Mini-FADs for *vaka* fishers: A creative solution to improve catch consistency in Niue

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Niue has a unique fishery that provides regular catches of large and small pelagic fish such as yellowfin tuna, wahoo and scad. The culture of traditional *vaka* canoe fishing in Niue is as popular today as it was in the past, with fishers utilising both wooden craft and more modern canoes, and catching fish using a mix of traditional fishing methods as well as modern high-end rods and reels.

This *vaka* fishery is an important contributor to food security. While many catches are eaten by families of fishers, some of the catch is also sold to small restaurants catering to tourists on the island, or sold in the market for local consumption or for bait. One drawback of the *vaka* fishery has always been the inconsistency of catches. Catches can be very good when the season, tides and weather are in alignment, but other times quite disappointing, especially when conditions are less than ideal. Finding ways to develop the *vaka* fishery to ensure more consistent catches has been an ongoing challenge for staff of the Niue Fisheries.

A solution was to deploy near-shore mini fish aggregating devices (mini-FADs), exclusively reserved for use by the *vaka* fishery, and deployed in shallow water close to the island to provide locations for consistent catches, especially for scad. This idea came to former Niue Fisheries staff member James Tafatu, and acting Principal Fisheries Officer Launoa Gataua, seven or eight years ago. At the time, the Niue FAD programme had only just started; FAD materials were scarce and reserved for conventional offshore FAD deployment. In recent years, however, the fisheries office has had access to more FAD materials, as well as to a large search and rescue vessel donated by the New Zealand Aid Programme. Together, these enabled the deployment and testing of mini-FADs.

In 2019, six mini-FADs were deployed at depths of around 15–35 m and close to shore on the leeward side of the island. One mini-FAD was deployed near a small village, while two or three were deployed near larger settlements. Due to the shallow depth of deployment, Niue Fisheries staff were able to deploy the FAD anchors first, and later attach the rope and buoys using dive equipment.

Local fishers and village councils were consulted before and after deployment of the mini-FADs, which were found to be very popular and well used by most communities. The mini-FADs have provided an accessible and reliable fishing ground for small pelagic species such as scad, as well as occasional catches of large pelagic fish such as dogtooth tuna and yellowfin tuna. Data collection work through the SPC Tails app has been undertaken to assess the frequency of use and catch composition from these mini-FADs in order to better inform the deployment of subsequent FADs. Since the initial deployment, community demand for additional FADs has been strong and a new mini-FAD was deployed in early 2022 off the north end of the island, with more planned as equipment becomes available.

This creative approach to supporting a traditional canoe fishery is a great success story for Niue Fisheries. Working in close consultation with communities and fishers, the Niue Fisheries team hopes to continually improve the programme with new ideas and innovations.

For more information:

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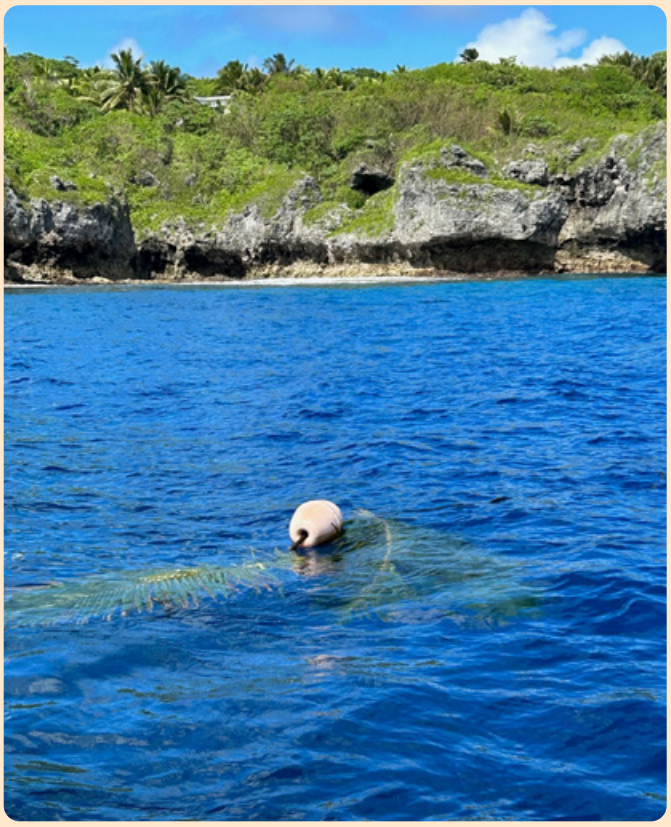

A close-up view of one of the mini-FADs. The coconut fronds attract and provide habitat for small pelagic fish. ©Launoa Gataua

Niue fisheries team performing maintenance on one of the mini-FADs. ©Launoa Gataua