSM (KL571)
6/17	日	飯田 ダルエスサラーム到着 0730 DSM (SR292) 国内打合
6/18	月	カウンターパートミーティング
6/19-	火	フィールド調査(ムワンザ、アルーシャ、キゴマ、タンガ・パンガニ)
6/25	月	全国水産局員を対象としたワークショップの開催
6/29	金	Kyanya ダルエスサラーム出発 DSM (TC750) 1600
7/2	月	谷 ダルエスサラーム到着 1155 DSM (BA2069)
7/3-	火	フィールド調査(ムワンザ、キエラ、マフィア、リンディ・ムトワラ、ナイロビ・モンバサ・キスム・エンテベ)
7/9	月	岩崎 ダルエスサラーム到着 1155 DSM (BA2069)
7/13	金	馬場、タン ダルエスサラーム出発 1935 DSM (BA2068)
7/16-	月	レポート作成
7/20	金	国内フィールドレポート提出
7/21-	土	フィールド調査(ニアサ湖周辺、沿岸)
7/27	金	カウンターパートミーティング
7/28	土	佐藤、藤木 ダルエスサラーム出発 2340 DSM (KL571)
7/29	日	Scheffers ダルエスサラーム出発 2340 DSM (KL567)
7/30-	月	フィールド調査
8/4	日	岩崎 ダルエスサラーム出発 2340 DSM (KL571)
8/5-6	月	ダルエスサラーム魚市場業者対象ワークショップ
8/8	木	天然資源省水産局、JICA、日本大使館報告
8/9	金	再委託調査ファイナルレポート受取
8/12	日	山本、飯田、谷、新村 ダルエスサラーム出発 0900 DSM (SR293) Zurich
8/13	月	1400 Zurich (SR168)
8/14	火	0850 Narita

### 第三次現地調査日程表

日程	活動
10/15	月 山本、新村、谷 成田出発 1025 Narita Amsterdam (KL862) 山本、新村 ローマ到着 18:55 Rome (KL1605)
10/16	火 谷 ダルエスサラーム到着 22:25 DSM (KL571) 山本、新村 ローマ FAO にて資料収集
10/17	水 谷 水産局表敬 山本、新村 ローマ FAO にてグループ協議
10/18	木 山本、新村 ローマ FAO にて専門家個別協議 山本、新村 ローマ出発 15:25 Rome London (BA555)
10/19	金 山本、新村 ダルエスサラーム到着 11:55 DSM (BA2069) 水産局表敬・協議
10/21	日 Kyanya、Namwonja ダルエスサラーム到着 Nairobi 0915 DSM (KQ480)
10/22	月 JICA・大使館表敬、水産局協議、国内打合せ
10/23-	火 全国ワークショップ準備
10/27	土 佐藤、藤木、飯田、JICA 西崎氏 ダルエスサラーム到着 22:25 DSM (KL571)
10/28	日 国内打合せ

## 添付資料 3

### 面談者リスト

#### **Dar es Salaam Embassy of Japan**

Mr. Keitaro Sato	Ambassador
Mr. Tomohiko Taminato	Second Secretary
Mr. Naoki Ito	Second Secretary
Mr. Hiroyuki Kashimura	Second Secretary
Dr. Nobuyuki Yasui	Researcher

#### **JICA**

Mr. Sumio Aoki	Resident Representative
Mr. Mitsuaki Furukawa	Deputy Resident Representative (2001)
Mr. Kinomoto	Deputy Resident Representative (2002 onwards)
Mr. Shinichiro Futami	Assistant Resident Representative (2001)
Ms. Kaori Matsushita	Assistant Resident Representative (2002 onwards)
Mr. Yuichi Sasaoka	Special Advisor (Development Policy/ Planning)
Ms. Tomoko Enoki	Specialist (Gender/ Poverty Alleviation)
Mr. Fabian M. Chilumba	Chief Programme Officer
Ms. Deborah Suvugia	SPO
Mr. Atsushi Inoue	JICA Expert, Senior Personnel Management Advisor
Dr. Akira Sugimoto	JICA Expert, Capacity Building Advisor
Mr. Hiroyuki Iida	JICA Expert, Technical Adviser

#### **Ministry of Natural Resources and Tourism**

Mr. Philemon L. Luhanjo	Permanent Secretary, Ministry of Natural Resources and Tourism
Mr. T.F. Killenga	Director of Planning and Policy, Ministry of Natural Resources and Tourism

#### **Fisheries Division, Ministry of Natural Resources and Tourism**

Mr. Thomas Maembe	Director
Mr. Rafael R. Mapunda	Asst. Director
Mr. Nanyaro	Asst. Director
Mr. Haule	Asst. Director
Mr. Sadock P. N. Kimaro	Asst. Director
Ms. Valeria Mushi	Senior Fisheries Officer, Fisheries Development
Mr. Gaudence L. Kalikela	Senior Fisheries Officer, Surveillance
Mr. Raphael J. Makenya	Senior Fisheries Officer, Quality Control and Standards
Ms. Eronica Lyimo	Senior Fisheries Officer
Mr. I. Matemba	Fisheries Officer, Publicity Counterpart, Institutional Building
Ms. Janet Uronu	Fisheries Officer, Fisheries Legislation
Ms. Ruphina Kullaya	Fisheries Officer, Quality Control and Standards
Mr. Ng'wala J. Jihulya	Fisheries Officer, Development Planning
Ms. Fatma Sobo	Fisheries Officer, Research, Training and Statistics
Mr. L.B. Mkuizu	Fisheries Officer
Ms. Rita Maly	Fisheries Officer
Mr. N.J. Jihulya	Fisheries Officer
Ms. Asha Kulumula	Fisheries Officer
Mr. M. Bulayi	Fisheries Officer
Mr. R. Mhekela	Fisheries Officer
Mr. D. Pande	Fisheries Officer
Mr. R.B. Hoza	Fisheries Officer

Mr. Bakari Maige	Fisheries Officer
Ms. C.A. Abdu	Fisheries Officer
Ms. Lilian Bavu	Fisheries Officer
Mr. A.K. Mihayo	Fisheries Officer
Ms. Sebastian	Fisheries Officer
Mr. Rumisha, C. K.	Unit Manager/Secretary, Marine Parks and Reserves Tanzania
Mr. Amin Abdallah	Fisheries Officer, Marine Parks and Reserves Tanzania

### **Other Divisions, Ministry of Natural Resources and Tourism**

Mr. D.M.K. Kamamba	Antiquities Division
Mr. E. Tammo	Wildlife Division

### **Ministry of Finance**

Mr. Prosper J. Mbena	Commissioner for External Finance
Mr. R.M.Khijjah	Commissioner for Policy Analysis

### **National Environment Management Council**

Dr. M. Ngoile	Director General, National Environment Management Council
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### **President's Office**

Ms. A. Mayawalla	Principal Planning Officer, President's Office, Planning & Privatization
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### **Tanzania Fisheries Research Institute (TAFIRI)**

Prof. Phillippo Bwathondi	Director General, TAFIRI
Dr. Abdillahi Ismail Chande	Senior Research Officer
Ms. Jope Kulekawa	Research Officer
Mr. Hassan Mkifu	Research Officer
Mr. Shigalla Mahongo	Research Officer
Ms. A Mkumbo	Research Officer

### **University of Dar es Salaam**

Dr. Kassim A. Kulindwa	Research Fellow, Economic Research Bureau, Univ. of DSM
Dr Joseph Louis Mark Shitundu	Economic Research Bureau
Dr Natu El-Maamry Mwamba	Economic Research Bureau
Prof. Issa Kaboko Musoke	Sociology Department
Mr William Nehemiah Mkanta	Department of statistics
Mr. Ass. Prof. S. Maghimbi	Associate Professor, Sociology & Anthropology, Univ. of DSM
Dr. Yunus D. Mgay	Fisheries Biology and Aquaculture, Dept. of Zoology and & Marine biology
Dr. John F. Machiwa	Aquatic Ecologist, Dept. of Zoology & Marine Biology

### **Institutions and Donors Countries**

Mr. James Yonazi	National Programme Officer, FAO/UN
Dr. Martti Eirola	First Secretary, Embassy of Finland
Mr. Ladisy K. Chengula	Rural Development Specialist, the World Bank
Mr. Frans van Rijn	1st Secretary, Economics Affairs, Embassy of the Kingdom of the Netherlands
Mr. P.R. Acharya	Embassy of the Kingdom of the Netherlands
Ms. Ria Ketting	First Secretary (Development Adviser), European Union
Mr. Felix O. Ugbor	UNIDO Representative (Tanzania & Malawi)
Ms. Karin Sorensen	UNIDO Programme Officer (Tanzania)
Mr. G. A. Mallya	Operations Officer, Lake Victoria Environmental Management Programme
Mr. J.M.Lwande	National Microsoft finance Administration
Mr. John Shea	MCS Operations Specialist, SADC Monitoring Control and Surveillance of



Mr. Jim Anderson	Fisheries Activities Programme
Mr. Patrick Musau	Sustainable Fisheries Through the Effective Use of Information, SADC
Dr. Jinichiro Yabuta	UNDP-CBI head office DSM, assistant country director
Mr. Shinichi Okubo	Chief Adviser, JICA/ RAD Advisory Group
Mr. Yoshio Aizawa	Acting Chief/ Aid Coordination Adviser JICA/ RAD Advisory Group
Mr. Shigeru Nakata	Agricultural Dev. Adviser JICA/ RAD Advisory Group
Mr. Shiro Hirata	TAIYO consultants Co. Ltd.
Mr. Takashi Oku	TAIYO consultants Co. Ltd. Representative, JETRO Dar es Salaam

### **Ilala Municipal**

Mr. John M. Lubuva	Municipal Director
Mr. Peter J.N. Bitwale	Ilala Municipal Planning & Coordination Officer
Mr. Philips Mwankenje	Ilala Municipal Natural Resources Officer
Mr. Fidelis M.D. Ntima	Ilala Municipal Fisheries Officer
Mr. Msangi	Fisheries officer at Banda beach fish-market
Ms. Celina M. Maongezi	Kivukoni Ward executive Officer
Mr. Lameck Chotta	Cooperative Officer, Planning & Coordination Dept.
Mr. James Lema	Community Development Officer, Planning & Coordination Dept.
Ms. Fatuma Bwana	Formal Sector Officer
Mr. Abdul Marwa	Trade Marketing Officer
Mr. Anthony Andondile	Engineering Officer, Works Dept.
Ms. Neema Chavalla	Informal Sector Coordinator, Trade & Informal Sector Dept.
Mr. Charles Wambura	Health Dept.
Mr. Kimaro	Waste Management Dept.
Mr. Musika	Market Master
Mr. Mwasabwite	Ilala Municipal

### **Kinondoni Municipal**

Ms. J.H. Mkwawa	Kinondoni Municipal Fisheries Officer
Mr. Mwakapizo	Fisheries Officer, Msasani Landing Site

### **Temeke Municipal**

Mr. Hamza	Temeke Municipal Fisheries Officer
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### **The Project for Construction of Integrated Fish Market Complex, Dar es Salaam**

Mr. Hiroyuki Takakaze	Resident Engineer, Nippon Koei Co. Ltd.
Mr. Yoshimi Miyazawa	Managing Director, Konoike Tanzania Ltd.

### **Kunduchi Fisheries Institute**

Mr. H. S. Mongi	Principal, Kunduchi Fisheries Institute
Mr. Martin	Vice Principal, Kunduchi Fisheries Institute
Mr. Martin Loth	Deputy Principal, Kunduchi Fisheries Institute
Mr. Mgonbo	Instructor, Fish processing

### **Private Company, Cooperatives and Others in Dar es Salaam**

Mr. Emmanuel Marangakis	General Manager, E.M., Fishing Company Ltd.
Mr. Amri Suleiman	Managing Director, Community Foods Ltd.
Mr. Addy Haider	Chairperson, UWAWADA
Mr. Abeid Ferej	Treasurer, UWAWADA
Mr. Mwigah R. H.	Secretary, UWAWADA
Mr. M.O. Lyimo	Secretary, UWAWADA
Mr. Denarahan V.	TANPESCA Ltd.

Mr. J.Mgassa	Air Tanzania Corporation Cargo Manager
Mr. Kezia H. Mkwizu	Regent Tanzania Ltd., Airfreight Manageress
Mr. Edwin Mujwahuzi	Ministry of Works (Dar es slaam Roads Development Project Coordinator)
Mr. F.Bube	Super Star Forwarders Co. Ltd. Fleet Coordinator
Mr. Omar Hamadi	Fisher, Kunduchi Landing Site
Mr. Osman ali Maarufu	Auctioneer, Kunduchi Landing Site
Mr. I. Mizunguli	DAWASA
Mr. Rajab J Mtoro	DAWASA
Mr. J.J. Malkoba	NRO, RAS

## **Coast Region**

### Mafia

Mr. Godfrey Mokoki	District Fisheries Officer, Mafia
Mr. F.O. Hrmile	Mafia District Natural Resources Officer
Mr. Ismail Mutani	Mafia District Fisheries Officer
Mr. Haruni Yakubu	Mafia, Bweni Village Chairperson
Mr. Kereko Ramadhani	SISAHAU fishing group leader
Mr. Kifimbo Twaha	MUSIKAMANO fishing group leader
Mr. Makame Masiku	MIKINGAMO fishery Cooperative Society Leader
Mr. Omari Juma	Fisher
Mr. Mhunzi Abdallah	Fisher
Mr. Jason Rubens	WWF

### Bagamoyo

Mr. David Kaijunga	District Natural Resources Officer, Bagamoyo
Mr. January Lilungulu	District Fisheries Officer, Bagamoyo
Ms. Nyakiboha	District Fisheries Assistant Officer
Mr. Kasim Alawi	Chairperson, MAGENSANI FISHING COOPERATIVE SOCIETY
Ms. Gembei	Member of executive committee, Umoja wa Ackina Mama Wakaangaji na Wakushaji wa Samaki (= Cooperative of women for frying and drying of fish)
Mr. A. Tamimu	Fisher

## **Mbegani Fisheries Development Center**

Mr. Y.E.S. Mndeme	Principal
Mr. Yahya Mgawe	Head of Finance and Administration
Mr. I. Mahunda	Senior Skipper and Head of Vessel Section, Nautical Science Department

## **Mtwara Region**

Mr. Frank Mushana	Natural Resources Officer for Mtwara Region
Mr. Lameck Kinyunyu	Natural Resources Officer for Mtwara District
Mr. Jakob Musumba	Mtwara District Fisheries Officer
Mr. John Mwaisaka	Mtwara District Fisheries Officer
Mr. Lucas Mnumapili	Acting District Executive Director
Mr. Yusto H.C. Ngaeje	District Administrative Secretary
Ms. Julie Adkins	Programme Manager, RIPS
Mr. T. K. Byarugaba	Programme Officer, SWISSAID
Ms. Namnauka	Secretary, SWISSAID
Mr. Monsiuple Kajimbwa	Public Service Officer, RIPS
Ms. Doris Nghomange	Regional Advisor Swissaid Partners, MTWARA
Mr. Gray F, Nannamka	Credit Officer, Swissaid Partners, MTWARA
Mr. Jamalidin M. Bashekhe	Chairperson, MTWARA Umbrella Peoples Organization
Mr. Sebastiano C.C. Mwenda	Treasurer, MTWARA Umbrella Peoples Organization
Ms. Angela M. Nannanka	Secretary, MTWARA Umbrella Peoples Organization

Mr. Christopher H. Chisigalile	Carpenter, Assistant Officer in Charge, Government Boat Yard, Mikindani.
Mr. Ghasia	Zonal Chairperson Shirikisho, Naumbu Village, (Mtwara)
Mr. Hamisi Mohd	Fisher
Ali Mfaume Leba	Village Organising Secretary Seaweed Group
Mr. Abilahi Moh'd	Member-Village govt
Mr. Hamisi Mohd Obassi	Seaweed farmer/ Fisher
Mr. Mfaume Bakari Moh'd	Treasurer Seaweed growing group
Mr. Zuberi Lihumba Kitenge	Sec-CCM branch
Mr. Karim Bilali Hussein	Chairperson Mapambano group
Mr. Omar Mohammed Tasi	Chairperson Majuto
Mr. Muksin Ali Hassan	C/man Hali Moja
Mr. Issa Ali Hassan	Fishers-Ajuaye group
Mr. Mwalimu Nipende	Jitegemee Group
Mr. Ahmed Said Hassan	District Planning Officer
Mr. Selemani Musa Selemani	DNRO
Mr. Baptisto Nyanyembe	FSO
Mr. Kinyunyu	DNRO

### **Lindi Region**

Mr. Mussa Mdidi	Regional Administrative Secretary, Lindi Region
Mr. F.E. Nganyanyuka	Regional Fisheries Adviser for the Regional Secretariat
Mr. Masasi D. M.	District Fishery Officer, Kilwa
Mr. Omari Bakari Nguyu	Somanga Village Chairperson
Mr. Mohamed Abasu Kiwara	Council of KINJUNBI Ward
Ms. Mariamu Ali Mketo	Council of KINJUNBI Ward
Mr. Mstafa Omari Mukuga	Secretary of Shirikishio, Kilwa District
Mr. F. K. Mchopa	Acting Regional Administrative Officer
Mr. S. S. Ngaweje	District Natural Resources Officer
Mr. Omari Mchalaganya	District Fisheries Officer
Mr. Andrew Chale	DNRO Lindi Rural
Mr. Rashid Swaleh	DFSO
Mr. Lucian Nyumayo	Chairperson CCM
Mr. Mwaisaka	FSO
Mr. Milanzi	FSO
Mr. Ibrahim Mohd	Fish Trader in Market
Mr. Masudi Nasoro	Market Cell Leader
Mr. Hussein Twende	Fisher

### **Tanga Region**

Mr. Mussa Dengo	Tanga Municipality Natural Resources Officer
Mr. A. Mwakalukwa	Regional Fishery Officer (Quality Control)
Mr. S. Makokoweka	Program Coordinator of Tanga Coastal Zone Conservation and Development Programme (TCZCDP), Principal Fisheries Officer, RAS
Mr. H. W. Karonbo	Fishery and Coastal Advisor, TCZCDP
Mr. Kessy Mvugaro	Muheza District Fishery Officer
Mr. Kashimua Chambo	Muheza District Fishery Officer
Mr. Devidi Mdoe	Assistant Fishery Officer in charge of Kigombe
Mr. Kiruwasha Heri	Trader, Kigombe
Mr. Hemedi Athman	Trader, Kigombe
Mr. Athman Hussein	Trader, Kigombe
Mr. Bori Mohammed	Fisher
Mr. Tanzilu Ramadhan	Fisher
Mr. Saleh Mwadadu	Fisher

Mr. Mgeni Waziri	Fisher
Mr. Salim Ibrahim Salim	Fisheries Assistant, Kasela collection site
Mr. Mwajuma Chaula	Food vendor
Mr. Mtama Abdalla	Food vendor
Mr. Mwini Omari	Food vendor
Mr. Chitambo D Kauta	District fisheries officer, Pangani
Mr. Charles Mnkondo	Fisheries assistant, Pangani
Mr. Joseph Mpepo	Production Manager, Processing Factory
Mr. Kisheru N.S.K.	Regional Natural Resource Officer, RAS, Tanga Region
Mr. Evaristo Kalolo	Tanga District Fisheries Officer
Mr. Zahoro M.S. Chomoka	Fisheries Officer, Pangani
Mr. Ahomad Makame	Fish monger, Tanga
Mr. Mohamed A. Kaselewenje	Fish monger, Tanga
Mr. Kaimu Abdi	Fisher
Mr. Evaristo Kalolo	Fisher
Mr. Pala Tajili	Fish monger, Kigombe
Mr. Haji Mohamed Nundu	Fish monger, Pangani
Dr. Eric Verheij	Technical Advisor, Tanga Coastal Zone Conservation and Development Programme (TCZCDP)
Mr. Makoloueka	Project Manager, TCZCDP
Mr. Z. M. S. Chomoka,	(former) Principal, Panagani Fisheries Training Centre, Pangani
Mr. Dustan Citopile Mkundi	BSc. Food Science Technology, Plant Manager, SEA PRODUCTS, Tanga.
Mr. Abdalla D.o Midella	Municipal Director
Mr. Salim Ibrahim salim	Municipal staff-fish levy collector
Mr. Omar Hamisi	Ward Representative
Mr. Ramadhan Ali	Village representative
Mr. Emmanuel Mgongo	Planning Officer- Coordinating Pangani TCZMP
Mr. E.F.Nganyanyuka	Regional Natural resources officer
Mr. Venance Ngeleuya	Tanga Town Council Town Planner

### **Zanzibar**

Mr. Makame Salum Nassor	Chief Fisheries Officer (Marketing)
Mr. Maalim Mohammed	Researcher, Institute of Marine Science
Mrs. Jiddawi, Narrinman S.	Research Fellow, Institute of Marine Science, Zanzibar
Mr. Mtolera, Matern S. P.	Research Fellow, Institute of Marine Science, Zanzibar
Mr. Muhando, Christopher A.	Assistant Research Fellow, Institute of Marine Science, Zanzibar.

### **Mwanza Region**

Mr. Thomas Komba	Regional Fisheries Office, LVEMP
Mr. James Wilson	Fisheries Specialist, LVEMP
Dr. Hamimu Hongo	Team Leader, Wet Land Management Component, LVEMP
Mrs. M. Kumbo	Senior Research Officer, TAFIRI
Mr. Mundrin Kaskazi	Chairperson Fish Traders Co-operative, Kirumba market
Mr. S.K. Singh	Plant Manager, Tanzania Fish Processors Ltd.
Mr. Novath Manoko	Chairperson, Mwaloni Market Traders Development Society (NGO)
Mr. Eiljah Lovalilo	Secretary, Mwaloni Market Traders Development Society (NGO)
Mr. Johari Hussein Mkwama	Fisheries Officer II
Ms. Sarah Ernest Mwasaga	Fisheries Officer III
Mr. Chrisantus Kaximbaya	Fisheries officer, Kayenze landing site
Mr. William Susuma	Ward Executive Officer, Kayenze landing site
Mr. Emmanuel Ntemi	BMU Executive secretary, Kayenze landing site
Mr. Angelous Mahatane	Regional Fisheries officer, Mwanza
Mr. Charles T. Rwekaza	Acting Regional Fisheries officer, Mwanza

Mr. Masam Merenga	Acting City Fisheries officer, Mwanza city
Mr. M. Peter Claver	Managing Director, Nile Fishnet Motors Co., Ltd. Mwanza
Mr. Shamik Rajani	Manager, Ukerewe Fishnet Co., Ltd. Mwanza
Mr. Julius D. Baisskeli	Village Chairperson, Kigangama, Magu district
Mr. Elisha M. Mashala	Village Secretary, Kigangama, Magu district
Mr. Mathias Kadinda	Fisher, Kigangama, Magu district
Mr. Jummane Mangara	District Natural Resources officer, Magu
Mr. Wincelaus Luhasile	Acting District Fisheries officer, Magu
Mr. Mabala Sali Mbojo	District Executive Director, Magu
Mr. Julius Samwel	District Administrative Secretary, Magu
Mr. Amos Bugalama	Dagaa fisher, Secretary of BMU, Nyakabojo, Magu
Ms. Teresla Linus Ngatunga	Lab. Technician, Quality Control, Fisheries Division, Mwanza
Mr. Leonard Hinkuye	Chairperson of Association for factory waste processing, Mkolani
Mr. C.Rwekaza	Regional Fisheries officer (Licensing & export of fish products)
Mr. M.Marenga	Fisheries officer; Mwanza City
Mr. J.Maiseri	Quality control manage; Vicfish Ltd.
Mr. A.C.Luanda	Urban Planner; Mwanza City
Mr. C.Kanyasu	Tanperch Ltd
Mr. Massaka	Senior Town Planner; Mwanza City
Mr. S.L.Kalokola	Treasurer; Mwanza City
Mr. A.Makuke	Secretary Governor; TAFLEC
Mr. N.Manako	Director; MWADESCO
Mr. H.Jethwa	Manager; Mwanza Fish Mill
Miss Modesta	Socio-economist; TAFIRI
Mr. A.C.Kichemuli	Consultant; Prestige International Ltd.
Mr. Mbwana	Senior Operations Officer
Ms Nanai, N.A.K	Officer
Mr. Novath Manoko	Chairperson of MWADESCO
Mr. Masatu Ngingiri	UWASA
Mr. Zablon Mfungo	RFSO
Mr. Mary Elias	Mjunbe
Mr. Thabit Salim	Ibanda fish dealers
Mr. Innocent Shangw'abo	Sengerema District Officer
Mr. Charles Mahande	Sengerema Fisheries Assistant Officer
Mr. Paul Cherehani	Division Fisheries Officer at Nyakalilo fish landing site
Mr. Pantaleo Remijius	Assistant Fisheries Officer
Mr. Tanu Bulyalema	Village Government Member
Mr. Kalangalila Cheng'abo	BMU member
Mr. Renatus Nkama	Ward executive officer
Mr. R.M Muyambe	CCM Chairperson
Mr. Erasto Barosha	Ibanda Fishing Cooperative vice-chairperson
Mr. M. S. Marenga	District Fisheries Officer, Mwanza
Mr. Kalokola	Acting City Director, Mwanza
Mr. Mgalula	District Fisheries Officer, Magu District.
Mr. Julus Bawa Baskeli	Village Chairperson, Kigangama
Mr. Angelous Mahatane	Regional Fisheries Officer
Mr. Charles T. Rwekaza	Acting Regional Fisheries Officer
Mr. Thomas Komba	Assistant Regional Fisheries Officer
Mr. Yohana L. Budeba	Researcher, TAFIRI, Mwanza
Mr. Nsinda Philemon	Researcher, TAFIRI, Mwanza
Mr. Masam Merenga	Acting City Fisheries officer, Mwanza city
Mr. M. Peter Claver	Managing Director, Nile Fishnet Motors Co., Ltd. Mwanza
Mr. Mpelasoka	Assistant Regional Fisheries officer, Kirumba Market

Mr. Pancras Kagaluki	Member of UWASA, Processors of Kayabo, Kirumba Market
Mr. Samuel John	Chairperson, Mapingo Group (Youth)
Mr. Lucas Mazige	Boat carpenter at Kitangiri area
Mrs. Juliet Basil	Aquaculture Technician, TAFIRI
Mr. Jan H. Wanink	Dagaa Researcher from Holland
Mr. Amin Hassanali	Manager, OMEGA FISH LTD.
Mr. V.G. Kalimjuma	Zonal Manager, Tanzania Meteorological Agency, Mwanza
Mr. John Fungo	Marketing and Commercial Manager, TRC Marine Div.
Mr. Orling P. Sijenyngi	Assistant Traffic Manager, TRC
Mr. Amin Mikidadi	Secretary, TAFLEC, a NGO
Mr. Herbert Illebo	Brewing Manager
Mr. Sebasthian Maso	Sengerema District Executive Director (DED)
Mr. Charles M. Mahande	Senior Assistant Fisheries Officer of Sengerema District
Mr. Lameck Mongo	Geita District Fisheries Officer
Mr. Omary Kamatia	Bugondo Division Fisheries Officer, Geita
Mr. Barako Konisaga	Ukerewe District Commissioner
Mr. M.E.M. Bulinga	Ukerewe District Executive Director (DED)
Mr. Evarist Ngowi	Ukerewe District Fisheries Officer
Mr. John Masumbuko	Acting DED at Ukerewe District
Mr. S.C Kaare	Fisheries Officer at Ukerewe District
Mr. M.M.Rubirya	Tanzania National Roads Agency (Regional Manager Muwanza)
Mr. Alfred Luanda	Mwanza City Council Senior Town Planner
Mr. Kilian Maraba	Village Government Chairperson at Sengerema District Chifunfu landing site
Mr. Hosea Gonza Mbilinyi	Zonal Officer
Mr. H.J.M. Mongi	NRO, RAS
Mr. Kauswa Phineas	Fisher
Mr. Nyaruga Msafiri	Fisher
Fishers in Nyakaliro	
Fishers in Ntama	
Fishers in Kijiweni	
Fishers in Nkome	
Fishers in Lukumbo	
Fishers in Izunge, Bwiro island	
Fishers in Bugaramila, Ukara island	

### **Nyegezi Freshwater Fisheries Training Institute**

Mr. John Makene	Principal, Nyegezi Fisheries Institute
Mr. R.M.Mhekel	Nyegezi Fisheries Training Center ( Temporary counterpart )
Mr. John Mckeney	Head, Quality and Control Unit
Mr. Mbilinyi	Laboratory and quality control
Mr .Kikare	Staff
Mr. Lukanga	Staff
Mr. R.Mhekela	Nyegezi Fisheries Development Center
Mr. Gabriel Mbaya	Head of Nautical Science Department, Tutor Navigation and Seamanship, Nyegezi Freshwater Fisheries Institute, NFFI
Mrs. Sylvia Chirwa	Tutor Fish Processing Fish Handling, Nyegezi Freshwater Fisheries Institute

### **Mara Region**

Mr. Egidi Kilosa	Regional Natural Resources & Fisheries Officer, LVEMP Task Leader
Mr. Henry Uisso	Musoma Town Director
Mr. Nelson Bwogi	Musoma Town Fisheries Officer
Mr. Shabani Bosa	Assistant Musoma District Fisheries Officer
Mr. Jackson Tillya	Tarime District Natural Resources Officer

Mr. Cleopas Nyankiriga	Shirati Village Executive Director (VEO)
Mr. C.T Mwita	Acting DED Musoma Town
Mr. A. M. Makaja	Musoma District Fisheries Officer
Mr. Florence Mtaki	Fisheries Assistant at Nyahusurya landing site
Mr. Z. S. Kazula	Assistant Fisheries Officer
Mr. Issa Makongoro	Fisher, Ten Cell Leader & BUM member
Mr. Epimack Magige	Divisional Fisheries Officer
Mr. Daudi Chokero	Chairperson of BMU at Bwai Landing site
Mr. Abdalla Omari	Village Gov. BMU Fisher
Mr. Rhoda Elin	Fish processing women group at Bwai
Mr. Benta Samuel	Trader at Sota Landing site
Mr. Anthony Moira Kerubo	Chairperson of BMU at Sota Landing site
Mr. David Reuben Labako	District Administrative Officer
Mr. Charles Marwa	Fisher at Lugezi landing site
Mr. A.N. Madundo	DFO
Bororo Cooperative & Kabuhara Cooperative	
Jiendeleze Partnership Group	
Fishers in Bwai	
Fishers in Sota	

### **Kagera Region**

Mr. K.E. Rushoke	Regional Fisheries Officer
Mr. J. Kayungi	Bukoba District Fisheries Officer/ LVEMP Task Leader
Mr. Donald Shango	Divisional Fisheries Officer at Bukoba rural Kemondo Bay
Ms. Monica Kishe	Divisional fisheries officer at Bukoba Urban
Mr. Jackson Madyaro	Biharamulo District Fisheries Officer
Mr. S. Ngaiza	Muleba District Fisheries Officer
Mr. S. Mbena	Bukoba Town Fisheries Officer
Mr. A.S. Jakoyango	Acting Director; Kagera Region
Mrs. Nmaagi	Regional Natural Resources Officer; Kagera Region
Mrs. Haigath Kitale	Branch Manager; PRIDE
Mr. Murtaza Fazal	Director; C-weed Corporation
Mr. Xavery Makwi	Credit Manager; CRDB Bank
Mr. Ezamo S. Maponde	Economist; President Office – Planning & Privatization
Mr. J.L. Madialo	DfsO at Biharamulo
Mr. Muchunguzi	AfsO at Biharamulo
Mr. Sebastian Kato	Chairperson of BMU at Nyamirembe Landing site
Mr. Ernest Kifungo	Bwina fishing group/ BMU/ Chairperson
Ms. Veldiana S Mushi	DED at Muleba District
Mr. Anatoli Kashasila	WEO
Mr. Progestus Michael	VEO
Mr. Nurani Mohammed	Chairperson of BMU at Ruhanga village
Mr. Chrisant Bombo	Village Government Chairperson at Katunguru landing site
Mr. Julius Petro	VEO
Ms. Odilia Chrisant	Chairperson of KIMAWAKA women group
Mr. Musa Mugata	Swiss Aid Zonal Projects Coordinator
Mr. Julius Yunzu	Acting project coordinator KAEMP
Mr. Hiussein Tibenda	Chairperson of BMU at Nyamkazi landing site
Mr. Euzeus Kibogo	Fisher
Fishers in Kinagi	
Fishers in Katunguru	

## **Tabora Region**

Mr. Clement L. Kalonga TAFIRI  
Mr. Shadrack W. Yomba District Fisheries Officer  
Mr. Iddi Lugilimba Fisher

## **Kigoma Region**

Mr. Raphael J. D. Mlama Regional Administrative Secretary  
Mr. John Kweku District Fisheries Officer  
Mr. Tambure Swedi Fisheries Officer-Extension  
Mr. Chitamwebwa Director TAFIRI  
Mr. Bojang Gordiang Care taker Kigoma Boatyard  
Mr. Ugumba Huseini Owner NDAGA fishing boat  
Mr. Yusuf Mwabulimbo Daya Fishers and Traders group  
Mr. Ramafadhan Shaaba Daya Fishers and Traders group  
Mr. Yusuf Rashid Daya Fishers and Traders group  
Mr. Hassan Maguru Chairperson Fishers group, Myobozi landing site-Fisher village  
Ms. Apu zacharia Chairperson women traders group, Myobozi landing site-Fisher village  
Mr. Sadiki A Mkalla Village Chairperson, Myobozi landing site-Fisher village  
Mr. Kassimu Sudo Warehouse Manager  
Mr. Fuumba Distributor  
Mr. Athiuman Mrisho Kibango Assistant Fisheries Officer  
Mr. Miiues I Joshi Ornament Fish Exporter  
Mr. Iddi Ahmed Diver  
Mr. Laweano P. Balilemusa Ornament Fish Exporter  
Ms. Phillipa Basil Maganga WEO  
Ms. Valentine Kabadi AfsO  
Mr. Felix Isidore Kavejulu AfsO  
Mr. Mathew Sylvester Member UWAKA coop at Bangwe-Katonga landing site  
Mr. Diu Donko UNDP-CBI Zonal Coordinator Kigoma council & Kigoma rural  
Mr. Bendict Emmanuel PRIDE TZ Kigoma branch, branch manager  
Mr. Simba and others Fisher of Katonga beach  
Ms. Zulwiha and others Fish processor of Katonga beach  
Mr. Seifu Fisher of Kibiligi  
Mr. Dadi Kusuwi Village Master of Kaseke chini  
Mr. Moshi Swedi Kasomo CCM charman of Kaseke chini  
Mr. B. Muhaha Vice Village Master  
Mr. Tanbwe Village Master of Karago  
Mr. Languis Sikabue Fisher of Karago  
Mr. Jumanne Haluna Kabali VEO of Mwakizega  
Mr. Ali Ngunguti Station master of Kigoma Rail Station  
Mr. Daru Fisher of Ujiji

## **Mbeya Region**

Mr. Hon. Lt. Shabani Muyombo District Commissioner, Kyela  
Mr. Francis C. Mitii District Executive Director  
Mr. A. S. Libenanga District Natural Resources and Environment Officer  
Mr. Aron Mwasota District Fisheries Officer, Kyela  
Mr. Brown Mwang'Onda District Assistant Fisheries Officer  
Mr. M. K. L. Mlay Centre Director, TAFIRI  
Mr. John A. Mwambungu Head of Research, TAFIRI  
Dr. Ben P. Ngatunga Research Officer  
Mr. Polisima Fisher  
Mr. Seif A. Waziri Fisher



Mr. Godarin Lucas	Beach Management Unit
Mama Celestina LIMI	Mbeya Municipal Fisheries Officer
Mr. Solanus M.Nyambi	District Executive Director
Mr. Bosco O.Nudunguru	District Planning Officer; Mbeya
Mr. Aden Muaborgole	Director of Cooperative Union
Mr. Leonard H.Gumbwa	Mbeya District Fisheries Officer
Mrs. Agatha Lukindo	Chairweman of Mshewe Primary School
Mr. Michael Kandoro	The officer; Son? Prison
Mr. Zedekia Mtulu	Treasurer; Mbeya
Mr. Michael Mwamlima	Regional Cooperative Officer
Mr. Godfrey L.Sanga	Regional Natural Resources Officer
Mr. Michael Mlayi	TAFIRI Director
Mr. Brown Mbinile Mwamakusa	Village chairperson at Kombe sub-village Matera landing site
Mr. Nason Mwafinguru	VEO
Mr. Joseph Boniface	Trader at Kiwira landing site
Ms. Lucy Alfred	Market Master of Kyela market
Ms. Agnes Bayo	Accountant of Kyela market
Mr. L. R. Mbeca	Market Master of Ngyeke market
Mr. Lutengano and others	Fisher of Matema beach
Mr. Bahati N. Mwankili	Fisher of Kyuila Beach
Mr. Bornface Seba	Fisher of Lubaga village

### **Arusha Region**

Mr. James Obama	PRIDE Tanzania Head Office Arusha, deputy director
Mr. P.D. Kitila	Municipal Coop Officer, Arusha Municipal Council

### **Moshi Region**

Mr. M.L.K. Diyamett	Teacher, Moshi Cooperative College
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### **Rukwa Region**

Mr. Salum Ibrahim Kisemya	V.E.O, Mtendaji of Nkashi District
Mr. Ramadham K. Chiravi	Villager of Nkashi District
Mr. Swale Ahmade	Fisher of Manda kelenge
Mr. Sungula Selvesta	Fisher of Kipili Village
Mr. Gaubensi Nguluwe	VEO of Karungu ya Mukinga Village

### **Dodoma Region**

Mr. Peter mrema	Dodoma Market revenue collector
Mr. Emmanuel	Fish monger
Mr. Jerewiah V. Mnara	DNRO of Dodoma District
Mr. Mathas Wanchongo	Fisheries officer of Mupuapua District

### **Iringa Region**

Mr. Bosco K. Mwaiyowela	Acting VDO
Mr. Gilbert M. Mwengwa	Village Master
Mr. Ally M. Rusani	Village Director
Mr. Shabani Ramadhani	Fisheries Officer in Migori Village
Mr. John Sumenjwaga	CCM Village Chairperson
Mr. Paterson Njoworker	Fisher

### **Morogoro Region**

Dr. Manabu Tsunoda	JICA expert/ Chief Adviser Project SUA Center for sustainable Rral Dev.
Dr. Minako Araki	JICA expert Project SUA Center for sustainable Rral Dev.

Dr. Hiromi Yasu	JICA expert Project SUA Center for sustainable Rral Dev.
Mr. Lushela	Kinguluwira National Aqua-culture Centre
Mr. Mwanpulo	Kinguluwira National Aqua-culture Centre
Mr. Kajitanus	Kinguluwira National Aqua-culture Centre
Mr. Kajitanus Osewe	District Fisheries Officer

### **Uganda**

Mr. Patrick K. Kaganzi	Finance and administration Officer, the Republic of Uganda
Mr. Christopher Saazi	Chairperson/ Managing director, Nile Fishing Co. Ltd.
Mr. Hajime Iwata	Second Secretary, Embassy of Japan
Dr. William M. Kudoja	Senior Scientist, Lake Victoria Fisheries Organization
Mr. Paul K. Wasswa	Managing Director, Byansi Fisheries Co. Ltd.

### **Kenya**

Mr. Murtaza Jamali	Mrimun Fishing Tachles, fish net dealer at Monbasa
Dr. Renison Ruwa	Deputy Director, Kenya Marine & Fisheries Research Institute
Mr. Charles Oduol	Assistant Director of Fisheries, Ministry of Agriculture and Rural Dev.
Dr. Enock Wakwabi	Deputy Director, Kenya Marine & Fisheries Research Institute
Mr. Arif Kurji	Alpha Group
Mr. Karim Hassanali	Director, Afro Meat Company Limited at Kisumu
Ms. Misa Kenmiya	Assistant Resident Representative, JICA Kenya Office
Mr. Masaaki Miyagawa	Development Program Office, JICA Kenya Office
Mr. Bernard K. Ayugu	Deputy Director of Fisheries, Fisheries Department

### **FAO, Rome**

Mr. Ulf N. Wijkstrom	Chief, Fishery Planning Analyst Fishery Policy and Planning Division (FIPP)
Mr. Alain Bonzon	Fishery Planning Analyst Fishery Policy and Planning Division (FIPP)
Mr. Frans Teutscher	Fish Technologist, Fishery Industries Division (FIU)
Mr. Hideaki Okada	Fishery Planning Analyst Fishery Policy and Planning Division (FIPP)
Mr. Dominique Greboval	Fishery Planning Analyst Fishery Policy and Planning Division (FIPP)
Mr. Ross Shotton	(FIRM)
Mr. Eric Reynolds	Fishery Planning Analyst Fishery Policy and Planning Division (FIPP)
Mr. Nathanael Hishamunda	Fishery Planning Analyst Fishery Policy and Planning Division (FIPP)

10/29	月	移動
10/30-	火	Morogoro にて全国ワークショップ開催
-11/1	木	Morogoro にて全国ワークショップ開催、C/P Meeting、移動
11/2-	金	フィールド調査(ムワンザ、キゴマ、DSM)
11/8	木	Scheffers ダルエスサラーム到着 2320 DSM (KL571)
-11/9-	金	フィールド調査(ムワンザ・センゲレマ、キゴマ、バガモヨ、DSM)
11/10	土	Namwonja ダルエスサラーム出発 0900 DSM (KQ481)
11/11	日	馬場、岩崎 ダルエスサラーム到着 2320 DSM (KL571)
11/12-	月	フィールド調査(ムワンザ、キゴマ、ニアサ・ムベヤ・ルクワ、DSM)
11/14	水	団内打合せ
11/17	土	タン ダルエスサラーム到着 2320 DSM (KL571)
11/18-	日	フィールド調査(ムワンザ、キゴマ、タンガ・パンガニ、DSM)
11/19	月	Kyanya ダルエスサラーム出発 0800 DSM (TC714)
11/20-	火	フィールド調査(ムワンザ、マフィア、キピリ、DSM)
11/23	金	藤木 ダルエスサラーム出発 0030 DSM (KL571)
11/24-	火	フィールド調査(ムワンザ・ムソマ・ブコバ、キゴマ、ウガンダ、DSM)
12/7	金	Scheffers ダルエスサラーム出発 0030 DSM (KL571)
12/8	土	岩崎、馬場、タン、佐藤、飯田 ダルエスサラーム出発 2340 DSM (KL569)
12/9	日	オフィス片付け
12/10	月	Steering Committee、オフィス片付け
12/11	火	Donor Coordination Meeting、天然資源省水産局 C/P Meeting、JICA、日本大使館報告
12/12	水	山本、谷、新村 ダルエスサラーム出発 0030 DSM (KL571)
12/13	木	0820 Amsterdam 到着 Amsterdam 出発 (KL861) 0920 成田

#### 第四次現地調査日程表

4/15	月	山本 技術移転セミナー準備 佐藤、岩崎、新村 成田出発 (JL451) 20:50 Zurich 到着 Scheffers Amsterdam 出発 (LX731) 20:50 Zurich 到着
4/16	火	佐藤、岩崎、新村 -DSM 到着 (LX292) Scheffers - DSM 到着 (LX731) Kyanya Nairobi 出発 (TC715) 11:20 DSM 到着 技術移転セミナー準備、C/P 会議、日本大使館表敬、JICA 表敬
4/17	水	技術移転セミナー準備
4/18-	木	技術移転セミナー
4/20-	土	技術移転セミナー結果取りまとめ
4/23	火	技術移転セミナー結果取りまとめ、魚市場視察
4/24	水	技術移転セミナー結果取りまとめ、ミニッツ案作成
4/25	木	アライアンスコミティ、MM 署名、日本大使館、JICA 報告
4/26	金	山本、佐藤、岩崎、新村 DSM 出発 (KL571) Amsterdam 到着 Kyanya DSM 出発 (TC732) Nairobi 到着 Scheffers 技術移転セミナーコメント確認
4/27	土	山本、佐藤、岩崎、新村 Amsterdam 出発 (JL412) Scheffers DSM 出発 (KL571)
4/28	日	山本、佐藤、岩崎、新村 成田到着 Scheffers Amsterdam 到着

添付資料 4

収集資料リスト

題	出版	年
Pesticides Residue Laboratory for fish in Mwanza, Tanzania, Mission Report	Agricultural Economics and Rural Development Division	
Mbegani Fisheries Development Center		
National Fisheries Sector Policy and Strategy Statement	Ministry of Natural Resources and Tourism	1997
The Rolling Plan and Forward Budget for Tanzania	The President's Office Planning Commission/Ministry of Finance	1996
Fisheries Management at Mtera Dam, Tanzania	Henrik Nilsson and Wetengere Kitojo, ALCOM Socio-Economics	
Budget Speech (Fisheries Sector & Revenue Policy)	Ministry of Finance	1999
Strategy for Fisheries Management and Development	FAO	1986
Tanzania Fisheries Sector Review (Provisional Draft Document FAO/SAFR)	Food and Agriculture Organization of the United Nations	2000
Twelfth Annual Draft Report For The Year 1992/93	Tanzania Fisheries Research Institute	1989
Thirteenth Annual Draft Report For The Year 1993/94	Tanzania Fisheries Research Institute	1991
Fourteenth Annual Draft Report For The Year 1994/95	Tanzania Fisheries Research Institute	1992
Fifteenth Annual Draft Report For The Year 1995/96	Tanzania Fisheries Research Institute	1993
Sixteenth Annual Draft Report For The Year 1996/97	Tanzania Fisheries Research Institute	1994
Socio-economic effects on the evolution on Nile Perch Fisheries in Lake Victoria: a review CIFA Technical Paper 17	FAO	1988
Application Form for Japan's Grand Aid (General and Fisheries) - The Project for Construction of Fish Quality Control and Assurance Center	Ministry of Natural Resources and Tourism	2000
Nile perch- marketing success or ecological disaster?	Seafood International	1997
ビクトリア湖の漁業調査	JETRO	1999
タンザニア連合共和国水産業投資環境調査報告書	財団法人 海外漁業協力財団	2000
Fisheries Training Needs Assessment	MNRT, FD	1999
Proceedings of workshop of principals for natural resources and tourism Training institutions		1999
Lake Victoria Fisheries Tanzania, A human Resource Development Programme	Government of Tanzania, Commonwealth Secretariat	2000-'05
Newsletter	Mbegani Fisheries Development Center	1997
Fisheries Training Needs Assessment Fisheries Division HQ Dar es Salaam	Fish. Div. / Mbegani Fish. Dev. Centre	Jun-99
Framework for Socio-Economic Development in Lindi and Mtwara Regions to the Year 2006	Rural Integrated Project Support (RIPS), Ministry of Foreign Affairs of Finland	
Integrated Coastal Management for Tanzania Issue Profile	Tanzania Coastal Management Partnership	1995
タンザニア水産振興 M/P 開発調査事前調査 (S/W 協議)	(株)国際水産技術開発	
Ecological And Limnological Study on Lake Tanganyika And Its Adjacent Regions	Kyoto University	1988
Synopsis of ecological and fishery research on Nile perch ( <i>Lates niloticus</i> ) in Lake Victoria	HEST / TAFIRI., W. Ligtvoet & O.C. Mkumbo	1990
Changes in the diet of Nile perch, <i>Lates niloticus</i> (L.), in the Mwanza Gulf, Lake Victoria	O.C. Mkumbo, TAFIRI, Mwanza & W. Ligtvoet, University of Leiden, The Netherlands	1992
Programs under Boat Building Department	Mbegani Fisheries Development Center	
Mafia Island Marine Park General Information	Board of Trustees Marine Parks and Reserves Tanzania	

題	出版	年
Mafia Island Marine Park People's Park	Board of Trustees Marine Parks and Reserves Tanzania	
Field based methodologies for assessing post-harvest fish losses	A.R. Ward, Natural Resources Institute - University of Greenwich	
Five year Action Programme for the Implementation of the National Fisheries Sector Policy (1998/99 to 2003/4)		
Directory of African Capacities in Fisheries: Tanzania Sector	FAO	1995
Developpement de la peche au lac kivu RWANDA: Conclusions et recommandations du project	FAO, UNDP	1989
Marine parks and reserves Tanzania: general information guide	Board of Trustees Marine Parks and Reserves Tanzania	
Fisheries Legislation		
A Compendium of Fisheries Legislation in Tanzania Subsidiary Legislation ( 部分、 p.787 ~ p.856 )		
Lake Victoria Frame Survey Results	Ministry of Natural Resources and Tourism	2000
King system feed Production Plant: Catalogue for Dagaai Plant	King System Feed Production Plant Nakayasu Co. Ltd.	
Macro-level research report on rural artisanal fishing communities in the coastal regions (Tanga, Coast, Dar es Salaam, Lindi, Mtwara) of Tanzania	S. Maghimbi, FAO Project FPA/INT/287/FPA	1996
タンザニア国水産業振興マスタープラン調査提案書	SSC, OAFIC	2000
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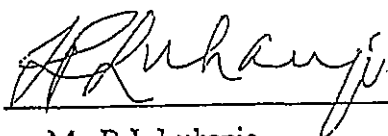
添付資料 5

実施細則 (S/W) 及び実施細則協議議事録 (M/M)

SCOPE OF WORK  
FOR  
THE MASTER PLAN STUDY ON FISHERIES DEVELOPMENT  
IN  
THE UNITED REPUBLIC OF TANZANIA

AGREED UPON BETWEEN  
MINISTRY OF NATURAL RESOURCES AND TOURISM  
AND  
JAPAN INTERNATIONAL COOPERATION AGENCY

DAR ES SALAAM, OCTOBER 5, 2000

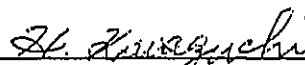


Mr. P. L. Luhanjo

Permanent Secretary

Ministry of Natural Resources and Tourism

UNITED REPUBLIC OF TANZANIA



Mr. Hisashi Kawaguchi

Team Leader

Preparatory Study Team

Japan International Cooperation Agency

JAPAN



Mr. Prosper J. Mbena

for Permanent Secretary

Ministry of Finance

UNITED REPUBLIC OF TANZANIA



## I. INTRODUCTION

In response to the request of the Government of the United Republic of Tanzania (hereinafter referred to as "GOT"), the Government of Japan decided to conduct the Master Plan Study on Fisheries Development in the United Republic of Tanzania (hereinafter referred to as "the Study") in accordance with the relevant laws and regulations in force in Japan.

Accordingly, the Japan International Cooperation Agency (hereinafter referred to as "JICA"), the official agency responsible for the implementation of the technical cooperation programs of the Government of Japan, will undertake the Study in close cooperation with the authorities concerned of the GOT.

The present document sets forth the Scope of Work with regard to the Study.

## II. OBJECTIVES OF THE STUDY

The objectives of the Study are:

1. To prepare a Master Plan for fisheries development through integrated approach of ; (1) increasing income of fisherfolk, (2) improving fisheries products utilization and their marketability, (3) improvement of the fishing communities in planning, development and management and (4) conservation and effective use of natural resources, and
2. To carry out technology transfer to the Tanzanian counterpart personnel through on-the-job training in the course of the Study.

## III. STUDY AREA

The Study area shall cover major water bodies; (1) Lake Victoria, (2) Lake Tanganyika, (3) Lake Nyasa, (4) other fresh water bodies, (5) marine territorial waters and (6) Exclusive Economic Zone.



## IV. SCOPE OF THE STUDY

In order to achieve the above objectives, the Study will consist of the following items.

- (1) To collect and analyze relevant existing data and information in the Study areas including on the following:
  - (a) Existing policy and regulations concerned with the Study;
    - Fisheries Act and related regulations
    - Fisheries development strategy
    - Credit and taxation
    - Control and surveillance system
    - Quality assurance
    - Environment
    - Others

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- (b) Natural conditions;
  - Topography
  - Meteorology
  - Water resources
  - Others
- (c) Socio-economic conditions;
  - Population
  - Households
  - Social structure of fishing communities
  - Rural economy
  - Others
- (d) Fish resources and fishing production;
  - Fish resources
  - Fishing production
  - Fishing gear and methods
  - Aquaculture
  - Others
- (e) Fish handling, processing and distribution;
  - Fish handling methods
  - Fish processing methods
  - Demand and supply of fish and fishery products
  - Distribution system
  - Cost and price
  - Others
- (f) Infrastructure;
  - Landing facilities
  - Fish marketing and processing facilities
  - Electricity and water supply facilities
  - Road condition
  - Others
- (g) Fishers' organizations / cooperatives;
  - Number of fishers, other related services and employees
  - Activities of fishers' organizations / cooperatives
  - Education and training
  - Others
- (h) Fishing community;
  - Current situation of social groups
  - General situation of women
  - Women's participation in fishery-related activities
  - Education
  - Health and social welfare
  - Others

- (2) Initial environmental examination (IEE):
- (3) To formulate the Master Plan which will include the following:
  - (a) the improvement of;
    - ( i ) fishing gear and fishing methods
    - ( ii ) fish handling and processing
    - ( iii ) fish marketing and distribution
    - ( iv ) fishers' organizations / cooperatives
    - ( v ) fisheries institutions and management system
  - (b) education and training for fishing workers; and
  - (c) evaluation and recommendation.

## V. STUDY SCHEDULE

The Study will be carried out during a period of approximately sixteen (16) months, in accordance with the attached tentative work schedule (APPENDIX).

## VI. REPORTS

JICA shall prepare and submit the following reports in English to the GOT:

- (1) Inception Report:  
Thirty (30) copies at the commencement of first field work.
- (2) Interim Report:  
Thirty (30) copies at the commencement of third field work.
- (3) Draft Final Report:  
Thirty (30) copies at the commencement of fourth field work.  
The GOT will provide JICA with its comments on Draft Final Report within one (1) month after receipt of the Draft Final Report.
- (4) Final Report:  
Thirty (30) copies within two (2) months after receipt of the comments from the GOT on the Draft Final Report.

## VII. UNDERTAKING OF THE GOVERNMENT OF THE UNITED REPUBLIC OF TANZANIA

1. To facilitate the smooth conduct of the Study, the GOT shall take necessary measures:
  - (1) to secure the safety of the Japanese study team;
  - (2) to permit the members of the Japanese study team to enter, leave and sojourn in the United Republic of Tanzania for the duration of their assignment therein, and exempt them from foreign registration requirements and consular fees;

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*P.L.C.* 添付資料 5-4

*(M)*

- (3) to exempt the members of the Japanese study team from taxes, duties and other charges on equipment, machinery and other materials brought into the United Republic of Tanzania for the conduct of the Study;
- (4) to exempt the members of the Japanese study team from income tax and charges of any kind imposed on or in connection with any emoluments or allowance paid to the members of the Japanese study team for their services in connection with the implementation of the Study;
- (5) to provide necessary facilities to the Japanese study team for the remittance as well as utilization of the funds introduced into the United Republic of Tanzania from Japan in connection with the implementation of the Study;
- (6) to secure permission for entry into private properties or restricted areas for the conduct of the Study;
- (7) to secure permission for the Japanese study team to take all data and documents including maps and photographs related to the Study out of the United Republic of Tanzania to Japan; and
- (8) to provide medical services as needed. Its expenses will be chargeable to members of the Japanese study team.

2. The GOT shall bear claims, if any, arising against members of the Japanese study team resulting from, occurring in the course of, or otherwise connected with the discharge of their duties in the implementation of the Study, except when such claims arise from gross negligence or willful misconduct on the part of the members of the Japanese study team.

3. The Department of Fisheries shall act as a counterpart agency to the Japanese study team and Ministry of Natural Resources and Tourism (hereinafter referred to as "the Ministry") shall act as the coordinating body in relations with other governmental and non-governmental organizations concerned for the smooth implementation of the Study.

4. The Ministry shall, at its own expense, provide the Japanese study team with the following, in cooperation with other organizations concerned:

- (1) available data and information related to the Study,
- (2) counterpart personnel,
- (3) suitable office space with necessary equipment in Dar es Salam, Mwanza, Kigoma and Kyela, and
- (4) credentials or identification cards.

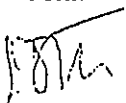
## VIII. UNDERTAKING OF JICA

For the implementation of the Study, JICA shall take the following measures:

- (1) to dispatch, at its own expense, study teams to the United Republic of Tanzania, and
- (2) to pursue technology transfer to the United Republic of Tanzania counterpart personnel in the course of the study.

## IX. OTHERS

JICA and the Ministry shall consult with each other in respect of any matter that may arise from or in connection with the Study:



TENTATIVE SCHEDULE

Months	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
The Study in Japan	<input type="checkbox"/>							<input type="checkbox"/>				<input type="checkbox"/>		<input type="checkbox"/>		
The Study in Tanzania		<b>██████</b>			<b>████████████████</b>			<b>████████████████</b>					<b>██</b>			
Reports		△ Ic/R							△ IT/R				△ Df/R	◎		△ F/R

- (Note)
- △ : Inception Report
  - IT/R : Interim Report
  - Df/R : Draft Final Report
  - ◎ : Comments on DF/R by the Government of Tanzania
  - F/R : Final Report

添付資料 5-6

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MINUTES OF THE MEETING  
ON  
SCOPE OF WORK  
FOR  
THE MASTER PLAN STUDY ON FISHERIES DEVELOPMENT  
IN  
THE UNITED REPUBLIC OF TANZANIA

In response to the request of the Government of the United Republic of Tanzania, the preparatory study team headed by Mr. Hisashi Kawaguchi (hereinafter referred to as "the Team"), was sent to Tanzania by the Government of Japan through the Japan International Cooperation Agency (hereinafter referred to as "JICA"), the official agency responsible for the technical cooperation programs of the Government of Japan, from 26 September to 6 October 2000 for the purpose of discussing and confirming the Scope of Work on the Master Plan Study on Fishery Development in the United Republic of Tanzania (hereinafter referred to as "the Study").

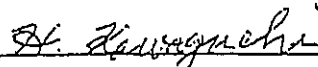
The Team had a series of discussions with concerned authorities of the Government of the United Republic of Tanzania, represented by Mr. Thomas W. Maembe, Director of Fisheries, Fisheries Division, Ministry of Natural Resources and Tourism (hereinafter referred to as "the Tanzanian side").

Salient issues discussed and agreed upon by both sides are shown in the ANNEX as attached hereto.

DAR ES SALAAM, OCTOBER 5, 2000



Mr. P. L. Luhano  
Permanent Secretary  
Ministry of Natural Resources and Tourism  
UNITED REPUBLIC OF TANZANIA



Mr. Hisashi Kawaguchi  
Team Leader  
Preparatory Study Team  
Japan International Cooperation Agency  
JAPAN

# ANNEX

## 1. Implementation of the Study

The Team explained the work plan of the Study of the Government of Japan to the Tanzanian side. The Tanzanian side confirmed that it fully understood the work plan and would conduct all necessary preparations and observe the undertaking.

## 2. Counterpart personnel

The Tanzanian side agreed to cooperate with the Japanese study team for the implementation of the Study, and assign the counterpart personnel in the following areas and to take a necessary budget measure such as traveling and subsistence allowances for the conducting the Study.

- Fishery economy
- Distribution and processing
- Infrastructure
- Aquaculture
- Socio - economics / gender
- Training and extension

## 3. Steering Committee

Both sides agreed to establish the Steering Committee for smooth conduct of the Study. It is expected that this Committee will meet when JICA Study Team comes to explain the reports. The Permanent Secretary of Ministry of Natural Resources and Tourism will be appointed as chairman. The members of the committee will be drawn from;

- 1) Ministry of Natural Resources and Tourism – Fisheries Division
- 2) Ministry of Regional Administration and Local Government
- 3) Ministry of Finance
- 4) Planning Commission, President's Office
- 5) National Environment Management Council

## 4. Target year

The Tanzanian side explained that it is desirable that the Master Plan period should cover approximately 10 years ahead.

This Master Plan will be integrated into the fisheries sector implementation program of the "NATIONAL FISHERIES SECTOR POLICY AND STRATEGY STATEMENT".



## 5. Study areas

The Tanzanian side requested the following study areas should be prioritized. (See location map)

REGION	DISTRICT / MUNICIPAL	SURVEY SITE
(1) Lake Victoria		
-	Mwanza	Ukerewe
-		Geita
-	Mwanza	Nyakalilo, Nkome Area (Nzera Bay)
-		Kirumba
-	Mara	Tarime
-		Sota
-		Musoma
-		Bwai
-		Musoma
-	Kagera	Muleba
-		Katunguru, Kinagi
-		Biharamulo
-		Nyamirembe
-		Bukoba rural
-		Kemondo
(2) Lake Tangayika		
-	Kigoma	Bangwe, Ujji
-	Rukwa	Kipili
(3) Lake Nyasa		
-	Ruvuma	Mbinga
-	Mbeya	Kyela
(4) Marine Territorial Water		
-	Tanga	Pangani
-		Muheza
-		Kigombe
-	Coast	Bagamoyo
-	Dar es Salaam	Bagamoyo
-		Kunduchi
-		Ilala
-		Banda Beach
-	Lindi	Lindi
-		Machinga Bay
-		Kilwa
-		Kilwa Kivinje
-	Mtwara	Mtwara
-		Msimbati

(Note) : Survey sites in italics are collecting points

## 6. Study method

The team proposed the necessity of close consultation with other donors during the implementation period of the Study.

Both sides agreed that the meetings with other donors would be held during the Study period in order to take their opinions into consideration.



## 7. Scope of the Study

The Tanzanian side requested that this Study should consider the priority projects' design and costs.

The team agreed that the Study would consider them in the process of developing the Master Plan.

## 8. Implementation of the field surveys

Both sides agreed that the Japanese study team would carry out the field surveys during the dry season, in consideration of better accessibility conditions to the fishing communities rather than in the rainy season.

## 9. Training of counterpart personnel in Japan

The Tanzanian side requested the training of counterpart personnel in Japan for effective transfer of technology in connection with the Study. The Team promised to convey its request to the Government of Japan.

## 10. Holding a seminar

The Tanzanian side requested the Japanese study team to hold a seminar based on the results of the study at the time of the presentation of the Draft Final Report. The Team promised to convey its request to the Government of Japan.

## 11. Equipment of the Study

Both sides discussed the necessary equipment for the implementation of the Study, and checked the currently available equipment in the Fisheries Department. The Tanzanian side requested the following equipment.

- Personal computers with necessary accessories
- Photocopy machines
- Facsimile machines

The Team promised to convey the request to the Government of Japan.

## 12. Office accommodation

Tanzanian side agreed to offer office space with necessary equipment in the Fisheries Department in Dar es salaam, Mwanza, Kigoma, and Kyela.

## 13. Launching of the Final Report

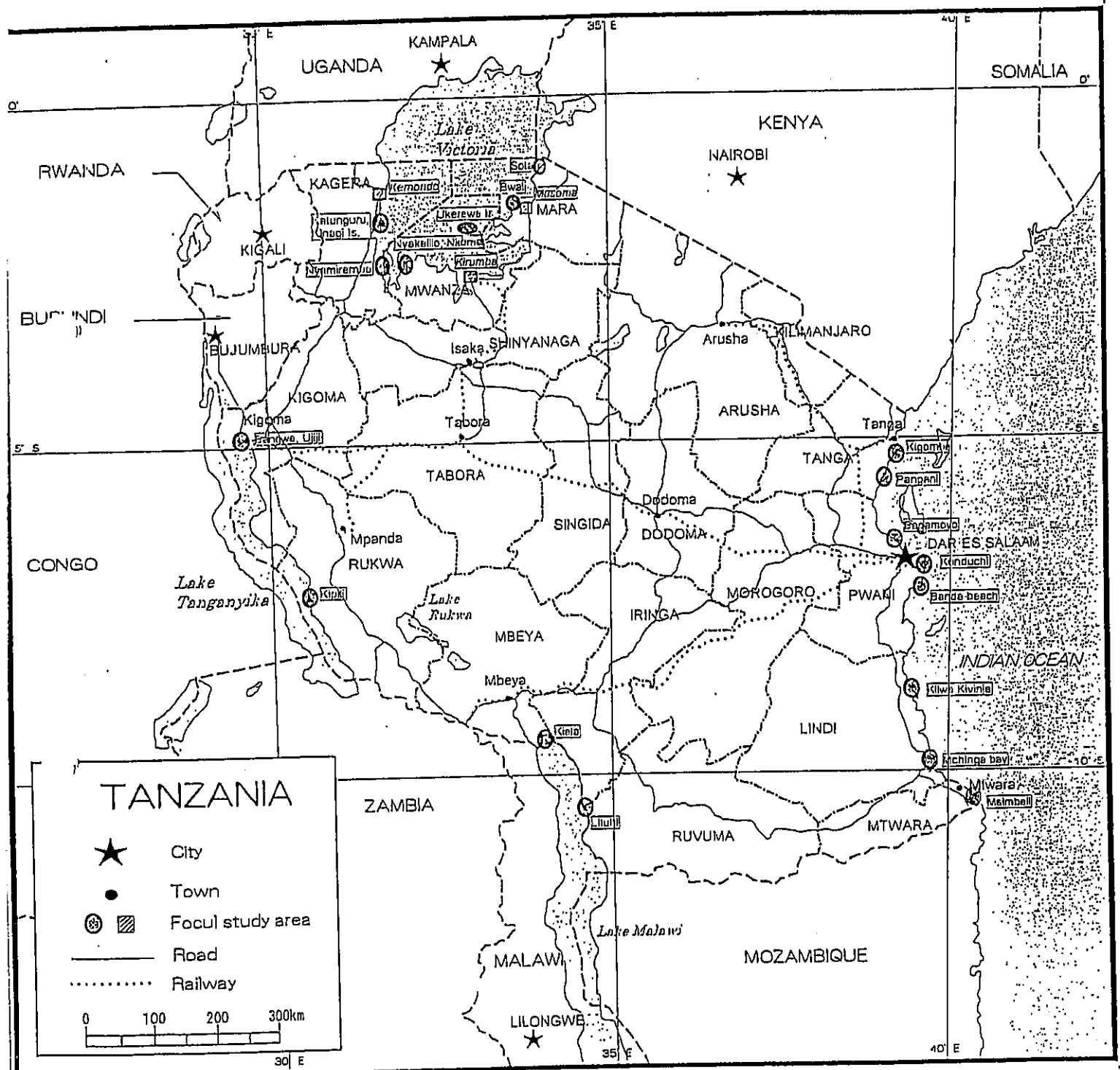
Tanzanian side agreed that the Final Report will be launched publicly.

## 14. Undertaking

The team requested that Tanzanian side will take every possible measures to ensure an effective execution of the survey program throughout the implementation period of the Study.

*PLQ*

# Location Map



PLH

(M)

## LIST OF PARTICIPANTS

## Tanzanian Side

Mr. P. L. Luhanjo	Permanent Secretary, Ministry of Natural Resources and Tourism
Mr. Prosper J. Mbena	Commissioner for External Finance, Ministry of Finance
Mr. E. L.M. Severre	Director of Wildlife, Ministry of Natural Resources and Tourism
Mr. Thomas Maembe	Director of Fisheries, Ministry of Natural Resources and Tourism
Mr. Sadock P. N. Kimaro	Assistant Director of Fisheries; Surveillance, Monitoring and Control
Mr. B. S.M. Mngulwi	Senior Fisheries Officer; Fisheries Development and Planning
Mr. W. V. Haule	Assistant Director of Fisheries; Research, Training and Statistics
Mr. G.F. Nanyaro	Assistant Director of Fisheries; Quality Assurance and Standards
Mr. R. R. Mapunda	Assistant Director of Fisheries; Fisheries Development and Planning
Mr. Clement Rutahiwa	Regional Administrative Secretary, Mwanza Region
Mr. Angelous Mahatane	Regional Fisheries Officer; Mwanza
Mr. Fred Ntakabanyula	Ag. City Council Director, Mwanza
Mr. Enock Mlaponi	Ag. Centre Director, Tanzania Fisheries Research Institute (TAFIRI), Mwanza
Mr. J. Makene	Principal; Nyegezi Fisheries Training Centre, Mwanza
Mr. Y. I. Mgawe	Ag. Principal; Mbegani Fisheries Development Centre
Mr. Hoza Karim	District Planning Officer; Bagamoyo District
Mr. Mwaseba Gidion	District Executive Director; Bagamoyo District

## Japanese Side

Mr. Hisashi Kawaguchi	Leader of Mission, Japanese Preparatory Study Team
Mr. Yasushi Nakazato	Member, Japanese Preparatory Study Team
Mr. Takafumi Toshihara	Member, Japanese Preparatory Study Team
Mr. Toshio Miharū	Member, Japanese Preparatory Study Team
Mr. Eisaku Hirose	Member, Japanese Preparatory Study Team
Mr. Jun Yokoyama	Member, Japanese Preparatory Study Team

*pdL*

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タンザニア連合共和国水産業投資環境調査報告書、財団法人、海外漁業協力財団、平成12年1月

添付資料 6

インセプションレポート協議議事録

MINUTES OF MEETING  
ON  
INCEPTION REPORT  
FOR  
THE MASTER PLAN STUDY  
ON  
FISHERIES DEVELOPMENT  
IN  
THE UNITED REPUBLIC OF TANZANIA

January 24, 2001

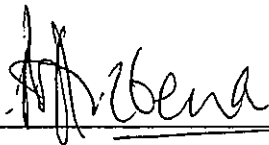


Mr. Philemon L. Luhanjo  
Permanent Secretary  
Ministry of Natural Resources and Tourism  
United Republic of Tanzania

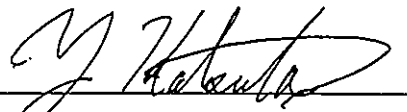


Mr. Sachio Yamamoto  
Team Leader  
JICA Study Team  
Japan

Witness by:



Mr. Prosper J. Mbena  
Commissioner for External Finance  
Ministry of Finance  
United Republic of Tanzania



Mr. Eukihide Katsuta  
Leader  
JICA Advisory Team  
Japan



**MINUTES OF MEETING  
ON  
THE INCEPTION REPORT  
FOR  
THE MASTER PLAN STUDY  
ON  
FISHERIES DEVELOPMENT  
IN  
THE UNITED REPUBLIC OF TANZANIA**

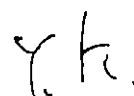
Dar es Salaam, January 24, 2001

The Scope of Work for the Master Plan Study on Fisheries Development in the United Republic of Tanzania was agreed upon between the JICA Preparatory Study Team and the Tanzanian side on October 5, 2000. In accordance with the Scope of Work, JICA sent to the United Republic of Tanzania the Study Team headed by Mr. Sachio Yamamoto on January 21, 2001.

The Study Team submitted to the Tanzanian side 30 copies of the Inception Report in the English language on January 17, 2001. The Study Team explained the contents and procedures of the Study on January 23, 2001. Subsequently, discussions between the Tanzanian side and the Study Team were held, concluding the following points:

- (1) The Tanzanian side agreed on the contents and study procedures presented in the Inception Report.
- (2) Comments expressed by the Inception Report meeting, which are detailed in Annex-I shall be considered.

List of participants in the meeting and the list of steering committee members including counterparts are attached as Annex-II and III, respectively.



**COMMENTS  
BY  
THE INCEPTION REPORT MEETING**

**1. Safety Areas**

It was confirmed that all survey sites are safe to be visited by the Study Team members at the time of the Inception Report meeting. However, information on safety should be updated and survey sites are to be reconsidered according to the situation.

**2. Survey Locations**

The Study will include Mafia Island as a survey site considering its fisheries potential in addition to those mentioned on the map of the Inception Report. Also, the Exclusive Economic Zone (EEZ) is to be involved in the survey, however kept in minimum for the potential assessment of the resource utilisation by artisanal fishers.

**3. Sample Survey Site for Sub-contracted Socio-economic Survey**

Sample survey site for the socio-economic survey that is to be carried out by a local consultant will consider 21 sites mentioned in the Inception Report. However, avoiding the duplication of the same type of study in these areas, and considering of efficiency and statistical effectiveness, these areas will be reviewed based on stage 1 study and finalized in the Field Report. The socio-economic survey will additionally include fish consumption survey.

**4. Steering Committee**

According to the contents of the Inception Report and its meeting, the Ministry of Natural Resources and Tourism has formed the steering committee and the names of members have been presented to the Study Team. The first committee meeting will be held within the stage 1 study.

**5. Counterparts**


Eleven counterparts, one for each Japanese Study Team member, have been assigned by the Fisheries Division including one chief counterpart. One counterpart for infrastructure will be assigned before the end of stage 1 study.

**6. Donor Meeting**

The Ministry of Natural Resources and Tourism will organise the donor coordination meeting in the end of stage 2 and 3 study.

**7. Office Space**

The Ministry of Natural Resources and Tourism has already acquired a head quarter office for the Study Team in Dar es Slaam. Other three offices in Mwanza, Kigoma and Kyela will be provided before March, 2001.



**LIST OF PARTICIPANTS  
IN  
THE INCEPTION REPORT MEETING**

**1. Ministry of Natural Resources and Tourism**

Mr. Philemon L. Luhanjo      Permanent Secretary

**2. Ministry of Natural Resources and Tourism, Fisheries Division**

Mr. Thomas Maembe      Director  
 Mr. Rafael R. Mapunda      Asst. Director, Fisheries Development  
 Mr. Ng'wala J. Jihulya      Fisheries Officer, Development Planning  
 Mr. Gaudence L. Kalikela      Senior Fisheries Officer, Surveillance  
 Ms. Fatma Sobo      Fisheries Officer, Research, Training and Statistics  
 Ms. Valeria Mushi      Senior Fisheries Officer, Fisheries Development  
 Mr. Raphael J. Makenya      Senior Fisheries Officer, Quality Control and Standards  
 Ms. Ruphina M. Kullaya      Fisheries Officer, Quality Control and Standards

**3. Ministry of Finance**

Mr. Prosper J. Mbena      Commissioner for External Finance

**4. JICA, Tanzania**

Mr. Shinichiro Futami      Assistant Resident Representative

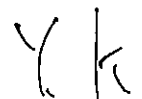
**5. JICA Advisory Team**

Mr. Yukihide Katsuta      Leader

**6. JICA Study Team**

Mr. Sachio Yamamoto      Team Leader  
 Mr. Kazumi Iida      Coastal Fisheries/ Marketing/ Processing  
 Mr. Masashi Sato      Inland Fisheries/ Marketing/ Processing 1  
 Ms. Yuki Niimura      Coordinator



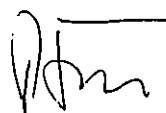
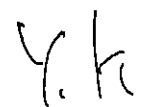



## MEMBERS OF STEERING COMMITTEE

Name	Organisation
Mr. Philemon L. Luhanjo	Ministry of Natural Resources and Tourism
Mr. T. Maembe	Ministry of Natural Resources and Tourism, Fisheries Division
Mr. R. Mapunda	Ministry of Natural Resources and Tourism, Fisheries Division
...	Director, Ministry of Regional Administration and Local Government
Mr. P. Mbeni	Ministry of Finance
Ms. A. Mayawalla	Planning Commission, President's Office
Dr. M. Ngoile	National Environment Management Council

## COUNTERPARTS

Name of Counterparts	Assignment
Mr. R. Mhekela	Leader/ Promotion of fishing communities
Ms. F. Sobu	Fishery Economist
Mr. L. Mkwizu	Coastal Fisheries/ Marketing/ Processing
Mr. R. Makenya	Inland Fisheries/ Marketing/ Processing I
Mr. D. Pande	Inland Fisheries/ Marketing/ Processing II
Ms. R. Kullaya	Fisheries Community Development/ Gender Analysis I
Ms. V. Mushi	Fisheries Community Development/ Gender Analysis II
Mr. I. Matamba	Institutional Building
Mr. R. Mapunda	Donor's Project Coordination
Ms. R. Mally	Environmental Impact
Mr. N. Jihulya	Coordinator

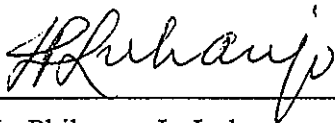





添付資料 7

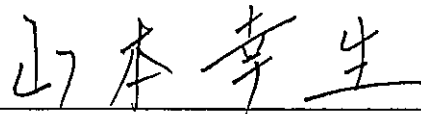
インテリムレポート協議議事録

MINUTES OF MEETING  
ON  
INTERIM REPORT  
FOR  
THE MASTER PLAN STUDY  
ON  
FISHERIES DEVELOPMENT  
IN  
THE UNITED REPUBLIC OF TANZANIA

Dar es Salaam, 5<sup>th</sup> November 2001



Mr. Philemon L. Luhanjo  
Permanent Secretary  
Ministry of Natural Resources and  
Tourism  
United Republic of Tanzania



Mr. Sachio Yamamoto  
Team Leader  
JICA Study Team  
Japan

Witness by:



Mr. Takayuki Nishizaki  
JICA Advisory Team  
Japan

**THE INTERIM REPORT  
FOR  
THE MASTER PLAN STUDY  
ON  
FISHERIES DEVELOPMENT  
IN  
THE UNITED REPUBLIC OF TANZANIA**

Dar es Salaam, 5<sup>th</sup> November 2001

The Scope of Work for the Master Plan Study on Fisheries Development in The United Republic of Tanzania was agreed upon between the Japan International Cooperation Agency (hereafter referred as JICA) Preparatory Study Team and the Tanzanian side on 5<sup>th</sup> October 2000. In accordance with the Scope of Work, JICA sent the Study Team headed by Mr. Sachio Yamamoto to The United Republic of Tanzania from 21<sup>st</sup> January to 12<sup>th</sup> August 2001 for the Phase I Study.

The Study Team submitted to the Tanzanian side 30 copies of the Interim Report in English language on 30<sup>th</sup> October 2001.

The Study Team explained on the Interim Report of the Study at the National Workshop held in TANESCO Training Institute, Morogoro from 30<sup>th</sup> October to 1<sup>st</sup> November 2001. Subsequently, discussions between the Tanzanian counterparts and the Study Team were held on 1<sup>st</sup> November 2001 concluding the meeting with the following points:

- (1) The Tanzanian side basically agreed on the contents and study procedures presented in the Interim Report.
- (2) Comments from the counterparts meeting for the Interim Report, which are detailed in Annex-I shall be considered.

List of participants in the counterparts meeting is attached as Annex-II.



**COMMENTS BY  
THE COUNTERPARTS MEETING  
FOR THE INTERIM REPORT**

**1. The concepts of the Master Plan**

- a) In the Interim Report, there are three fisheries development concepts and one concept for implementation. Addition of one more concept 'Sustainable utilisation of fish resources', which is agreed by both parties.
- b) One of the concepts, "Promotion of fish export" is changed into "Sustainable development of fish export", considering the importance of the sustainability of fish export than its quantitative increase and will be applied in the Master Plan.
- c) Former "Concept for implementation" shall be changed into "Better administration and management".

**2. Small water bodies**

For small water bodies, as one of the zonal categories, development strategies shall be provided in the Master Plan along with the other four major water bodies.

**3. Workshop proceedings**

What has been discussed in the National Workshop will be compiled into the proceedings. The lessons learnt from the National Workshop on its process shall be recorded as recommendations for the next workshop.

**4. Priority projects**

Out of project ideas proposed in the Workshop, the Study Team will carry out project designing and cost estimation for a certain number of projects with economic and technical evaluation.

**5. Donor meeting**

The Ministry of Natural Resources and Tourism will organize the donor coordination meeting in the end of stage 3 Study.



**LIST OF PARTICIPANTS  
FOR THE COUNTERPARTS MEETING**

Ministry of Natural Resources and Tourism, Fisheries Division

Mr. Rafael R. Mapunda	Asst. Director, Fisheries Development
Mr. Ng'wala J. Jihulya	Fisheries Officer, Fisheries Planning
Ms. Fatma A. Sobo	Fisheries Officer, Statistics
Ms. Valeria E. Mushi	Senior Fisheries Officer, Aquaculture
Mr. Raphael J. Makenya	Senior Fisheries Officer, Quality Control and Standards
Ms. Ruphina M. Kullaya	Fisheries Officer, Quality Control and Standards
Mr. Ramadhan M. Mhekela	Senior Fisheries Officer, Nyegezi Freshwater Fisheries Training Institute
Mr. Deogratius M. Pande	Fisheries Officer, Quality Control and Standards, Nyegezi
Mr. Kiyola O. Shindika	Senior Fisheries Officer, Statistics
Ms. Rita J. Maly	Fisheries Officer, Aquaculture
Mr. Ivishai M. Matemba	Senior Fisheries Officer, Publicity

JICA Study Team

Mr. Sachio Yamamoto	Team Leader
Mr. Kazumi Iida	Coastal Fisheries/ Marketing/ Processing
Mr. Masashi Sato	Inland Fisheries/ Marketing/ Processing 1
Mr. Toru Fujiki	Inland Fisheries/ Marketing/ Processing 2
Mr. Kazuaki Tani	Infrastructure
Ms. Yuki Niimura	Coordinator

JICA Advisory Team

Mr. Takayuki Nishizaki	Coordinator, Japan International Cooperation Agency, Tokyo
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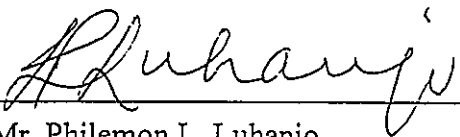
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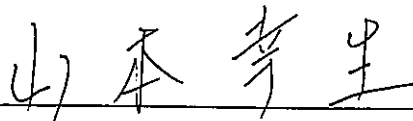
添付資料 8  
ドラフト  
ファイナルレポート  
協議議事録

MINUTES OF MEETING  
ON  
DRAFT FINAL REPORT  
FOR  
THE MASTER PLAN STUDY  
ON  
FISHERIES DEVELOPMENT  
IN  
THE UNITED REPUBLIC OF TANZANIA

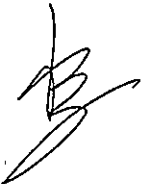
Dar es Salaam, 25<sup>th</sup> April 2002



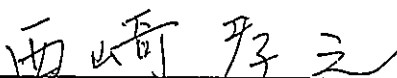
Mr. Philemon L. Luhanjo  
Permanent Secretary  
Ministry of Natural Resources and  
Tourism  
United Republic of Tanzania



Mr. Sachio Yamamoto  
Team Leader  
JICA Study Team  
Japan



Witness by:



Mr. Takayuki Nishizaki  
JICA Advisory Team  
Japan

**THE DRAFT FINAL REPORT  
FOR  
THE MASTER PLAN STUDY  
ON  
FISHERIES DEVELOPMENT  
IN  
THE UNITED REPUBLIC OF TANZANIA**

Dar es Salaam, 25<sup>th</sup> April 2002

The Scope of Work for the Master Plan Study on Fisheries Development in The United Republic of Tanzania was agreed upon between the Japan International Cooperation Agency (hereafter referred as JICA) Preparatory Study Team and the Tanzanian side on 5<sup>th</sup> October 2000. In accordance with the Scope of Work, JICA sent the Study Team headed by Mr. Sachio Yamamoto to The United Republic of Tanzania from 21<sup>st</sup> January 2001 to 28<sup>th</sup> April 2002.

The Study Team submitted to the Tanzanian side 30 copies of the Draft Final Report in English on 16<sup>th</sup> April 2002.

The Study Team explained the Draft Final Report of the Study at the Steering Committee on 25<sup>th</sup> April 2002. Subsequently, discussions between the Tanzanian side and the Study Team were held, concluding the following points:

- (1) The Tanzanian side basically agreed on the contents and study procedures presented in the Draft Final Report.
- (2) Comments expressed by the Tanzanian side for the Draft Final Report, which are detailed in Annex-I shall be considered.

List of participants in the Steering Committee is attached as Annex-II.



COMMENTS BY  
THE STEERING COMMITTEE  
FOR THE DRAFT FINAL REPORT

1. The recommendations presented by the stakeholders during the Technology Transfer Seminar held in Dar es Salaam on 18<sup>th</sup> and 19<sup>th</sup> April 2002 will be reviewed by both Fisheries Division and the Study Team. Subsequently, it will be compiled into the Final Report.
2. The Ministry of Natural Resources and Tourism through Fisheries Division will present the comments on the Draft Final Report, if there is any, to JICA Tanzania office before 6<sup>th</sup> May 2002 which will be forwarded to the Study Team and incorporated in the Final Report.
3. In order to avoid the national projects inclining too heavily towards the Lake Victoria, the Master Plan will consider the distribution of pilot areas for priority programmes from the Lake Victoria to other areas.

*PLH*

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