

## **Principle of FAD Fishery (Fish Aggregation Device)**



**Project for Promotion of Grace of the Seas for Coastal  
Villages in Vanuatu, Phase 2**

**Vanuatu Fisheries Department  
Japan International Cooperation Agency  
IC Net Limited**

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## 1. Range of Community-based Coastal Resource Management

### *Image of Available Coastal Resources for Community*



## 2. Main Issues Related to Fishing Activities

- Tendency of high fishing pressure on reef resources
- Not enough use of other resources, such as pelagic species
- Limited number of fishers/fishing boats accessing pelagic species
- Limited type of fishing gears and methods being available

### Countermeasures

Promote diversification of fisheries for fishing communities/artisanal fishers is indispensable, in order to reduce fishing pressure on reef resources

One approach (option) to the materialization of the basic concept

- Community-based FAD fishing management and development approach (option)

### 3. Issues of FAD in Vanuatu

✓ Technical Issues;

- (1) Short life span of FAD
- (2) High cost of FAD materials
- (3) Difficulty for deployment by artisanal boat

**FAD is not much known among artisanal fishers**

✓ Management Issues;

- (1) No sustainable FAD deployment/management plan by communities
- (2) Lack of regular maintenance activities by communities (users)
- (3) Lack of cost and profit data

**FAD fishing is not sustainable for artisanal fishers**



Promotion of economic / efficient FAD development for artisanal fishers / fishing boats

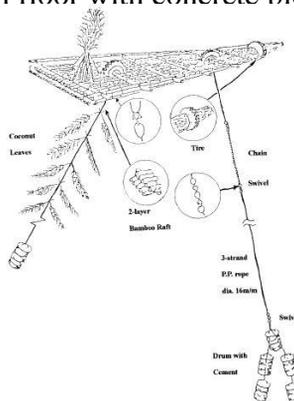
Promotion of community-based FAD fishing development and management

### 4. What is FAD?

#### Definition of FAD;

A fish aggregating (or aggregation) device (FAD) is a man-made object used to attract ocean going pelagic fish such as marlin, tuna, skipjack and dolphin fish. They usually consist of buoys or floats moored to the ocean floor with concrete blocks (anchors).

FAD, Fish Aggregation Device, is well known as “*Payaw*” in the countries of Southeast Asia where it may have originated.



## 5. Why Fish Gather around FAD?

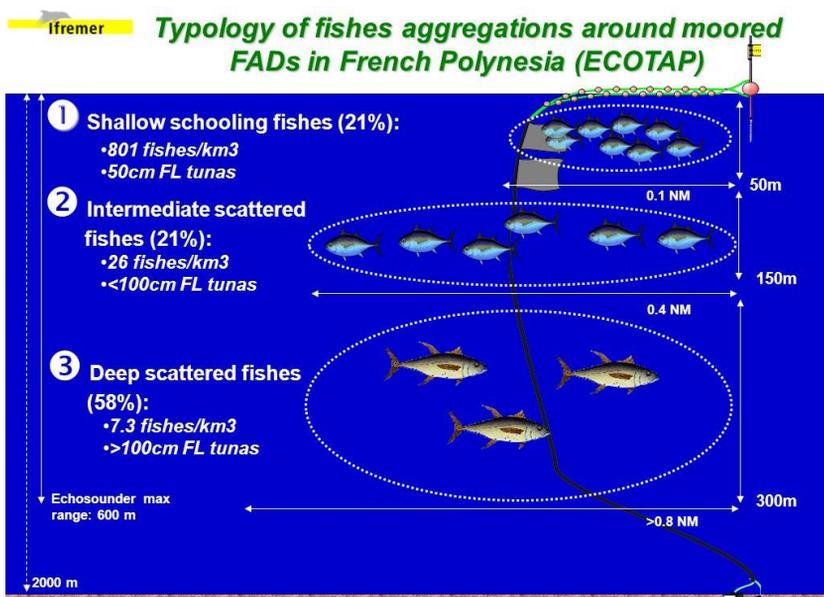
FAD works basically on three (3) biological principles as follows;

- a) Food chain or prey-predator relationship
- b) Sheltering or harboring behavior of fish/ tendency of fish to gather around and follow large floating objects like logs
- c) Photo-tactic reaction of fish (the movement of fish toward or away from a source of light)

Other suggested explanations for fish behavior toward FAD are as follows;

- d) The smell from floating objects attracts fish
- e) The floating objects and the anchoring rope produce sounds when moving current, waves and swell. These sounds encourage fish to gather around them
- f) Spawning fish gather to lay eggs on floating objects
- g) Some fish gather around floating objects in order to form schools and consider floating objects as members of their school

## 6. How Fish Gather around FAD?



### **Some visible benefits of FADs**

- 1) Diversification of fishery
- 2) Increased landings
- 3) Cost and effort savings
- 4) Eases pressure on reef fish population
- 5) Encourage greater collaboration among fishers

### **Some problems associated with FADs**

- 1) Potential of user rights conflict
- 2) Vandalism
- 3) Low usage opportunities in rough seas and strong currents condition
- 4) Requires some technology improvement
- 5) Daily check and regular maintenance by FAD users being required

## **7. References**

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