CONTRACT RESEARCH ABSTRACTS

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TRIALS WITH FISH AGGREGATION DEVICES (FADS) OFF WEST AND SOUTH COASTS OF SRI LANKA

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Abstract

The objective was to test the longevity and profitability of fish aggregation devices (FADs) constructed using bamboo sticks and to popularize the fad fishing technique among coastal fishermen to encourage them to harvest under utilized coastal resources.

Five Fish Aggregation Devices were constructed using Bamboo sticks. FADs were deployed off Panadura, Lunawa, Ambalangoda, and Galle at a depth of 50-55m. Construction and deployment of FADs were done with commuity participation. Positions were recorded using a hand held GPS.

After 15-20 days of fad deployment, fish schools were observed closer to fads. Fishing operations were started after a month from fad deployment. Dolphin fish and rainbow runners not significantly caught by other fishing methods were frequently caught around fads. Species composition of fish caught around fads are given in table I.

Table I : Species composition of fish caught around FADs

	Panadura	Lunawa	Ambalangoda	Galle FAD I	Galle FAD II
Dolphin fish	34.3%	37.0%	56.2%	51.5%	44.5%
Rainbow runners	29.8%	16.5%	18.7%	20.6%	19.5%
Other fish varieties	35.9%	46.5%	25.1%	27.7%	36.0%

During the present study it was able to increase the life span (longevity) of FADs. Details with respect to longevity, fish production and value of fish caught from five FADs is given in Table II.

Table II : Longivity and earnings from FADs

	Longivity (Days)	Fish Production (Kg.)	Value Rs.	Catch per Kg.(Rs.)
Panadura	89	3,330	183,000	55.00
Lunawa	159	2,300	135,000	59.00
Ambalangoda	46	2,640	132,000	50.00
Galle FAD I	64	1,300	58,500	45.00
Galle FAD II	76	1,245	56,025	45.00

Fish aggregated around fads helped fishermen to increase their catch rates and in the mean time to save fuel and searching time. Fads helped fishermen to get an understanding about their net setting positions and fads helped fishermen to harvest so far under utilized resources – dolphin fish and rainbow runners.

FADs could be used successfully to harvest under utilized coastal pelagic resources such as Rainbow runners (*Elagatus bipinnatus*) and Dolphin fishes (*Coryphaena hippurus*). Artisanal hand line fishermen were benefited more than others, as hand line fishing can be done with traditional crafts very closer to FADs. FADs were useful to fishermen not only as fishing aids, but also as navigational aids specially during bad weather. Bamboo FADs are not strong enough to cope with the rough sea conditions during the monsoonal months. Longevity of FADs deployed on the South and West Coasts could be increased by increasing the weight of anchors and setting FADs with the onset of the non-monsoon period.