

**IMPLEMENTATION OF A FISHERIES MANAGEMENT PLAN
(IFMP) PROJECT FOR LAKE VICTORIA**

**National Report of IFMP Catch
Assessment Survey (CAS) for August
2005**

Prepared by the CAS -NWG (TNZANIA)

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October 2005

EXECUTIVE SUMMARY

The first comprehensive CAS was carried out during the month of July 2005 This is the second report of CAS for the month of August 2005 following the July report. The design and methodology followed was the same as in July. This report highlights the results obtained in August catch assessment survey. The report gives estimates of mean catch rates in Kgs./boat/day, total catches in M.tons and values of the catch by species.

The total catch for August was 31633.0 M. tons. This is lower when compared with the July catch which was 39,745.1 M. tons. In August the catch composed of Dagaa (45%), Nile perch (33%), Haplochromines (16%), Tilapiines (5%) and all other species combined (1%).

Total value of the catch is estimated at Tshs. 15,416,264.32(US \$ 14,014.79)

1. **DATA COLLECTION:**

As was the case in July, in August data was collected in the first and third week of the month for two consecutive days at the selected landing sites.

2. **DATA ENTRY AND ANALYSIS:**

Data were entered into a computer, and an Excel soft ware program with its statistical package built in was used to analyze the data.

3. **RESULTS AND DISCUSSIONS**

The results of CAS for the month of August are presented below. Table 1 gives catch rates of the different species using different boat –gear combinations. Tables 2 gives total catches by species for the month of August 2005. Table 3 gives a summary of the total catch and value of the catch. Table 4 gives a summary of contributions of different Districts to the total catch. Detailed District total estimates are presented as Annex II.

Catch rates

Catch rates have been changing depending on the vessel gear types. Nile perch was mostly caught by sesse boats using either outboard engines, peddles or sails. Gears used to capture Nile perch were Gillnet, Long lines and other gear. Catch rates for gill nets ranged from 15.43 Kgs./boat/day recorded from paddled sesse to 35.32 Kgs./boat/day recorded from motorized/sailed sesse. Catch rates for long lines ranged from 37.14 Kgs/boat/day recorded from paddled sesse to 53.69 Kgs./boat/day recorded from motorized or sailed sesse. These results show that the motorized/sailed sesse using gill nets and long line have higher catch rates than the paddled sesse using the same gear. Catch rates of Nile perch for other gear ranged from 28.0 Kgs./boat/day recorded from motorized/sailed sesse to 36.25 Kgs./boat/day recorded from paddled sesse. For the month of August there was also a high catch rate of 59.0Kgs/boat/day recorded for motorized/sailed sesse using scoop nets which is not normal because that gear is not used to catch Nile perch

Dagaa were mostly caught by sesses boats (Motorized, peddle or sail) using small seines; scoop nets and lift nets. The highest catch rate of 420.0 Kgs/boat/day was recorded from motorized sesse boats using scoop nets. Catch rates for small seines was 168.3Kgs./boat/day for paddled sesse and 300.06 Kgs./boat/day for motorized/sailed sesse; while for lift nets it was 252.0 Kgs./boat/day for paddled sesse and 206.67 Kgs./boat/day for motorized/sailed sesse.

Haplochromines were mostly caught by sesse boats (Motorized, peddle or sail) using small seines, Lift nets, gillnets of mesh sizes 2.5" and other types of gear. The highest catch rate was 100.82 Kgs./boat/day recorded for paddled sesse boat using small seines, followed by motorized/sailed sesse using small seines (56.91 Kgs.). Catch rates for motorized/sailed sesse using lift was 50.67 Kgs./boat/day. Catch rates for gill nets were low, ranging between 2.41 to 5.30 Kgs./boat/day.

Tilapia were mainly caught by sesse boats using Hand lines and gill nets and Other crafts using hand lines and other gear types. The "Other" craft types include rafts and dugout canoes. While other gear include beach seines. Gillnets catch rates were 2.38 kg/boat /day for motorized/sail sesse, 4.73 Kgs. for "other" craft types, and 6.89 Kgs. for paddled sesse. The highest catch rate of 26.95 Kgs./boat/day was recorded for paddled sesse using hand lines.

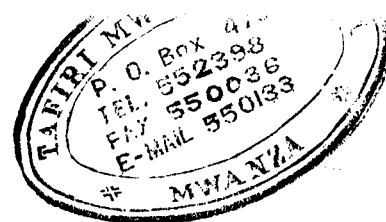
Other fish species caught in small amounts by a mixture of the boat-gear types were *Bagrus*, *Protopterus Clarias* and others.

Total Catches

Total catch estimate for August was 31,633 Metric tons. Species contribution to the total catch were Dagaa (45%), Nile perch (33%), Haplochromines (16%) and Tilapiines (5%). All other species combined (1%). The August catch was less than the July catch by 8,012 M. tons.

Dagaa dropped from 20,287.9 M. tons to 14,081 M. tons, Nile perch increased slightly from 10,036.5 to 10,562 M. tons, Tilapiines increased from 1,640.7 to 1,719 M. tons and Haplochromines dropped from 7,635 to 5,038 M. tons

In the month of August contribution of districts to the total catch was as follows:



Ukerewe District – 24.05%; Muleba District – 19.84%; Musoma, and Sengerema Districts - 10.9% each, Tarime – 10.5%, Mwanza 6.4%, Magu 4.9%; Bunda 4.4, %, Bukoba 2.7% Biharamulo and Geita 2.2% each, and Misungwi contributed 0.8%. When these percentages are compared to the July Figures they do not show much difference.

Value of catches

Based on the average prices per Kg., the total value of the catch for August was Tshs. 15,416,264.32 which is equivalent to US \$ 14,014.79 (see table 3). The highest contributor to the value was Nile perch which provided for 76.19% followed by Dagaa (13.52%), Tilapiines (5%) and Haplochromines (4.3%). All other species combined contributed 0.9%.

Total catch by species-Tanzania, August 05

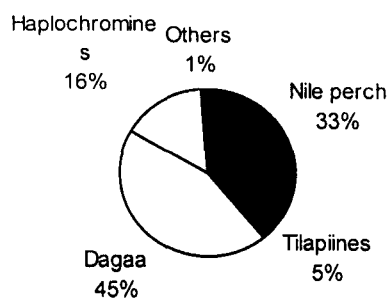


Figure 1: Species composition for August 2005

Catch of main species by gear type-TZ, Aug 05

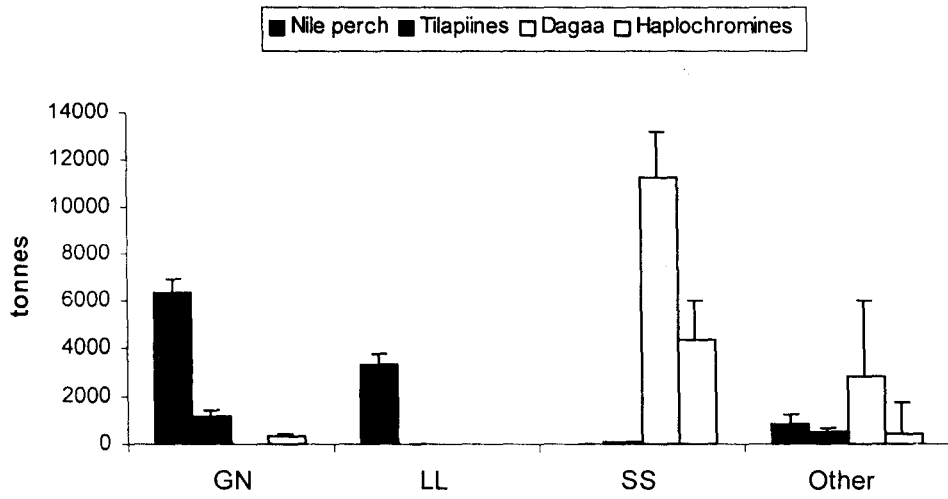
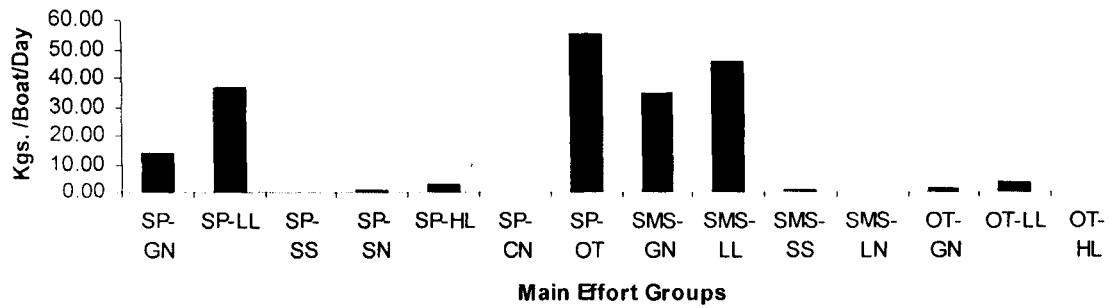
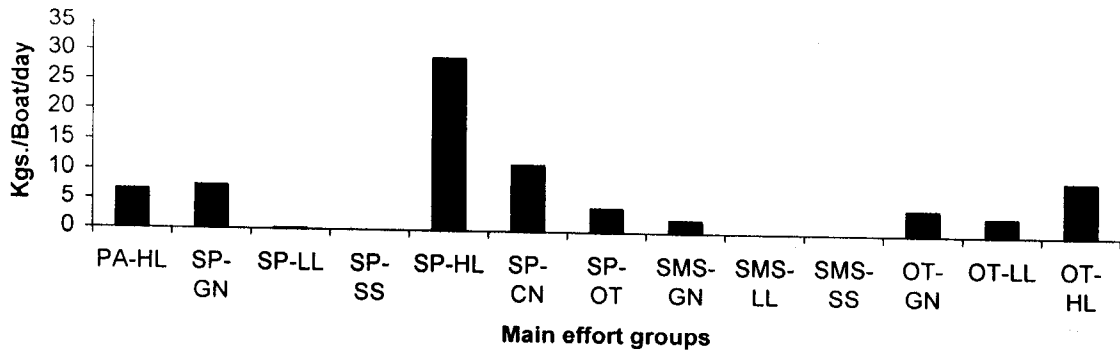


Figure 2: Catch of main species by Gear type

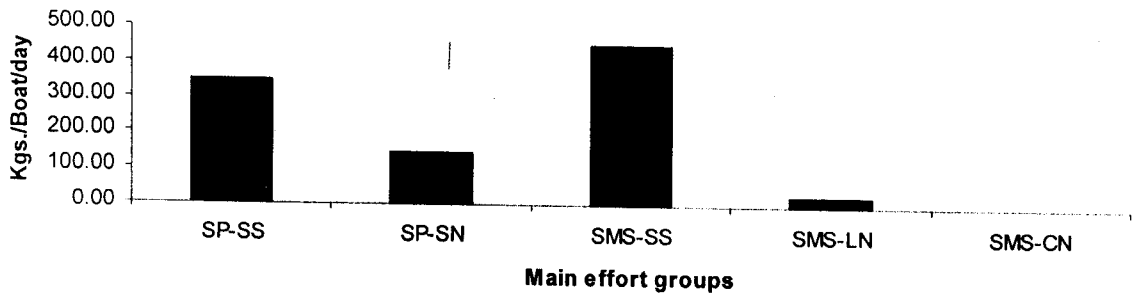
Catch rates of Nile perch by main effort groups- Aug.2005



Catch rates of Tilapiine by main effort groups - Aug. 2005s



Catch rates for Dagaa in Kgs./bort/day - Aug.2005



Catch rates for Haplochromines by main effort groups- Aug.2005

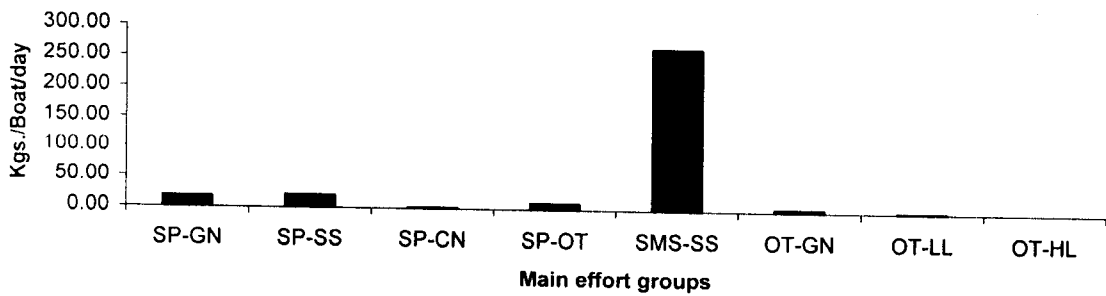


Figure 3: Catch rates of the main species in Kgs./boat/day.

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CONCLUSIONS AND RECOMMENDATIONS

This report highlights the processes that have been undertaken towards the implementation of the CAS activities based on the newly designed sampling strategy. Under this design we have been able to provide catch rates and estimated catch by vessel -gear types. The results show that in the Tanzanian side of the lake catches are dominated by Dagaa followed by Nile perch and then haplochromines. This is a change from the trend of the previous years (1990's) where Nile perch dominated the catches. and Haplochromines were insignificant.

The Haplochromine fishery, which seems to have made a come back in Tanzanian waters was recorded in all the districts but mostly in Ukerewe (1,111.4 M.tons), Muleba (957.0 M. tons), Sengerema and Musoma (362.3M.tons each), Tarime (586.3 M.tons) and Mwanza (347.1M.tons). Gears used was mostly small seines, lift nets and gill nets

It is recommended that the surveys be conducted over a longer period of time so as to have comparable data that will be sufficient to make management decisions.

The list of selected landing sites in Tanzanian waters

District	Landing site	Number of vessels as per 2004 FS
1.Geita	Daladala	77
	Nyandago	63
	Mchangani Senga	30
	Mchangani	109
2.Bunda	Nyabitwebili	33
	Mugara	59
	Guta	57
	Bujige	14
	Namburi	30
3.Misungwi	Mitego	39
	Kigongo ferry	17
4.Muleba	Kashekulo	60
	Amushenyi	119
	Kinagi	138
	Furuza	357
	Makibwa	66
	Omulwoga	57
	Kitua	34
	Lukando	36
	5.Musoma	Suguti
Busekera		150
Iriga		120
Mwichele		23
Kurukerege		20
Buyembe		44
Bukima		30
6.Mwanza	Sangabuye	119
	Igombe	180
	Kayenze ndogo	103
7.Sengerema	Chikuku	101
	Lubaragazi A	29
	Nfurubizi	144
	Kamanga	9
	Zilagula	179
	Bugombe A	150
	Kahunda	57
	Msufini	30
	Mawenzi	33
8.Tarime	Makinya – Muhundwe	53
	Kwinsense	24
	Kyamkani- Muharango	85
	Kibuzi Centre	144
9.Ukerewe	Nakatunguru	13
	Muluseni	64

	Ghana Is	420
	Busiri / Bwasa	30
	Sambi	70
	Chibasi	52
10. Bukoba	Kameya	35
	Rwazi	67
	Igabilo	67
	Musira	48
11. Biharamulo	Kahumo	30
	Nyakakarango	39
	Budiri	32
12. Magu	Ichila	46
	Bukome	65
	Kigangama	60
	Chabula	61

District Totals by vessel gear types
(See Excel sheets below)

Annex II

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The regionally harmonized data capture forms
Annex (III): Data collection forms

District	
Sub-county/Division	
Parish/Location	
Landing site Name/Code	
Enumerators name	

Part B – Vessels landing and Sampling targets

Number of vessels (all types) that landed at the site during the sampling day (00:00 to 24:00 hrs)	=	
Maximum number of vessels that can be sampled	=	
Sampling proportion	=	

Number of Vessels landing during the sampling day (00:00 – 24:00hrs)

Vessel type	Main gear type			
	SN	GN	LL	Other
Parachute				
Sesse (Motorised/Sail)				
Sesse (Paddled)				
Other				

Number of Vessels to be sampled

Vessel type	Main gear type			
	SN	GN	LL	Other
Parachute				
Sesse (Motorised/Sail)				
Sesse (Paddled)				
Other				

Form Codes for Part C

Vessel type Code	Description
SMS	Sesse Motorised or sail
SP	Sesse paddled
PA	Parachute
OT	Other
Propulsion code	
O	Outboard motor
P	Paddles
S	Sail
Gear type code	
GN	Gillnet
LL	Long line
SN	Seine net
SN	Scoop net
HL	Hand line
LN	Lift net
CN	Cast net
TR	Trap
OT	Other

Gillnet panel code	Description
S	Single
D	Double
T	Triple
Mode of operation	
A	Active
D	Drift
S	Stationary
Construction	
MO	Monofilament
MU	Multifilament
Fish species code	
NP	Nile perch
TL	Tilapia
DA	Dagaa/Mukene
HA	Haplochromines (Furu/Nkejje)
BD	Bagrus docmac
PA	Protopterus aethiopicus
CG	Clarias gariepinus
OT	Other

