A PRELIMINARY REPORT OF FISHING AT THE ALAWARIWA BEELS, OGUN STATE, NIGERIA

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INTRODUCTION

Beels are low-lying depressions that fill seasonally with water (ICLARM, 1993:7) They are natural lakes or pools. Ita *et al* (1995:4) described beels as "flood ponds" Beels are therefore, generally water-retaining depressions which may be found in floods plains/wetlands of seashores rivers, streams, creeks, lagoons, lakes, etc or in contact with shallow aquifers where found in isolation. Beels in flood plains are generally seasonally available for fish capture. These can then be classified as CAPTURE BEELS.

Those that are in contact with shallow aquifers, springs, or streams are available for aquacultural uses all year round and hence can be classified as CULTURE BEELS.

The Beels ecosystem supports many species of wild fishes and aquatic plants thus making it reservoir of biodiversity (ICLARM, 1993:7) Beels that become reasonably dry in the dry season may be employed for lowland rice cultivation.

Beels therefore serve as natural fisheries reserves in addition to being economic resource options to the landless fishers to whom they belong. In inland communities they may be the major source of fish farming available at the village level with the additional benefit of improved protein intake through fresh fish.

The Alawariwa beels located in the flood plains of the Ogun River, off Ibafo in Owode/Obafemi Local Government Area of Ogun State number 16 with an approximate total surface area of 28.0 hectares. These beels are conveniently exploited between January and April annually when the dry season and riverine contraction make this possible.

This was supported by OGADEP's research-extension inputs as frequently applied for small-scale fishers (Adekoya, 1991)

BEEL FISHING METHODOLOGY

Fishing in the Alawariwa beels was undertaken with the use of two 2.0hp water pumps. These helped to reduce the water level considerably prior to the setting of gill nets.

A considerable amount of water lettuce, *Pistia statiotes* found covering the water surface were initially harvested into boats for onward disposal to the banks. The lettuce when dried become useful as fuel torch for fish smoking. Some long line of hooks in addition to cane traps were also used in this fishing activity.

Fish caught were identified, weighed, measured, and counted to provide a preliminary assessment of the beel fishing (daily) (Table 1) after the example of Motwani and Kanwai (1970).

DISCUSSION

The daily landing record of fishing at an Alawariwa beel show that the fish enclosure is truly a natural fisheries reserve as well as a medium of biodiversity.

Fish catch per unit effort is reasonable especially for the more abundant fish species as: *Clarias gariepinus, Oreochromis niloticus, Tilapia guineensis, Heterotis niloticus, Heterobranchus bidorsalis,* and *Channa obscura.*

The beel is sufficiently productive and worthy of the fishing efforts of eight (8) fishers undertaking the daily assignment. Beel fishing is therefore , economically advisable for fishers having access to such valuable communal or individual natural wetland resource.

RECOMMENDATIONS

From the result of this assessment it is hereby recommended: That beels wherever and whenever available should be exploited through fishing or adaptation for aquacultural purposes.

That greater extension efforts should be directed at identifying beels for the intervention of research and consequent development initiatives.

That research-extension linkages important for the efficient and cost-effective management of capture and culture beels should be made accessible to the many resource-poor, peasant fisherfolk and fish-farmers within the ambience of such fish enclosures.

CONCLUSION

From the report of the fishing at the Alawariwa beels, it is hereby concluded that there is a great future for fish exploitation of beels in addition to the advantage of employing isolated, inland, culture types for aquaculture.

Table 1

No.	Fish Species	Total catch (No)	Average weight (kg)	Average length (mm)	Catch Per unit Effort (kg)
1	*Oreochromis niloticus*	515	0.66	212	42.49
2	*Tilapia guineensis*	724	0.45	202	40.73
3	*Channa obscura*	114	0.95	640	13.54
4	*Clarias anguillaris*	81	0.18	200	1.82
5	*Clarias gariepinus*	362	1.80	668	81.45
6	*Heterobranchus bidorsalis*	105	1.65	578	21.66
7	*Notopterus (Papyrocranus) after*	61	0.55	210	4.19
8	*Heterotis niloticus*	152	1.65	704	31.35
9	*Ctenopoma kingsleyae*	50	0.30	120	1.88
10	*Gymnarchus niloticus*	40	1.72	670	8.60

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