



Cross-sectoral partnerships for strengthening resilience of island food systems: experiences from integrating aquatic foods and rural agriculture training

Key messages

- This brief explains how WorldFish and KGA combine fisheries and agriculture expertise to promote sustainable diets, Indigenous food practices, and climate-resilient island food systems through joint training and knowledge sharing.
- The partnership empowers rural communities—especially women and youth—through hands-on training and advocacy, leading to improved farming practices, stronger local food security, and culturally grounded food sovereignty
- Efforts have led to measurable outcomes—such as 90% of participants adopting organic farming techniques—and foster knowledge sharing across rural communities.
- By leveraging shared resources and networks, the partnership builds local capacity, promotes culturally grounded food sovereignty, and creates pathways for scaling impact through future integration and research.

Introduction

Pacific Island food systems are increasingly understood to be experiencing change and pressures that span several sectors of society¹. Organizational partnerships are important for the successful implementation of research and development programs that can help tackle the challenges^{2,3}. For example, in sectors such as fisheries^{4,5}, agriculture⁶, and health and nutrition^{7,8}, collaborative efforts have been called for in resource sharing, leveraging funding opportunities, effective innovations and improved outcomes. The calls ask to integrate sectoral approaches to fit within a bigger framing of food systems, suggesting that effective partnerships can foster knowledge exchange, capacity building, and sustainable practices. In Solomon Islands, 73% of the population resides in rural areas with most coastal communities having mixed livelihoods based around farming and fishing⁹. Thus, it is important that both farmers and fishers have access to information and training services to promote aquatic foods and traditional crops in household meals, for diverse and nourishing diets. This brief shares

experiences from a fisheries and agriculture partnership that aims to integrate aquatic foods into rural agriculture training and strengthen fisheries and agricultural practices to improve nutrition and livelihoods in rural communities in Solomon Islands.

In 2023, the WorldFish Innovation Hub at Nusatupe in Solomon Islands in partnership with Kastom Gaden Association (KGA), a national agriculture focused NGO, launched a series of activities dedicated to showcasing nourishing, sustainable, and climate-resilient island food systems. Through collaborative training sessions, forums and on-the-ground activities, the Innovation Hub has since worked closely with partners and schools to promote learning and knowledge sharing, aimed at strengthening healthy and sustainable island food systems.

The two organizations

WorldFish in Solomon Islands operates a transdisciplinary research-in-development program in partnership with the Solomon Islands Ministry of Fisheries and Marine Resources and other development partners. The WorldFish program highlights aquatic foods, within a bigger framework of “island food systems” and operates under six research pathways: (1) Sustainable and resilient production; (2) Safe food distribution; (3) Healthy diets and nutrition; (4) Innovation hubs for island food systems; (5) Diagnosing island food systems resilience; and (6) Program integration¹⁰. In Solomon Islands, a strong focus is on the ‘Innovation hub for island food systems’ at Nusatupe, which seeks to make use of living lab-style thinking where communities, researchers and youth interns interact to develop solutions, trainings and demonstrations relating to resilient island food systems¹¹.

The Kastom Gaden Association is a local non-profit organization working with Solomon Islands communities to improve food security through self-reliance and improved food production. It focuses on sustainable organic farming practices and family nutrition by providing community education and training, and supporting farmer-to-farmer extension, through its network of around 5000 farmers across Solomon Islands¹².

Description of the partnership

Partnerships between WorldFish and KGA are not new. Between 2012 and 2016, KGA was part of a coalition of partners formed in Solomon Islands for the WorldFish led, Aquatic Agricultural Systems (AAS) Program¹³. The purpose of the partnership at that time was to integrate community-based marine resource management with the establishment of ‘supsup’ (backyard) gardens. Training workshops were held on sustainable farming techniques to increase the variety of resilient, good-quality, nutritious

foods for consumption and marketing. The partnership between WorldFish and KGA was based on shared goals and complementary strengths with both organizations committed to achieving sustainable practices in fisheries and/or agriculture targeting both farmers and fishers.

In 2023, WorldFish and KGA initiated a new collaboration under the WorldFish Island Food Systems program, now resourced through the CGIAR Food Frontier and Security Science Program. Our initiative focuses on sustainable diets by recognizing rural food system actors and promoting indigenous foods to achieve positive nutrition outcomes¹⁴. Discussions around the content of a new partnership emerged from long-standing relationships, shared priorities and complementary expertise.

The partnership seeks to co-produce sustainable and nutrition sensitive development pathways by revitalizing Indigenous foods and strengthening traditional agriculture and aquatic foods in island food systems. The two organizations aim to elevate the voices of small-scale food systems actors, particularly rural women and youth, through research-based approaches to advocacy, awareness raising and training on practices involving Indigenous and aquatic foods. This collaboration also seeks to support local knowledge systems, enhance climate resilience, and promote culturally grounded food sovereignty.

Activities

Within the frame of the collaboration, KGA has established and developed a demonstration garden at the Innovation Hub. With an established garden, KGA then provided technical and hands-on support by conducting a series of trainings on organic farming for nearby communities, targeting women, youth, and students from high schools and a rural training center. A KGA staff member is seconded to the Innovation Hub and resides at Nusatupe Island to oversee activities for the demonstration garden. The food garden, and the KGA-led agricultural training (Figure 1), complement WorldFish’s aquatic-foods trainings and demonstrations on, for example, seaweed farming, fisheries management, aquaponics and coral replanting – exposing participants to information and skills training across these food producing sectors. Between 2023 and 2025 a total of 102 men, women and youths have been trained at the Innovation Hub; 54% were women and girls.

KGA has also provided technical input for the development of training modules on fish handling for communities. KGA and WorldFish have co-hosted advocacy activities on local foods, including aquatic foods, through national and provincial ‘tok stori’ forums¹⁵ (Figure 2). These opportunities to share experiences and different types of knowledge in an open discussion have been attended by 90 participants; 59% of which were women and girls.



Figure 1. (left to right). Participants taking part in tranplanting seedlings, drying seeds as part of a seed saving session and demonstration of simple composting method.



Figure 2. Provincial 'tok stori' forums at and Gizo, Western Province (left) and Buala, Isabel Province (right).

Benefits of partnership

Together, WorldFish and KGA have started integrating aquatic foods and agriculture training. We organize the benefits under three main headlines:

Innovation and integration focus – WorldFish Nusatupe Innovation Hub now provides a platform for integrated marine resource management and sustainable agriculture efforts, expanding its scope from previously only focusing on mariculture. It hosts training and outreach services for nearby communities, focusing on trainings and demonstrations that could only have been achieved together in our partnership. These initiatives build local capacity, enhance community resilience to climate change, and promote sustainable livelihoods that are rooted in both land and sea-dimensions of island food systems. This integrated approach positions trainings within a bigger frame of food system change and opportunities and leverages complementary expertise. Integrating aquatic foods with rural agriculture training is a beneficial strategy because it creates a space to convene around “food” rather than just fisheries or agriculture. It emphasizes food production and nutrition as an integrated opportunity for more resilient island food futures, while still retaining a technical focus on ways to enhance livelihoods and preserve traditional food practices.

Sharing of expertise and resources – A greater emphasis on a shared opportunity to achieve common goals has enabled sharing of financial resources and human resources. Leveraging complementary expertise and roles in both the fisheries and agriculture sectors has led to work efficiency and connecting KGA and WorldFish networks made the integration of organic farming and aquatic foods accessible to more communities.

Community focus – All participants in the Innovation Hub trainings come from surrounding rural communities. A follow up evaluation of the organic farming training conducted at the end of 2024 (8 months after training) showed that 90% of the participants reported an increased knowledge of organic farming techniques and have started their own backyard garden and/or provided information to their family to improve current gardens to increase availability of local foods. Recognizing that community-based programmes targeting women and youths are a “critical and a prerequisite before change processes can be initiated and realized”^{16,17}, a community-based focus with a particular emphasis on women and youth will continue to underpin the Innovation Hub initiatives.

Way forward

The evolution of this partnership is likely to take on two main new directions to complement work done so far:

Further integration and leveraging – While our partnership has made progress in working across fisheries and agriculture sectors, more work can be done to build capabilities with each partner, and other partners. For example, in 2026 new work will be implemented to train national trainers, particularly Provincial Fisheries Officers, in a safe seafood handling standard that was recently launched¹⁸. Food safety and fish handling are subjects relevant to people living in farming households too, and KGA have a network of trainers and farmers that would benefit from gaining access to information and training in this subject. This is an approach to maximize scaling and impact of investments seeking to create a coalition of trained trainers in safe fish handling across sectors. Similarly, based on KGA’s trainings and permanently seconded staff member, WorldFish staff based at Nusatupe have also gained critical skills in managing a food garden and are building confidence to experiment with agriculture and aquaponics, or even soil conditioning using farmed seaweed.

Research and evaluation – WorldFish’s research in development approach requires that, with partners, we collectively evidence longer-term change or evaluate outcomes from shared trainings and demonstrations. To date the ability to do this for the partnership at the Innovation Hub has been limited while we have focused on establishing and managing programs, organize trainings and deliver them well. So as not to unnecessarily draw resources away from the core foundation of implementation, we recognize that there is a need for innovation in smarter forms of integrated research and light touch approaches for evaluating usefulness and change. Island food systems actors are increasingly asking for guidance and advice on efforts and investment and our ability to respond to this demand is growing. As part of a new generation of work, we intend to carve out space for innovation in the area of evaluation to help provide much needed evidence around “what works” and what is “cost effective” when it comes to training and other services.

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