

**Traditional Fishing Methods used by the Fishers of Karang Island,
Loktak Lake, Manipur**

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Abstract

Karang is a small island in the Bishnupur district of Manipur, 50 kms from Imphal surrounded by the Loktak lake and inhabited by around 3000 populations. Their main occupation is fish catching, processing, marketing, fishnet preparation etc. Some of the traditional fishing methods mainly used by these fishers are Lang thaba, Lu thumba, Longna thinba, El chingba, Khoi thaba, Longthrai kotpa etc. These methods are used in all the seasons. A type of fish food is made as fish bait by mixing wairu and banana. The species caught from such fishing methods are Notopterus sp., C. carpio, A. testudineus, A. mola, E. danricus, Trichogaster sp., C. magur, Channa sp., etc. A special type of method "Khoi" is prepared for catching Notopterus sp. These fishing methods are very effective, less costly and affordable.

Key words: El Chingba, Karang, Khoithaba, Lang Thaba, Lu Thumba, Traditional Fishing,

Introduction

Karang is a small island situated in the Bishnupur District, Moirang Sub-division, around 50 kms from Imphal. The village is surrounded by Loktak Lake in all sides. Karang is surrounded by Khordak, Nongmaikhong and Kumbi village in the east; Mayangimphal, Sekmaijin, Hayen, Phabakchao, Komlakhong and Laphupat Tera in the north; Moirangkunou, Moirang and Thamnapokpi in the south and Naranseina, Sunusiphai, Phubala, Thinungei, Ningthoukhong, Tabokpi, Upokpi, Nachou, Kwasiphai, Toubul and Oinamkhunou village in the west. The village have a population of around 3000 peoples. It is connected by water from Thanga village by motor-boat and Hinao (canoe) which is around 1 km distance and then by road to different parts of the state.



Fig. 1 – The Karang Island

The main occupation of the village people is fishing at Loktak lake and mainly depends on it for their livelihood. Earlier it was reported that the people's main occupation was agriculture and cattle rearing but later on change to fishing due to inundation of the surrounding agricultural land and grazing ground by water of the Loktak Lake due to construction of the Ithai Barrage. But with the increased population, fishing area is reduced by encroachment. Fish species is in declined state. The methods used are of indigenous

type. Worth of studying indigenous knowledge is well emphasised by Mundy and Compton, 1991. The traditional fish based beliefs and customs in central valley of Manipur have been reported [Bira, 1999].

It is also reported that Karang had a big beautiful orchard maintained by the Maharaja of Manipur, having all kinds of fruits. Also it has so many phumdi's bund which connects Mayang Imphal and other surrounding villages by foot.

Materials and Method

All the relevant data and fishing methods were collected through the field survey with the help of local fisherman. A number of fishermen were personally interviewed and necessary data was incorporated and analysed on the statement of the fishers participated in the discussion. Materials reviewed are based on gender policy reviews, surveys and reports in the fishery sector, documents, journals, research articles, etc.

Result and Discussion

Selection of fishing methods and gear are influenced by various factors such as physiography of water body, nature of fish stock, characteristics of raw material from which gear are fabricated and standard of living [Choudhury, 1992].



Fig. 3 – Tungol



Fig. 5 – Fishes at Lang

There are various traditional fishing methods highlighted by various authors in the north eastern states [Kalita *et al.*, 2010], [Pranjal *et al.*, 2013] & [Gurumayum and Choudhury, 2009]. The village fishers and fisherwomen used different methods



Fig. 2 – El-chingba



Fig. 6– Removing of fishes

of fishing which are as follows:

1. El-chingba : This fishing method is done with the help of a kind of dip net. The net is made up of nylon, however, in some areas cotton is also being used [Mundy and Compton, 1991]. The

operation is performed only by the women fishers standing on the phumdi, a mass of vegetations fixed at the bottom of the lake. Sometimes, it is operated on small canoe, Hinao where there is clear water. They used

a basket made from bamboo splits locally known as Tungol to store the caught fishes. This method caught fishes like *Esomus sp.*, *A. mola*, *Labeo sp.*, *Cyprinus carpio*, shrimps etc.

2. Lang thaba :This fishing is done with the help of net of different sizes according to the type of fish to be caught. It is mainly operated at the places

where operation of other techniques is difficult due to the presence of phumdi. Since the net (lang) used is mostly made up of transparent plastics or nylon, fishes get easily caught in it by the gills as there is less visibility [Choudhury, 1992]. The fishermen used Mukangalang locally known as “Mirang”, costing around Rs. 1000-1200 for catching *A. mola*. It is around 4ft wide and 30 ft long, used 30-40 nos of such “lang” at a time. It is imported from Moreh, available at Moirang Bazar. They used the size no.(13 and 14) “Lang” for the purpose.

“Lang thaba” started around 2pm in the evening, mainly done by male members in the Loktak lake, 2-3 kms far away from the home. They kept it for the whole night and started collection at 4 am next morning. In Peak season (Aug, Sept.), catching of fish is highest around 5-6 kgs/day and lean season (Nov, Dec) around 1-2 kgs/day. They can earn around Rs. 1000-1200/day and Rs. 400-500/day during peak and lean season respectively.

After removing the fishes from the “Lang”, mainly done by female and girl members of the family, the fishes are smoked by using firewood by the fisherwomen. They used special sieve (kharai), 2ft square for the purpose. They sell the smoked fish at different market in the evening and next morning such as Moirang, Ningthoukhong even at Imphal. Cost is Rs. 150-200 per kharai (half kg weight).



Fig. 9 - Lu

Lang Achouba: This net is especially used for catching *Cyprinus carpio* during February, March and April. Maximum catch occur after breeding season



Fig. 7 – Lang Achouba

because the fishes are not active after breeding and easily caught. *Puntius sp.* is also caught in large quantities because they normally come for eating the eggs of *Cyprinus*. The size used for such “lang” are (80,100 no) for *Cyprinus* and (25,30) for *Puntius*.

3. Lu-thumbā– This method is done mainly by male at floating phumdi with the help of a trap, “Lu” locally known as Taijeb having a variety of sizes which is made of bamboo stripes, rectangular in shape

Fig. 8 – Lu thumba

having an opening at one side guarded by bamboo spikes directed inwards. Similar type of gear is also used in Assam [Pranjal and Sabrata, 2013]. They used stone for stabilisation using rope and tied it to the phumdi. A hole is made around phumdi and immersed it. This practice is done anytime during the day and collection is done on alternate days (after 48 hrs). The main fish catches are *Cyprinus carpio* (common carp), *Chana striatus* (porom) etc. Fisherman used locally made “Wairu” fish feed made by mixing paddy rice with banana which attracts fishes at lu. A special by-product of rice bran is used as a bait to attract fishes into the traps in the rivers of Northeast India [Gurumayum and Choudhury, 2009]. Raw materials for making these materials are available and procured from Keibul, Wangoo, Kumbi, and Moirang village. Peak season of catching is during Aug, Sept., and lean season is Dec.-Jan. They sell the fish at

Rs. 250/kg for *Chana striata* (porom) and 120-150/kg for the other fishes. They caught around 1-3kgs/day by this method.

4. Porom Macha Kotpa: This is a special local catching method, for catching fingerlings of *Chana striatus* (porom). They used special net called “Longthrai”. They believed this practice is the main cause of decreasing the population of *Chana striatus* (porom) in Loktak Lake. But this is a very popular practice and people like the small fry “Porom macha”, as it is very nutritious and tasty and could be used for many fish menu preparation. This practice of catching is an easy method for the purpose. One “Tengkot” (around 250 gm) of porom macha costs around Rs. 200. Peak catching season is breeding season i.e. July, Aug. The small fishes are smoked at “kharai” and used for preparation of many local dishes like “Nghanam”, “Paknam”, dried fish, fried fish, kangsoi thongba etc. It is highly demanded by the people.



Fig. 10 - Longthrai



Fig. 11 – Longthrai Kotpa

5. Khajing Phaba : This practice is done in early morning using “longthrai” because khajing (shrimp) normally lived under water during evening. During peak season (Aug., Sept.), 100 glass/day could be caught and lean season around 10 glass/day. They sell it at Rs. 20/glass.

6. Longna Nga Phaba : Here they used locally made spear, known as “Long” using 10-15 small spears, two

size available, 15 ft long and 10-12 ft long. They especially catch rohu, common carp. This practice is special because it needs experience of the fishers.

Fig. 13 – Position to catch fish When the fish feed at the bottom of the

water, bubbles comes up on the surface. By judging the site of the bubble on the surface and experience, the fishers throw the spear into the water to penetrate and fixed the fish under the water and brought on the surface with the help of another small spear. This method is similar with “Pocha” of Nalbari District of Assam [Pranjali and Subrata , 2013]. In Chhattisgarh, this type of fishing is done by Dhanu-kandand Dhokana method with the help of bow and arrow [Pradhan *et al.*, 2011].



Fig. 14 – Khoi

using hooks is used widespread by the fishers. They used rope 200-300 ft long in which around 1000-2000 hooks are attached at a distance of 4-5 ft between them. They used 15-20 such ropes at a time and kept it in the water by using pole bamboo and other materials. They used special feed as bait made from boiled wheat flour (molda), rice bran (wairu). The main catch is common carp. For catching porom they used phumdi and kept the ropes with hooks around the phumdi. For this they used small fishes like ngapemma (*Trychogaster sp.*) and khajing (shrimps) as fish bait which is reported in other states [Gurumayum and Choudhury, 2009].

8. Nainon Nga Phaba : This practice is different. Early morning the fishers kept the hooks in the water and continue it for long distance say around 1-2 kms and after some hours they came back and collect the hooks and fish i.e. nainon nga (*Glossogobius giuris*) on the way back home. They can catch around 200-300 nos. of such fishes in a day. They sell it around Rs. 500 per 100 fishes. They used boiled shrimps as fish bait. Sometimes, *Monopterus alba* (Ngapurum) is also caught by lu and hooks.

9. Special Khoi for Ngapai Phaba : Here the hook size is small and kept on ropes of the hooks among the "charang" (submerged plants). They used khajing and earthworm as fish bait. Maximum catch is 200-300 numbers of fish/day. They locally called this fish as ngapai or ngapak (*N. Notopterus* and *N. Chitala*). They sell it around Rs. 20-30 per piece in the market which weighs around ¼ Kg body weight.

Discussion

The people of the area much depend on the fisheries for their livelihood. But, now a day, the production of the fish species is declined and the fishermen communities are of the opinion that this is because of the degradation of the water bodies. Almost all the people of the village depend on fishing, catching, marketing, making fish nets, drying and smoking of fish, each family earns around Rs. 1000 and 400 per day during peak and lean season respectively. They earn Rs 15-30 thousand/ month from fishing. In fact, the Loktak Lake is the lifeline of the people of the Karang village. Everything from domestic needs to education of their children depends on the income from fishing. Similar fishing methods are reported in different parts of India [Laxmi *et al.*, 2013] & [Gurumayum and Choudhury, 2009]. One main important fishing craft used by these people is Hinao (canoe). Net fishing is common in all the states. Trap fishing consumes less time. These are aged old traditional methods of fishing and are most effective way of catching fish without affecting the surrounding environment. The different crafts and gears used are made from locally available raw materials resulting in the less cost and very affordable by the fishers. Active modern gears are not used. These traditional methods are the most effective, popular way of fishing for the fishers of the area.

Conclusion

Inland capture fishery is successfully done in the Loktak Lake of Manipur and traditional fishing methods are extremely important as it can provide a livelihood for a large section of fishing communities. But, it needs a closure look on the Loktak lake in order to

conserve it from degradation of natural habitat and environmental conditions. Land encroaching is a major threat. It is high time for us to conserve the lake for future.

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