

# **Fishing Practices Special Study (FPSS) Final Report**

## **Fishing Gears Of Lake Tanganyika At The Turn Of The Millenium**

### **Section C: Appendices**

**Date of Issue: June 2000**

#### **Report Structure**

This report is divided into three parts, as follows

- Part A: Overview (both English and French language versions available)
- Part B: Detailed Gear Descriptions
- Part C: Appendices

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## 6. APPENDICES

### 6.1 Retail Fishing Gear Prices.

#### 6.1.1 Kigoma, Tanzania

17/11/99 US\$ = 787 Tanzanian shillings

Beer Index: 600/= TZ buys a 500ml bottle of Kilimanjaro beer in the Bangwe Prison bar near Tafiri. Beer index. 1000 ml = US\$ 1.52

Location	Gear	Manufacturer	Gear specification	Price TZ Sh
GHN Enterprises, Phone 4160 Kigoma  Specialises in Lift net and beach seine netting and lights.  Stated that a beach seine requires 6 pieces of 210d/4 x 800mesh deep x 100m to make.	Lift net netting	Namyang Corporation, PO Box 126, Pusan, Korea. Tel (51) 4130071/5 Fax: (51) 413 2400/7020	Nylon Raschel Knotless Netting Red 210/d4 x 8mm stretched mesh 800md x 100m panel of netting (6.4m x 100m)	460.000/=TZ
	Ropes		6mm Ø PE 3 strand brown x 200m	15000/= TZ
			10mm Ø PE 3 strand white x 200m	32000/= TZ
			10mm Ø PE 3 strand brown x 200m	35000/= TZ
			12mm Ø PE 3strand brown x 200m	42000/= TZ
			14mm Ø PE 3strand brown x 200m	47000/= TZ
	Twine		210d/6 8oz bobbin	3000/= TZ
			210d/9 8oz bobbin	3000/= TZ
			210d/10 500 gm bobbin	5000/= TZ
			210d/15 8oz bobbin	3000/= TZ
		210d/36 500 gm bobbin	5000/= TZ	
	Pressure Lantern	Egret Brand Shanghai Light Industrial	1 Lamp	16000/= TZ
	Pressure Light glass	Products, Import & Export Corporation China	1 Dozen	16000/= TZ

Location	Gear	Manufacturer	Gear specification	Price TZ Sh
Jan Mohamed Box 12 Kigoma	Mosquito Net	Unknown	1 m x 50 m roll	38000/= TZ

Continued...

Location	Gear	Manufacturer	Gear specification	Price TZ Sh
Hasani G Najafi Box 229 Kigoma	Gill Nets	China	210d/2 Nylon 2 inch x 26 md x 50 yards Double selvege	1200/= TZ
			210d/2 Nylon 2inch x 26md x 50 yards Double selvege	1200/= TZ
			210d/3 Nylon 2_inch x 26md x 50 yards Double selvege	1200/= TZ
			210d/3 Nylon 3 inch x 26md x 50 yards Double selvege	1200/= TZ
New Stores Box 1323 Kigoma  This shop has the best selection of fishing gears in Kigoma.	Gill Net	China	210d/ 3 Nylon 4 inch x 26 x 100yards Double selvege	3400/= TZ
		Chapa Simba Fish Net Industries Ltd Box 21005 DSM	210d/9 63mm x 26md x 45 yards	7000/= TZ
	Fishing Hooks	Mustad Made in Norway	Kirby Ringed & Duratin Size 9 x 100 Pc (Sizes 1 ---20 available)	2400/= TZ
	Fishing Lines	Tunny Fishing Brand China	0.60mm x 100yards nylon monotwineament in 4 hanks of 25yards. (Sizes 0.3--- 1.0 mm available, prices vary with size )	300-1500/= Tz
	Mending Twines	China	210d/ 2-White Nylon multitwineament-100gm bobbin (Sizes 210d/2 – 210d/60 available, all same price)	600/= TZ
RISASI MOTORS Plot no 149 Lumumba Road Kigoma	Out Board Engines	YAMAHA JAPAN	HP 2	504,000/= TZ
			HP 5	924,000/= TZ
			HP 8	1,200,000/= TZ
			HP 9.9	1,380,000/= TZ
			HP 15	1,440,000/= TZ
			HP 25	2 040,000/=TZ
			HP 40	2,340,000/=TZ

Location	Gear	Manufacturer	Gear specification	Price TZ Sh
			HP 48	3,000,000/=TZ
			HP 55	3,120,000/=TZ
			HP 75	3,840,000/=TZ
			HP 85	5,160,000/=TZ
			HP 115	6,300,000/=TZ
Market Stall	Fish Hooks	Eagle Brand	Kirby sea hook ringed & bronzed No 17 1 box of 100	1800/= TZ
		Maruto Japan	Kirby sea hook ringed & bronzed No 14 1 box of 100	2200/= TZ
		Quality No 1270	Kirby sea hook ringed & bronzed No 13 1 box of 100	2400/= TZ
	Staples	Locally manufactured	2 inch staple for boat building	18/=TZ

**6.1.2 Mpulungu. Zambia**

28/10/99 US\$ = 2490 Zambian Kwacha.

Beer Index: 1,400 Kwacha buys a 375ml bottle of Mosi beer in a typical local bar in Mpulungu. Beer index. 1000 ml = US\$ 1.51

Location	Gear	Manufacturer	Specification	Price Zambian Kwacha
Kalambo store  The store manager said the gear was very old and would be more expensive when reordered	Gill net (nylon multi)	Nikwazi Manufacturing Co Ltd, PO Box 360106, Kafue, Zambia Ordered through stores' wholesaler	89mm (3") stretched mesh 210d/6 90m x 25md	38500
			3" stretched mesh. 210d/4 90m x 20md	35000
	Twine (nylon multi)		3 strand 210d/36 500gm bobbin	18500
			3 strand 210d/18 500gm bobbin	18500
			3 strand 210d/9 500gm bobbin	18500
3 strand 210d/18 200gm bobbin	8500			
N'Gwenya Market  Judas' Store. Large market stall with good stock of trade goods and fishing requisities  <b>All the gears in N'Gwenya market sourced in Tanzania</b>	Gill net (nylon multi)	Goldfish Brand (in Chinese). Made in China	3" stretched mesh. 210d/2 50 yards x 26md. Double selvege	5500
			2" stretched mesh. 210d/2 50 yards x 26md. Double selvege	
	Nylon Monotwineament	Yusung Industrial, Korea	100 yards Ø 0.4mm. In connected coils of 100m	2500
			100 yards Ø 0.7mm In connected coils of 100m	3500
			100 yards Ø 0.8mm. In connected coils of 100m	
	Twines (nylon multi)	Goldfish Brand (in Chinese). Made in China	210d/6 200 gm bobbin	2000
			210d/18 200 gm bobbin	
			210d/24 200 gm bobbin	
	Hooks	Mustad. Norway	380d/15 100gm Polyethylene hanks	1500
			No 13 Kirby Ringed and Blued Ref 2320	100
		No 12 Kirby Ringed and Blued Ref 2320	120	

Un-named stall. Mixed goods and fishing requisites	Gill Net (nylon multi)	Goldfish Brand (in Chinese). Made in China	1" stretched mesh. 210d/2 50 yards x 26md	5000
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<b>Location</b>	<b>Gear</b>	<b>Manufacturer</b>	<b>Specification</b>	<b>Price Zambian Kwacha</b>
Un-Named stall Female owner.  Mixed trade goods and fishing requisites	Gill net (nylon multi)	Goldfish Brand (in Chinese). Made in China	2_” stretched mesh. 210d/2 50 yards x 26md	5000
	Nylon Monotwineament	Yusung Industrial, Korea	100 yards Ø 0.4mm. In connected coils of 100m	2500
			100 yards Ø 0.5mm In connected coils of 100 m	
			100 yards Ø 0.8mm. In connected coils of 100m	
	Twines(nylon multi)	Goldfish Brand (in Chinese). Made in China	210d/3 200 gm bobbin	3000
			210d/6 200 gm bobbin	
			210d/18 200 gm bobbin	
			210d/36 200 gm bobbin	
	Hooks	Mustad. Norway	No 13 Kirby Ringed and Blued Ref 2320	100
			No 12 Kirby Ringed and Blued Ref 2320	150
No 8 Kirby Ringed and blued Ref 2320			200	
Un-named stall  Sells bicycle spare parts	Lead weights	Home made. Zambia	145gm. Conical. 6cm high. Cast in paper cone set in sand into which molten lead is poured. Battery derived lead.	500
Jessies stall  Sells bicycle spare parts	Lead weights	Imported	450 gms. Purse seine weights. Probably stolen from Purse seine companies.	1000
Stall run by Sikazwe Humphrey.  Mixed trade goods and fishing requisites	Hooks	Mustad. Norway	No 13 Kirby Ringed and Blued Ref 2320	100
No 14 Kirby Ringed and Blued Ref 2320				
No 16 Kirby Ringed, Duratin Ref 233DT				
No 18 Kirby Ringed, Duratin Ref 233DT				
No 20 Kirby Ringed, Duratin Ref 233DT				

Purse seine companies Old purse nets	Purse seine nets	Korea, Taiwan & South Africa	Pieces of old purse seines. By Auction or sometimes by tender. Sold by the kilo of mesh.	Up to 15000/kg
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### 6.1.3 Bujumbura. Burundi

11/99. US\$ = . 1150 Fbu (Black market) 620 Fbu (Bank rate). Beer Index: 400 Fbu buys a 72 ml bottle of Primus beer in a typical local bar in Bujumbura. Beer index. 1000 ml = US\$ 1.06 (at bank rate) or 1000ml = US\$ 0.57 (at black market rate)

Place	Gear	Manufacturer	Specifications	Prix Fbu
PATEL STORE QUARTIER ASIATIQUE	Ropes	Korea	Nylon 210d2-4-6-8-10-12 100-200 yds	85.000 Fbu
		Made en China	210d14-16-18-20-22-24-26-28 50 mètres	85.000-95.000 Fbu
		Made in Italy	Nylon 210d 20-22 100 mètres	250.000 Fbu
			Nylon 210d 24 200 mètres	350.000 Fbu
	Line	Made in Korea	210d 4-6-9 Nylon brown _ lb ~ 225 gr	3000 Fbu bobbin
		Made in China	210d 15-36-45-48 Nylon White snow Bobbin 200gr	2.500 Fbu
	Seines	Made in Korea, color brown Nylon	210d 4 750 Md 100 m de long confection rashel	750.000 Fbu Ballot
			210d 5-6 800 Md- 100 m de length confection rashel	850.000 Fbu Ballot
	Seines	Made in Korea Color White snow Nylon	1" stretched mesh 210d/2 100 m long 1m wide	140.000 Fbu Ballot
			150 ft (45m) /120 MD 210d/9 stretched mesh size 1"	150.000 Fbu

			5mm 100 yds width 6.5 yds (650 m <sup>2</sup> )	700.000 Fbu ballot
			1 _" 100 m /13.5 m large (ballot 1350 m <sup>2</sup> )	15000 Fbu/m
	Lines	Made in China	Ø 0.80 –0.90 100 metres de long	1500 Fbu
		Made in Italy color blue clear	Ø 0.35 200 yds	2500 Fbu 2 pieces
			Ø 0.50 200 yds	3000 Fbu/2 pieces

Place	Gear	Manufacturer	Specifications	Price Fbu
<b>MAGASIN LA PROVINCIAL E</b>	<b>Gill nets</b>	Kyung HI Fishing net MFH.CO,LTD Seoul Korea P.o BOX 3119 fax 82-57-404-0475	Nylon net 210d/2 200 mm sq 60 MD x 50 m	5.500 Fbu / each
	<b>Seines</b>	Kyung HI Fishing net MFH.CO,LTD Seoul Korea P.o BOX 3119 fax 82-57-404-0475	Nylon net 210d5/6 800 Md X100m Nylon net 210d5/6 600MD X 100m Nylon net 210d5/5 600 MD x 100 m Nylon net 210d 4/4 800 MD x 100 m	5.600 Fbu / Kg
			Nylon net 210d 15/25 400 MD 100x 12.5 m Nylon net 210d6/10 100x 12.5 m	7500 Fbu/Kg
	<b>Line Nylon</b>	Kyung HI Fishing net MFH.CO,LTD Seoul Korea P.o BOX 3119 fax 82-57-404-0475	210d 2-4-6-9-12-15-21-45-60 450 gr	2.500 Fbu/ bobbin

<b>Ropes PE</b>		200 yards Ø 2-4-6-8-10-12-16-18 mm	1200-4500- 7000-14.000- 18.000- 22.000- 38.000-49.000 Fbu
<b>Lamps</b>	Made in Italy	1000-2000 candles	105.000 Fbu- 75.000 Fbu
		Glass for lamps	10.000 Fbu
		* Mantles for lamps	1.200 Fbu dozen
<b>Motors mariner</b>	Made in Belgium	10-15-25-40 CV	Variable
<b>Floats</b>	Made in Italy	Ø 35-70-20 m/m	Variable

Place	Gear	Manufacturer	Specifications	Prix Fbu
MARCHE CENTRAL I	Line	Made in China	210d/12 100 gr snow white multifilament	1200 Fbu
		Made in Korea Pusan (Namyang corporation)	210d/21 _ 1/b	2500 Fbu
		Made in China Gold fish Brand fishing net	Nylon Twine size 210 d/60 weight 500 gr	5000 Fbu
	Line Nylon	Made in China	*210 d15-12—18-9-6-2 <b>100 gr</b> *210d 60-45 <b>500 gr</b>	Bobbin :1100 Fbu/100 g– 7.500 Fbu/500 gr
	Line Nylon White	Made in China et Made in Korea , Seoul	210 d 6/60/ _ <b>lb</b>	Bobbin : 2000 Fbu
	Tying in line for gill nets	Made in Taiwan	0.13 m/m 5000 yds	Bobbin 500 Fbu
	Gill nets	K Synthetic Industries Korea Ltd	0.18 twine synthetic mesh size 1 _ inch 100 MD 50 M	20.000 Fbu each
	Gill nets	K Synthetic Industries Korea Ltd	0.30 twine synthetic mesh size 2_”inc 70MD 100 Yds	60.000 Fbu each
	Gill nets	K Synthetic Industries Korea Ltd	0.23 twine synthetic mesh size 1inch100MD 100 Yds	60.000 Fbu
	Hooks	Made in Norway par Mustad and son A-S	Size 3 quality 2330 DT 100 /box Kirby sea Hooks Ringed, Duratin	3.500 Fbu/ box
	Hooks	Made in Norway par Mustad and son A-S	Size 14 Ref : 92.247 Mustad beak Hooks Reversed Tapered, Ringed special, Nickel plated	4500 Fbu/ box
	Hooks	Made in China	Superior steel quality 2518. 1000/box Ringed n° 14-15-18-20	6000 Fbu box
	Lures	Made in Finland Nor-Mark 17200 VAAKSY	Lauri-Rapala, Magnum tuned and tank tested	300 Fbu each

Place	Gear	Manufacturer	Specifications	Prix Fbu
	Lines	Made in China	1.00 –0.6-0.7mm double fish brand	
	Rope PE		200 yards m/m 2-4-6-8-10-12-16-18	1800-5500-9000- 17000-21000Fbu
	Gill net	Made in China by Shantou fishing implements import-export company of Gwandong	Double fish brand fishing net 210d2 stretched mesh size 1 _” Md 26 50 metres Imported from Tanzania	1600 Fbu /each
	Gill net Nylon	Made in Seoul Korea by Kyung Hi Fishing net MFG .Co. Ltd Télex Kyung HI K 28 575 (30.000)	310d/3-L3 Stretched mesh 5/8” 100 MD 50 yds	30.000 Fbu/ each
	Gill net Nylon	Made in Seoul Korea by Kyung Hi Fishing net MFG .Co. Ltd Télex Kyung HI K 28 575 (30.000)	210 d/3 PLY _” SM 100Md 50Yds double size	30.000 Fbu / each
		Made in DUBAI, UAE	Superior quality 210 d/3 _” 100 MD 50 Yds lot n° # 418 00 5154	25000 Fbu/ each
	Hooks	Made in China	Superior steel quality 2518 Fish hooks 100/box Ringed n°8-10-15-18-20	4000 Fbu/box
		Made in Norway but imported from Tanzania	Mustad Key Brand REF 2320 Kirby sea Hooks Ringed blue size 10-8-9-14	450 0Fbu/ Box
	Line	Made in China	210d/12 100 gr snow white multitwineament	1200 Fbu
		Made in Korea Pusan (Namyang corporation)	210d/21 _ 1/b	2500 Fbu
		Made in China Gold fish Brand fishing net	Nylon Twine size 210 d/60 weight 500 gm	5000 Fbu

## Fish Species appearing in the catch of various gears

All FPSS data from all sources. 1996-2000 combined

	TRAPS (non return)	Gill nets (all mesh sizes)	Beach seine (Daylight)	Encircling gillnet with frightening device	Long lines	Pole and line (Children)
1	<i>Clarias gariepinus</i>	<i>Acapoeta tanganicae</i>	<i>Acapoeta tanganicae</i>	<i>Acapoeta tanganicae</i>	<i>Bathybates graueri</i>	<i>Bathybates minor</i> ,
2	<i>Clarias mossambicus</i>	<i>Aethiomastacembellus platysoma</i>	<i>Astatotilapia burtoni</i>	<i>Auchenoglanus occidentalis</i>	<i>Benthochromis tricoti</i>	<i>Boulengerochromis microlepis</i> ,
3	<i>Lates mariae</i>	<i>Auchenoglanis occidentalis</i>	<i>Auchenoglanis occidentalis</i>	<i>Aulonocranus dewindti</i>	<i>Chrysichthys sianenna</i>	<i>Cyathopharynx furcifer</i> ,
4	<i>Oreochromis niloticus</i>	<i>Aulonocranus dewnti</i>	<i>Aulonocranus dewnti</i>	<i>Bathybates fasciatus</i>	<i>Clarias gariepinus</i>	<i>Cyphotilapia frontosa</i> ,
5	<i>Oreochromis tanganicae</i>	<i>Barbus spp</i>	<i>Bathybates fasciatus</i>	<i>Bathybates ferox</i>	<i>Clarias mossambicus</i>	<i>Grammatotria lemarii</i> ,
6	<i>Tilapia rendalli</i>	<i>Bathybates fasciatus</i>	<i>Bathybates ferox</i>	<i>Bathybates graueri</i>	<i>Hemibates stenosoma</i>	<i>Hydrocynus alestes</i> ,
7	<i>Tilapia spp</i>	<i>Bathybates ferox</i>	<i>Bathybates graueri</i>	<i>Bathybates hori</i>	<i>Lates mariae</i>	<i>Lamprologus callipterus</i> ,
8		<i>Bathybates graueri</i>	<i>Bathybates minor</i>	<i>Bathybates minor</i>	<i>Limnochromis auritus</i>	<i>Limnothrissa miodon</i> ,
9		<i>Bathybates horni</i>	<i>Bathybates spp</i>	<i>Bathybates spp</i>	<i>Limnotilapia dardennei</i>	<i>Lobochilotes labiatus</i> ,
10		<i>Bathybates leo</i>	<i>Boulengerochromis microlepis</i>	<i>Bathybates vittatus</i>	<i>Lophiobagrus cyclirus</i>	<i>Nolamprologus meei</i> ,
11		<i>Bathybates minor</i>	<i>Brycinus rhodopleura</i>	<i>Benthochromis tricoti</i>	<i>Malapterurus electricus</i>	<i>Pseudosimochromis curvifrons</i> ,
12		<i>Bathybates spp</i>	<i>Caecomastacembelus cunningtoni</i>	<i>Boulengerochromis microlepis</i>	<i>Reganochromis calliurus</i>	<i>Stolothrissa tanganicae</i> ,
13		<i>Bathybates vittatus</i>	<i>Callochromis macrops</i>	<i>Caecomastacembelus cunningtoni</i>	<i>Tanganikallabes mortiauxi</i>	<i>Synodontis spp</i> ,
14		<i>Benthochromis tricoti</i>	<i>Callochromis melanostigma</i>	<i>Callochromis melanostigma</i>	<i>Xenotilapia sima</i>	<i>Tylochromis polylepis</i> ,
15		<i>Boulengerochromis microlepis</i>	<i>Callochromis pleurospilus</i>	<i>Callochromis pleurospilus</i>		<i>Xenotilapia spp</i>
16		<i>Caecomastacembelus cunningtoni</i>	<i>Callochromis spp</i>	<i>Chrysichthys graueri</i>		
17		<i>Callochromis melanostigma</i>	<i>Cardiopharynx schoutedeni</i>	<i>Chrysichthys platycephalus</i>		
18		<i>Callochromis pleurospilus</i>	<i>Chelaethiops minutus</i>	<i>Chrysichthys sianenna</i>		
19		<i>Chrysichthys brachynema</i>	<i>Chrysichthys brachynema</i>	<i>Citharinus gibbosus</i>		
20		<i>Chrysichthys graueri</i>	<i>Chrysichthys graueri</i>	<i>Clarius spp</i>		
21		<i>Chrysichthys platycephalus</i>	<i>Chrysichthys platycephalus</i>	<i>Ctenochromis horei</i>		
22		<i>Chrysichthys sianenna</i>	<i>Chrysichthys sianenna</i>	<i>Cyathopharynx furcifer</i>		
23		<i>Chrysichthys stappersi</i>	<i>Chrysichthys spp</i>	<i>Cyphotilapia frontosa</i>		
24		<i>Clarias gariepinus</i>	<i>Chrysichthys stappersi</i>	<i>Cyprichromis spp</i>		
25		<i>Clarias mossambicus</i>	<i>Clarias gariepinus</i>	<i>Dinotopterus cunningtoni</i>		
26		<i>Clarias spp</i>	<i>Clarias mossambicus</i>	<i>Ectodus descampsi</i>		



	TRAPS (non return)	Gill nets (all mesh sizes)	Beach seine (Daylight)	Encircling gillnet with firtghtening device	Long lines	Pole and line (Children)
27		Crabs	Ctenochromis horei	Gnathochromis permaxillaris		
28		Ctenochromis horei	Cyathopharynx furcifer	Gnathochromis pfefferi		
29		Cyathopharynx furcifer	Dinotopterus cunningtoni	Grammatotria lemairei		
30		Cyphotilapia frontosa	Ectodus descampsi	Haplochromis burtoni		
31		Dinotopterus cunningtoni	Gnathochromis permaxillaris	Haplochromis horei		
32		Ectodus descampsi	Gnathochromis pfefferi	Haplotaxodon microlepis		
33		Gnathochromis permaxillaris	Grammatotria lemairei	Hemibates stenosoma		
34		Gnathochromis permaxillaris	Haplochromis horei	Hydrocynus alestes		
35		Gnathochromis pfefferi	Haplotaxodon microlepis	Labeo spp		
36		Grammatotria lemairei	Hemibates stenosoma	Lamprologus callipterus		
37		Haplochromis burtoni	Hippopotamyrus discorhynchus	Lamprichthys tanganicanus		
38		Haplochromis horei	Hydrocynus alestes	Lates angustifrons		
39		Haplotaxodon microlepis	Hydrocynus goliath	Lates mariae		
40		Hemibates stenosoma	Hydrocynus spp	Lates microlepis		
41		Hippopotamyrus discorhynchus	Lamprichthys tanganicanus	Lates stappersii		
42		Hydrocynus alestes	Lamprologus callipterus	Lepidiolamprologus attenuatus		
43		Hydrocynus goliath	Lamprologus lemarii	Lepidiolamprologus cunningtoni		
44		Labeo spp	Lamprichthys tanganicanus	Lepidiolamprologus elongatus		
45		Lamprichthys tanganicanus	Lates angustifrons	Limnochromis auritus		
46		Lamprologus callipterus	Lates mariae	Limnothrissa miodon		
47		Lamprichthys tanganicanus	Lates microlepis	Limnotilapia dardennii		
48		Lates angustifrons	Lates stappersii	Lobochilotes labiatus		
49		Lates mariae	Lepidiolamprologus attenuatus	Malapterurus electricus		
50		Lates microlepis	Lepidiolamprologus cunningtoni	Mormyrus longirostris		
51		Lates stappersii	Lepidiolamprologus elongatus	Neolamprologus meeli		
52		Lepidiolamprologus attenuatus	Lepidiolamprologus spp	Ophthalmotilapia ventralis		
53		Lepidiolamprologus elongatus	Limnochromis auritus	Oreochromis tanganicae		
54		Lepidiolamprologus pleuromaculatus	Limnothrissa miodon	Oreochromis niloticus		
55		Lestradea perspicax	Limnotilapia dardennii	Perissodus microlepis		

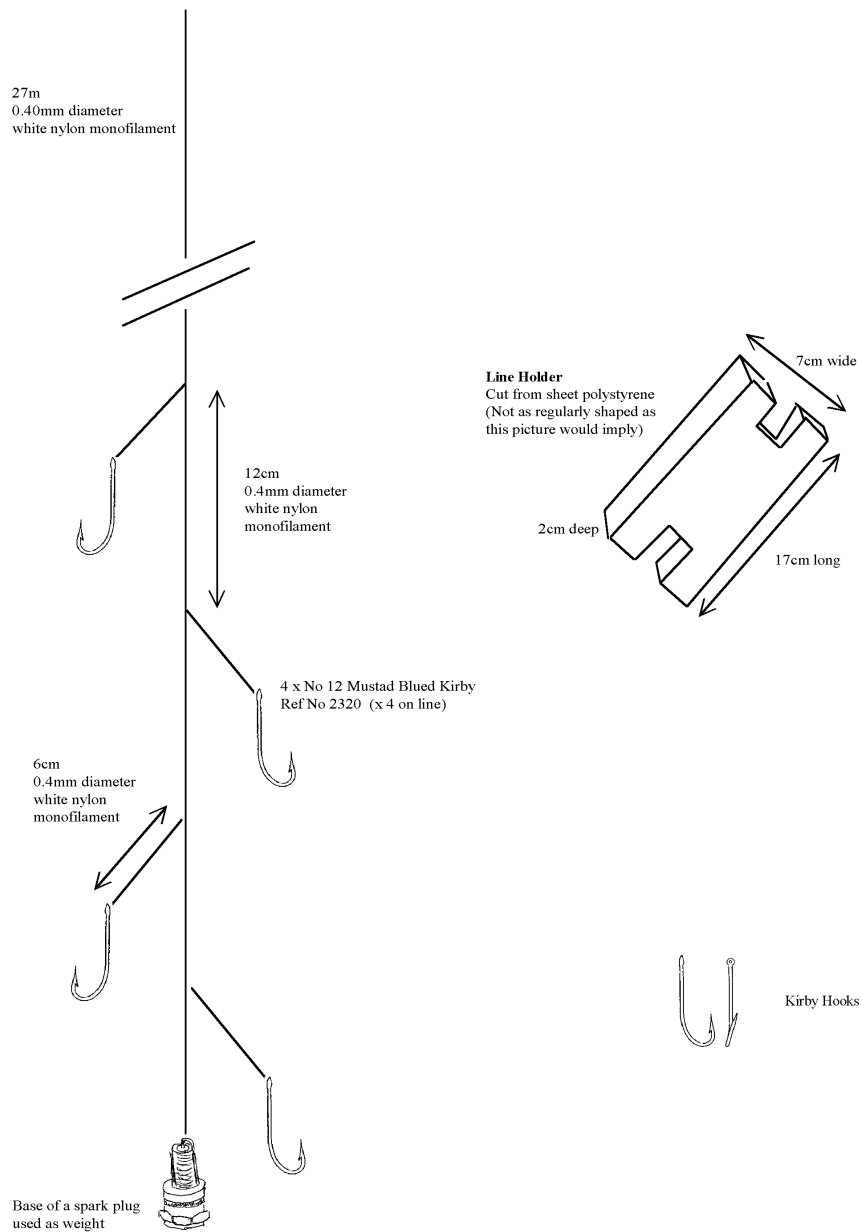
	TRAPS (non return)	Gill nets (all mesh sizes)	Beach seine (Daylight)	Encircling gillnet with firtgtening device	Long lines	Pole and line (Children)
56		<i>Limnochromis abeelei</i>	<i>Lobochilotes labiatus</i>	<i>Plecodus paradoxus</i>		
57		<i>Limnochromis auritus</i>	<i>Lophiobagrus cyclurus</i>	<i>Reganochromis calliurus</i>		
58		<i>Limnothrissa miodon</i>	<i>Malapterurus electricus</i>	<i>Simochromis babaulti</i>		
59		<i>Limnotilapia dardennii</i>	<i>Mastacembelus ophidium</i>	<i>Simochromis diagramma</i>		
60		<i>Lobochilotes labiatus</i>	<i>Mastacembelus spp</i>	<i>Synodontis multipunctatus</i>		
61		<i>Lophiobagrus cyclurus</i>	<i>Mormyrus longirostris</i>	<i>Tanganikallabes mortiauxi</i>		
62		<i>Macrobrachium moori</i>	<i>Neolamprologus meeli</i>	<i>Telmatochromis dhonti</i>		
63		<i>Malapterurus electricus</i>	<i>Neolamprologus pleuromaculatus</i>	<i>Trematocara unimaculatum</i>		
64		<i>Mastacembelus cunningtoni</i>	<i>Neolamprologus savoryi</i>	<i>Trematocara variabile</i>		
65		<i>Mormyrus longirostris</i>	<i>Neolamprologus spp</i>	<i>Triglachromis otostigma</i>		
66		<i>Neolamprologus meeli</i>	<i>Ophthalmotilapia ventralis</i>	<i>Tylochromis microlepis</i>		
67		<i>Ophthalmotilapia ventralis</i>	<i>Oreochromis nilotica</i>	<i>Tylochromis polylepis</i>		
68		<i>Oreochromis niloticus</i>	<i>Oreochromis tanganycae</i>	<i>Xenochromis hecqui</i>		
69		<i>Oreochromis tanganycae</i>	<i>Perissodus microlepis</i>	<i>Xenotilapia boulengeri</i>		
70		<i>Pelmatochromis pleurospilus</i>	<i>Petrochromis spp</i>	<i>Xenotilapia caudafasciata</i>		
71		<i>Perissodus microlepis</i>	<i>Polypterus ornatipinnis</i>	<i>Xenotilapia flavipinnis</i>		
72		<i>Plecodus paradoxus</i>	<i>Protopterus aethiopicus</i>	<i>Xenotilapia melanogenys</i>		
73		<i>Polypterus ornatipinnis</i>	<i>Pseudosimochromis curvifrons</i>	<i>Xenotilapia ochrogenys</i>		
74		<i>Protopterus aethiopicus</i>	<i>Reganochromis calliurus</i>	<i>Xenotilapia ornatipinnis</i>		
75		<i>Pseudosimochromis curvifrons</i>	<i>Simochromis babaulti</i>	<i>Xenotilapia sima</i>		
76		<i>Reganochromis calliurus</i>	<i>Simochromis diagramma</i>			
77		<i>Schilbe spp</i>	<i>Simochromis diagramma</i>			
78		<i>Simochromis babaulti</i>	<i>Synodontis multipunctatus</i>			
79		<i>Simochromis diagramma</i>	<i>Telmatochromis temporalis</i>			
80		<i>Stolothrissa tanganycae</i>	<i>Tetraodon mbu</i>			
81		<i>Synodontis multipunctatus</i>	<i>Trematocara marginatus</i>			
82		<i>Synodontis spp</i>	<i>Trematocara nigrifrons</i>			
83		<i>Tanganikallabes mortiauxi</i>	<i>Trematocara spp</i>			
84		<i>Tilapia spp</i>	<i>Trematocara unimaculatum</i>			

	TRAPS (non return)	Gill nets (all mesh sizes)	Beach seine (Daylight)	Encircling gillnet with firtghtening device	Long lines	Pole and line (Children)
85		Trematocara caparti	Trematocara variable			
86		Trematocara unimaculatum	Triglachromis otostigma			
87		Trematocara variable	Tylochromis microlepis			
88		Triglachromis otostigma	Tylochromis polylepis			
89		Tylochromis microlepis	Xenochromis hecqui			
90		Tylochromis polylepis	Xenotilapia boulengeri			
91		Xenochromis hecqui	Xenotilapia dardennii			
92		Xenotilapia caudafasciata	Xenotilapia flavipinnis			
93		Xenotilapia flavipinnis	Xenotilapia melanogenys			
94		Xenotilapia melanogenys	Xenotilapia ochrogenys			
95		Xenotilapia ochrogenys	Xenotilapia ornatipinnis			
96		Xenotilapia sima	Xenotilapia sima			
97		Xenotilapia spilopterus	Xenotilapia spp			
98		Xenotilapia spp				

6.2 Gear Plans

Vertical Hand line  
 Demersal fish  
 Lake Tanganyika. Kasisi, Mpulungu, Zambia

Boat 5.2m  
 1 fishermen  
 Bait: worms & sardine

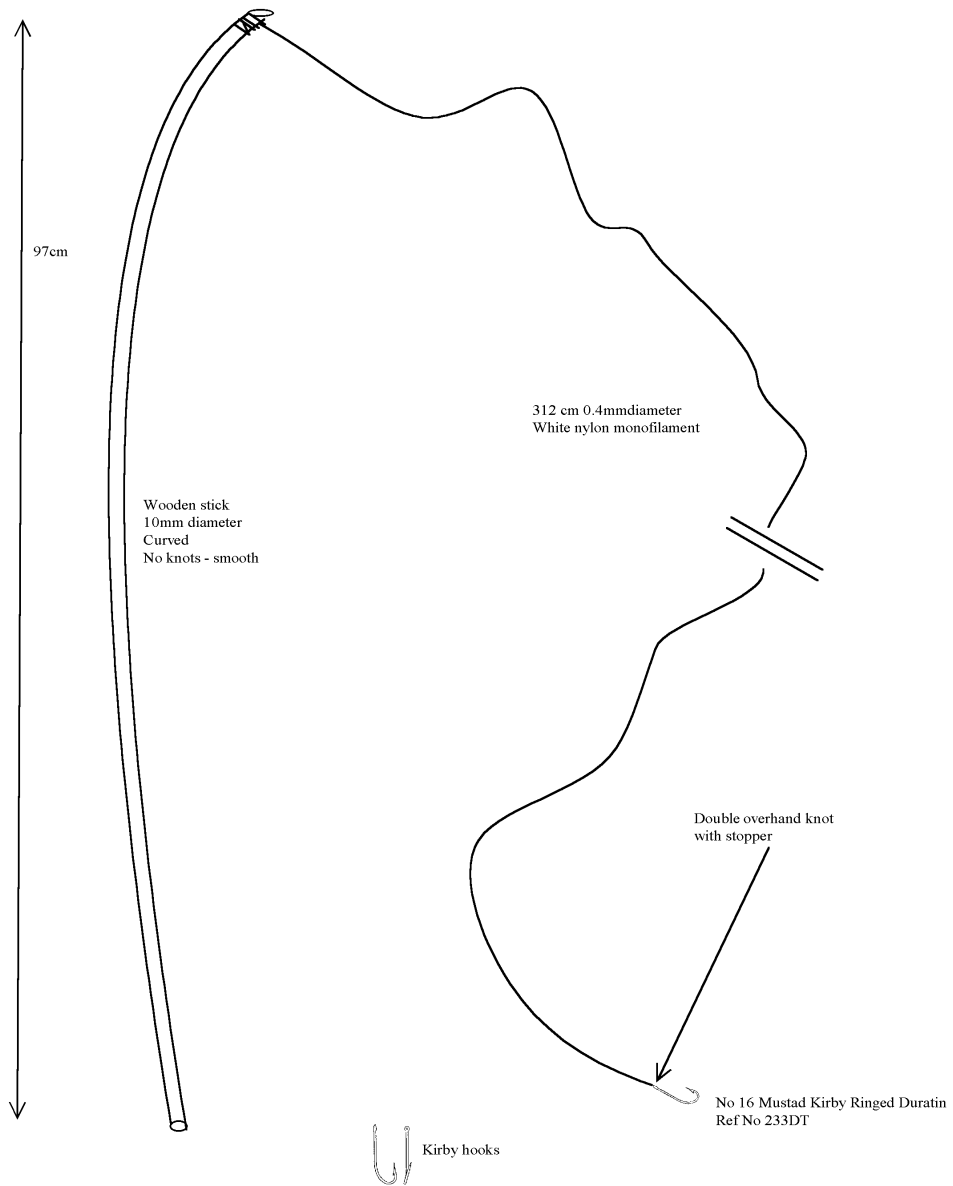


6.2.1 Vertical hand line for mixed littoral fish

Pole and line  
Small Littoral Fishes  
Lake Tanganyika. Kasisi, Mpulungu, Zambia

No boat  
1 fishermen (usually child)  
Bait: Maize meal, worms & sardine

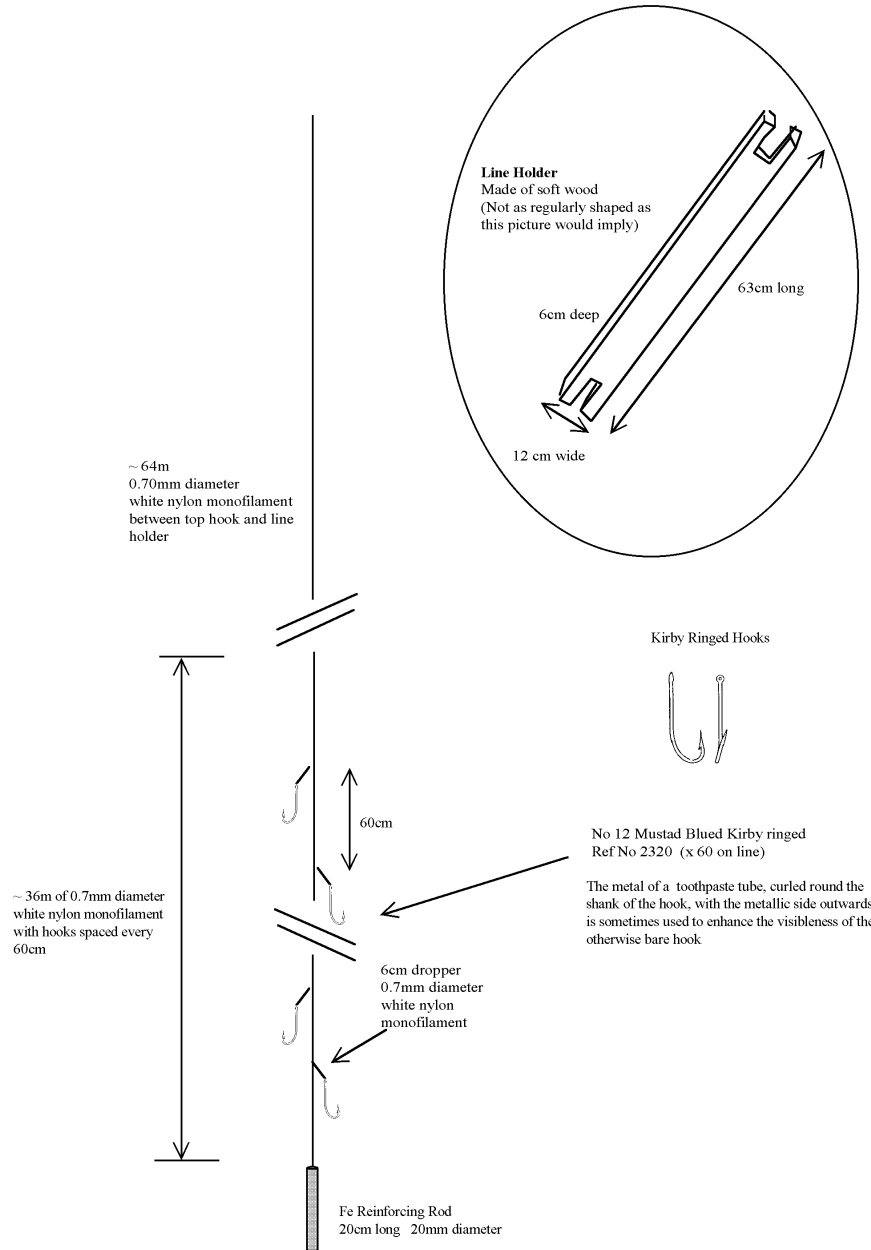
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### 6.2.2 Pole and line from Zambia

Vertical Hand line.  
*Lates stappersii*  
 Lake Tanganyika. Zashe, N Tanzania

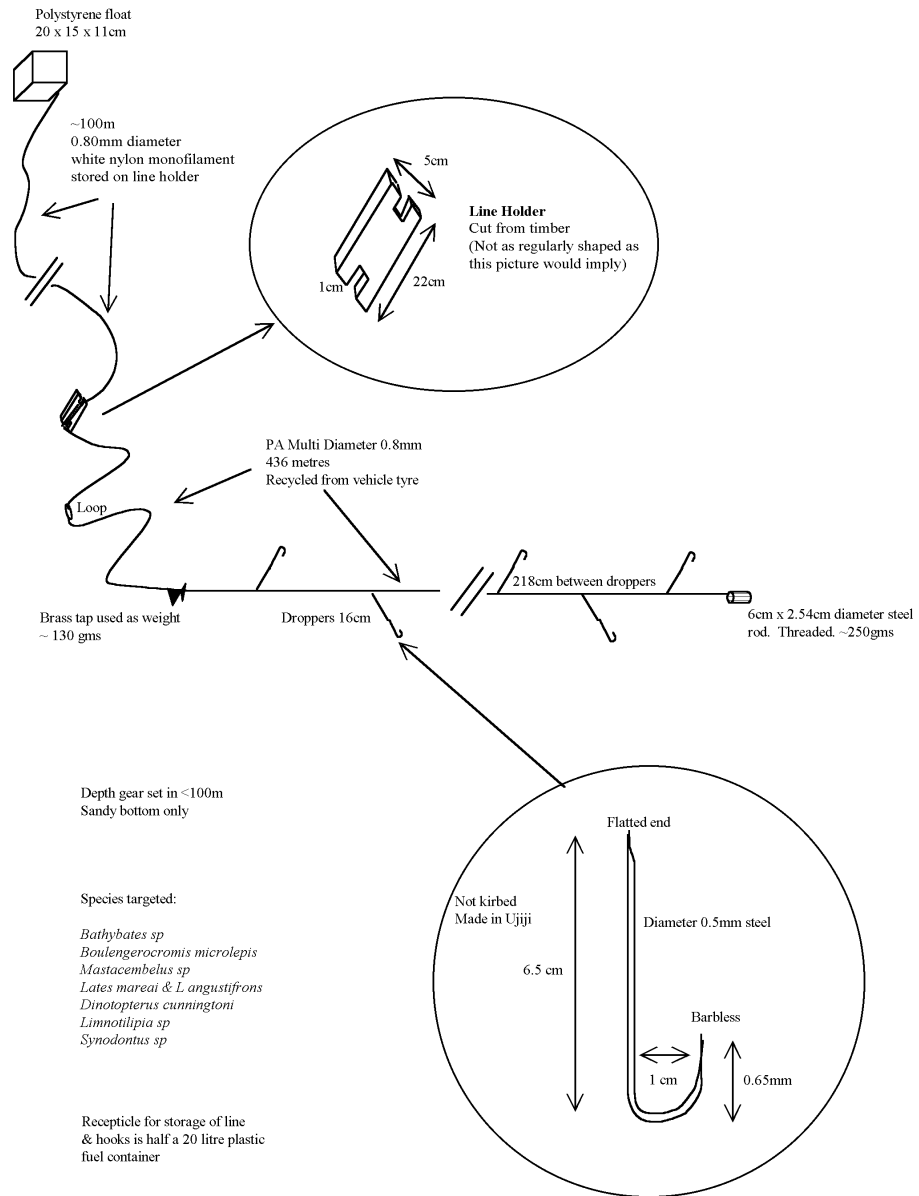
Boat 5.2m. Sail & paddles  
 2 fishermen  
 Unbaited. Offshore pelagic zone



**6.2.3 Mesopelagic jigging line**

Bottom set long line. Daytime.  
 Tilapine Fishes & catfish  
 Lake Tanganyika. Ujiji, Tanzania

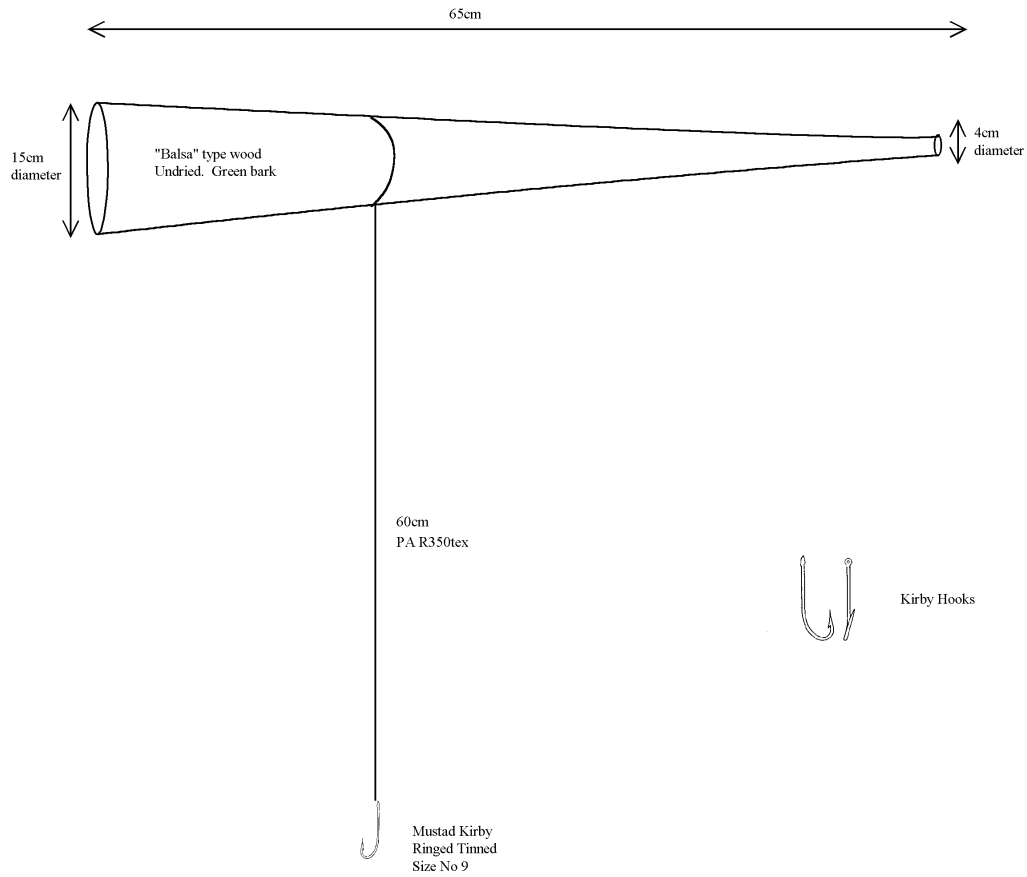
Dugout canoe 5m  
 1 fishermen  
 Bait: Sardine



**6.2.4 A long line from Tanzania**

Mid water vertical line. Daytime.  
 Tilapine Fishes & catfish  
 Lake Tanganyika. Malagarasi Delta, Tanzania  
 Set in swamps and reed beds of less than 1.20m depth

Dugout canoe 5m  
 1 fishermen  
 Bait: Cubes of Tilapine fish and  
*Clarius sp* flesh



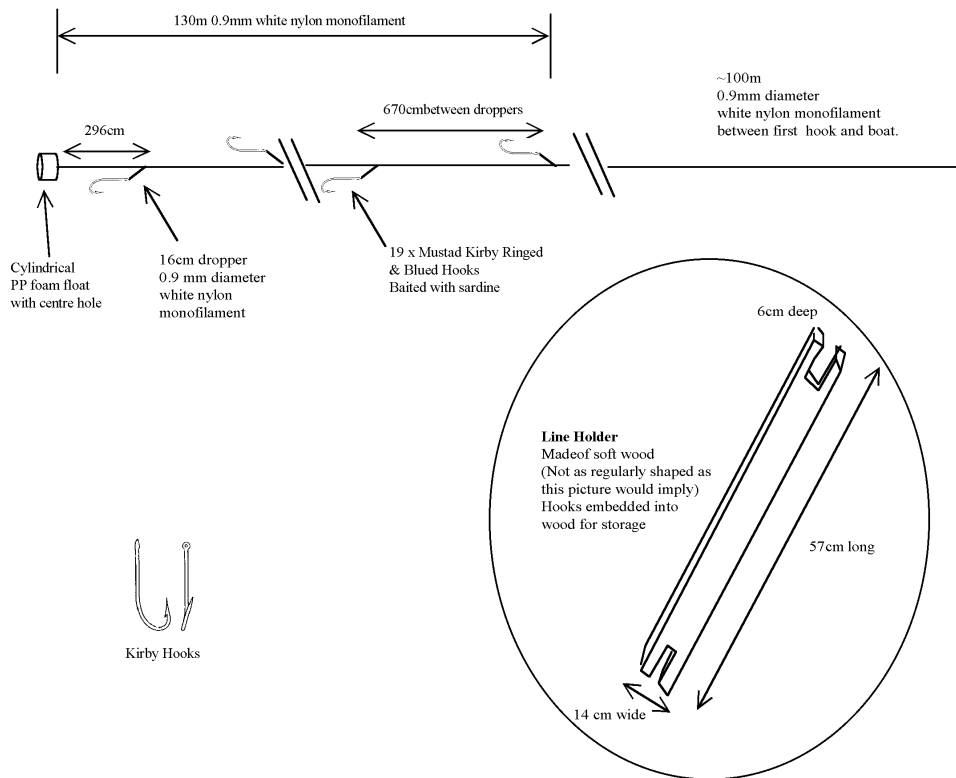
Target species:  
*Polypterus aethiopicus*  
*Polypterus ornatipinnis*  
*Oreochromis tanganicae*  
 2 x *Clarius sp*

**6.2.5 A mid water set line**



Hand line Baited. Surface Trolling.  
*Lates mariae*, *L. angustifrons*  
 Near light boats associated with the lift net fishery  
 Lake Tanganyika. Zashé. N Tanzania

Planked canoe ~5.5m  
 2 fishermen with paddles  
*Stolothrissa tanganyicae* bait



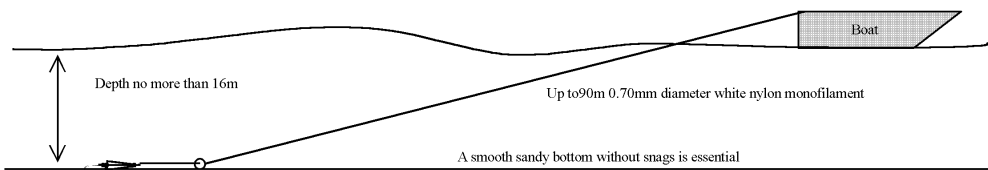
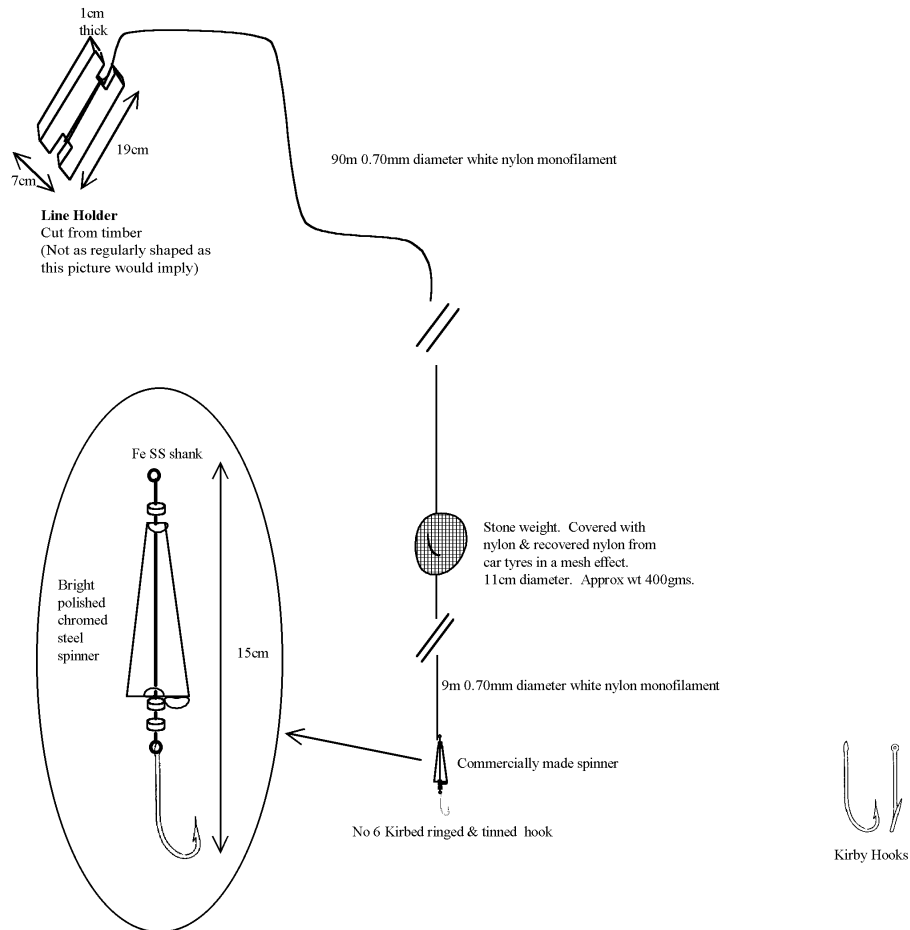
The line is trolled at night in areas near to the lights of boats engaged in the lift net fishery *Stolothrissa tanganyicae* are attracted to the lift net lights and the *Lates spp.*, which are the target for this gear, follow their prey to the vicinity.



**6.2.6 Surface trolling gear**

Bottom Trolling. Daytime.  
*Lates mariae*, *L. angustifrons* &  
*Boulengerocromis microlepis*  
 Lake Tanganyika. Ujiji, Tanzania

Planked canoe 5.2m  
 1 fishermen with paddle  
 Artificial bait

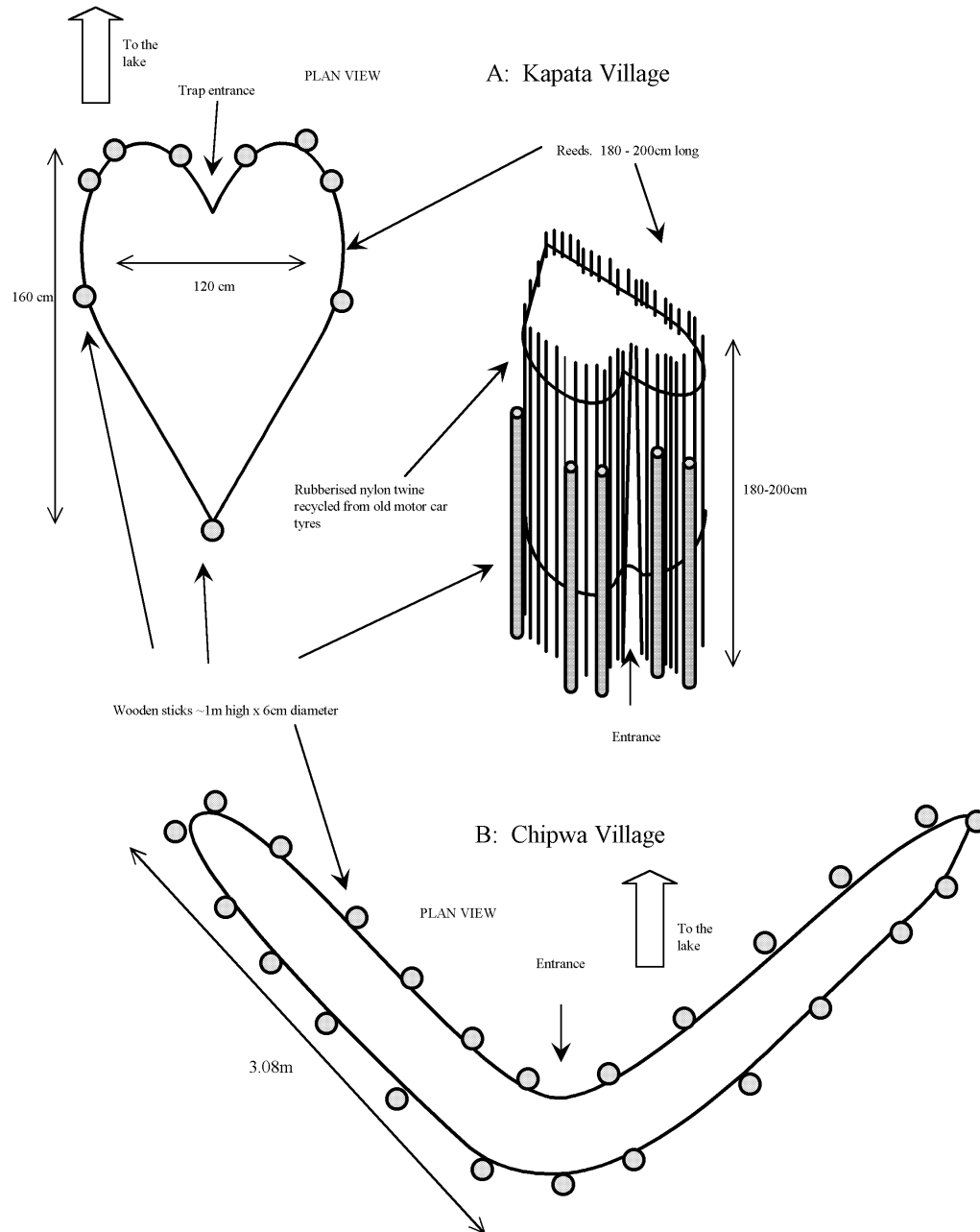


**6.2.7 Bottom trolling gear**

Barrier Labrinth Traps  
Tilapiaine Fishes & *Clarius sp*

Used in reedy areas  
1 fishermen

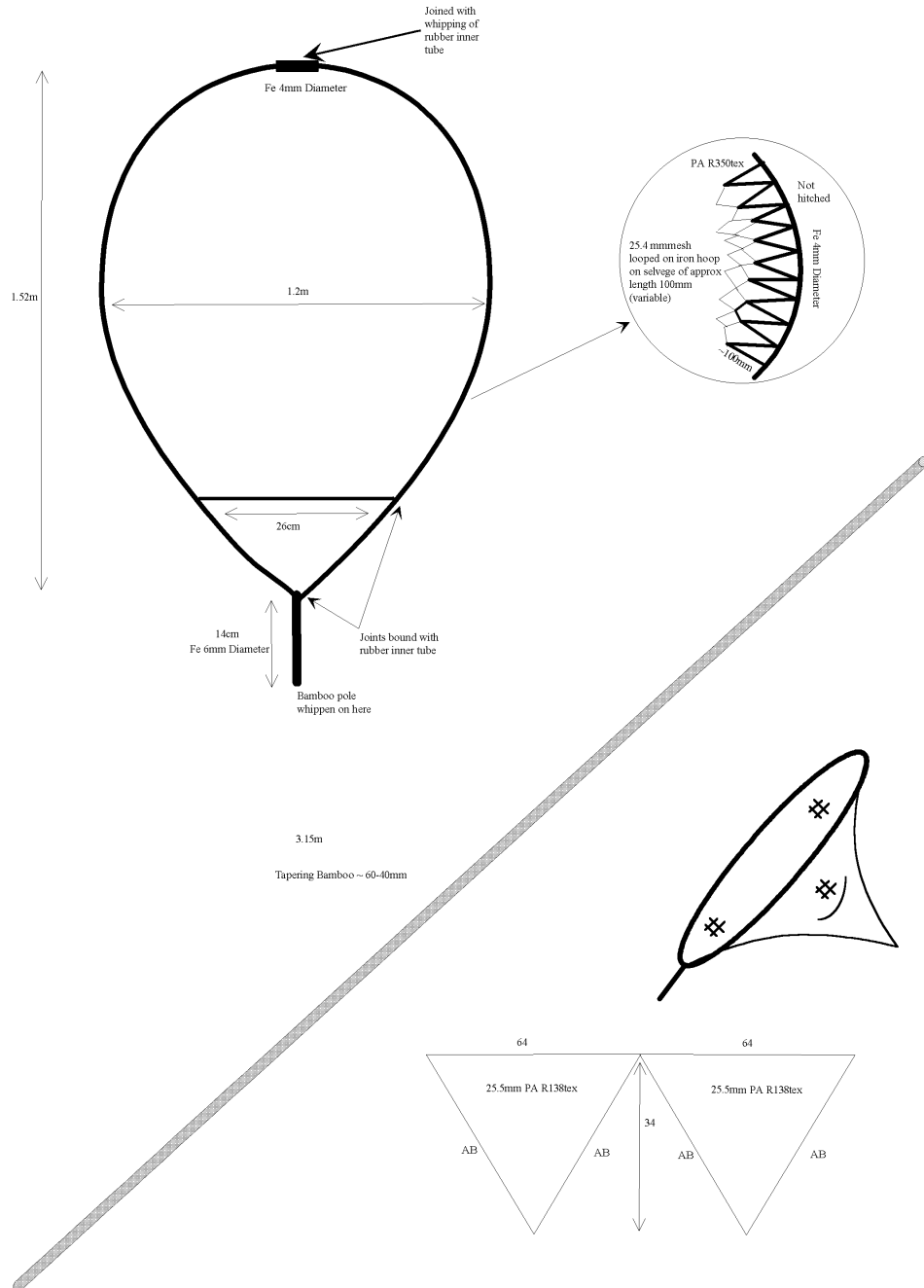
- a) Lake Tanganyika. Kapata, Mpulungu, Zambia
- b) Lake Tanganyika. Chipwa, Zambia



**6.2.8 Plans of labyrinth traps from Zambia**

Scoop net (Epuisette)  
 Tilapiae Fishes  
 Lake Tanganyika. Ruzizi/Gatumba. Burundi

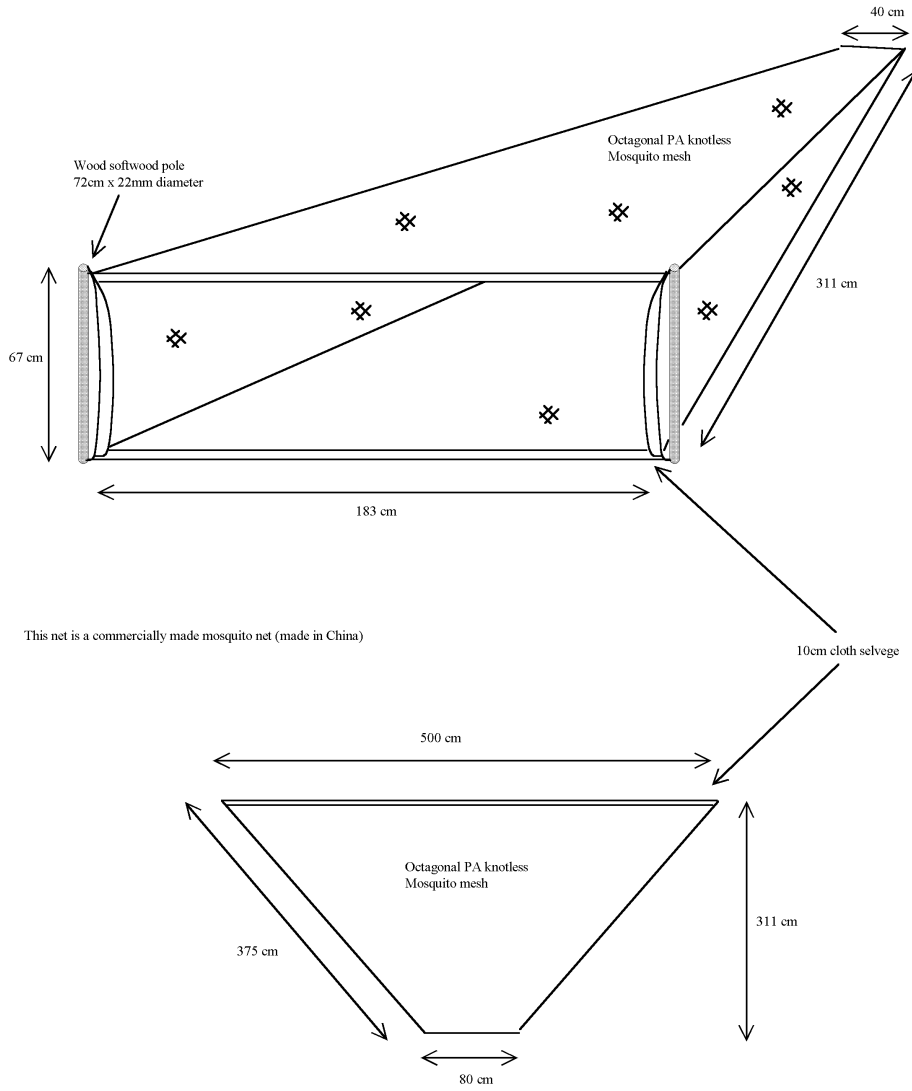
Used in reedy areas  
 1 fishermen



6.2.9 Scoop net from Burundi

Dragged bagnet.  
*Stolothrissa tanganyicae* fry.  
 Lake Tanganyika. Zashu. N Tanzania

Two pre-teenage children  
 Shallow littoral <1m



**6.2.10 Dragged bag net**

Beach seine. No bag.  
 All littoral species  
 Lake Tanganyika. Ruzizi Delta, Burundi

Boat 6.2 metre wood planked  
 with paddles  
 Up to 20 fishermen

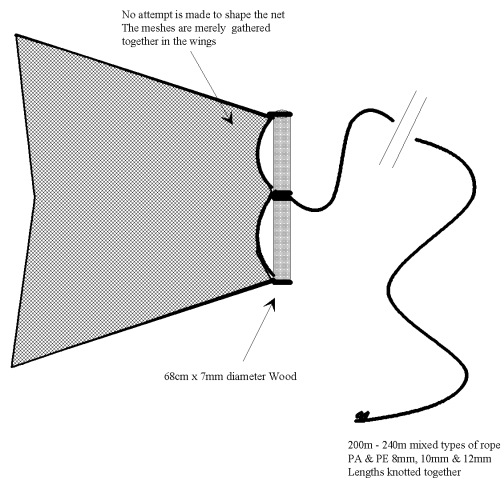
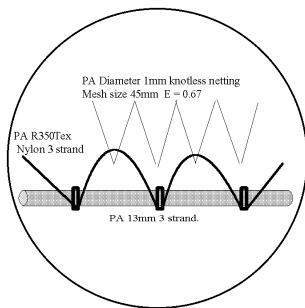
54 Pl Various sizes -150 -120mm diameter x ~20-50mm

89.7m PA 13mm 3 strand with some stretches of PP 8mm 3 strand knotted together.

5		1335 PA Diameter 1mm knotless netting Mesh size 45mm E = 0.67										5
570	570	3000				570	570				570	
1335												
134	134	134	134	250	250		134	134	134		134	
PA Diameter 1mm knotless netting Mesh size 32mm E = 0.67		PA Diameter 1mm knotless netting Mesh size 32mm E = 0.67		PA Diameter 1mm knotless netting Mesh size 20mm E = 0.67		PA Diameter 1mm knotless netting Mesh size 32mm E = 0.67		PA Diameter 1mm knotless netting Mesh size 32mm E = 0.67		PA Diameter 1mm knotless netting Mesh size 32mm E = 0.67		
570	570	3000				570	570				570	
12		1335 PA Diameter 1mm knotless netting Mesh size 45mm E = 0.67										12

No weights on footrope

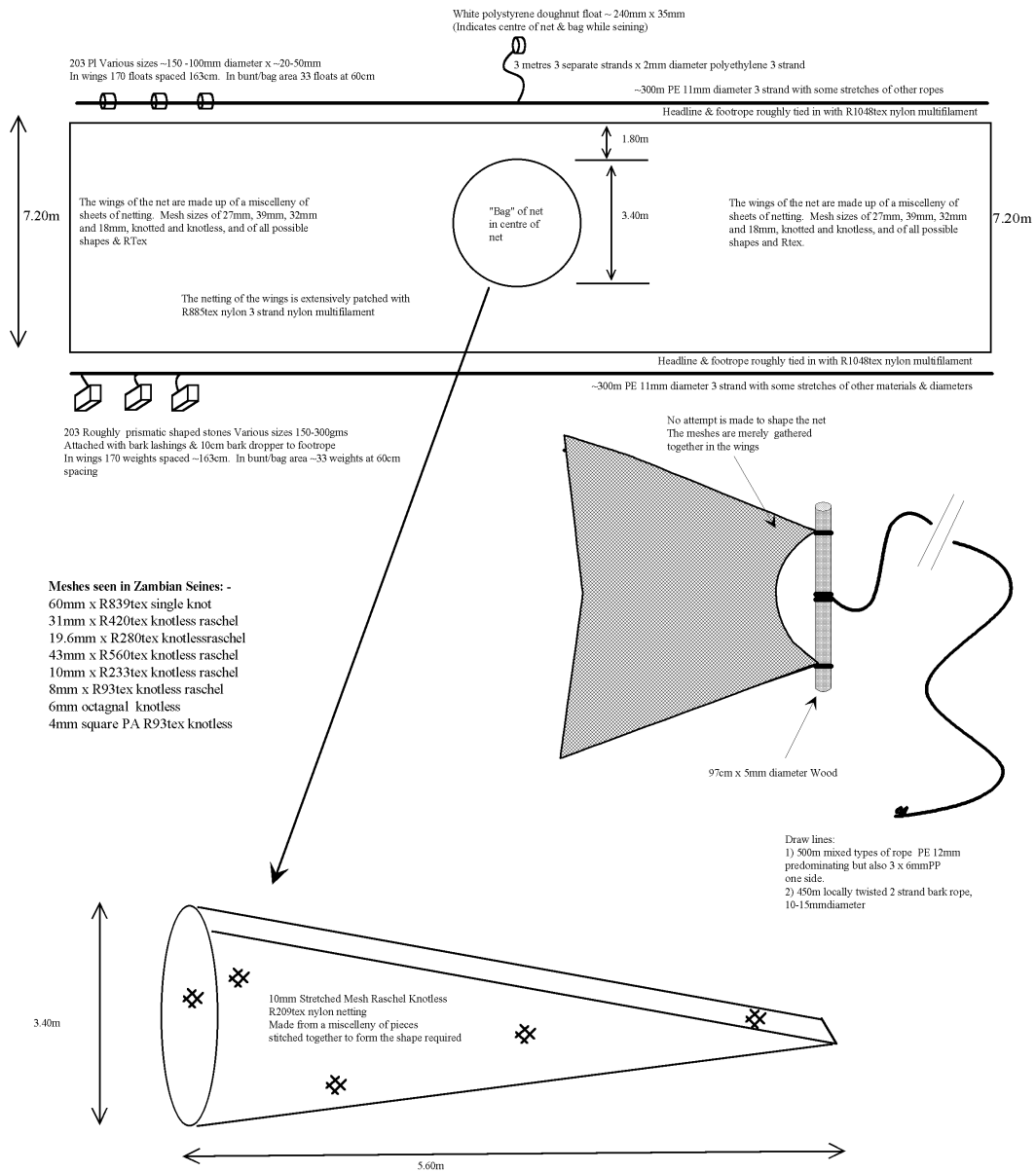
89.7m PA 13mm 3 strand.



**6.2.11 Beach seine (Burundi)**

Beach seine. With bag.  
 All littoral fishes. Daytime only.  
 Lake Tanganyika. Chanzimu, Mpulungu, Zambia

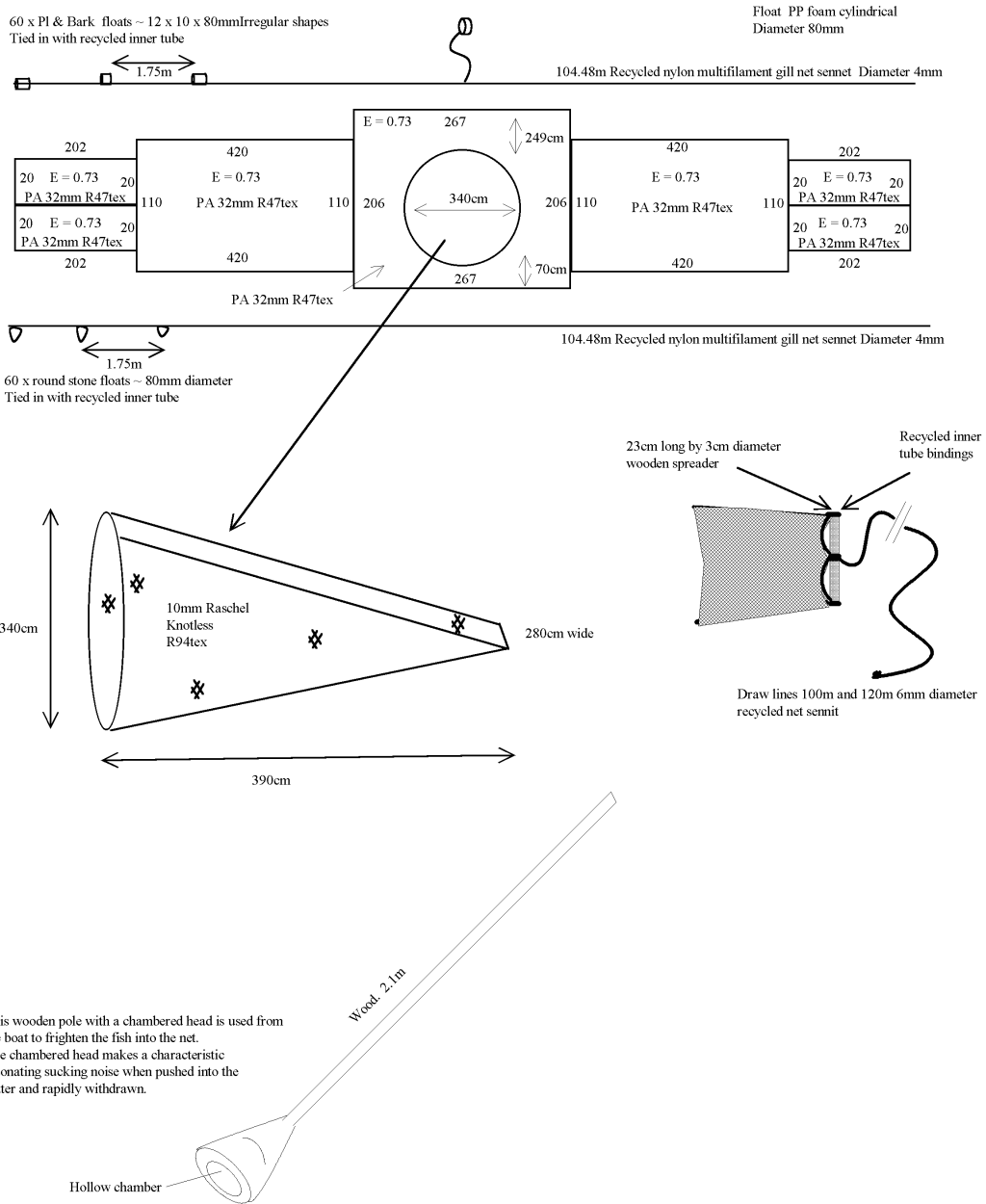
Boat 5.5 metre wood planked  
 with paddles  
 10-12 fishermen



**6.2.12 Beach seine with bag**

Drive in Seine  
 Mainly Cichlids and small mixed fishes  
 Lake Tanganyika, Tanzania.  
 Lunguna fishing Camp. Malagarasi Delta

Boat 5.5 metre wood planked  
 3 fishermen with paddles  
 Muddy substrate  
 Depths to 5.5m



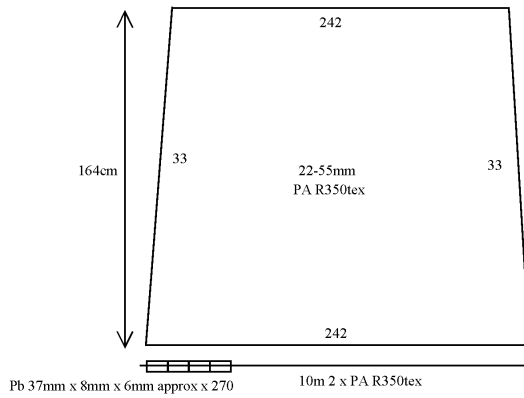
This wooden pole with a chambered head is used from the boat to frighten the fish into the net. The chambered head makes a characteristic resonating sucking noise when pushed into the water and rapidly withdrawn.

**6.2.13 Drive in open water seine**

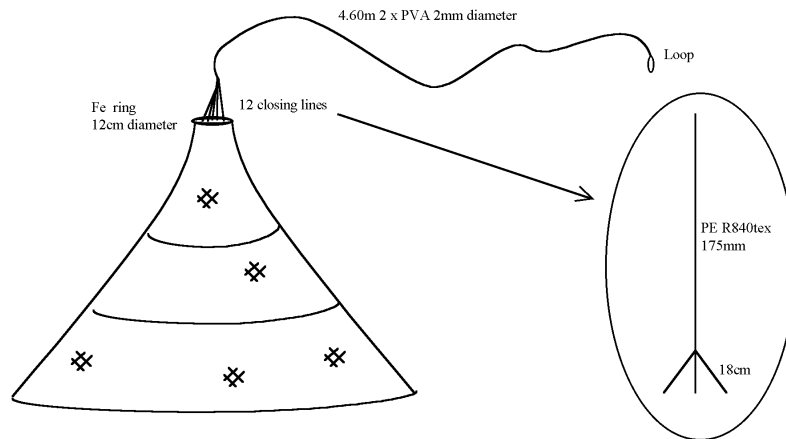


Cast net with closing line (Home made)  
*Labeo sp* & *Oreochromis tanganyicae* (predominant)  
 Lake Tanganyika. Tanzania. Malagarasi delta

Boat 5.5 metre wood planked  
 1 fisherman with paddles  
 Muddy substrate.



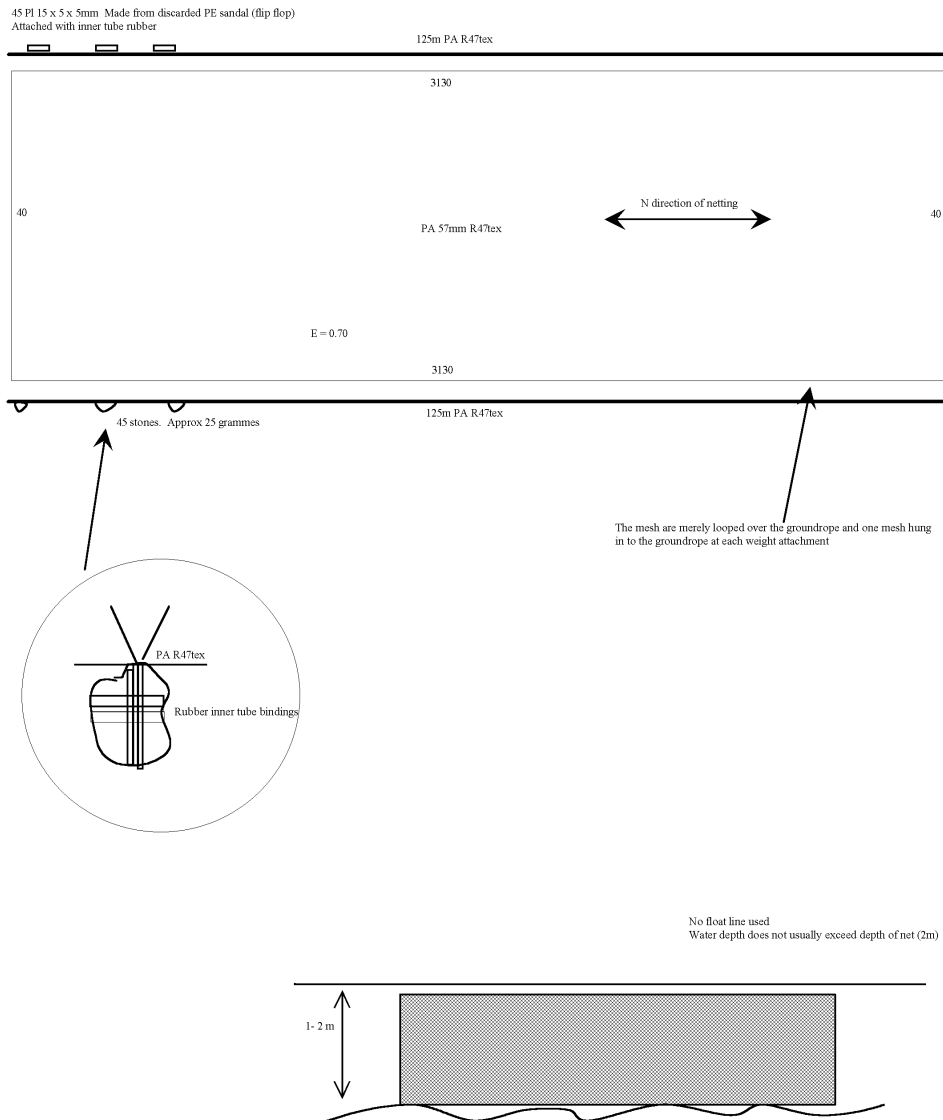
A very slight shaping of the netting is achieved by altering the size of the stretched mesh size from top to bottom of the net.



**6.2.14 Cast net**

Gill net  
 Mixed littoral species  
 Lake Tanganyika. Kibenga Beach.  
 Bujumbura, Burundi

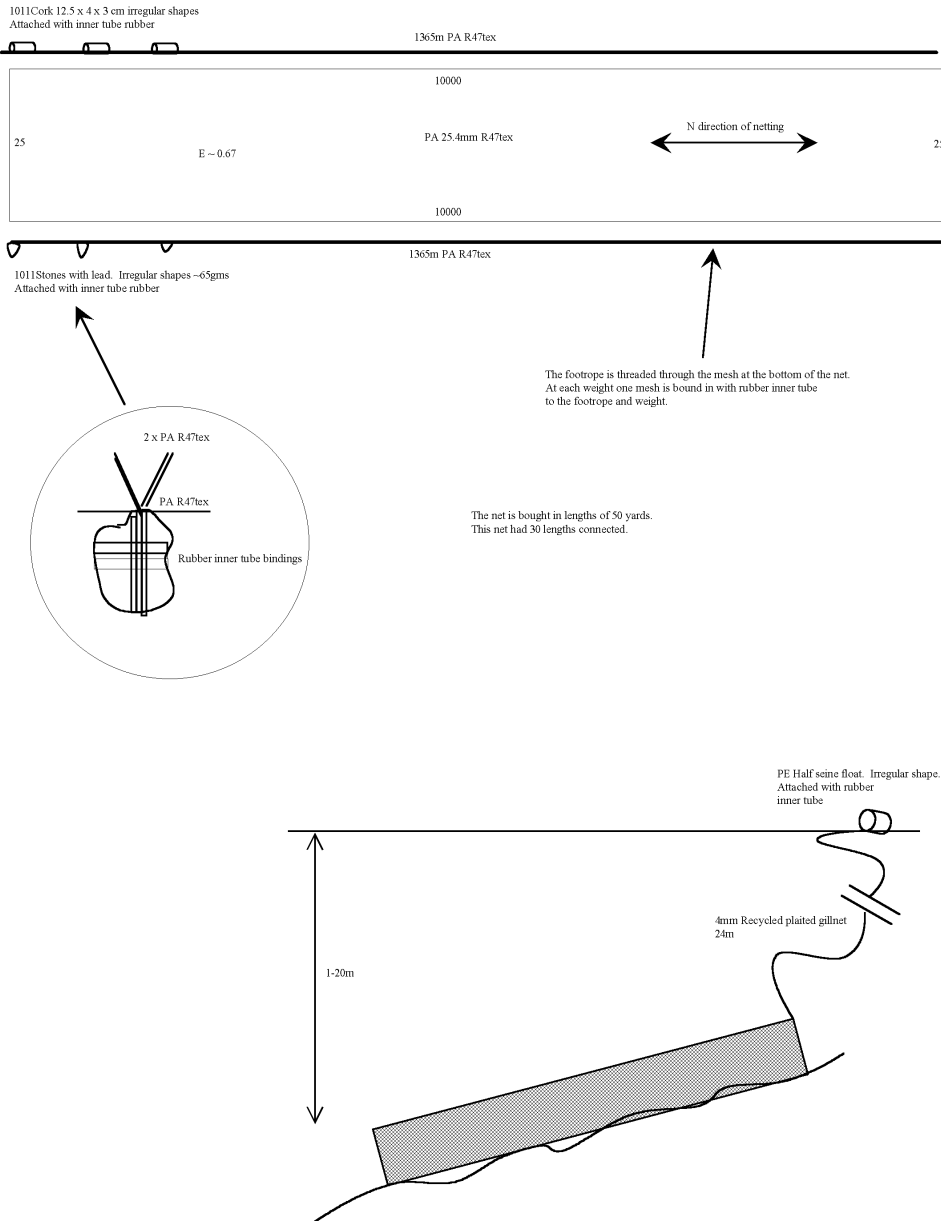
Boat planked 5.43m x 1.09m  
 2 children set net in  
 lake margins



**6.2.15 Gill net. Littoral. Shallow water.**

Gill net  
 Mixed littoral species  
 Lake Tanganyika. Kadjada Beach.  
 Bujumbura, Burundi

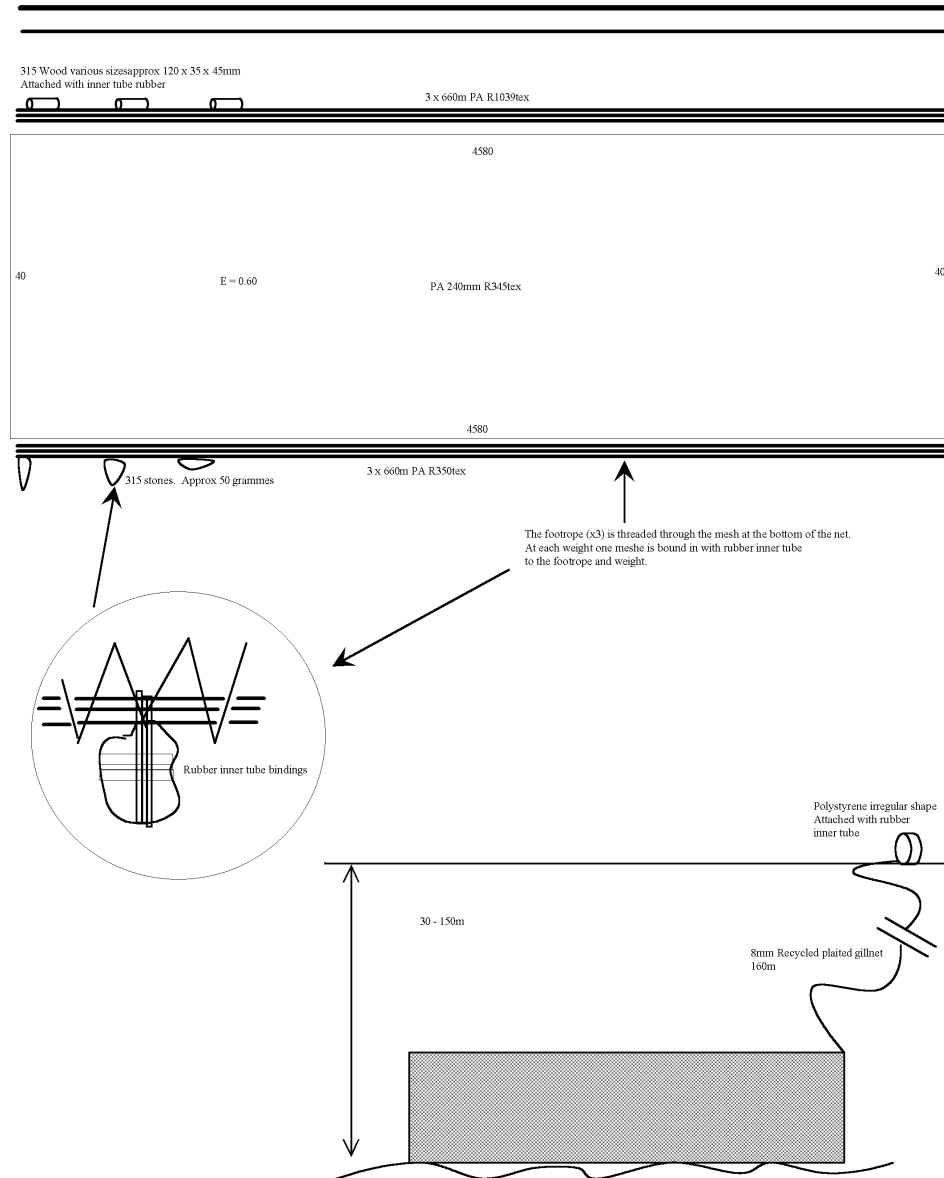
Boat planked 5.35 x 1.12m  
 2 fishermen



**6.2.16 Gill net. Littoral. Small mesh.**

Gill net  
 Large catfish & Lates spp  
 Lake Tanganyika. Kadjaga Beach.. Burundi

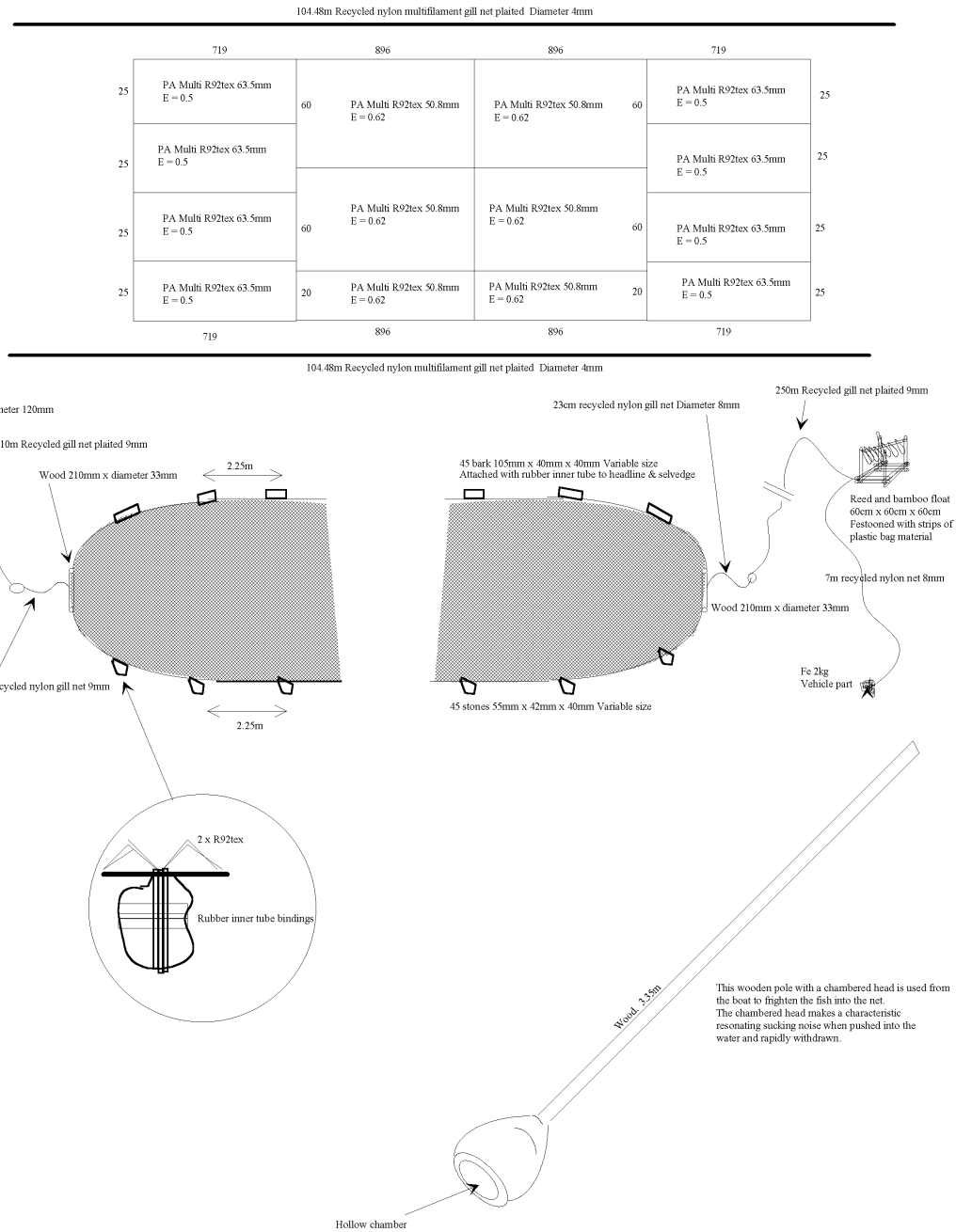
Boat 6m x 1.2m wood  
 planked with paddles  
 3 fishermen



**6.2.17 Large mesh gill net**

Encircling gill net (Tam Tam)  
 Mainly Cielids and small mixed fishes  
 Lake Tanganyika. Congo. Uvira.

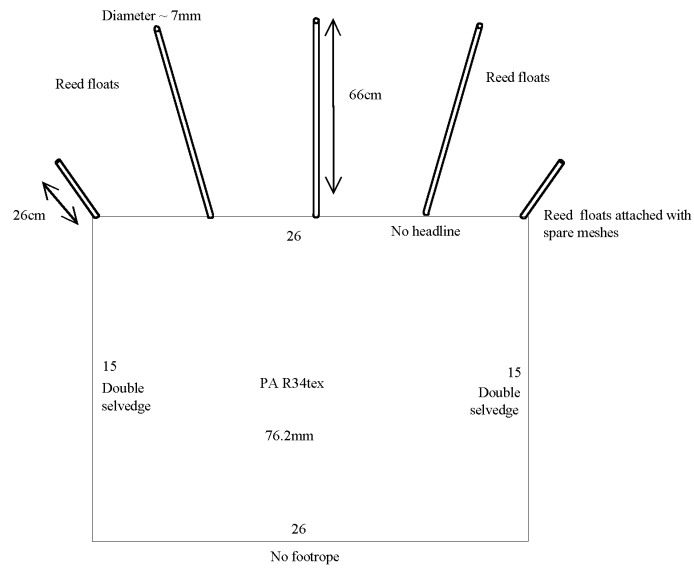
Boat 5.5 metre wood planked  
 2 fishermen with paddles



**6.2.18 Encircling gill net**

Gill net  
 Nests of Tilapine species  
 Lake Tanganyika. Malagarasi Delta.  
 Mwambani Fishing Camp

No Boat  
 One fisherman

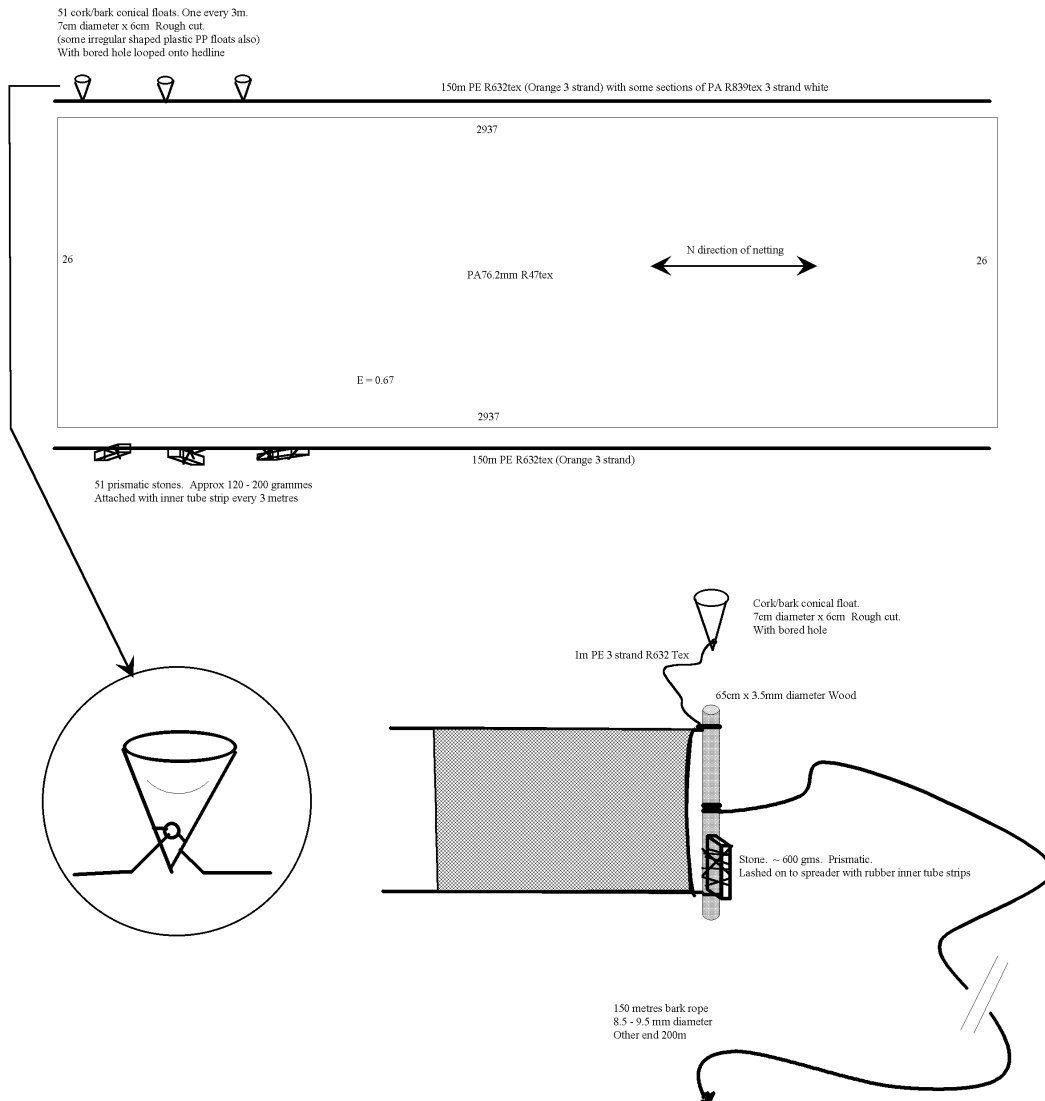


The two outer reed floats serve to anchor the net in the substrate of reeds, mud and weed.  
 The inner three floats are used as floats  
 The gear is set near or round nests of Tilapine species  
 The gear is locally known as Matela

**6.2.19 Gill net. Tilapia nets**

Gill net (seined)  
 Mixed fish (target *Boulengerocromis microlepis*  
 & *Limnotilapia dardennesi*)  
 Lake Tanganyika. Kapata Beach.  
 Mpulungu, Zambia

Boat planked 5.1m  
 2 man operated  
 Used like a seine in water  
 of 8-12m deep on sandy  
 substrate



**6.2.20 Seined gill net**

### 6.3 The Legal Framework Regarding Fisheries In The Riparian Countries Of Lake Tanganyika.

This text has been taken wholesale from:- Lake Tanganyika Biodiversity Project. GEF-RAF/92/G32 (1996). Legal and Institutional Baseline Study. Prepared by Mr Cormac Cullinan and Mr Stephen Hodgson, EnAct for MRAG Ltd.

#### 6.3.1 Burundi

The principle law on fisheries is the 1937 Decree on Hunting and Fishing. This decree applied throughout the territories administered by Belgium at that time - Ruanda-Urundi and the Belgian Congo<sup>1</sup>, and as will be seen it is the law which still regulates fishing in Zaire<sup>2</sup>

The 1937 decree is essentially a framework law providing for specific issues to be dealt with through the making of regulations. In brief, the decree gives the competent authorities powers to issue regulations on such matters as: fishing areas and permits, the protection of the rights of traditional fishermen, fishing techniques and mesh sizes, the conservation of fish stocks and the development of fisheries, the introduction of exotic species and the Imposition of sanctions for infractions.

Regulations issued under the decree include a 1937 Ordinance which bans fishing by the use of:

- Explosives;
- toxic substances; and,
- electricity

and a 1961 ministerial regulation which regulates

- industrial fishing;
- artisanal fishing; and,
- individual fishing on Lake Tanganyika.<sup>3</sup>

Pursuant to the regulation, industrial fishing is banned within 5 kilometres of the shore as are nets with a mesh size of less than 4mm. Administrative permits are required for commercial and artisanal fishing. These are issued by the authorities on the advice of a consultative commission subject to payment of the prescribed fee. All commercial catches must be landed at Bujumbura and the procedure for the issue, including the fees payable, of permits for fishing on the Lake is also set out.

There are however a number of important omissions in the law as it stands. For example the 1937 Ordinance banning the use of explosives etc prescribes no punishments in the case of non-compliance while the 1961 regulation fails to deal with a number of destructive<sup>4</sup> fishing methods, such as beach seining, which are commonly used on the Lake. Furthermore the law is dated and has clearly not evolved over the last 30 years. In short it does not set out a framework for the sustainable management of stocks or for the collection of reliable information on stock levels. The permit system is inadequate and the prescribed levels of fines payable, where punishments are prescribed, are obsolete. Finally it would also appear that enforcement of the existing laws is problematic<sup>5</sup>.

These inadequacies with the existing law have been recognised by the Government which has requested the assistance of the FAQ under whose auspices a new draft law on fisheries was prepared 1992. As far as can be ascertained this law has not been implemented<sup>6</sup>.

<sup>1</sup> Decret du 21 Avril) 1937 portent réglementation de la chasse et la pêche.

<sup>2</sup> Now Democratic Republic of Congo

<sup>3</sup> Arrêté ministérielle, no 05014.4 du 16 décembre 1961 portent réglementation de la pêche au lac Tanganyika.

<sup>4</sup> This was written by a legal expert, not a Fisheries Specialist

<sup>5</sup> Boriucci, N, Une Nouvelle Législation sur la Pêche et aquaculture. Propositions et Projets de Textes. FAQ, Rome, February 1992

<sup>6</sup> In 2000 this was still the case



As regards Institutional arrangements, within M.I.N.A.T.E, as mentioned above, the Department of Water Resources, Fish and Aquaculture is responsible for the protection of the aquatic environment and the development of fisheries and aquaculture., The department is specifically charged with supervising the protection of aquatic flora and fauna, ensuring the rational exploitation of lacustrine resources and the development of a framework for fisheries management.

### 6.3.2 Zaire

The principle law on fisheries is the 1937 decree on fishing and hunting (as amended by a Decree of 17 January 1957, a legislative ordinance No. 52/273 of 24 June 1958 and by a decree of 1960) which is also the principle item of fisheries legislation in Burundi, considered above. It will be recalled that the 1937 decree is essentially a framework text which allows the Minister or regional commissioner to issue regulations dealing with such issues as fishing seasons, the issue of fishing permits, the establishment of areas where fishing is totally or partly prohibited, fishing techniques, equipment and mesh sizes, the issue of fishing permits and fee arrangements and the introduction of new species.

The 1937 Ordinance implementing the 1937 decree, which is still in force in Burundi, has been replaced by more recent regulations. A departmental regulation of 21 April 1981 prohibits the use of explosives, toxic substances and electric shocks as fishing techniques throughout the lakes and watercourses of Zaire and provides for the seizure of any such equipment and catch by the authorities.<sup>3</sup> The issue of fishing permits is presently dealt with pursuant to a 1979 regulation.

In addition regional regulations<sup>3</sup> issued pursuant to the 1937 decree, which apply to fishing on the Lake were issued in 1958 by the then Shaba and Kivu regions. These are the same as the 1961 Burundian regulation on fishing on the Lake.

Similar criticisms can be made about the Zairian<sup>7</sup> fisheries legislation as were made about that of Burundi. Equally the government has accepted the need for reform by asking the assistance of FAO in the preparation of a new law on fisheries. Again, although a draft law has been prepared it has not been implemented.

Enforcement of fisheries legislation is the responsibility of the gardes-peche or fisheries protection service who report to the Directorate of Water and Forests in the Department of the Environment, Nature Conservation and Tourism and to the regional administrative authorities. It appears however that they have no effective means of surveillance over Zaire's 650 km long coastline on the Lake.

Of the four lacustrine states Zaire would appear to be the only one to have issued specific regulations dealing with the commercial exploitation and export of ornamental fish. The instrument is a 1987 ministerial regulation which provides that the exploitation of *poisson d'aquarium* or ornamental fish, defined as fish species which do not form part of the human diet, may only be undertaken by persons holding permits issued by the minister. Such permits are renewable annually and can set a maximum quota of 75,000 specimens. A fee is payable for the permit and on export of each specimen and the Minister is given power to suspend both the exploitation and export of such fish.<sup>7</sup>

Finally mention should also be made of Ordinance no. 274/Agri of 26 September 1945 whereby regional governors were given the power to establish local fisheries committees. Although this Instrument is not presently applied it has not been expressly repealed and it might have some future relevance as far as management of Lake fish stocks is concerned.

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<sup>7</sup> Now Democratic Republic of Congo

### **6.3.3 Tanzania**

The Fisheries Act, No. 6 of 1970, provides for the protection, conservation, development, regulation and control of fish, fish products, aquatic flora and the products thereof. "Fish" is defined as meaning "all forms of aquatic or amphibious life (including turtles, crabs and shell fish) and includes the spat, brood, fry, spawn, ova and young of all such fish" and "fish product" means anything made, collected or obtained from fish. "Aquatic flora" means all aquatic plants and other members of the aquatic and vegetable kingdom including corals, coral sponges and weeds and "product of aquatic flora" means anything made out of, or composed wholly or partly of any aquatic flora. The act is relatively brief and provides for the appointment of a Chief Fisheries Officer by the President (Section 3(1)) and provides that a license is required to engage in fishing, collecting, gathering, manufacturing, selling, marketing, importing or exporting of fish, fish products, aquatic flora or aquatic flora products (Section 4(1)).

The Minister has wide powers to make regulations including in relation to the introduction of non-indigenous live fish, preventing the obstruction and pollution of territorial waters and regulating domestic and foreign fishing vessels (Section 7). The Minister is given the power to exempt any person or organisation from all or any provision of the act or of any subsidiary legislation under the act if, in his opinion, it is in the public interest to do so (Section 14(1)).

The Fisheries Principal Regulations, 1989, impose license requirements for most types of commercial fishing (there are exceptions for some traditional methods), for sports fishing and for processing and trading fish. It prohibits the use of explosives, poisons and the pollution of water and directs the Director of Fisheries to establish a system of consultation and co-operation with appropriate officials" in order to require polluters to clean polluted waters (Regulation 27).

#### **Wildlife**

The Wildlife Conservation Act, No. 12 of 1974, is the principal legislative instrument for the protection of fauna and the regulation of hunting and trade of animals and animal products. (This law is only applicable in mainland Tanzania).

Tanzania ratified the Convention on International Trade in Endangered Species (CITES) in 1979 and the Convention entered into force in respect of Tanzania on 27 February 1980. In addition to authorising the declaration of various classes of protected area (discussed above) the Act provides various mechanisms for the protection of animal? including: "flora, or in relation to any species or kind of fish, fish product or aquatic flora". Fishing in any part of Tanzanian territorial waters<sup>57</sup> which has been declared to be a controlled area, is prohibited except with the written authority of the chief fisheries officer or any authorised officer. It is not known whether any such controlled areas have been declared in relation the Lake.

#### **Aquatic Protected Areas**

The Fisheries Act also empowers the minister to make regulations "establishing marine parks, sanctuaries or reserves for any purpose whatsoever". The Fisheries (Marine Reserves) Regulations, 1975 declared under this Act establishes seven marine reserves which include areas of both land and water. As far as can be established, no sanctuaries or reserves have been declared in relation to fresh water areas. One would expect any such areas to be controlled by the fisheries department but according to a 1992 study on the establishment of the Mafia Island Marine Reserve' where a marine park involved fresh water areas both TANAPA and Fisheries Division would regard the management of the freshwater protected areas as the responsibility of TANAPA. This informal delegation of responsibility to TANAPA is apparently based on TANAPA's experience in managing parks such as the Lake Manyara National Park and especially the Rubondo Island National Park in Lake Victoria.

However it would appear that the primary motivation for declaring these national parks was to preserve terrestrial game animals (including crocodiles in Lake Victoria) and the water areas

were included within the parks mainly as a buffer zone to protect the game in the park rather than to protect any aquatic fauna or flora.

#### **6.3.4 Zambia**

The Fisheries Act. No. 21 of 1974, is primarily directed at developing and controlling commercial fishing. The Minister is empowered to declare any area of water to be a commercial fishing area, to make regulations in respect of such area (Section 8) and to appoint a Fishing Development Committee to coordinate and improve commercial fishing in such an area. (Section 1 2). The Commercial Fishing Areas (Declaration) Order (Statutory instrument 107 of 1976) declares a commercial fishing area in Lake Tanganyika<sup>2</sup> Within such areas, fishing by means of driving fish into a stationary net (“kutumpula”) is prohibited and throughout the Lake Tanganyika Commercial Fishing Area the use of monofilament net of a mesh size less than 120mm, is prohibited (Regulations 3 and 4 as read with the Second Schedule to the Commercial Fishing Areas (Declaration) Order).

The Act also prohibits certain methods of fishing including the use of poison, poisonous plants, explosives and electric fishing devices (Section 3) and prohibits the importation of live fish or the introduction of any non—native species without the written permission of the Director of Fisheries (Section 5).

The Minister is empowered to issue a statutory order declaring any area of water to

to grant special fishing licences (primarily for scientific purposes) in such areas to be a prescribed area for recreational, subsistence, or research fishing (Section 6) and to grant special fishing licenses (primarily for scientific Purposes) in such areas.

It should be noted that the Act applies to fish rather than to aquatic fauna generally. The Act defines “fish” as “any vertebrate fish alive or dead, any part thereof, whether or not preserved in any form, and includes the young and eggs” (Section 2). Section 2 defines the Lake Tanganyika commercial fishing area as the open waters of Lake Tanganyika; the main stream of the Lufubu River upstream to the Mwepwe Falls; together with the verges of the Lake and river respectively to a depth of 1 50m beyond water mark at a given date and such other water lying within 30km of the aforesaid Lake and river as the director may, in special cases, specify.”

6.5 LTR Frame Survey Results. March 1995. Fishing Gears Survey Results.

Table 4: Summary of the results of the simultaneous FS of Lake Tanganyika, March 1995. The number of inactive/broken vessels is included. All gears classified were active.

LOCATION	ACTIVE AND BROKEN										ALL VESSELS IN	ACTIVE										
	TYPE OF VESSEL											IND. GEAR	ARTISANAL GEARS					TRADITIONAL GEARS				
	No. of DUGOUT CAN.	No. of W.F.L. CAN.	No. of MET. CAN.	No. of F. GL. CAN.	No. of CAT.	No. of TRIM.	No. of IND. UNITS	No. of TRANSP. CAN.	No. of AUX. CAN.	No. of PURSE SEINES			No. of CHA. SEINES	No. of DAY BEACH S.	No. of NIGHT BEACH S.	No. of LIFT NETS	No. of APOLLO NETS	No. of LUSENGA NETS	No. of GILL NETS	No. of LONG LINES	No. of HAND LINES	Tot. No. of LINES
North Coast	4	281	71	0	158	0	1	14	Incl.	587	0	0	11	0	120	2	37	103	1	55	55	0
Middle Coast	12	96	16	0	285	0	1	7	Incl.	398	1	0	1	0	198	43	0	96	0	82	82	0
South Coast	30	154	10	3	208	0	1	8	Incl.	417	1	0	3	0	119	58	0	57	8	56	64	0
Sujumbura Prov.	8	323	77	0	253	0	1	18	Incl.	678	0	0	11	0	210	5	37	112	1	82	99	0
Bururi Province	18	88	13	0	192	0	1	5	Incl.	317	1	0	2	0	125	43	0	42	0	58	58	0
Malimba Prov.	22	132	8	3	185	0	1	8	Incl.	357	1	0	2	0	103	53	0	42	8	48	51	0
<b>Sunundian total</b>	<b>46</b>	<b>643</b>	<b>95</b>	<b>3</b>	<b>690</b>	<b>0</b>	<b>3</b>	<b>29</b>	<b>Incl.</b>	<b>1,950</b>	<b>2</b>	<b>0</b>	<b>16</b>	<b>0</b>	<b>438</b>	<b>101</b>	<b>37</b>	<b>198</b>	<b>9</b>	<b>193</b>	<b>202</b>	<b>0</b>
Uvira District	185	136	2	0	253	0	4	48	106	714	0	0	6	0	248	0	0	17			142	0
Fizi District	1,089	583	5	0	515	0	3	121	427	2,893	3	0	178	0	483	21	8	111	No distinction between hand and long lines		1,287	9
Kalemie District	1,004	528	12	0	682	0	13	105	210	2,484	3	0	258	0	530	2	0	99			1,298	0
Moba District	345	4,208	2	0	29	0	2	30	18	4,669	0	0	181	0	19	0	0	10			9,825	0
Sud-Kivu Province	1,204	716	7	0	788	0	7	189	533	3,407	3	0	184	0	741	21	8	128			1,408	9
Shaba Province	1,349	4,781	14	0	621	0	15	165	228	7,129	3	0	417	0	809	2	0	108			11,221	0
<b>Zairean total</b>	<b>2,553</b>	<b>6,450</b>	<b>21</b>	<b>0</b>	<b>1,999</b>	<b>0</b>	<b>22</b>	<b>394</b>	<b>761</b>	<b>10,630</b>	<b>6</b>	<b>0</b>	<b>601</b>	<b>0</b>	<b>1,350</b>	<b>28</b>	<b>8</b>	<b>237</b>			<b>12,630</b>	<b>9</b>
Kigoma Region	550	1,583	0	0	778	18	3	50	Incl.	2,885	3	0	216	0	780	2	252	1,048	38	1,046	1,983	0
Rukwa Region	27	1,245	1	1	415	3	1	98	Incl.	1,730	1	0	280	0	388	2	19	959	372	4,802	5,174	0
<b>Tanzanian total</b>	<b>577</b>	<b>2,828</b>	<b>1</b>	<b>1</b>	<b>1,194</b>	<b>19</b>	<b>4</b>	<b>148</b>	<b>Incl.</b>	<b>4,778</b>	<b>4</b>	<b>0</b>	<b>486</b>	<b>0</b>	<b>1,158</b>	<b>4</b>	<b>271</b>	<b>2,917</b>	<b>410</b>	<b>6,747</b>	<b>7,157</b>	<b>0</b>
East Coast	2	327	4	1	8	0	1	Incl.	Incl.	343	1	6	10	28	9	0	0	574	1	251	252	3
Mpungu Area	2	308	91	4	15	0	21	Incl.	Incl.	437	15	1	6	31	15	0	0	1,119	14	276	290	0
West Coast	29	334	0	2	1	0	0	Incl.	Incl.	366	0	0	4	51	1	0	0	898	1	133	134	0
Neumbu Area	13	408	1	19	4	0	1	Incl.	Incl.	447	0	9	10	43	3	0	0	591	8	71	79	1
Zairean border											Not monitored											
Mbala District	38	698	85	7	24	0	22	Incl.	Incl.	1,140	16	7	20	111	24	0	0	2,358	18	680	676	3
Kaputa District	13	408	1	16	4	0	1	Incl.	Incl.	447	0	9	10	43	3	0	0	591	9	71	78	1
<b>Zambian total</b>	<b>46</b>	<b>1,378</b>	<b>86</b>	<b>26</b>	<b>28</b>	<b>0</b>	<b>23</b>	<b>Incl.</b>	<b>Incl.</b>	<b>1,587</b>	<b>16</b>	<b>16</b>	<b>30</b>	<b>154</b>	<b>27</b>	<b>0</b>	<b>0</b>	<b>2,950</b>	<b>24</b>	<b>731</b>	<b>755</b>	<b>4</b>
<b>Lake total:</b>	<b>9,222</b>	<b>10,205</b>	<b>204</b>	<b>30</b>	<b>3,241</b>	<b>19</b>	<b>52</b>			<b>18,249</b>	<b>28</b>	<b>16</b>	<b>1,143</b>	<b>154</b>	<b>2,373</b>	<b>128</b>	<b>316</b>	<b>8,300</b>			<b>20,744</b>	<b>18</b>
% per type:	18.0	60.1	1.2	0.2	19.1	0.1	0.3															
Total classified:	16,978																					

## 6.5 Fish Species And Lengths From Beach Landing Samples FPSS 1998/1999. Tanzania Data.

Gear	Mesh size	Hauls	Species	Lmax	Lmin	Mean L	SE	N
Trap		5	<i>Lates mariae</i>	44.0	33.0	38.5	5.5	2
			<i>Oreochromis tanganyicae</i>	30.0	19.0	24.9	0.4	61
			<i>Tilapia rendalli</i>	36.0	22.0	26.0	1.0	14
			<i>Tilapia (?) spp</i>	36.0	20.0	26.8	0.5	42
Scoop net	6.0	3	<i>Limnothrissa miodon</i>	9.5	3.7	6.9	0.1	110
Longline		1	<i>Bathybates spp</i>	44.0	28.0	34.3	1.5	10
			<i>Boulengerochromis microlepis</i>	46.0	20.0	35.5	2.5	10
			<i>Malapterurus electricus</i>	30.0	30.0	30.0	0.0	1
Lift net	6.0	2	<i>Lates stappersii</i>	37.6	24.5	33.8	1.1	10
			<i>Limnothrissa miodon</i>	6.2	3.9	4.9	0.1	41
			<i>Stolothrissa tanganyicae</i>	5.4	3.0	4.0	0.1	34
Lift net	8.0	77	<i>Lates stappersii</i>	42.0	5.6	19.3	0.3	899
			<i>Limnothrissa miodon</i>	14.2	9.0	11.3	0.1	115
			<i>Stolothrissa tanganyicae</i>	17.0	3.2	7.8	0.0	2394
Lift net	10.0	1	<i>Lates stappersii</i>	32.0	11.0	21.1	1.0	27
Hand line		4	<i>Bathybates minor</i>	19.0	18.0	18.3	0.3	1
			<i>Boulengerochromis microlepis</i>	23.0	20.0	20.8	0.8	1
			<i>Cyphotilapia frontosa</i>	18.3	11.3	14.5	1.6	1
			<i>Grammatotria lemarii</i>	18.5	13.0	15.1	0.4	3
			<i>Hydrocynus alestes</i>	24.5	24.5	24.5		3
			<i>Lamprologus callipterus</i>	12.5	11.0	11.9	0.2	4
			<i>Limnothrissa miodon</i>	13.0	11.5	12.4	0.2	4
			<i>Neolamprologus meeli</i>	27.0	13.0	19.4	1.4	6
			<i>Pseudosimochromis curvifrons</i>	18.5	17.0	17.8	0.4	7
			<i>Stolothrissa tanganyicae</i>	10.4	10.4	10.4		10
			<i>Synodontis spp</i>	10.0	10.0	10.0		10
<i>Tylochromis polylepis</i>	17.0	15.0	15.9	0.3	18			
Gill net	25.4	1	<i>Ctenochromis horei</i>	12.0	10.0	11.3	0.2	8
			<i>Hippopotamyrus discorhynchus</i>	13.6	13.6	13.6		1
<b>Gear</b>	<b>Mesh size</b>	<b>Hauls</b>	<b>Species</b>	<b>Lmax</b>	<b>Lmin</b>	<b>Mean L</b>	<b>SE</b>	<b>N</b>
			<i>Lates mariae</i>	16.0	14.0	14.8	0.2	8

			<i>Limnotilapia dardennei</i>	11.5	11.5	11.5		1
			<i>Oreochromis tanganicae</i>	9.6	9.3	9.5	0.2	2
			<i>Pseudosimochromis curvifrons</i>	10.5	10.5	10.5	0.0	2
			<i>Schilbe spp</i>	16.1	16.1	16.1		1
Gill net	50.8	11	<i>Barbus spp</i>	37.5	15.0	24.5	1.9	14
			<i>Bathybates graueri</i>	24.0	16.0	20.2	0.7	13
			<i>Bathybates spp</i>	38.0	16.0	22.2	1.4	21
			<i>Boulengerochromis microlepis</i>	49.5	18.0	27.4	3.8	9
			<i>Chrysichthys sianenna</i>	24.0	10.0	18.6	0.8	27
			<i>Clarias spp</i>	29.0	24.0	25.8	1.1	4
			<i>Cyathopharynx furcifer</i>	19.5	9.6	14.7	1.0	11
			<i>Cyphotilapia frontosa</i>	17.0	15.0	16.0	1.0	2
			<i>Dinotopterus cunningtoni</i>	85.0	74.0	79.5	5.5	2
			<i>Grammatotria lemarii</i>	11.0	11.0	11.0		1
			<i>Labeo spp</i>	26.0	21.5	23.2	0.7	6
			<i>Lates mariae</i>	33.0	16.7	23.8	0.9	24
			<i>Limnotilapia dardennei</i>	26.0	18.0	21.3	0.7	13
			<i>Malapterurus electricus</i>	31.0	31.0	31.0	0.0	1
			<i>Mastacembelus cunningtoni</i>	61.0	36.0	48.3	2.3	10
			<i>Mormyrus longirostris</i>	31.5	18.0	23.5	4.1	3
			<i>Neolamprologus meeli</i>	24.5	20.5	22.5	2.0	2
			<i>Oreochromis tanganicae</i>	29.5	12.5	19.2	1.3	20
			<i>Pseudosimochromis curvifrons</i>	15.0	13.0	13.6	0.4	5
			<i>Simochromis diagramma</i>	15.0	15.0	15.0		1
			<i>Stolothrissa tanganicae</i>	17.1	17.1	17.1		1
			<i>Synodontis spp</i>	23.0	10.0	13.7	0.8	23
			<i>Xenochromis hecqui</i>	24.0	9.4	15.7	1.6	13
			<i>Xenotilapia spp</i>	13.0	7.0	8.3	0.2	42
Gill net	57.5	3	<i>Auchenoglanis occidentalis</i>	31.0	27.0	29.0	1.2	3
			<i>Bathybates spp</i>	30.5	20.0	22.1	1.4	7
			<i>Boulengerochromis microlepis</i>	25.1	22.6	23.9	0.7	3
			<i>Chrysichthys sianenna</i>	21.0	13.5	16.3	1.2	6
			<i>Hydrocynus alestes</i>	27.7	21.9	23.9	1.9	3
			<i>Lates mariae</i>	35.0	17.0	23.5	0.9	22
			<i>Lates mariae</i>					
			<i>Synodontis spp</i>	28.0	23.0	24.7	1.7	3
			<i>Tilapia (?)</i>	19.0	14.5	16.0	0.4	11
<b>Gear</b>	<b>Mesh size</b>	<b>Hauls</b>	<b>Species</b>	<b>Lmax</b>	<b>Lmin</b>	<b>Mean L</b>	<b>SE</b>	<b>N</b>
			<i>Tylochromis polylepis</i>	23.6	20.0	21.5	1.1	3

Gill net	63.5	8	<i>Acapoeta tanganicae</i>	43.0	21.0	32.0	6.1	4
			<i>Auchenoglanis occidentalis</i>	52.0	22.0	32.3	3.7	9
			<i>Bagrus spp</i>	29.0	13.6	19.5	4.8	3
			<i>Bathybates spp</i>	30.7	20.0	25.1	0.6	15
			<i>Boulengerochromis microlepis</i>	38.0	19.0	25.3	1.2	20
			<i>Chrysichthys graueri</i>	31.0	25.0	28.0	3.0	2
			<i>Chrysichthys sianenna</i>	21.2	12.0	16.3	1.7	6
			<i>Clarias spp</i>	74.0	60.0	67.0	7.0	2
			<i>Cyathopharynx furcifer</i>	18.0	17.0	17.5	0.3	4
			<i>Hydrocynus alestes</i>	35.0	30.0	32.3	1.5	3
			<i>Hydrocynus goliath</i>	27.0	24.5	25.3	0.8	3
			<i>Lates mariae</i>	30.5	14.0	22.3	0.7	29
			<i>Lates stappersii</i>	28.0	28.0	28.0		1
			<i>Limnothrissa miodon</i>	12.0	11.0	11.7	0.3	3
			<i>Limnotilapia dardennei</i>	23.5	15.5	20.4	0.5	21
			<i>Lobochilotes labiatus</i>	19.0	17.2	18.1	0.4	4
			<i>Malapterurus electricus</i>	38.0	31.0	34.5	3.5	2
			<i>Mastacembelus cunningtoni</i>	53.2	46.0	49.6	1.5	4
			<i>Mormyrus longirostris</i>	30.0	27.0	28.5	1.5	2
			<i>Neolamprologus meeli</i>	26.5	26.5	26.5	0.0	1
			<i>Oreochromis tanganicae</i>	30.0	16.0	18.9	0.9	14
			<i>Pseudosimochromis curvifrons</i>	16.5	15.5	16.0	0.5	2
			<i>Synodontis multipunctatus</i>	22.0	12.0	16.6	1.8	5
			<i>Synodontis spp</i>	22.0	12.5	17.3	4.8	2
			<i>Tilapia (?)</i>	19.5	14.0	16.0	0.5	13
			<i>Tylochromis polylepis</i>	21.0	16.5	18.1	0.3	13
			<i>Xenochromis hecqui</i>	28.0	16.0	20.1	1.7	6
Gill net	76.2	7	<i>Acapoeta tanganicae</i>	24.5	21.2	23.0	0.6	5
			<i>Auchenoglanis occidentalis</i>	67.0	62.0	64.5	2.5	2
			<i>Bathybates spp</i>	34.0	6.0	23.2	1.2	38
			<i>Boulengerochromis microlepis</i>	40.0	19.5	28.4	2.5	9
			<i>Chrysichthys sianenna</i>	33.0	25.0	28.7	2.3	3
			<i>Clarias spp</i>	57.0	29.0	40.8	2.0	13
			<i>Crabs</i>	14.0	12.0	13.0	1.0	2
			<i>Hydrocynus goliath</i>	30.0	20.0	25.5	0.8	17
			<i>Lates mariae</i>	46.0	17.0	25.1	2.0	15
			<i>Limnotilapia dardennei</i>	24.0	20.0	21.8	0.6	6
<b>Gear</b>	<b>Mesh size</b>	<b>Hauls</b>	<b>Species</b>	<b>Lmax</b>	<b>Lmin</b>	<b>Mean L</b>	<b>SE</b>	<b>N</b>
			<i>Neolamprologus meeli</i>	25.0	20.2	23.0	0.6	7
			<i>Oreochromis tanganicae</i>	26.0	14.0	19.2	1.4	10
			<i>Polypterus ornatipinnis</i>	72.0	35.0	47.9	2.8	13

			<i>Synodontis spp</i>	29.0	24.0	26.3	1.3	4
			<i>Xenochromis hecqui</i>	33.5	33.5	33.5	0.0	1
Gill net	152.4	4	<i>Auchenoglanis occidentalis</i>	59.0	45.0	50.0	1.6	9
			<i>Boulengerochromis microlepis</i>	41.0	32.0	35.8	1.7	7
			<i>Boulengerochromis microlepis</i>	54.0	35.0	44.0	3.9	5
			<i>Chrysichthys graueri</i>	61.0	56.0	58.3	1.5	4
			<i>Dinotopterus cunningtoni</i>	109.0	109.0	109.0		3
			<i>Hydrocynus goliath</i>	55.0	47.0	51.0	4.0	2
			<i>Lates mariae</i>	84.0	23.0	54.3	8.0	1
Gill net	177.8	3	<i>Auchenoglanis occidentalis</i>	64.0	43.0	53.3	1.4	19
			<i>Chrysichthys sianenna</i>	66.0	66.0	66.0		1
			<i>Dinotopterus cunningtoni</i>	97.0	62.0	79.5	17.5	2
			<i>Lates mariae</i>	83.0	47.0	70.5	3.4	12
Gill net	202.2	2	<i>Dinotopterus cunningtoni</i>	129.0	61.0	96.4	8.5	7
Floating gill net	50.8	1	<i>Oreochromis tanganicae</i>	18.5	15.5	16.5	0.7	4
Encircling gill net	38.1	3	<i>Auchenoglanis occidentalis</i>	42.0	26.0	33.4	2.9	5
			<i>Bathybates spp</i>	25.0	25.0	25.0		1
			<i>Boulengerochromis microlepis</i>	52.5	25.6	33.5	6.4	4
			<i>Chrysichthys sianenna</i>	20.5	17.5	18.6	0.7	4
			<i>Ctenochromis horei</i>	16.6	16.6	16.6		1
			<i>Lates mariae</i>	27.0	17.0	19.9	0.6	15
			<i>Lates stappersii</i>	23.0	12.0	20.2	1.4	7
			<i>Limnotilapia dardennei</i>	25.0	14.0	19.4	0.4	30
			<i>Oreochromis tanganicae</i>	29.0	11.0	17.4	2.0	9
			<i>Tylochromis polylepis</i>	23.0	15.5	19.0	0.4	23
Encircling gill net	50.8	6	<i>Auchenoglanis occidentalis</i>	35.0	19.0	26.4	1.4	1
			<i>Bathybates spp</i>	25.0	21.5	23.2	1.0	1
			<i>Boulengerochromis microlepis</i>	44.0	20.0	24.5	0.9	1
<b>Gear</b>	<b>Mesh size</b>	<b>Hauls</b>	<b>Species</b>	<b>Lmax</b>	<b>Lmin</b>	<b>Mean L</b>	<b>SE</b>	<b>N</b>
			<i>Dinotopterus cunningtoni</i>	89.0	89.0	89.0		1
			<i>Lamprologus callipterus</i>	18.0	18.0	18.0		3
			<i>Lates mariae</i>	35.0	12.0	23.1	0.9	6
			<i>Limnotilapia dardennei</i>	20.0	15.0	17.5	0.3	15



			<i>Mormyrus longirostris</i>	33.0	25.0	28.3	1.3	23
			<i>Oreochromis tanganicae</i>	20.5	13.0	15.7	0.5	24
			<i>Synodontis multipunctatus</i>	13.0	13.0	13.0		29
			<i>Tylochromis polylepis</i>	21.0	15.0	18.2	0.2	44
			<i>Xenochromis hecqui</i>	12.0	12.0	12.0	0.0	32
Encircling gill net	63.5	22	<i>Acapoeta tanganicae</i>	22.0	22.0	22.0		1
			<i>Auchenoglanis occidentalis</i>	55.0	17.0	29.7	1.0	85
			<i>Bathybates spp</i>	24.5	6.0	16.1	1.1	22
			<i>Boulengerochromis microlepis</i>	57.0	14.0	27.9	1.2	62
			<i>Chrysichthys sianenna</i>	18.0	15.0	16.7	0.9	3
			<i>Citharinus gibbosus</i>	25.0	22.0	23.3	0.6	6
			<i>Clarius spp</i>	45.0	40.0	42.3	1.5	3
			<i>Ctenochromis horei</i>	15.5	12.5	14.0	0.9	3
			<i>Cyathopharynx furcifer</i>	18.5	13.5	16.4	0.2	50
			<i>Cyphotilapia frontosa</i>	34.0	34.0	34.0		1
			<i>Grammatotria lemarii</i>	25.0	12.8	15.1	0.6	25
			<i>Hydrocynus alestes</i>	33.0	13.0	24.6	4.2	4
			<i>Labeo spp</i>	32.2	23.5	25.5	1.4	6
			<i>Lates mariae</i>	86.0	8.0	23.2	1.8	42
			<i>Limnothrissa miodon</i>	12.0	10.6	11.3	0.1	16
			<i>Limnotilapia dardennet</i>	25.0	6.0	17.1	0.3	109
			<i>Lobochilotes labiatus</i>	27.0	24.5	25.8	1.3	2
			<i>Mormyrus longirostris</i>	35.0	35.0	35.0	0.0	2
			<i>Neolamprologus meeli</i>	20.0	8.0	12.0	1.5	7
			<i>Oreochromis tanganicae</i>	28.0	11.0	18.3	0.4	85
			<i>Oreochromis tanganicae</i>	16.0	12.0	13.5	0.4	11
			<i>Tylochromis polylepis</i>	27.0	2.7	17.9	0.3	117
			<i>Xenotilapia ornatipinnis</i>	12.0	11.0	11.4	0.2	5
			<i>Xenotilapia spp</i>	15.0	9.9	12.7	0.5	13
Beach seine		29	<i>Acapoeta tanganicae</i>	16.0	16.0	16.0		1
			<i>Astatotilapia burtoni</i>	10.0	10.0	10.0		1
			<i>Auchenoglanis occidentalis</i>	55.0	12.5	27.9	1.5	44
<b>Gear</b>	<b>Mesh size</b>	<b>Hauls</b>	<b>Species</b>	<b>Lmax</b>	<b>Lmin</b>	<b>Mean L</b>	<b>SE</b>	<b>N</b>
			<i>Bathybates graueri</i>	18.0	18.0	18.0		1
			<i>Bathybates spp</i>	24.0	9.0	14.4	0.6	30
			<i>Boulengerochromis microlepis</i>	59.0	6.8	23.1	1.3	90
			<i>Brycinus rhodopleura</i>	36.0	23.0	29.0	3.8	3
			<i>Callochromis spp</i>	9.9	6.9	8.1	0.2	20
			<i>Chrysichthys graueri</i>	15.0	10.0	12.0	0.7	7

			<i>Chrysichthys sianenna</i>	13.6	8.0	9.9	0.4	14
			<i>Ctenochromis horei</i>	19.0	5.7	11.4	0.4	49
			<i>Cyathopharynx furcifer</i>	14.0	8.0	11.4	0.7	10
			<i>Dinotopierus cunningtoni</i>	106.0	97.0	101.0	2.6	3
			<i>Grammatotria lemarii</i>	24.0	8.0	14.3	0.4	89
			<i>Hippopotamyrus discorhynchus</i>	10.0	9.1	9.6	0.4	2
			<i>Hydrocynus alestes</i>	30.0	15.9	22.6	3.0	5
			<i>Hydrocynus goliath</i>	55.0	55.0	55.0		1
			<i>Hydrocynus spp</i>	57.5	34.0	46.0	2.6	9
			<i>Lamprichthys tanganicanus</i>	11.1	11.0	11.1	0.0	2
			<i>Lamprologus callipterus</i>	17.2	7.0	9.9	1.1	9
			<i>Lamprologus lemarii</i>	7.5	4.5	6.5	0.3	12
			<i>Lates mariae</i>	121.0	11.5	29.3	4.4	34
			<i>Lepidiolamprologus attenuatus</i>	10.0	9.0	9.7	0.3	3
			<i>Limnothrissa miodon</i>	13.0	2.0	5.6	0.5	77
			<i>Limnotilapia dardennei</i>	23.0	6.0	16.1	0.4	108
			<i>Mastacembelus ophidium</i>	51.0	44.0	47.5	3.5	2
			<i>Mastacembelus spp</i>	46.0	37.5	41.8	4.3	2
			<i>Mormyrus longirostris</i>	45.0	28.0	34.1	5.4	3
			<i>Neolamprologus meeli</i>	19.4	6.0	12.1	0.8	30
			<i>Oreochromis tanganicae</i>	26.6	9.0	15.4	0.3	191
			<i>Perissodus microlepis</i>	18.2	17.5	17.9	0.3	2
			<i>Petrochromis spp</i>	8.5	6.0	7.3	1.3	2
			<i>Polypterus ornatipinnis</i>	66.0	66.0	66.0		1
			<i>Pseudosimochromis curvifrons</i>	10.2	5.5	7.7	0.9	5
			<i>Tetraodon mbu</i>	55.0	55.0	55.0		1
			<i>Tylochromis polylepis</i>	18.0	10.0	16.2	1.6	5
			<i>Xenochromis hecqui</i>	13.5	6.0	9.1	0.4	22
			<i>Xenotilapia boulengeri</i>	21.0	8.3	11.1	0.3	48
			<i>Xenotilapia dardennei</i>	12.0	10.0	11.0	0.3	10
			<i>Xenotilapia ornatipinnis</i>	13.0	6.0	9.4	0.5	20
			<i>Xenotilapia sima</i>	13.0	8.0	10.0	0.4	18
			<i>Xenotilapia spp</i>	22.0	6.0	12.5	0.3	88

## 6.6 Fish Species And Weights From Beach Landing Samples FPSS 2000. Burundi Data.

### 6.6.1 Average weight of various species in the catch of different fishing gears

Gear	Species in the catch	Average Weight	
		(Grammes)	N
Gill net	<i>Acapoeta tanganyicae</i>	13.03	31
	<i>Auchenoglanis occidentalis</i>	588.59	22
	<i>Aulonocranus dewindti</i>	9.93	202
	<i>Bathybates ferox</i>	23.33	18
	<i>Bathybates minor</i>	50.00	3
	<i>Benthochromis tricoti</i>	36.00	10
	<i>Boulengerochromis microlepis</i>	108.11	18
	<i>Caecomastacembelus cunningtoni</i>	37.54	65
	<i>Callochromis melanostigma</i>	6.32	81
	<i>Callochromis pleurospilus</i>	3.11	81
	<i>Chrysichthys brachynema</i>	40.00	150
	<i>Chrysichthys platycephalus</i>	140.53	55
	<i>Chrysichthys sianenna</i>	49.55	309
	<i>Chrysichthys stappersi</i>	11.20	10
	<i>Clarias gariepinus</i>	560.31	16
	<i>Ctenochromis horei</i>	4.06	35
	<i>Gnathochromis permaxillaris</i>	4.33	15
	<i>Gnathochromis pfefferi</i>	3.67	3
	<i>Haplochromis burtoni</i>	5.00	350
	<i>Haplotaxodon microlepis</i>	4.40	5
<i>Lamprologus callipterus</i>	5.37	38	

	<i>Lamprichthys tanganicanus</i>	4.48	124
	<i>Lates angustifrons</i>	1234.00	5
	<i>Lates mariae</i>	385.77	13
	<i>Lepidolamprologus attenuatus</i>	3.21	53
	<i>Limnochromis auritus</i>	8.60	80
	<i>Limnothrissa miodon</i>	4.14	76
	<i>Limnotilapia dardennei</i>	4.76	42
	<i>Lophiobagrus cyclurus</i>	191.30	66
	<i>Malapterurus electricus</i>	360.75	8
	<i>Oreochromis niloticus</i>	69.47	32
	<i>Oreochromis tanganicæ</i>	232.88	33
	<i>Plecodus paradoxus</i>	7.70	10
	<i>Protopterus aethiopicus</i>	1573.33	3
	<i>Reganochromis calliurus</i>	12.47	15
	<i>Simochromis babaulti</i>	4.15	66
	<i>Simochromis diagramma</i>	5.00	7
	<i>Synodontis multipunctatus</i>	3.47	15
	<i>Trematocara caparti</i>	2.67	6
	<i>Trematocara variabile</i>	10.24	352
	<i>Triglachromis otostigma</i>	6.48	75
	<i>Tylochromis microlepis</i>	2.67	12
	<i>Xenotilapia flavipinnis</i>	3.73	88
	<i>Xenotilapia ochrogenys</i>	4.31	42
Encircling Gill Net	<i>Acapoeta tanganicæ</i>	7.00	23
	<i>Auchenoglanis occidentalis</i>	69.00	3
	<i>Aulonocranus dewindti</i>	6.72	71
	<i>Bathybates ferox</i>	6.39	18

<i>Bathybates minor</i>	20.32	85
<i>Boulengerochromis microlepis</i>	16.41	34
<i>Caecomastacembelus cunningtoni</i>	70.67	3
<i>Callochromis melanostigma</i>	7.19	68
<i>Callochromis pleurospilus</i>	6.00	12
<i>Chrysichthys platycephalus</i>	32.00	5
<i>Chrysichthys sianenna</i>	27.58	124
<i>Ctenochromis horei</i>	7.15	78
<i>Cyathopharynx furcifer</i>	14.50	20
<i>Gnathochromis pfefferi</i>	4.87	15
<i>Haplochromis burtoni</i>	3.43	728
<i>Haplotaxodon microlepis</i>	4.25	4
<i>Lamprologus callipterus</i>	5.88	120
<i>Lamprichthys tanganicus</i>	6.47	207
<i>Lates angustifrons</i>	108.24	25
<i>Lates mariae</i>	134.29	14
<i>Lepidiolamprologus attenuatus</i>	4.06	86
<i>Limnochromis auritus</i>	8.28	121
<i>Limnothrissa miodon</i>	6.65	957
<i>Limnotilapia dardennei</i>	7.04	617
<i>Oreochromis tanganicae</i>	79.47	177
<i>Simochromis babaulti</i>	5.49	45
<i>Simochromis diagramma</i>	5.25	120
<i>Trematocara variabile</i>	3.50	3607
<i>Triglachromis otostigma</i>	5.66	1020
<i>Tylochromis microlepis</i>	5.84	50
<i>Xenotilapia boulengeri</i>	8.93	15
<i>Xenotilapia flavipinnis</i>	4.32	145

	<i>Xenotilapia melanogenys</i>	4.48	1005
	<i>Xenotilapia ochrogenys</i>	6.12	73
Long lines	<i>Auchenoglanis occidentalis</i>	647.22	9
	<i>Clarias gariepinus</i>	800.00	3
	<i>Lates mariae</i>	1490.50	4
	<i>Lophiobagrus cyclurus</i>	382.78	9
	<i>Malapterurus electricus</i>	600.00	1
Traps	<i>Clarias gariepinus</i>	291.71	7
	<i>Oreochromis niloticus</i>	202.26	23
	<i>Oreochromis tanganyicae</i>	124.08	26
Beach Seine (Day)	<i>Auchenoglanis occidentalis</i>	260.28	57
	<i>Aulonocranus dewindti</i>	7.00	5
	<i>Bathybates ferox</i>	13.31	39
	<i>Bathybates minor</i>	17.59	54
	<i>Caecomastacembelus cunningtoni</i>	17.56	34
	<i>Callochromis melanostigma</i>	34.49	153
	<i>Callochromis pleurospilus</i>	7.46	260
	<i>Callochromis pleurospilus</i>	10.45	22
	<i>Chrysichthys brachynema</i>	466.67	3
	<i>Chrysichthys cyclurus</i>	75.75	4
	<i>Chrysichthys platycephalus</i>	21.72	39
	<i>Chrysichthys sianenna</i>	20.72	135
	<i>Chrysichthys stappersi</i>	29.71	34
	<i>Clarias gariepinus</i>	310.00	5
	<i>Ctenochromis horei</i>	7.43	58

<i>Ectodus descampsi</i>	4.09	11
<i>Gnathochromis permaxillaris</i>	2.91	22
<i>Gnathochromis pfefferi</i>	5.55	20
<i>Haplotaxodon microlepis</i>	5.56	18
<i>Lamprichthys tanganicanus</i>	6.92	385
<i>Lamprologus callipterus</i>	4.88	24
<i>Lamprichthys tanganicanus</i>	4.26	23
<i>Lates angustifrons</i>	247.33	15
<i>Lates mariae</i>	39.98	114
<i>Lates stappersii</i>	27.50	10
<i>Lepidolamprologus attenuatus</i>	1.28	281
<i>Limnochromis auritus</i>	8.23	894
<i>Limnothrissa miodon</i>	2.97	180
<i>Limnotilapia dardennei</i>	7.30	98
<i>Lobochilotes labiatus</i>	4.57	7
<i>Lophiobagrus cyclurus</i>	197.78	9
<i>Malapterurus electricus</i>	136.33	9
<i>Oreochromis tanganicae</i>	25.29	137
<i>Protopterus aethiopicus</i>	537.50	4
<i>Reganochromis calliurus</i>	5.00	7
<i>Simochromis babaulti</i>	1.97	202
<i>Simochromis diagramma</i>	6.00	86
<i>Synodontis multipunctatus</i>	7.33	12
<i>Trematocara marginatus</i>	5.20	50
<i>Trematocara variabile</i>	3.08	282
<i>Triglachromis otostigma</i>	5.46	104
<i>Tylochromis microlepis</i>	5.14	14
<i>Xenotilapia flavipinnis</i>	4.28	362

<i>Xenotilapia melanogenys</i>	4.50	237
<i>Xenotilapia ochrogenys</i>	5.65	241



## 6.3.2 Percentage in the catch, by gear, species, weight and frequency Jan – April 2000 Burundi

Gear	Species	Weight %	No %	Same data sorted by numbers in the catch		
				Species	Weight %	No %
Gill net	<i>Chrysichthys sianenna</i>	13.88	11.28	<i>Trematocara variable</i>	3.27	12.85
	<i>Auchenoglanis occidentalis</i>	11.74	0.80	<i>Haplochromis burtoni</i>	1.59	12.77
	<i>Lophiobagrus cyclurus</i>	11.45	2.41	<i>Chrysichthys sianenna</i>	13.88	11.28
	<i>Clarias gariepinus</i>	8.13	0.58	<i>Aulonocranus dewindti</i>	1.82	7.37
	<i>Chrysichthys platycephalus</i>	7.01	2.01	<i>Chrysichthys brachynema</i>	5.44	5.47
	<i>Oreochromis tanganyicae</i>	6.97	1.20	<i>Lamprichthys tanganicus</i>	0.50	4.53
	<i>Lates angustifrons</i>	5.60	0.18	<i>Xenotilapia flavipinnis</i>	0.30	3.21
	<i>Chrysichthys brachynema</i>	5.44	5.47	<i>Callochromis melanostigma</i>	0.46	2.96
	<i>Lates mariae</i>	4.55	0.47	<i>Callochromis pleurospilus</i>	0.23	2.96
	<i>Protopterus aethiopicus</i>	4.28	0.11	<i>Limnochromis auritus</i>	0.62	2.92
	<i>Trematocara variable</i>	3.27	12.85	<i>Limnothrissa miodon</i>	0.29	2.77
	<i>Malapterurus electricus</i>	2.62	0.29	<i>Triglachromis otostigma</i>	0.44	2.74
	<i>Caecomastacembelus cunningtoni</i>	2.21	2.37	<i>Lophiobagrus cyclurus</i>	11.45	2.41
	<i>Oreochromis niloticus</i>	2.02	1.17	<i>Simochromis babaulti</i>	0.25	2.41
	<i>Aulonocranus dewindti</i>	1.82	7.37	<i>Caecomastacembelus cunningtoni</i>	2.21	2.37
	<i>Boulengerochromis microlepis</i>	1.76	0.66	<i>Chrysichthys platycephalus</i>	7.01	2.01
	<i>Haplochromis burtoni</i>	1.59	12.77	<i>Lepidolamprologus attenuatus</i>	0.15	1.93
	<i>Limnochromis auritus</i>	0.62	2.92	<i>Limnotilapia dardennei</i>	0.18	1.53
	<i>Lamprichthys tanganicus</i>	0.50	4.53	<i>Xenotilapia ochrogenys</i>	0.16	1.53
	<i>Callochromis melanostigma</i>	0.46	2.96	<i>Lamprologus callipterus</i>	0.18	1.39
<i>Triglachromis otostigma</i>	0.44	2.74	<i>Ctenochromis horei</i>	0.13	1.28	

	<i>Bathybates ferox</i>	0.38	0.66	<i>Oreochromis tanganyicae</i>	6.97	1.20
	<i>Acapoeta tanganyicae</i>	0.37	1.13	<i>Oreochromis niloticus</i>	2.02	1.17
	<i>Benthochromis tricoti</i>	0.33	0.36	<i>Acapoeta tanganyicae</i>	0.37	1.13
	<i>Xenotilapia flavipinnis</i>	0.30	3.21	<i>Auchenoglanis occidentalis</i>	11.74	0.80
	<i>Limnothrissa miodon</i>	0.29	2.77	<i>Boulengerochromis microlepis</i>	1.76	0.66
	<i>Simochromis babaulti</i>	0.25	2.41	<i>Bathybates ferox</i>	0.38	0.66
	<i>Callochromis pleurospilus</i>	0.23	2.96	<i>Clarias gariepinus</i>	8.13	0.58
	<i>Lamprologus callipterus</i>	0.18	1.39	<i>Reganochromis calliurus</i>	0.17	0.55
	<i>Limnotilapia dardennei</i>	0.18	1.53	<i>Gnathochromis permaxillaris</i>	0.06	0.55
	<i>Reganochromis calliurus</i>	0.17	0.55	<i>Synodontis multipunctatus</i>	0.05	0.55
	<i>Xenotilapia ochrogenys</i>	0.16	1.53	<i>Lates mariae</i>	4.55	0.47
	<i>Lepidolamprologus attenuatus</i>	0.15	1.93	<i>Tylochromis microlepis</i>	0.03	0.44
	<i>Bathybates minor</i>	0.14	0.11	<i>Benthochromis tricoti</i>	0.33	0.36
	<i>Ctenochromis horei</i>	0.13	1.28	<i>Chrysichthys stappersi</i>	0.10	0.36
	<i>Chrysichthys stappersi</i>	0.10	0.36	<i>Plecodus paradoxus</i>	0.07	0.36
	<i>Plecodus paradoxus</i>	0.07	0.36	<i>Malapterurus electricus</i>	2.62	0.29
	<i>Gnathochromis permaxillaris</i>	0.06	0.55	<i>Simochromis diagramma</i>	0.03	0.26
	<i>Synodontis multipunctatus</i>	0.05	0.55	<i>Trematocara caparti</i>	0.01	0.22
	<i>Simochromis diagramma</i>	0.03	0.26	<i>Lates angustifrons</i>	5.60	0.18
	<i>Tylochromis microlepis</i>	0.03	0.44	<i>Haplotaxodon microlepis</i>	0.02	0.18
	<i>Haplotaxodon microlepis</i>	0.02	0.18	<i>Protopterus aethiopicus</i>	4.28	0.11
	<i>Trematocara caparti</i>	0.01	0.22	<i>Bathybates minor</i>	0.14	0.11
	<i>Gnathochromis pfefferi</i>	0.01	0.11	<i>Gnathochromis pfefferi</i>	0.01	0.11
Encircling gill net	<i>Oreochromis tanganyicae</i>	20.37	1.83	<i>Trematocara variabile</i>	18.27	37.20
	<i>Trematocara variabile</i>	18.27	37.20	<i>Triglachromis otostigma</i>	8.36	10.52
	<i>Limnothrissa miodon</i>	9.21	9.87	<i>Xenotilapia melanogenys</i>	6.52	10.37
	<i>Triglachromis otostigma</i>	8.36	10.52	<i>Limnothrissa miodon</i>	9.21	9.87

<i>Xenotilapia melanogenys</i>	6.52	10.37	<i>Haplochromis burtoni</i>	3.62	7.51
<i>Limnotilapia dardennei</i>	6.29	6.36	<i>Limnotilapia dardennei</i>	6.29	6.36
<i>Chrysichthys sianenna</i>	4.95	1.28	<i>Lamprichthys tanganicanus</i>	1.94	2.14
<i>Lates angustifrons</i>	3.92	0.26	<i>Oreochromis tanganyicae</i>	20.37	1.83
<i>Haplochromis burtoni</i>	3.62	7.51	<i>Xenotilapia flavipinnis</i>	0.91	1.50
<i>Lates mariae</i>	2.72	0.14	<i>Chrysichthys sianenna</i>	4.95	1.28
<i>Bathybates minor</i>	2.50	0.88	<i>Limnochromis auritus</i>	1.45	1.25
<i>Lamprichthys tanganicanus</i>	1.94	2.14	<i>Lamprologus callipterus</i>	1.02	1.24
<i>Limnochromis auritus</i>	1.45	1.25	<i>Simochromis diagramma</i>	0.91	1.24
<i>Lamprologus callipterus</i>	1.02	1.24	<i>Lepidolamprologus attenuatus</i>	0.51	0.89
<i>Simochromis diagramma</i>	0.91	1.24	<i>Bathybates minor</i>	2.50	0.88
<i>Xenotilapia flavipinnis</i>	0.91	1.50	<i>Ctenochromis horei</i>	0.81	0.80
<i>Boulengerochromis microlepis</i>	0.81	0.35	<i>Xenotilapia ochrogenys</i>	0.65	0.75
<i>Ctenochromis horei</i>	0.81	0.80	<i>Aulonocranus dewindti</i>	0.69	0.73
<i>Callochromis melanostigma</i>	0.71	0.70	<i>Callochromis melanostigma</i>	0.71	0.70
<i>Aulonocranus dewindti</i>	0.69	0.73	<i>Tylochromis microlepis</i>	0.42	0.52
<i>Xenotilapia ochrogenys</i>	0.65	0.75	<i>Simochromis babaulti</i>	0.36	0.46
<i>Lepidolamprologus attenuatus</i>	0.51	0.89	<i>Boulengerochromis microlepis</i>	0.81	0.35
<i>Tylochromis microlepis</i>	0.42	0.52	<i>Lates angustifrons</i>	3.92	0.26
<i>Cyathopharynx furcifer</i>	0.42	0.21	<i>Acapoeta tanganyicae</i>	0.23	0.24
<i>Simochromis babaulti</i>	0.36	0.46	<i>Cyathopharynx furcifer</i>	0.42	0.21
<i>Caecomastacembelus cunningtoni</i>	0.31	0.03	<i>Bathybates ferox</i>	0.17	0.19
<i>Auchenoglanis occidentalis</i>	0.30	0.03	<i>Xenotilapia boulengeri</i>	0.19	0.15
<i>Acapoeta tanganyicae</i>	0.23	0.24	<i>Gnathochromis pfefferi</i>	0.11	0.15
<i>Chrysichthys platycephalus</i>	0.23	0.05	<i>Lates mariae</i>	2.72	0.14
<i>Xenotilapia boulengeri</i>	0.19	0.15	<i>Callochromis pleurospilus</i>	0.10	0.12
<i>Bathybates ferox</i>	0.17	0.19	<i>Chrysichthys platycephalus</i>	0.23	0.05

	<i>Gnathochromis pfefferi</i>	0.11	0.15	<i>Haplotaxodon microlepis</i>	0.02	0.04
	<i>Callochromis pleurospilus</i>	0.10	0.12	<i>Caecomastacembelus cunningtoni</i>	0.31	0.03
	<i>Haplotaxodon microlepis</i>	0.02	0.04	<i>Auchenoglanis occidentalis</i>	0.30	0.03
Long line	<i>Lates mariae</i>	32.70	15.38	<i>Auchenoglanis occidentalis</i>	31.95	34.62
	<i>Auchenoglanis occidentalis</i>	31.95	34.62	<i>Lophiobagrus cyclurus</i>	18.90	34.62
	<i>Lophiobagrus cyclurus</i>	18.90	34.62	<i>Lates mariae</i>	32.70	15.38
	<i>Clarias gariepinus</i>	13.16	11.54	<i>Clarias gariepinus</i>	13.16	11.54
	<i>Malapterurus electricus</i>	3.29	3.85	<i>Malapterurus electricus</i>	3.29	3.85
Traps	<i>Oreochromis niloticus</i>	46.90	41.07	<i>Oreochromis tanganicae</i>	32.52	46.43
	<i>Oreochromis tanganicae</i>	32.52	46.43	<i>Oreochromis niloticus</i>	46.90	41.07
	<i>Clarias gariepinus</i>	20.58	12.50	<i>Clarias gariepinus</i>	20.58	12.50
Beach seine (day)	<i>Auchenoglanis occidentalis</i>	21.54	1.20	<i>Limnochromis auritus</i>	10.68	18.78
	<i>Limnochromis auritus</i>	10.68	18.78	<i>Lamprichthys tanganicanus</i>	3.87	8.09
	<i>Callochromis melanostigma</i>	7.66	3.21	<i>Xenotilapia flavipinnis</i>	2.25	7.61
	<i>Lates mariae</i>	6.62	2.39	<i>Trematocara variabile</i>	1.26	5.92
	<i>Lates angustifrons</i>	5.39	0.32	<i>Lepidiolamprologus attenuatus</i>	0.52	5.90
	<i>Oreochromis tanganicae</i>	5.03	2.88	<i>Callochromis pleurospilus</i>	2.82	5.46
	<i>Chrysichthys sianenna</i>	4.06	2.84	<i>Xenotilapia ochrogenys</i>	1.98	5.06
	<i>Lamprichthys tanganicanus</i>	3.87	8.09	<i>Xenotilapia melanogenys</i>	1.55	4.98
	<i>Protopterus aethiopicus</i>	3.12	0.08	<i>Simochromis babaulti</i>	0.58	4.24
	<i>Callochromis pleurospilus</i>	2.82	5.46	<i>Limnothrissa miodon</i>	0.78	3.78
	<i>Lophiobagrus cyclurus</i>	2.58	0.19	<i>Callochromis melanostigma</i>	7.66	3.21
	<i>Xenotilapia flavipinnis</i>	2.25	7.61	<i>Oreochromis tanganicae</i>	5.03	2.88
	<i>Clarias gariepinus</i>	2.25	0.11	<i>Chrysichthys sianenna</i>	4.06	2.84

<i>Chrysichthys brachynema</i>	2.03	0.06	<i>Lates mariae</i>	6.62	2.39
<i>Xenotilapia ochrogenys</i>	1.98	5.06	<i>Triglachromis otostigma</i>	0.82	2.18
<i>Malapterurus electricus</i>	1.78	0.19	<i>Limnotilapia dardennei</i>	1.04	2.06
<i>Xenotilapia melanogenys</i>	1.55	4.98	<i>Simochromis diagramma</i>	0.75	1.81
<i>Chrysichthys stappersi</i>	1.47	0.71	<i>Ctenochromis horei</i>	0.63	1.22
<i>Bathybates minor</i>	1.38	1.13	<i>Auchenoglanis occidentalis</i>	21.54	1.20
<i>Trematocara variable</i>	1.26	5.92	<i>Bathybates minor</i>	1.38	1.13
<i>Chrysichthys platycephalus</i>	1.23	0.82	<i>Trematocara marginatus</i>	0.38	1.05
<i>Limnotilapia dardennei</i>	1.04	2.06	<i>Chrysichthys platycephalus</i>	1.23	0.82
<i>Caecomastacembelus cunningtoni</i>	0.87	0.71	<i>Bathybates ferox</i>	0.75	0.82
<i>Triglachromis otostigma</i>	0.82	2.18	<i>Chrysichthys stappersi</i>	1.47	0.71
<i>Limnothrissa miodon</i>	0.78	3.78	<i>Caecomastacembelus cunningtoni</i>	0.87	0.71
<i>Bathybates ferox</i>	0.75	0.82	<i>Lamprologus callipterus</i>	0.17	0.50
<i>Simochromis diagramma</i>	0.75	1.81	<i>Lamprichthys tanganicus</i>	0.14	0.48
<i>Ctenochromis horei</i>	0.63	1.22	<i>Callochromis pleurospilus</i>	0.33	0.46
<i>Simochromis babaulti</i>	0.58	4.24	<i>Gnathochromis permaxillaris</i>	0.09	0.46
<i>Lepidolamprologus attenuatus</i>	0.52	5.90	<i>Gnathochromis pfefferi</i>	0.16	0.42
<i>Chrysichthys cyclurus</i>	0.44	0.08	<i>Haplotaxodon microlepis</i>	0.15	0.38
<i>Lates stappersii</i>	0.40	0.21	<i>Lates angustifrons</i>	5.39	0.32
<i>Trematocara marginatus</i>	0.38	1.05	<i>Tylochromis microlepis</i>	0.10	0.29
<i>Callochromis pleurospilus</i>	0.33	0.46	<i>Synodontis multipunctatus</i>	0.13	0.25
<i>Lamprologus callipterus</i>	0.17	0.50	<i>Ectodus descampsi</i>	0.07	0.23
<i>Gnathochromis pfefferi</i>	0.16	0.42	<i>Lates stappersii</i>	0.40	0.21
<i>Haplotaxodon microlepis</i>	0.15	0.38	<i>Lophiobagrus cyclurus</i>	2.58	0.19
<i>Lamprichthys tanganicus</i>	0.14	0.48	<i>Malapterurus electricus</i>	1.78	0.19
<i>Synodontis multipunctatus</i>	0.13	0.25	<i>Reganochromis calliurus</i>	0.05	0.15

<i>Tylochromis microlepis</i>	0.10	0.29	<i>Lobochilotes labiatus</i>	0.05	0.15
<i>Gnathochromis permaxillaris</i>	0.09	0.46	<i>Clarias gariepinus</i>	2.25	0.11
<i>Ectodus descampsi</i>	0.07	0.23	<i>Aulonocranus dewindti</i>	0.05	0.11
<i>Aulonocranus dewindti</i>	0.05	0.11	<i>Protopterus aethiopicus</i>	3.12	0.08
<i>Reganochromis calliurus</i>	0.05	0.15	<i>Chrysichthys cyclurus</i>	0.44	0.08
<i>Lobochilotes labiatus</i>	0.05	0.15	<i>Chrysichthys brachynema</i>	2.03	0.06

## 6.7 Number Of Major Gears Found By FPSS 1999/2000 In N Burundi And NE Congo, And Other Previous Surveys

Country	Survey	Village or beach name	Handlines	Pole & line	Long line	Encircling gill net (Divers)	Encircling gill net (Boat)	Encircling gill net (Beach)	Encircling Gill net (Unspecified)	Gill net >65mm	Gill net 65-120mm	Gill net >120mm	Cast net	Beach seine	Beach seine with lamps	Swamp beach seine	Lusenga	Spears	Mosquitoes	Traps	Active canoes	Active planked boats	Active catamarans
Burundi	Bellemans 1990	Cimental	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	25	0
Burundi	LTR 1992 Gears	Cimental	1	0	20	0	1	0	0	0	0	0	0	3	0	0	13	0	0	0	38	0	0
Burundi	LTR 1992 Vessels	Cimental	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	46	0	1
Burundi	LTR 1995	Cimental	0	0	0	0	0	0	12	0	0	0	0	4	0	0	6	0	0	0	1	22	6
Burundi	LTR 1995	Gatumba	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	2	0
Burundi	Bellemans 1990	Gatumba - Gaharawe	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	88	0
Burundi	LTR 1992 Gears	Gatumba - Gaharawe	2	0	2	0	3	0	1	0	0	0	0	0	0	0	0	0	0	8	14	0	0
Burundi	LTR 1992 Vessels	Gatumba - Gaharawe	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	29	0	0
Burundi	FPSS 1999/2000	Gatumba - reserve	0	0	0	0	0	0	23	0	0	0	0	4	0	0	0	0	0	0	0	30	0
Burundi	FPSS 1999/2000	Gatumba - Angola	10	4	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1,200	0	25	0
Burundi	Bellemans 1990	Gatumba - Kibero	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8	4
Burundi	LTR 1992 Vessels	Gatumba - Kibero	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Burundi	Bellemans 1990	Kadgaja	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	6
Burundi	LTR 1992 Gears	Kadgaja	16	0	12	0	3	0	0	0	0	0	0	1	0	0	2	0	0	0	34	0	0





Congo	LTR 1995	Babungwe	40	0	23	0	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	51	15	4
Congo	LTR 1995	Elila	3	0	0	0	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	3	2
Congo	LTR 1995	Ilakala	19	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	18	4	8
Congo	FPSS 1999/2000	Kabimba	53	75	13	7	5	22	6	0	0	0	5	25	0	0	35	2	250	15	12			
Congo	LTR 1995	Kabimba	40	0	20	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	29	3	4
Congo	LTR 1995	Kabondozi	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2
Congo	LTR 1995	Kabumbi	15	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	22	1	6	
Congo	FPSS 1999/2000	Kalundu	220	15	1	2	2	3	6	0	4	1	1	0	1	0	4	3	25	195	92			
Congo	LTR 1995	Kalundu	2	0	28	0	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	26	14	6
Congo	FPSS 1999/2000	Kalungwe	40	20	15	10	1	5	2	1	1	0	0	30	0	0	10	0	50	16	8			
Congo	LTR 1995	Kashekezi	8	0	7	0	2	0	0	0	0	0	3	0	0	0	0	0	0	0	0	14	6	0
Congo	FPSS 1999/2000	Katongo	206	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Congo	FPSS 1999/2000	Kilomoni I	0	5	0	0	12	15	0	0	0	0	0	0	1	0	6	0	0	18	37			
Congo	FPSS 1999/2000	Kilomoni II	40	120	4	2	15	42	62	3	24	0	3	0	4	0	1	150	0	203	52			
Congo	LTR 1995	Kilomoni II	0	0	0	0	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	21	29	
Congo	FPSS 1999/2000	Kingonlo	206	150	4	0	0	0	1	5	2	0	2	7	0	0	5	0	22	98	16			
Congo	LTR 1995	Kingonlo	7	0	22	0	4	0	0	0	0	0	1	0	0	0	0	0	0	0	0	29	5	56
Congo	FPSS 1999/2000	Kisenga	20	10	0	1	3	4	5	5	4	0	5	0	1	0	0	0	5	39	50			
Congo	LTR 1995	Kisenga	0	0	0	0	17	0	0	0	0	0	1	0	0	0	0	0	0	0	0	21	20	
Congo	LTR 1995	Kivduo	27	0	37	0	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	41	4	22

Congo	LTR 1995	Lusambo	1	0	13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	13	12	
Congo	LTR 1995	Makobola I	5	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	2	33	
Congo	LTR 1995	Makobola II	8	0	21	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	26	5	4	
Congo	LTR 1995	Mboko	1	0	12	0	1	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	13	4	12
Congo	LTR 1995	Mukwezi	13	0	24	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	34	5	1	
Congo	FPSS 1999/2000	Mulongwe	30	35	6	0	18	20		5	0	10	5	4	0		0	0	20	0	0	0	108	100	
Congo	LTR 1995	Munene	7	0	3	0	8	0	0	0	0	0	0	0	0		0	0	0	0	0	10	0	8	
Congo	LTR 1995	Swima	11	0	5	0	9	0	0	0	0	0	0	1	0		0	0	0	0	0	11	15	5	