Tonga's Special Management Area programme: Insights from communities, and considerations for upscaling community-based fisheries management in the region

Introduction

In Tonga, coastal fisheries are mostly small-scale and serve multiple purposes, such as food, social commitments and, to a lesser extent, economic gain (Kronen 2004). Access to fisheries resources was, for a long time, open but the steady decline of stocks convinced the Tongan government to try a community-based approach to managing them (Gillett 2010). The Special Management Area (SMA) Programme started in 2002, providing exclusive access to fisheries for specific communities, and embedding core conservation of biodiversity elements. The programme has been successful in coastal communities and has resulted in positive conservation results (Smallhorn-West et al. 2020).

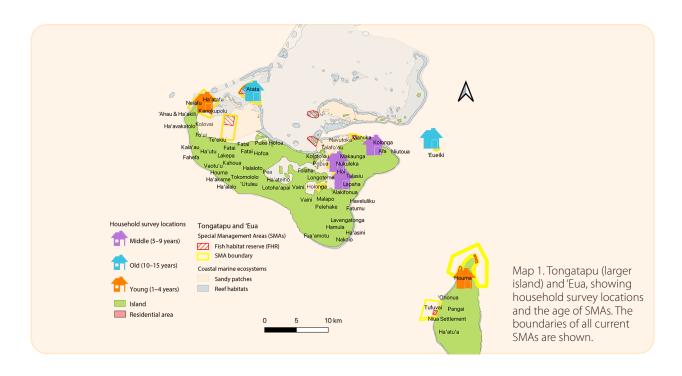
The potential benefit of devolving management powers to local communities has been identified by several countries in the region, leading to the development and approval of the community-based fisheries management (CBFM) framework (Pacific Community 2021). So, along with other countries in the region, Tonga is considering ways of reaching most coastal communities with its SMA programme. This idea requires careful consideration of advantages and disadvantages, available and required resources, and different strategies to optimise limited resources.

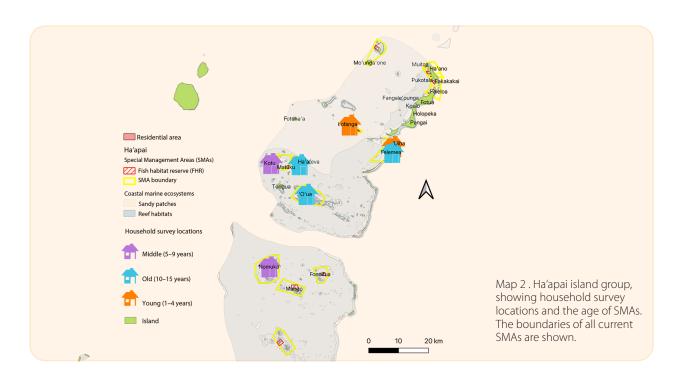
The socioeconomic assessment of the SMA programme, conducted in 2021, provided key insights from SMA communities to guide the upscaling of the programme and support most communities in the country to manage their own marine resources (MoF and VEPA 2022).

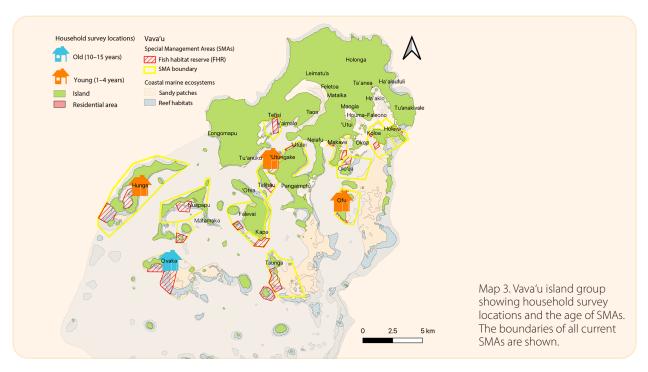
It is evident that community-based fisheries management is as diverse as the communities themselves and their ecosystems. A predetermined approach to establish a management system is often not appropriate. However, basic principles or recommendations can be learned from local experiences. We believe that the Tonga experience can contribute to the regional upscaling of CBFM, and so in this article we briefly present the most relevant results of the latest socioeconomic assessment, and the recommendations for scaling-up CBFM in Tonga and the rest of region.

Methods

A full description of methods and results can be found in the full report (MoF and VEPA 2022). In total, 275 households were surveyed, covering proportionally equal numbers of SMAs according to their age: young SMAs (1–4 years), middle-aged SMAs (5–9 years) and old SMAs (10–







14 years). The sample was also distributed across four groups of islands: Tongatapu, Haʻapai, Vava'u and ʻEua. Respondents included 140 men (of these, 21 were male youth) and 135 women (25 of which were female youth). The survey covered several aspects, including SMAs' impact on food security and household well-being, management effectiveness, and vulnerability to climate change.

Recommendations from the survey were complemented with insights from MoF staff and the results of the 2021 national SMA workshop. Impacts from, and coping strategies for, COVID-19 were analysed in a separate publication (Marre and Garcia 2021). This article focuses on the most relevant findings in relation to the upscaling of the SMA programme, and the recommendations that can support upscaling CBFM in the rest of the region.

Main findings and considerations

The number of people per surveyed households ranged from 1 to 20 members, with an average of 6 people. Most respondents had finished high school and worked informally. The most important income sources were remittances (more so for women), wage employment, reef fishing (mostly done by men), handicraft making (mostly done by women) and farming (more often done by men).

There were 120 active fishers in the sample (73 men and 47 women), with the highest proportions in Haʻapai and Vava'u. The most important fishing activities were reef fishing (done by 64 men and 22 women) and gleaning (46 men and 36 women). It is interesting to note that more men were involved in gleaning activities, an activity often dominated by women. Because the survey was conducted during COV-ID-19 restrictions, it would be interesting to find out if this change was temporary.

Fishing and marine resources were very important for most households. Reef fishing and gleaning were conducted mostly for household use, but income generation was important for certain households. Almost all households, however, consumed fish between three and four times per week, second in importance only to crops.

Regarding perceived effects of SMAs, it is important to highlight that most respondents had very positive views of SMAs, including their contribution to ecosystem health, and securing resources for future generations, as well as for economic, social and personal wellbeing.

However, for a select number of factors related to governance (e.g. ability to fish anywhere, ownership and access to resources, inclusion of women in decision-making and SMA support), some groups, including respondents living in middle-aged SMAs and women, were slightly less positive (see Annex 2 in MoF and VEPA 2022).

The proportion of dissatisfied women is low, but it is worth understanding their source of discontent and, if feasible, address any issues. Within the SMA programme are coastal community management committees, which must include women and youth. While all SMAs have such committees, it is likely that in older SMAs, women have had more time to become empowered, resulting in increased engagement and support of women in older SMAs compared to women living in middle-aged SMAs.

More generally, communities in middle-aged SMAs, most of them in Tongatapu, were also somewhat less positive about SMAs. Tongatapu is the most populated island group in Tonga, which is related to more pressure on natural resources, less dependence on productive activities as more people become employed, and the growing importance of a cash economy. All these factors can drive a reduced engagement in governing their SMAs and a related apathy towards, or ignorance of, marine resource management (note in the report the higher proportion of respondents answering "I don't know").

Relevant lessons from Tonga for scaling-up CBFM in the region include the following.

- A diversity of livelihoods and food sources increases community resilience to climate change and other shocks. When supporting some of these livelihoods, it is important to consider how an increased income can drive cultural changes, which in turn can affect governance structures that depend on social capital.
- A multi-sectoral approach is required to support communities, so that all key wellbeing aspects are considered (e.g. food security, health, education). Such an approach is also fundamental, as marine health depends not only on the management of fisheries, but on external impacts, such as natural disasters, development policies and sectoral growth.
- It is important to find out which sections of a community do or do not support CBFM programmes. Even if discontented sections are small, it is important to understand what lies behind their dissatisfaction, and work with communities to address any gaps. Unchecked disagreements can evolve into factions and potentially impracticable governance. Gender, socioeconomic status, religion, ethnicity and immigration status can be key sources of unfairness, perceived or real.
- Finding ways of using limited resources more efficiently to support CBFM communities is fundamental to increasing CBFM coverage and support. With this purpose, MoF is considering establishing district-level SMAs, as opposed to community-level ones. Respondents, however, mostly disagreed with this option. It is likely that they fear losing current privileges. It is, therefore, important to consider different options, like establishing district networks where experienced communities support new communities, thus reducing the need of government to drive all support activities. In addition, transparent two-way communications systems should be in place to allow communities to report to the government on key issues and advantages of different governance approaches.

Conclusions

CBFM approaches have created immense value in the Pacific, not only for the conservation and better management of natural resources (Smallhorn-West et al. 2020), but for communities' wellbeing, including improving food security and livelihood options (Cohen et al. 2014; Islam et al. 2014). It is also a more efficient and cost-effective way of managing resources, rather than having a centralised government policing whole countries, particularly those with very remote islands. It is, therefore, fundamental to nurture this win–win management approach by:

- Ensuring that communities continue to be satisfied with their governance and management arrangements in time; to this end, all decisions need to be taken by communities, and for communities.
- Embracing the strong social capital in the region. Pacificstyle social networks of support and joint action, already culturally embedded, are key assets in the management of common resources. Thus, supporting the creation of CBFM networks should be a priority.

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