

Indigenous FAD based fish culture system in open creeks of Krishna and West Godavari districts of Andhra Pradesh

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Fish aggregating devices (FAD) are natural or artificial objects of permanent or temporary nature that are used to lure the fish. When installed in water bodies they attract and aggregate the fishes as they can be used for the purpose of shade, shelter, food and breeding ground by the fishes. Traditional FAD systems have been used by the fishermen all over the world to facilitate easy harvest of fishes.

Materials like tree branches, bamboo shoots with aquatic weeds etc, are commonly used in shallow areas of creeks and backwaters to attract and aggregate the fishes and it is variously known as *acadja* fishery in West Africa, *Samarahs* in Cambodia, *Katha* in Bangladesh and *Padal* fishing in southern India.



View of battery of FADs

Krishna and West Godavari districts in Andhra Pradesh have vast areas of water bodies with diverse fish fauna. Different kinds of traditional fish culture and fish harvest methods are being practised in most of these creeks. One such indigenous fish aggregating device based activity is popularly called as “Gudu fishing”. The FAD is prepared with the dried branches of mesquite bean tree (*Prosopis juliflora*), tamarind tree and mangrove plants. There are artificially planted in shallow areas along the periphery of the creeks. Generally, square shaped FAD system is prepared with a size ranging from 5 to 30 m and 1 to 1.5 m in height. Most of the brackish water creeks available in these districts are controlled by the adjacent fishing villages. Accordingly, a stretch of 2 - 3 km in length of the creek is marked and allotted to the particular fishing village and all major fishing activities in that



Encircling the FAD before harvest

particular stretch is managed by the respective villagers. Indigenous FAD based fish culture is one of the major activities apart from regular fishing using cast nets and small drag nets in these water bodies. Permission for carrying out this fish culture method is based on auctioning for a period of one year. The funds generated through the auction are used for the welfare of the villages. A group of 6-15 fishermen carry out the activities within the respective places allotted for the particular village in the creek.

Around 10-20 numbers of FADs are installed within the 2-3 km stretch. Different species of fishes get attracted and are allowed to remain for 1 to 2 months and then harvested. The FADs are harvested one by one subsequently during the low tide period. At harvest, entire area is encircled by a net, erected with the help of poles. After entire area is encircled the branches are slowly removed and the fishes harvested using drag nets, cast nets and scoop nets. While collecting fishes, the juvenile fishes which do not have any market value are released back. The removed branches are dried and reused depending on their condition. This kind of aquaculture is repeated for 3-4 times in a year. The species harvested are mainly mullets, milk fish, sea bass, pearl spot, catfishes and different varieties of shrimps. Mulletts are available in all the seasons and milk fish availability is higher during June and July. Seabass catch is high during August to December months. However, small quantities of all the species are available in all times. The quantity of the fish harvest varies according to the size of the *Gudu* system. Generally, mixed composition of small quantities (25-40 kg) of each mentioned species are harvested from the system. These small quantities are directly sold in the market by the fishers themselves. But, if large quantity of any single species are caught they are sold through local market intermediaries. Generally, average income generation from a single FAD varies from ₹ 15,000-30,000 per crop and occasionally even more than ₹ one lakh per crop. This system provides an additional income source to the local fishermen fishing in the brackishwater areas.