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| Title:          | Coastal fisheries livelihoods – Anchored FADs and nearshore small-scale fisheries |
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## Summary/short description/key points:

Fish aggregating devices (FADs) are proving to be successful in the development of nearshore small-scale tuna fisheries in the region. Despite challenges such as inadequate data collection, lack of documentation on FAD longevity, impacts, catches, performance, and overall usefulness, fishers and fisheries agencies remain steadfast in their support for FADs and related activities.

Moreover, regional organisations, non-governmental organisations (NGOs), and donor partners recognise FADs as an essential tool for the benefit of small-scale tuna fishers. Consequently, significant programmes are in the works to bolster this initiative, and substantial funding is earmarked for FAD development in the region.

To ensure the sustainability of FAD programmes and their long-term benefits to communities, it is imperative to establish funding mechanisms. While financial and technical support can be sourced from donors or regional organisations, the establishment of a consistent source of national funding is crucial for the continued success of national FAD programmes. The importance of FADs and their positive impact can be further validated through monitoring and assessment, which can persuade fisheries agencies of their value. Additionally, engaging end-users is pivotal in garnering community support and promoting the co-management of national FAD initiatives.

## Recommendations:

Members are invited to:

- a) Discuss the importance of anchored FAD initiatives as a successful strategy in the development of nearshore small-scale tuna fisheries in the region and the accompanied challenges that are needed to be addressed such as inadequate data collection, lack of concrete documentation on FAD longevity, impacts, catches, performance, and overall usefulness.

- b) Recognise and acknowledge the continued support of regional organisations, non-governmental organisations (NGOs), and donor partners that has led to significant programmes and substantial funding being allocated to support FAD development in the region.
- c) Request Heads of Fisheries to consider establishing and securing consistent national funding sources in complementing external support to ensure the long-term sustainability of national FAD programmes and their benefits to fishers and coastal communities.

## Fish aggregation device development

### *Introduction*

1. Nearshore anchored fish aggregating devices (FADs) have emerged as a vital marine-based solution to address the challenges posed by rapidly growing populations in Pacific Island countries and territories (PICTs). This working paper highlights the key benefits of FADs and their crucial role in supporting food security and livelihoods in the region.
2. Nearshore anchored FADs offer a range of advantages:
  - a. **Alternative fishing grounds:** They provide fishers with alternative fishing grounds and promote sustainable fishing practices.
  - b. **Increased fishing efficiency and catch rates:** FADs enhance nearshore fishing efficiency and increase catch rates, thereby contributing to the economic well-being of communities.
  - c. **Enhanced food security:** By augmenting fish catches, FADs play a pivotal role in enhancing food security, ensuring a consistent and reliable source of protein for local populations.
  - d. **Improved livelihoods:** FADs directly impact the livelihoods of fishers and their communities by increasing income opportunities and improving overall economic stability.
  - e. **Enhanced sea safety:** FADs also contribute to sea safety by reducing the need for extensive and potentially risky long-distance fishing trips.
3. Decades of FAD-based fisheries development have led to a significant reliance on nearshore FADs. These structures have become indispensable for the food security and livelihoods of fishers and PICTs' coastal communities. In certain countries and territories, FADs are considered a fundamental component of national infrastructure, with national fisheries agencies assuming responsibility for their deployment, maintenance, and replacement. This commitment is aimed at ensuring the long-term benefit of coastal communities and the sustainability of FAD-based fishing activities.

### *Activities implemented to support of FAD programmes in the region*

4. Over the past four decades, the Pacific Community (SPC) has undertaken various activities to support FADs in the region. These activities draw upon the experiences and lessons learned by FAD practitioners across the Pacific and include:
  - a. **Production of FAD manuals:** SPC has produced several FAD manuals that serve as valuable resources for the region. These manuals are a compilation of best practices and lessons learned from FAD practitioners over the years. The most used FAD designs in the region are the Indo-Pacific and sub-surface FADs.
  - b. **Technical assistance:** SPC provides technical assistance in various aspects of FAD management, including:
    - i. FAD programme planning.

- ii. Sourcing FAD materials.
  - iii. FAD site survey.
  - iv. FAD rigging and deployment.
- c. **Training:** Capacity-building initiatives are a key component of FAD support, and they include:
- i. Counterpart training for local FAD technicians.
  - ii. Fishers' training covering FAD/mid-water fishing skills, on board fish handling, post-harvest techniques, and small boat safety.
  - iii. Training for data collectors and database management.

### *Outcomes of the Regional FAD Workshop*

5. Immediately prior to RTMCFA6, the Forum Fisheries Agency (FFA), in partnership with the Food and Agriculture Organization (FAO) and SPC, is running a workshop on 'Food Security, Alternative Income Options and Community-based Fish Aggregating Device Fisheries – What Needs Doing?' (7-10 November 2023).
6. The workshop aims are to:
  - Discuss and share their experiences, challenges, and successes with FAD programmes in their respective PICTs.
  - Discuss the food security and economic contributions and targets of community-based FAD programmes.
  - Discuss issues surrounding planning, procurement of FAD materials, site selection, construction and mooring systems, deployment, maintenance, monitoring and data collection required for ensuring ongoing success of FAD programmes in their respective PICTs.
  - Discuss fishing techniques, safe fishing practices, safety-at-sea, post-harvest methods and use options.
  - Discuss and develop draft sensible achievable FAD Strategies for their respective PICTs to inform where, what when, how and by who.
  - Discuss alternative income options with a focus on adaption to climate change and reduced community dependence on offshore fisheries related employment.
  - Discuss strategies to further progress regional and national work around securing community food security and community-based FAD fisheries.
7. The preliminary outcomes of this workshop will be reported to RTMCFA6.

### *Challenges / opportunities*

8. The increasing demand for seafood driven by growing populations in the Pacific Island countries and territories (PICTs) is placing significant stress on reef fisheries resources. Overfishing to meet these demands has led to the depletion of stocks. Additionally, climate change impacts, such as ocean

acidification, coral bleaching due to global warming, and more intense typhoons, are causing long-term declines in coastal ecosystem productivity.

9. Given this context, there is a pressing need to shift the focus towards resource conservation and management. The current situation does not favour fisheries development. Coastal communities' immediate priority is to maintain their food security and livelihoods through sustainable marine-based alternatives.
10. The continued support for and investment in nearshore anchored FADs are essential components of addressing these challenges and ensuring the well-being and sustainability of coastal communities in the region.
11. In 2016, SPC and FAO conducted a workshop to identify key issues and lessons learned in small-scale fisheries development in the region. Some of the main issues and lessons included:
  - a. The importance of establishing effective institutionalised national FAD programmes to facilitate small-scale tuna fisheries development.
  - b. The need for appropriate training in mid-water/FAD fishing methods.
  - c. The significance of community engagement in FAD initiatives.
  - d. Addressing jurisdictional issues and conflicts before engaging in FAD work.
  - e. Governments taking greater responsibility and allocating higher priority (funds and staff) to artisanal FAD programmes.
  - f. The importance of demonstrating the benefits and effectiveness of FADs with clear, data-supported evidence.
  - g. Addressing overreliance on SPC/donor support to ensure ownership and investment by fisheries agencies.
  - h. Adopting a more systematic and planned approach to FAD deployment and maintenance.
  - i. Ensuring the availability of suitable equipment for successful FAD deployment.
  - j. Addressing high staff turnover and enhancing staff skills for FAD rigging and deployment.
  - k. Recognizing the effectiveness of fishermen associations in driving FAD programmes.
12. Nearshore anchored FADs play a critical role in addressing the challenges posed by population growth in Pacific Island countries and territories. Their multifaceted benefits encompass alternative fishing grounds, increased fishing efficiency, improved food security, enhanced livelihoods, and sea safety.
13. Recognising the reliance on FADs, some nations consider them an integral part of national infrastructure. This Working paper underscores the importance of continued support and investment in FAD-based fisheries for the well-being and sustainability of coastal communities in the region.

## Recommendations / outcomes

### 14. Members and partners are invited to:

- a) *Discuss* the importance of anchored FAD initiatives as successful strategy in the development of nearshore small-scale tuna fisheries in the region and the accompanied challenges that need to be addressed such as inadequate data collection and lack of concrete documentation on FAD longevity, impacts, catches, performance, and overall usefulness.
- b) *Recognise and acknowledge* the continued support of regional organisations, non-governmental organisations (NGOs), and donor partners that has led to significant programmes and substantial funding being allocated to support FAD development in the region.
- c) *Request* Heads of Fisheries to consider establishing and securing consistent national funding sources in complementing external support to ensure the long-term sustainability of national FAD programmes and their benefits to fishers and coastal communities.

## Breakout group questions

### 15. *FAD programme sustainability:*

- a. How can Pacific Island countries and territories (PICTs) establish and maintain sustainable funding mechanisms for their national anchored FAD programmes?
- b. What strategies can be employed to reduce overreliance on external support and promote national ownership and investment in anchored FAD initiatives?

### 16. *Community engagement and co-management:*

- a. How can local communities be more effectively engaged in the planning, deployment, and maintenance of nearshore anchored FADs to ensure their long-term success?
- b. What role can fisher associations and other community-based organisations play in driving anchored FAD programmes and fostering community buy-in?

### 17. *Addressing key challenges:*

- a. How can PICTs address the challenges identified in the paper, such as data collection, training, jurisdictional issues, and equipment availability, to enhance the effectiveness of their anchored FAD programmes?
- b. What strategies and best practices from other regions or organisations can be adapted to improve anchored FAD programme planning and implementation in the Pacific?