

Mangoro Market Meri: Women working together to protect their mangroves and build secure futures for their communities



Mangoro Market Meri logo

Ruth Konia,¹Barbara Masike¹ and Robyn James²

Mangoro Market Meri brings together women from across Papua New Guinea to support sustainable mangrove management for the benefit of improved livelihoods, including tourism, women's empowerment, food security, storage of 'blue carbon'¹, and the protection of coastal communities from sea level rise and storm surge. Led by The Nature Conservancy and women's groups in Papua New Guinea, Mangoro Market Meri is building a platform for women to generate income based on the sustainable management of their mangroves. Potential economic opportunities include building local markets for sustainably harvested mangrove products such as shellfish and mud crabs (short term), exploring the potential for ecotourism (medium term) and preparing to engage in blue carbon (long term). It is a partnership between several key partners, including women leaders from communities across the country, provincial and national government, academic institutions, non-governmental organisations and business.

Papua New Guinea's mangroves

While blue carbon ecosystems such as mangroves, seagrass beds and saltmarshes constitute only 2-6% of the total area of tropical forests, their degradation emits the equivalent of 19% of the annual carbon emissions from global deforestation. Papua New Guinea (PNG) is home to some of the most intact and diverse mangrove forests in the world. In addition to serving as nurseries for juvenile fish, mangroves support the food security and livelihoods of many coastal communities. Women and their children particularly rely heavily on mangroves for fuel wood for cooking, and for fish, crabs and shellfish for household consumption, and sale for cash income. PNG's coastal mangroves, however, are under threat by development and clearing, which reduces local food and livelihood security while exacerbating climate change impacts.

Demonstrating the economic benefits that can flow from mangroves, and ensuring these benefits are shared equitably, can incentivise the sustainable management of this important resource. Women have an important role to play in leading such efforts. While they are disproportionately vulnerable to environmental and climate change impacts, they also possess important knowledge to address these threats. Unfortunately, women in PNG often have limited access to leadership and capacity-building opportunities, such as training, networking and accessing loans, which would help them generate economic benefits. Cultural norms also mean that women are not recognised by men for their leadership skills and tend to do the bulk of childcare and household tasks, thus reducing their available time to participate in decision-making and income generation.

This project is a response to understanding and contributing to effective local, provincial and national methods of securing PNG's mangrove forests. It will assist PNG with

contributing to global efforts to mitigate climate change, while simultaneously building coastal resilience and supporting local livelihoods.

Nature's leading women

In August 2017, The Nature Conservancy (TNC) led a 'Women and Mangroves' workshop in Milne Bay Province, which involved community-based organisations, national and provincial governments and non-governmental organisations. Building on the significant momentum this generated, TNC held the first ever 'Nature's Leading Women' event in November 2017 in Australia. The event brought together over 30 women from five locations across the Pacific and northern Australia. Each delegation came up with an idea for simultaneously advancing conservation and generating income, and were given training and mentoring in leadership, financial literacy, branding and marketing. There, the PNG delegation developed their idea of *Mangoro Market Meri*.

Building coastal communities' resilience to climate change in Manus and Milne Bay provinces

TNC and partners will turn the vision of *Mangoro Market Meri* into a reality with support from the Australian Government and some generous donors. It will begin by engaging women from Manus and Milne Bay provinces. For example, TNC is exploring the potential to connect *Mangoro Market Meri* with domestic and/or international markets for sustainably harvested mud crabs. This model has already proven successful elsewhere in PNG, where TNC has connected local fishing communities in Manus with buyers in Hong Kong who are willing to pay a premium for a seafood product (e.g. dried sea cucumber) that can be certified as having been sustainably harvested. The project will also support women with purchasing and using clean cookstoves by working in partnership with the Global Alliance for Clean Cookstoves.

¹ The Nature Conservancy, Tabari Place, Boroko, Port Moresby, Papua New Guinea. Corresponding author's email: rkonia@tnc.org

² The term 'blue carbon' does not refer to the colour of the physical carbon element. Rather, it relates to where the vast majority of this kind of carbon is captured and stored, namely coastal and marine ecosystems.



Participants to the Mangrove Forest Ecology and Restoration Workshop - ©Ruth Konia (TNC)

Many PNG households cook on open fires or traditional cookstoves that burn fuels such as wood and charcoal, which can lead to overexploitation of timber and air pollution.³ Introducing cleaner, fuel-efficient cookstoves can reduce the amount of fuelwood required, time spent cooking, and improve air quality – all of which benefit women and children, who do most, if not all, of the cooking.

Progress to date includes the following:

- A local tours and expedition entity, led by a local woman entrepreneur, was engaged by the project to conduct mangrove awareness campaigns in three mangrove communities in Milne Bay Province.
- PNG's female mangrove specialist, Mazzella Maniwavie, was engaged by the project to ensure that awareness materials and messages produced by the project were as accurate as possible and simple to understand. She has also produced training materials and handbooks for the Mangrove Forest Ecology and Restoration Training.
- A focus group survey was conducted in three of the biggest villages along the east coast of Milne Bay Province to understand how mangroves are used and how women can benefit from mangrove products that could be sold as certified sustainably harvested seafood.
- Following on from the survey, a Mangrove Forest Ecology and Restoration Training was conducted in these villages, targeting women. The objective was to ensure that the women understood the importance of mangroves and mangrove ecosystems, and could identify the major drivers of mangrove forest loss and what people can do to restore the mangrove forests. Over 50 women attended the training and many cried when they received their certificate as it was the first training they had ever had the opportunity to complete since school.
- A set of awareness materials, including a facilitator's manual, community flip chart and posters were produced by the project and will be used for awareness raising in Milne Bay and Manus provinces. These are unique as they have been developed locally based on the needs and communications styles of people in the villages.
- In Manus Province, TNC assisted the local women of Manus Island to formally establish a group that represents all women. The Pih Environment Development Forum now has a constitution, a strategic plan to guide its work and a board that will guide the organisation as it progresses.
- TNC assisted in facilitating a planning meeting with the Manus Disabled People's Association to meaningfully engage the disabled community in activities in Manus Province. TNC will work with this group to better understand its needs.

³ This is a widespread issue as over 3 billion people worldwide cook using these fuels and technologies.



Going forward

Tourism can significantly contribute to environmental protection, conservation and restoration of biological diversity, and the sustainable use of natural resources. Tourists are attracted to historical sites, unique cultural experiences, and beautiful environments and natural areas. Hence there is a need to keep such 'attractions' alive, while earning an income at the community level. Additionally, tourism has the potential to increase public appreciation of the environment and to spread awareness of environmental problems when it brings people into closer contact with nature and the environment. This connection may increase awareness of the value of nature and lead to environmentally conscious behaviour and activities to preserve the environment – in this case, the mangrove ecosystem. Thus, it is important that we engage with ecotourism entities and focus on working with our tourism partners to develop nature-based tourism activities and messaging that further promotes the aims of *Mangoro Market Meri*.

TNC is facilitating a biodiversity and conservation training workshop at the request of tour operators in Milne Bay Province so that they can better promote and protect the natural values of the province and share these with tourists. TNC will continue this partnership with ViLink Tours and Expedition to deliver the message about the importance of mangrove ecosystems across the province. Forty-five women who recently graduated with certificates of participation in the mangrove forest ecology and restoration training will be on hand to volunteer in carrying out awareness campaigns with ViLink Tours and Expedition. These women are very engaged and excited to be part of this programme.

TNC is also exploring locally relevant sustainable finance options, such as a 'green fee' that tourists to the region would pay in order to help support the costs of sustainably managing the mangrove forests. Exploring handling and marketing options – both domestically and internationally – for mangrove products such as crabs and shells is another priority for the project for both Manus and Milne Bay provinces. Once locally managed women's groups begin marketing their mangrove products, TNC will ensure that these women's groups receive adequate financial management training to better manage their finances.

In Manus, TNC is supporting the Manus Disabled People's Association to register as an organisation and to review the association's vision and plans. Manus Disabled People's Association will be linked to Pihi Environment Development Forum so they can be actively engaged in activities relating to natural resource management. TNC will work to help these organisations reach their objectives. Mangrove restoration and locally managing marine areas are holistic approaches to restore mangrove forests and mangrove ecosystems in both Milne Bay and Manus provinces in communities where mangroves and mangrove goods are neglected or depleted. *Mangoro Market Meri* will continue to work with women's groups in other provinces, such as Tulele Peisa in Bougainville and the Pari Women's Association in the National Capital District, to create a network and opportunities for sharing and learning among women.

Mangoro Market Meri will also continue to support women's efforts at the provincial and national level and to develop sustainable mangrove policies.

Identifying and recording mangrove species - ©Ruth Konia (TNC)



