

# LONGLINE FISHING IN SRI LANKA

By  
**K.W.Rasika Krishan**



Supervised by  
**Dr L.L. Ekanayake**  
University of Moratuwa, Sri Lanka.  
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This dissertation was submitted to the Department of Civil Engineering of the University of Moratuwa in partial fulfillment of the requirement for the degree of Masters of Business Administration in Project Management.

Department of Civil Engineering  
University of Moratuwa  
Moratuwa

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## Declaration

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## ABSTRACT

Coastal and deep sea fishing are the main sub sectors of Sri Lankan fishery industry. The deep sea fisheries in Sri Lanka have been in existence since the early 1980. Sri Lanka coastal fishing sector mainly uses conventional methods with less capital investments. Despite of this, coastal fish production of Sri Lanka is higher than the deep sea fish production.

Longline and gillnet are the two widely used fishing methods in deep sea fishing sector. In this paper economic efficiency, Post Harvest Fish Lost (PHFL) of longline fishing are evaluated and identified. Similar evaluation is conducted for gillnet fishing to compare the position of longline fishing in the deep sea fishing sector. Research methodology for economic efficiency and PHFL was developed using the findings of literature survey.

Primary data were collected from 150 deep sea vessels operated in Negombo fishery harbour. 3,346 deep sea fishing vessels are operated in Sri Lanka in the year 2010 according to the fishery statistic 2010, issued by Ministry of fisheries and Aquatic Resources Development (MFARD). Data collection was done during February through October of 2011 in Negombo fishery harbour. Accounting Rate of Return (ARR) measures the net gain from a capital investment. ARR is used to evaluate and identify the economic efficiencies of longline fishing and gillnet fishing. To calculate ARR, capital investments, fixed costs, variable costs, revenues, number of fishing trips per year are used. Further this paper investigates the trend of longline fishing in Sri Lanka. Secondary data from MFARD and FAO were used to evaluate and identify the trend.

Findings indicate that the ARR for longline fishing are attractive and comparatively higher than gillnet fishing. It is found that PHFL of longline fishing is very less. PHFL of longline fishing is found as around 12.5% of gillnet fishing. Further deep sea fishing sector demonstrates impressive improvement during last few years. Hence the results conclude that high return and high quality standard of longline fishing. This will make longline fishing more popular and attractive in deep sea fishery sector. Further Deep sea fishing will dominate Sri Lanka fishery sector as implied in trend analysis. Hence

longline fishing will be very significant in Sri Lanka fishery sector. It is suggested that in order to improve the fisher sector in Sri Lanka, longline fishing should be promoted by placing right credit mechanism to the fishermen, easy and affordable access to modern technology and right infrastructures for longline vessels in fishery harbours.



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## ABBREVIATIONS

<b>Abbreviation</b>	<b>Description</b>
ARR	Accounting Rate of Return
CFC	Ceylon Fisheries Co-operation
CFHC	Ceylon Fishery Harbours Co-operation
CSW	Chilled (iced) Sea Water
DWFN	Distant Water Fishing Nation
EEZ	Exclusive Economic Zone
FAO	Food and Agriculture Organization
GDP	Gross Domestic production
GPS	Global Positioning System
GRT	Gross Registered Tonnage
IDAY	Inboard Single-day Boats
IMUL	Inboard Multi-day Boats
IOTC	Indian Ocean Tuna Commission
Kg	Kilograms
MDOV	Multi-day Vessels
MFARD	Ministry of Fisheries and Aquatic Resources Development
MT	Metric Tons
MSL	Mean Sea Level
NARA	National Aquatic Resources Research and Development Agency
NGO	Non-Government Organizations
PHFL	Post harvest fish losses
RSW	Refrigerated Sea Water
SU	Statistical Unit
UN	United Nation
VMS	Vessels Monitoring System
Walala Season	Season of Relatively Rough Sea Condition ( Come with North-East and South- West monsoon)
Nautical mile 1	1.852 Km



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