

# A Large Ocean State Seeks Change

**Vulnerability to climate change has forced the Pacific republic to build resilience through community approaches to fisheries management**

**T**he Republic of Kiribati faces many development challenges due to its remoteness and limited resources—financial, infrastructural, institutional and environmental. With population pressure increasing, land is not only scarce but at a perilously low elevation. Kiribati is highly vulnerable to the impacts of climate change. Hence it is often being portrayed in the media as a victim of climate change, with low-lying islands being submerged by the rising sea level. While there is nothing they can do to prevent climate change,

of fish to the domestic population—in other words, food and nutrition. Annual per capita fish consumption is high at an estimated 62.2 kg, providing a very important source of protein. Kiribati has the lowest gross domestic product per capita in the Pacific and is listed by the United Nations among the Least Developed Countries.

Climate change threatens its coastal fisheries. The productivity for coral reef fish and invertebrates is projected to decline by 20 per cent by 2050; its direct effects include increased sea surface temperatures and the indirect effects include changes to fish habitats. Combined with population growth, these pressures can further reduce the potential share of reef fish per person. Aquaculture will also suffer from some mixed impacts, with potentially positive impacts on milkfish pond production while higher water temperatures and rainfall and/or increased ocean acidification are likely to have gradual negative impacts on seaweed and giant clams culture. Sand movement and build-up could see the conversion of intertidal areas into subtidal areas, which could cause an impact on shellfish production. Oceanic fisheries, accounting for a large proportion of the government revenue, are expected to fluctuate but could benefit overall from an expected increase in catches of skipjack and yellowfin tuna.

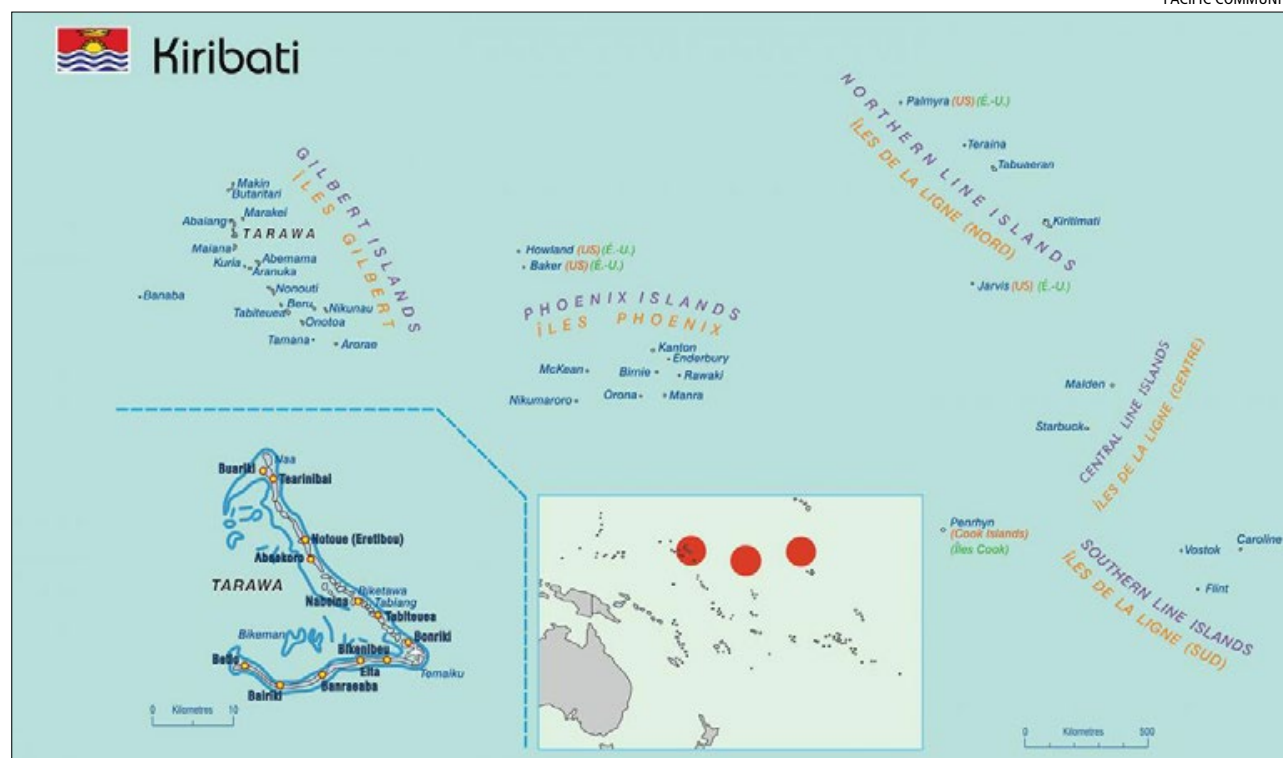
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leaders and residents of the Pacific nation are forging ahead with a number of initiatives to adapt to the potential impacts of climate change and improve the resilience of their communities.

Kiribati comprises 33 islands dispersed over a large area in the Central Pacific Ocean. While its land mass is about 810 sq km, its exclusive economic zone (EEZ), covering 3.6 million sq km, makes Kiribati a “large ocean state”. Its population was over 110,000 in the 2015 Census, 57 per cent of which resides primarily in a peri-urban environment. Kiribati depends heavily on fisheries. A large proportion of the national income comes from fees for tuna fishing licences. However, coastal fisheries support livelihoods and, more importantly, the supply

## **Alternative options**

Given the lack of any alternative livelihood options, marine and coastal ecosystems in Kiribati are increasingly overexploited. Kiribati needs to manage its fisheries sustainably to improve food



Map of the republic of Kiribati. Kiribati is highly vulnerable to the impacts of climate change. Hence it is often being portrayed in the media as a victim of climate change, with low-lying islands being submerged by the rising sea level

and nutritional security. Specifically, the management of coastal fisheries is critical for a population that relies heavily on the resources for its daily intake of protein.

It is not the only country in the Pacific region, however, facing such threats and challenges. As a result, the Heads of Fisheries of the Pacific Island Countries and Territories (PICTS) have committed to give prominence to the sustainable management of coastal fisheries. Pacific leaders and other stakeholders have agreed upon a new framework—'A New Song for Coastal Fisheries – Pathways to Change: The Noumea Strategy'—that establishes a set of principles and outcomes to guide the efforts of governments. In this framework, coastal communities have been identified as the vehicle to drive change. Community-based fisheries management or CBFM, a form of co-management, relies on a set of principles adapted to local contexts and increase the likelihood that coastal communities will have the ability to adapt to change and absorb shocks.

In Kiribati, the intrinsic co-relationship between communities

and the marine environment means that the management of coastal resources by communities is not a new phenomenon. However, increasing population pressure, technology improvement, globalized threats and erosion of traditional ecological knowledge mean that new forms of community-based approaches to fisheries management are needed.

In 2014, the Kiribati Ministry of Fisheries and Marine Resources Development (MFMRD), with the support of the Australian government, piloted a CBFM project. The purpose was to reinvigorate community engagement, giving it a central role in fisheries management with the support of government partners at the national and island levels.

The CBFM project initially worked with five communities. In the first three years, the project worked to build relationships, established a locally acceptable and socially inclusive process of engagement, assisted pilot communities in establishing fisheries management rules and worked with national and island agencies on creating an enabling environment for CBFM.

The project endeavoured to break down misconceptions around CBFM. Early on in the project, communities were sceptical of the sincerity of seeking their input; they doubted whether the national agencies would accept the rules created locally. On the other hand, staff in the national agency questioned the ability of communities to meaningfully be involved and provide accurate information. A number of staff were also cautious as to whether CBFM would mean their job would no longer be relevant if communities were to make management decisions.

Those misconceptions slowly gave way through participation in the project. Knowledge around CBFM principles increased. Government staff had the opportunity to build their capacity on community engagement through “learning by doing”. More

on establishing a process culturally acceptable but ultimately socially inclusive. Traditionally, women and youths might not feel they have an opinion or can voice their ideas. The project found that providing a space to discuss issues of sex or age-based groups before holding joint meetings helped build confidence for all groups to speak up. The legitimacy of the process being approved by community leaders also helped women and youths in their willingness to provide inputs.

Since its pilot stage, the CBFM project has now grown to become embedded in the programmes of the Coastal Fisheries Division of MFMRD. The project has now reached 60 communities in the Gilbert group through information provision to deeper engagement with communities. A subset of communities has established its own set of community rules codified in management plans.

Community rules are locally adapted and include provisions such as banning destructive fishing methods, looking after coastal habitats and creating local marine protected areas. Communities and (sub)national partners exchange knowledge and lessons to gain support for their initiatives. Communities have established their own local structure—namely, village CBFM Committees—to enforce the rules and get advice and support from the national agency to monitor the effectiveness of rules and adapt their management accordingly.

In terms of co-ordination, communities have also sought to get support for their initiatives from their neighbours. In their own words, communities engaged in the CBFM project see themselves as the stewards of the coastal environment and want their actions to be for the benefit of the whole of Kiribati. As a result, information is shared, more communities are getting involved and island-wide CBFM committees have been created to establish a whole-of-island approach to coastal fisheries management. At the national level, MFMRD provides an enabling and supportive environment by including CBFM in its 2019 Coastal Fisheries Regulation. MFMRD also recognises that the management of coastal

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importantly, communities and government staff recognized that through CBFM, each of them have roles and responsibilities. Strong partnerships and dialogue among key stakeholders could only strengthen the management of Kiribati coastal fisheries.

An important aspect of the approach was to build the capacity of communities to come together and act collectively. The project staff established the ‘maneaba approach’ to guide the process. The maneaba is the traditional place where communities come to meet and openly discuss affairs of the village. The project decided to work under the maneaba to give legitimacy to decisions made on coastal fisheries management. The maneaba approach also provided an avenue for respecting the voices of women, youths and other marginalised groups.

The CBFM project works closely with community leaders to gain legitimacy for all voices in a community to be heard and to find guidance



Women's group meeting to discuss management plan under the village maneaba. The maneaba is the traditional place where communities come to meet and openly discuss affairs of the village

fisheries requires perspectives, support and coordination from numerous other national agencies including Environment, Health, Internal Affairs and Women and Youth Affairs. MFMRD established a National CBRM Taskforce to lead those efforts.

Kiribati continues to push sustainable management of coastal fisheries to sustain the supply of fish for food and nutritional security, and to provide resilience to shocks. The initiatives taken by communities continue to be monitored for adaptive management and to increase knowledge and capacity. Although 60 communities in 10 islands have been reached by CBFM in Kiribati, more than 100 communities remain.

Scaling up CBFM is a national and regional priority. Lessons learned and shared through co-ordinated initiatives are fundamental to build momentum and enhance the spread and role of

CBFM in the sustainable management of coastal fisheries nationally, regionally and globally. For instance, the initiative of the government of Kiribati to chair and lead a new Commonwealth Blue Charter Action group on sustainable coastal fisheries provides a timely forum for countries to come together and collectively act to maintain the benefits provided by coastal fisheries worldwide. 📌

#### For more



##### **Vulnerability of tropical Pacific fisheries and aquaculture to climate change. Noumea, New Caledonia**

[https://www.researchgate.net/publication/274440599\\_Vulnerability\\_of\\_Tropical\\_Pacific\\_Fisheries\\_and\\_Aquaculture\\_to\\_Climate\\_Change](https://www.researchgate.net/publication/274440599_Vulnerability_of_Tropical_Pacific_Fisheries_and_Aquaculture_to_Climate_Change)

##### **Fish for the future: Fisheries development and food security for Kiribati in an era of global climate change. WorldFish Project report 2014/47.**

<https://www.worldfishcenter.org/content/fish-future-fisheries-development-and-food-security-kiribati-era-global-climate-change>

##### **Participatory diagnosis of coastal fisheries for North Tarawa and Butaritari island communities in the Republic of Kiribati**

<https://digitalarchive.worldfishcenter.org/handle/20.500.12348/448?show=full>