

MARINE AND INLAND FISHERIES IN ANCIENT SRI LANKA

Exploitation of Marine Resources

The objective of this essay is to examine the historical antecedents of fisheries in Sri Lanka. The theme is relevant in understanding how the Buddhist laymen adopted themselves to socio-economic necessities although the taking of life is prohibited in Buddhist teachings. Even in agricultural operations worms and insects living under earth are destroyed and strict adherence to the tenets of Buddhism would have curtailed many of the economic activities which sustained human life. Thus the peasant society had to strike a balance between strict religious regulations and its own sustenance. The phenomenon is true of preaching of all religious and practical existence.

Direct evidence on marine fishing in pre-modern Sri Lanka is limited. This may be due to the fact that it was not so important as an economic activity. The concentration of the population in the Dry Zone interior up to the thirteenth century, and the difficulty of transporting sea-fish to these regions were reasons why marine fishing was not widely practised. Nevertheless sporadic references indicate that marine fishing was not totally neglected. The Dutthagamani story in the chronicles and literature in describing the pregnancy cravings of Viharadevi refers to an overturned boat in the sea coast. The same story in describing the construction of the Mahathupa refers to fishermen at Uruvela Pattana or the port of Uruvela¹ at the mouth of Kala Oya. The fifth century Pali commentary *Papancasudani* refers to a fisherman who lived at Kalyani (modern Mutval) at the mouth of the Kalani river.² Some of the Pali texts of the Anuradhapura period and the Sinhala literary works of the thirteenth, fourteenth and fifteenth centuries refer to fishing villages (*Kevattagama* in Pali and *Kevulgama* in Sinhala) in the littoral. The Greek and Roman writers, Pliny of the first century A.D and Aelian who lived between 170 and 235 A.D refer to fishing in the seas of Taprobane. Aelian, in fact, mentions two varieties of dolphins in the seas around Taprobane and states that the variety with sharp pointed teeth were dreaded by the fisherman.³

The tortoise shells of Sri Lanka were important exports of the island which had a high demand particularly in the Graeco-Roman world from around the third

¹ MV, XVIII,37.

² *Papancasudani* (Sinhala Text), cited in E.W. Adikaram, *Early History of Buddhism in Ceylon*, Second edition, 1994, p.113.

³ D.P.Ponnamperuma, *Videsin Dutu Purana Lankava*, Kandy, 1961.

century B.C. to the sixth century. A.D. Pliny, Aelian and the author of the "Periplus of the Erythrean Sea," refers to tortoise shells of Taprobane indicating that turtles were exploited in the seas of the island at least from the first century A.D.⁴

From the very beginning of recorded history, Pali and Sinhala chronicles and literary texts refer to conchs, horn shells, chanks and cowries found in the sea coast of the island. There had been a commercial demand for these items in foreign countries while some conchs were domestically used as musical instruments at certain rituals and ceremonies. Pliny refers to valuable corals in the Indian Ocean while the ninth century Arab Sea-farer Suleiman, the first Arab writer to refer to the *Sripada* mountain as the Adam's Peak, has written on various chanks and conchs found in the sea coast of Serendib.⁵

Pearls were the most valuable aquatic resource in Sri Lanka and were exploited from pre-Christian times. Megasthenes, the Greek ambassador to the Mauryan royal court in India in the fourth century B.C., the Roman writers Pliny and Solinus Polyhistor as well as the author of the "Periplus of the Erythrean Sea," the Chinese travellers Fa-Hsien and Hieun-Tsang, Suleiman, the Arab geographer, Al-Beruni, the Persian historian who lived in the court of Sultan Ghazni Mahmud of Delhi in the eleventh century A.D., the twelfth century Arab traveller Al-Idrisi, the thirteenth century Arab geographer Kazwini and the historian Al-Maqrisi, the fourteenth century Bishop Jordanus as well as the Italian Friar Odoric; Wang-Ta-Yuan, the Chinese merchant who travelled overseas in the fourteenth century, the famous Arab traveller Ibn Batuta, who arrived in Serandib in 1344, the fifteenth century Chinese travellers Mahuan and Fe-hsin have all alike emphasized the importance of the pearl banks and pearl fisheries in Sri Lanka.⁶

Some of them, such as Megasthenes, Polyhistor and Fa-Hsien, state that the pearls found in the island of Taprobane were large. According to Fa-Hsien, there were extremely valuable gems and pearls deposited in the monastic store-houses at Anuradhapura. Hieun-Tsang as well as Wang-Ta-Yuan refer to the rituals performed by the king just before the pearl fisheries began. Polyhistor states that the value of pearls depended on what oysters they had consumed. Fa-Hsien records that three out of every five pearls belonged to the king while Hieun-Tsang mentions that a share of the pearls was taken by the king as tax. According to Wang-Ta Yuan three out of every ten pearls were given to the king. These discrepancies indicate the fact that the king's share was not static and uniform and that it varied from time to time. In the fourteenth century, Ibn Batuta stated that the king of Jaffna or the Aryacakravarti

⁴ *Ibid.*

⁵ *Ibid.*

⁶ *Ibid.*

possessed many valuable pearls and that when he visited the court of Jaffna he saw the king's employees sorting out pearls.⁷

Bishop Jordanus has written on pearl fisheries conducted in the sea between India and Sri Lanka, (most probably off Mannar) by utilizing about 8000 boats. Wang-Ta-Yuan too provides a graphic description of the pearl fisheries and pearl divers off the coast of Sri Lanka.⁸

Later on, the Portuguese chronicles and documents of the sixteenth and seventeenth centuries preserved evidence on pearl fishing off the coast of Mannar. As C.R. de Silva has pointed out,⁹ they enable us to obtain some idea of the size and importance of the industry, the methods of fishing employed and the impact of the pearl fishery on religious and political developments of the littoral. During this era, the best known and the largest of the pearl fisheries were located off Hainan in the South China sea, off the island of Bahrein in the Persian Gulf and in the Gulf of Mannar. The Pearl beds Pearl fishery off South India and Sri Lanka constituted one of the two major sources for pearls in the world, rivalled in size only by that of Hainan. The pearls fished from the Gulf of Mannar were also considered among the best in the world and fetched a high price in Europe.¹⁰

During the Portuguese period a total of 50000 to 60000 persons including divers, merchants and others were occupied in the pearl fishery at Mannar when it was held. The decision whether or not to hold the fishing was taken on the basis of a pilot survey carried out in the previous year. In the month before the actual harvesting took place, a series of temporary buildings were constructed on the sea shore near the oyster beds. These buildings served as store houses, shops and dwellings. The captain of Mannar, who supervised the construction, allotted different areas to different castes. Then the vessels and divers due to participate were registered. The number of such vessels varied between two hundred and four hundred with a maximum of eight divers to a boat.¹¹

Inland Fisheries

Fish for the average villager's consumption in pre-modern Sri Lanka was obtained largely through inland fishing in small and large reservoirs, canals, rivers,

⁷ *The Rehla of Ibn Batuta*, ed. Mahdi Hussain, Baroda, 1953, pp.215-220.

⁸ D.P.Ponnampereuma, *op.cit.*

⁹ C.R.de Silva, "The Portuguese and Pearl Fishing off South India and Sri Lanka", a paper read at the Ceylon Studies Seminar, University of Peradeniya, 1977

¹⁰ *Ibid.*

¹¹ *Ibid.*

streams and ponds. In fact inland fishing started with pre-historic man, and remains of oysters which were used as food, have been found in excavations in Pathirajavela. These have been dated to 3310 B.C. After the dawn of civilization fishing became an important economic activity. In a few inscriptions dating from the third century B.C. to the first century A.D., indited on rocks at Bovattegala in the Ampara District and Kottademuhela and Hennanegala by the river Mundeni Aru, the symbol of fish has been marked.¹² Some of the ancient punch-marked coins too contain the symbol of the fish. These are only indications of the importance attached to fish, but the earliest reference to fishing in reservoirs and canals is found in the Perimiyanukulam rock inscription of King Vasabha (67-111 A.D). This inscription is indited on a rock just outside the present urban limits of Anuradhapura. It states that revenues from water and fish of the tanks Polonakaraka and Ketavalaka in the district of Tihalaka were granted to the village assemblies at Tiragama and Amara for the purpose of spreading leopard skins in the meditation halls of the temples in the respective villages.¹³ The original *vinaya* rules made no provision for such eventualities like accepting gifts of land and share or tax on fish because Buddhist monks in early times did not accept these gifts. But the *bhikkhu* community compromised subsequently in these matters to suit social conditions of the time. The term used in the Perimiyanukulam inscription for the tax on fishing or the share of fish caught in reservoirs is *materamajibaka*. This tax in variant forms such as *matira-majibika* and *majibika* is referred to in several other inscriptions in the period from the first century A.D. to the end of the third century.¹⁴

This indicates that inland fishing was widespread in the early Anuradhapura Period. The *Papancasudani*, refers to the term *maccabhaga* which means the share of fish caught in reservoirs and canals.¹⁵ This share was claimed by the owners of irrigation works; the king in the case of large irrigation works, village assemblies in the case of village irrigation works and individuals in the case of privately owned small reservoirs and channels.

The tax on inland fisheries has continued until the twelfth century, perhaps with occasional interruptions. For example, the Basavakkulama Pillar Inscription of

¹² *IC*, Vol. I, p. LIX.

¹³ S. Paranavitana, "Perimiyanukulam Rock Inscriptions of Vasabha", *JRASC*, N.S.V, Pt II 1958 pp. 129-138; *UHC*, I p. 239 (Paranavitana's translation is not precise. *Palonakaraka Vaviya and Ketavalaka Vaviya* should be translated as "of the tanks Palonakaraka and Ketavalaka" and not as "in the channels of the tanks Palonakaraka and Ketavalaka").

¹⁴ W.I. Siriweera, *The Inland Fisheries in Sri Lanka*, Colombo, 1986, p. 12.

¹⁵ *Papancasudani*, *op.ci*, p. 349.

Sena II (853-887) states that fishing in the Basavakkulama reservoir situated by the side of the Mahavihara at Anuradhapura was prohibited. This means that fishing in other reservoirs was approved of by the king, but there is no clear evidence that the tax on fishing in approved reservoirs was in existence at this particular period. Subsequently, tax had been enforced at least until the reign of Nissankamalla (1187-1196) of Polonnaruva. Nissankamalla in several of his inscriptions claims to have abolished the levying of an impost on fishing in reservoirs, called *pisamburuvata* or *visamburuvata*.¹⁶ After the decline of hydraulic civilization, people in the isolated pockets of settlements in the Dry Zone as well as those who lived closer to rivers and streams in the Wet Zone continued fishing in inland waters but there are no references to taxes on inland fishing from the thirteenth century onwards.

Techniques of Fishing

The ancient Pali and Sinhala literature refer to techniques used in inland fishing. The *Samantapasadika* mentions the hook (*bali*), net (*jala*) and the long basket (*kumina*). The long basket (*kumina* in Pali and *kemana* in Sinhala) was an instrument which was placed in flowing water in small streams. Fish trapped in this basket could be caught by hand. The *Samantapasadika* also refers to the use of substances obtained from poisonous fruits to stupefy fish so as to catch them easily. The *Dampiya Atuva Gatapadaya* states that while fishing, the fisherman hung already caught fish on strings to carry them away. A similar practice is referred to in the *Saddharmaratnavali* and *Saddharmalankara*.¹⁷

Most fishing techniques prevalent in the early Anuradhapura period have continued throughout the centuries until the present. The literary sources refer to techniques of fishing with the long basket (*kemana*), basket (*karaka*) net (*dala*) and the hook (*biliya*). The *karaka* was made of small sticks and was broad at the bottom and narrow at the top. It was shaped like a funnel and the hole on top was big enough for a man to thrust his arm in and was about two or three feet wide at the bottom. The sources mention three main parts of the hook, namely *biliya*, *bili-ipila* and *bili-liya*. Some of the techniques of inland fishing referred to in ancient Sri Lankan literature have also been observed in the seventeenth century by Robert Knox.¹⁸

¹⁶ W.I.Siriweera, *op.cit.*, pp.14-15.

¹⁷ *Ibid.*, pp. 15-21.

¹⁸ Robert Knox, *An Historical Relation of the Island of Ceylon*: First facsimile Reprint by K.V.G.De Silva and Sons, Colombo, 1983, pp.28-29.

The fishermen sold or bartered their excess harvest. According to the *Culavamsa*, king Aggabodhi VIII (804-815) forbade among other things the bringing in of fish into the city of Anuradhapura on *uposatha* or *Poya* days. This would mean that on other days fish was sold in the city of Anuradhapura. The *Saddharmaratnavali* refers to fish hung on strings for sale to the value of one *aka*, two *akas* and one *kahapana*.¹⁹

The Varieties of Fish and Fishing Rights

Some of the ancient Sinhala and Pali literary texts refer to varieties of fish found in inland waters of the island. These were *kuda masu* (*Rasbora daniconius*) or common rasbora, *petiya* or puntins (*Barbus* spp.), *lula* or snake-head (*Ophicephalus straitus*), *valaya* or fresh-water shark (*Wallago attu*), *gangaru* or snake-head (*Channa marulius*), *Sunga* or stinging catfish (*Heteropneustes fossilis*), *teleya* or spine eel (*Masetacembulus*), *anda* or eel (*genus Anguilla*) and prawns or shrimps (*Cariridina* spp. and *Macrobrachium* spp.). The sources also refer to the practice of occasional breeding of fish in small ponds in back gardens of homesteads.²⁰

It is of interest to examine the nature of fishing rights in ancient Sri Lanka. The large reservoirs and channels constructed by the king were owned by the state and, as stated earlier, those who fished in them had to pay a tax in most cases. Paranavitana is of the opinion that in the case of large irrigation reservoirs of the state, the rights of fishing were farmed out in certain instances to individuals.²¹ A tax on fishing in rivers is never mentioned in either literature or epigraphy. Perhaps this may be owing to the fact that it was difficult to have a check on river fishing.

The village assemblies owned fish in village irrigation works considered as common village property. Sometimes these assemblies were granted rights of a share of fish, as indicated in the Perimiyanikulam Rock inscription of Vasabha. Paranavitana has pointed out, that in this inscription the grant of a share of fish was not made directly to the Buddhist *sangha*, but to a village assembly with the stipulation that the income should be utilized for a religious purpose. The village

¹⁹ *SDHRV*, p.530.

²⁰ *Samantapasadika: Buddhaghosa's Commentary on the Vinaya Pitaka*, ed. J. Takakasu and M. Nagai, Pali Text Society, London, 1927, Vol..II, pp.330-31.

²¹ S.Paranavitana, "Some Regulations Concerning village Irrigation Works in Ancient Ceylon", *CJHSS*, Vol. I, no. I 1958, p.7.

assembly thus acted as *Kappiyakarakas* or 'those who performed the appropriate act'.²²

The *Samantapasadika* specifically refers to privately owned (*Sassamika*) fish in small reservoirs, ponds and channels.²³ These small reservoirs were held by individual owners (*vapihamika*), and channels were those individually owned small ones that branched off from main channels to lead water into private paddy fields. The ponds were those constructed by individuals in their homesteads for purposes of obtaining water and for breeding fish. The *Samantapasadika* clearly states that fishing in these privately owned streams, ponds and reservoirs by outsiders was a theft and those guilty of such theft were to be punished in accordance with the value of the fish caught.²⁴

Most of the above references to taxes or shares in fishing, techniques of fishing, varieties of fish, ownership patterns and sale of fish indicate that fishing was an acceptable economic activity both socially and culturally in Sri Lanka in historical times. People supplemented their main diet of rice pulses and grains with fish which contained an important element of protein.

W.I. SIRIWEERA

²² *Ibid* p.135.

²³ *Samantapasadika, op.cit.*

²⁴ *Ibid.*