

An insight into Sport fishing industry in Sri Lanka; Present situation and future prospects

H.D. Wimalasena^{*}, M.M.A.S. Maheepala and K.H.M.L. Amaralal

National Aquatic Resources Research and Development Agency, Colombo 15, Sri Lanka.

Abstract

Although sport fishing in Sri Lanka has a long history as a recreational activity of foreigners and local interested groups, the current status and the impact on the economy is unknown due to unavailability of systematic studies on the subject. This paper aims to discuss some insights on sport fishing industry in terms of economic performance and prospects of the tourism sector. The study describes the main characteristics and actors, and the performance and dynamics of sport fishing industry. The semi-structured interviews were held with the owners' of 5 sport fishing centres from Negombo to Galle during October to November 2011. In addition, hoteliers and anglers also interviewed and participatory observations regarding sport fishing activities were undertaken. The nature of sport fishing activities, costs and incomes and projections were done to evaluate the performance of the industry. The study revealed that rods and hand lines are commonly used fishing equipment with lure and live prawns as baits respectively, two fishing trips are operating: morning and afternoon, the duration of a trip depends on customer request which is normally on an average 2.5 hours. Further, 60 US\$ is charged per person with all facilities and equipment while those who have their own equipment charged only a boat charge which is on an average US\$ 8 per trip. Moreover, total estimated direct and indirect earnings from sport fishing industry was US\$ 24,793,920 in 2011 which was 3.8 percent of total earnings of the tourism industry of the country in the same year. It is argued that enhancement of the sport fishing industry will generate more income for the country which in turn helpful for the economic and social development of the country.

Keywords: Foreign anglers, Fishing ventures, Fishing equipment, earnings

*Corresponding author- E. mail: wimalherath@yahoo.com

Introduction

The history of sport fishing in Sri Lanka goes back to British colonial times. As per the historical records the British planters were engaged in sport fishing for trout fishes in the streams around Nuwara-Eliya. The Ceylon Sea Anglers Club was established in 1934 at the Barbeyrn Island and subsequently moved to Clappenberg Bay, Trincomalee after the second world war. The Sea Anglers Club annually holds game fishing competition among their members.

The recreational or sport fishing is one of the most frequent leisure activities in coastal zones world-wide and it involves large number of people and consequently high level of fishing effort (Pollock, 1980; Westera *et al.*, 2003). Currently the most of coastal tourist hotels maintains water sports centres where offers a set of water related sports such as scuba diving, wind surfing, water jet and sport fishing etc,. In addition a limited number of water sports centers are available running by specialized individuals. Sometimes they have their own customer linkages and at times they are linked with tourist hotels and ecotourism ventures in providing water sport services. Some of the eco-tourism providers do only linking interested tourists in sport fishing to water sport centers or boat service providers. The most of sport fishing centers were operated in west coast from Kalpitiya to Kirinda.

Sport fishing has many types of methods in catching fish. Fly fishing is one of the hardest to master and require the most amount of patience. Fly fishing is done by whipping a plastic line with a monofilament leader ending with an artificial fly. Bait trolling involves the use of live bait or artificial lures that are dragged through the water behind a slow-moving boat. This method has the advantage of covering a large amount of territory where fish might otherwise be difficult to locate. The correct depth and speed are crucial to catch fish. Three types of reels are used in sport fishing. Fly reels, spinning reels, and bait casting reels, all serve a purpose in certain types of species you after. Typically fly reels are for small game, spinning reels for medium to large game, and bait casting reels for the largest game. Rods are usually 5-7 feet long. They are made of graphite, composite, and bamboo with price ranges from USD 20-160. The lines, typically monofilament or braided, are usually weighted to get the lure to greater depths. Manufacturers are now using exotic metals for the reels like titanium and magnesium.

This makes them super strong and half the weight as conventional reels. Ball bearings are being implemented for smooth accurate retrieval. The rods have also come a long way. Compared to earlier rods made of a simple tree limbs, they now are made of advanced fibers making the rods light, durable, and extremely sensitive being able to detect the faintest of strikes. The electronics are revolutionizing the way people fish today. In earlier times people used a lead weight attached to line in order to tell what depth they were fishing at. Now, walking into the 21st century, boats are equipped with electronic sonar's. Sonar's, advancing from simple depth finders, now have digital displays of the underwater terrain, tracking fish and structure in the water. Lures have advanced a great deal in the past years. Now certain technologies are used for artificial lures today. Sound emitting lures are very popular and do a great job inducing a strike. The hooks, now made of strong alloys, and are chemically sharpened for easy hook setting.

Materials and methods

A cross sectional survey was carried using semi-structured interviews and focus group discussions at Negombo, Colombo, Panadura, Bentota and Balapitiya. There were a total of 10 sport fishing centres functioned in selected locations; 1 in each location Colombo and Panadura, 2 in Negombo and Balapitiya and 4 in Bentota. Five sport fishing centres out of 10 were surveyed during the period from October to November, 2011. The data were collected on operational aspects, varieties caught, nationality of sport fishers and cost and revenue of sport fishing. The unit of analysis was cost per head and return per head respectively. The data were analyzed using SPSS software package.

Results and discussion

Sport fishing boats and fishing gear

The Fiber Reinforced Plastic Boat (FRP) out board motor boat is the typical sport fishing craft used in Sri Lanka. Sometimes it was powered by powerful two out board engines and designed to cater professional sport fisher's requirements. The capital investment for this boat was about Rs. 2 million.

In Negombo some hotels introduced mechanized traditional craft for sport fishing. They give them to have an experience of net fishing for prawns.

The imported fishing rods as well as locally made hand lines use for sport fishing. The brands such as 'Penn' and 'Shimano' are popular brand in use. The average price of a fishing rod was about Rs. 10,000/= to 35,000/=. The locally made hand lines uses with live bait as prawns. When chance for catching fish using rods is less, they generally use this method to satisfy their clients. Artificial lures are used in fishing rods while live bait such as prawns are used in hand lines. So, the day prior to go for sport fishing live baits are collected using a particular net. These baits are kept inside a plastic bucket dipped in the water.

Operational aspects and service characteristics

In the west coast, the season for sport fishing is from October to April and the same for east coast is from May to September where the calm sea exists. According to tour operators the duration of a fishing trip is 1-4 hours depending on customer request. At least 2 fishing trip per day is scheduled in the morning and the afternoon. The departure time is around 6.00-10.00 am in the morning trip and 2.00-4.00 pm in the evening trip. Generally reefs are the favourite locations for salt water fishing where snappers, travellys and other rock fishes are caught. And as per their experience they use GPS to find out suitable locations and positions to fish to give maximum satisfaction their visitors. From Negombo, generally they sail 4 to 5 km and from Bentota area 2 to 2.5 km distance for bottom line fishing and for trolling about 10 km from the shore.

Not only salt water fishing they offer fresh water fishing in Bolgoda lake and Madu Ganga. The boat operators at Madu Ganga are not specialized in sport fishing but they provide boat service to sport fishing operators those who not having their own boating service. The boat services are provided at the rate of Rs. 1,000/= per hour. The Ceylon Anglers Club holds their annual sport fishing completion in Madu Ganga.

Catch composition

The catch composition of sea sport fishing comprised of barracuda, seer, travellys, snappers, wahoo and other reef associated fishes (Table 1). The weight of catch is between 2-20 kg per trip and it depends on the success of fishing trip. Generally, fish caught bring to the land and at times they are release back to the sea. If not released, the fish are prepared and served for the team participated.

Table 1. Potential fish species for sport fishing in Sri Lanka

Marine	Brackish water	Fresh Water
Barracuda (<i>Sphyraena sp.</i>)	Barramundi (<i>Lates calcarifer</i>)	Masheer (<i>Tor khudree</i>)
Jacks, Trevellies (<i>Carangidae sp.</i>)	Snappers (<i>Lutjanus argentimaculatus</i>)	Walaya (<i>Wallago attu</i>)
Snappers (<i>Lutjanus sp.</i>)	-	Gangura (<i>Channa ara</i>)
Wahoo (<i>Acanthocybium solandri</i>)	-	Lula (<i>Channa striata</i>)
Spanish Mackerel (<i>Scomberomorus commerson</i>)	-	Rainbow trout (<i>Oncorhynchus mykiss</i>)

Source: Marine Biological Resources Division, NARA

Nationality of sport fishers

The nationality of tourists who participated in sports fishing is given in the Table 2. The market segment of sport fishing in the Negombo area comprised of German, Swedish and British tourists. The same for Bentota area is mainly comprised of Russian tourists and there is an upcoming trend of increasing Indian tourists for sports fishing. The participation rate in recreational fishing is very high in Nordic countries (Toivenen, 2002). There are estimated to be 21 million recreational anglers in Europe and together they spend several billions per year on their hobby (Cowex, 1999). Therefore, there is a great potential to attract Western as well as Asian tourists if proper promotional programmes are launched.

Table 2. Nationality of sport fishers

Nationality	Negombo			Bentota		
	Highest	Medium	Lowest	Highest	Medium	Lowest
German	50%	-	-	-	-	-
Swedish	-	30%	-	-	-	-
British	-	-	20%	-	-	5%
Russian	-	-	-	85%	-	-
Indian	-	-	-	-	10%	-

Source: Socio-economic and Marketing Research Division, NARA

Costs and revenue

The cost of sport fishing trip

The cost depends on the way they operate and type of boat they use. According to Negombo based operators they hire a boat with boat operator for Rs. 4,000/= per trip. Although the hotel could be able employ their own operator, they believe the benefit of tourism should be trickle to the surrounding community based on the principle of corporate social responsibility of the company. In the Bentota area as they use high powered boats the cost of fishing trip was about Rs.7,000/=.

Revenue from sport fishing

The trip fee above is up to maximum 4 persons. For each additional person the fee was about USD 30. For the package they provide, life jackets, snacks and water bottles. In addition to these Some operators at Bentota provide life insurance upto Rs.2 million coverage for sport fishers during the trip. On an average the net revenue of sport fishing operator was about USD 11784.

The rates for local sport fishers are little bit lower than for foreign tourists. It ranges from Rs. 4,000/= - 15,000/= per trip for maximum 4 people. The revenue and cost per head were about US\$ 58 and 14.68 and therefore the net revenue per head was US\$ 42.

Table 3. The Number of foreign tourists served and revenue earned from salt water sport fishing.

Sport fishing centre	Number of sport fishing tourists attended/year	Charge/head/trip (USD)	Total revenue /year (USD)	Total cost (USD)	Total cost/head (USD)	Net revenue /year(USD)
1	31	70	2170	320	10.32	1850
2	250	60	15000	4550	18.20	10450
3	400	55	22000	5500	13.75	16500
4	18	50	900	280	15.56	620
5	700	55	38500	9900	14.14	29500
Avg.	280	58	15714	4110	14.68	11784

Source: Socio-economic and Marketing Research Division, NARA.

Estimated earnings from sport fishing

The Table 4 indicates estimated earnings of the tourism sector from sport fishing. As per the study conducted, the average visitor rate for sport fishing to Sri Lanka was 5% of the total tourist arrivals. An assumption was made if proper promotional campaign is launched the visitor rate for sport fishing could be increased to 10%. Employing above survey data and the assumption an estimate was prepared to visualize the impact of sport fishing on the earnings of tourism sector of Sri Lanka. According to survey data the estimated direct earnings from sport fishing per year was about USD 1.5 million while estimated total direct and indirect earnings per year of the same was approximately USD 25 million per year. Under the optimistic approach it was assumed the percentage of tourist arrivals for sport fishing is about 10%. Hence, the total estimated direct earnings, and the total estimated revenue from sport fishing would rise to USD 3.1 million to 50 million respectively.

Table 4. Estimated earnings from sport fishing per year

Item	Pessimistic approach	Optimistic approach
Percentage of tourist attend sport fishing	5%	10%
Total tourist arrivals for pleasure purposes in 2010	516,538	516,538
Total potential tourist for sport fishing/year	25,827	51,654
Average sport fishing fee/trip/head (USD)	60	60
Total estimated direct earnings from sport fishing/year (USD)	1,549,620	3,099,240
Average number of days of stay	10	10
Additional spending on stay/day	90	90
Total additional spending at the stay/tourist	900	900
Total estimated spending/tourist/visit (USD)	960	960
Total estimated direct and indirect earnings/year (USD) from sport fishing	24,793,920	49,587,840
Total earnings from tourist arrivals (USD Million)	650	650
Earnings from sport fishing as a% of total earnings from tourism sector	3.8	7.9

Source: Socio-economic and Marketing Research Division, NARA

Perceived barriers for the promotion of sport fishing in Sri Lanka

The following perceived barriers were identified after discussion with stakeholder of fisheries sector and tourism sector.

- It was perceived by local people sport fishing as a hobby of particular segment of the metropolitan upper class people.
- Though there is a long history, the Ceylon Anglers Club played a role of lobby group without any planned promotional campaigns.
- From the inception to date Sri Lanka Tourist Board/Tourism Development Authority is given emphasis on land based tourism plans/propagandas.
- The socio cultural and religious sentiment of people always downgraded the sport fishing as not matching with Sri Lankan context.
- The other water sports are perceived as recreational activities while fishing is perceived as a livelihood.
- There is no professional body for the promotion of game/sports fishing in Sri Lanka.
- There are hardly any professional guides/game fishers/ trainers in Sri Lanka. This is a single activity of the ecotourism package provided by some hotels under the guidance of the post called 'Naturalist'.
- As per the sport fishing establishments there are some 'red tapes' such as access or entry barriers to fresh water reservoirs and streams for recreational fishing.
- There are no designated areas for sport fishing.
- Depletion of fish resources in coastal and brackish waters adversely affect the promotion of sport fishing as lesser or no catch de-motivate the sport fishers.

Conclusion

The sport fishing as a recreational activity especially among foreign tourist existed from colonial times but never received the attention of the government. The private parties involved in the tourism sector identified the potential of sport fishing to increase tourist arrivals as well as earnings. The sport fishing would be a service with competitive edge to tourists who enjoy environment and adventure. The emerging market segment for sport fishing from Russia and India compared to traditional European segment could be targeted to attract tourist from those countries. The net revenue per sport fisher was about USD 42 and on an average a sport fishing centre could earn approximately USD

11784 per year on the current scenario. However, this potential further can be increased by providing policy support for the rapid expansion of this sector. In this endeavor Ministry of Fisheries and the Ministry Tourism Development should work together to minimize negative impacts on traditional coastal fisheries. Further, the international code of practice for recreational fisheries may introduced for sport fishing centre operators for the sustainability of the sport fishing industry. There is a greater potential of increasing of net earnings from the tourism sector by promoting sport fishing and in turn will benefit the whole tourist sub-sector in the economy. Hence, the government too should play a vital role to mitigate perceived and physical barriers to promote sport fishing in Sri Lanka.

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