



Pacific Calling Partnership information sheet

Kiribati: A nation at the forefront of climate change

“Within this century the water will be higher than the highest point in our lands.” Anote Tong, President Kiribati 2014.¹

Overview

The Republic of Kiribati is a low lying island nation in the central Pacific Ocean. It is one of the most vulnerable nations in the world to the effects of climate change.

Kiribati is made up of 32 atolls which barely reach two metres above sea level and one coral island, Banaba. Kiribati’s coral atolls are spread across 3.5 million square kilometres of ocean, but they have a land area of just 810 square kilometres. Just 21 of the 32 long, narrow islands are inhabited. Climate-change induced sea level rise is inevitable. The I-Kiribati, people of Kiribati, already experience waves and tides which damage sea walls, inundate villages and salinate water sources.

History

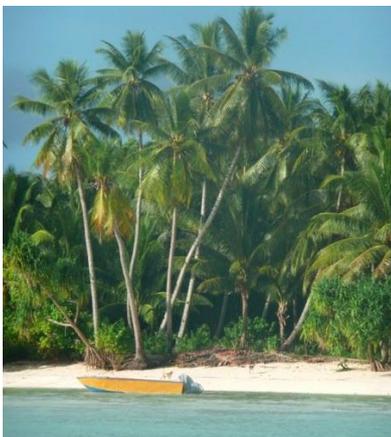
The modern history of Kiribati began with the arrival of Micronesians in the South Pacific in around 500 AD. European contact began in the 16th century with contact from whalers, slave traders and merchant vessels.

The arrival of missionaries in 1857 introduced Christianity which is now an integral part of the Kiribati culture. In 1892 Great Britain proclaimed Kiribati a protectorate and in 1915 it became a Crown colony.

Kiribati became an independent nation in 1979, is a member of the British Commonwealth, the World Bank and the United Nations.

Environment and geography

Kiribati’s islands are strewn across the central equatorial Pacific Ocean and belong to three main island groups, the Gilbert, Phoenix and Line Islands. The country’s marine territory is the size of the Indian continent. Most islands have an ocean shore line and a coastal lagoon. There are no hills or streams.



The infertile soil is thin and calcareous with a low water holding capacity, low organic matter and low nutrient content.

The climate is tropical, marine, hot and humid with frequent droughts. Kiribati is outside the cyclone belt but in 2015 was pummelled by massive waves generated by Cyclone Pam. Rainfall patterns vary considerably from year to year and drought is a constant danger.

People

Kiribati’s population in 2016 is 110,110, an increase of 7,052 people since 2010 census of 103,058 and demonstrating a decline in the growth rate from 2.2% to 1.32%.²

Kiribati has a large young population with 33.9% of the population aged under 15 and dependent on the adult working population. This demographic spread is typical of a developing nation.



Population growth is projected to reach 122,434 by 2020, 178,101 by 2050 and 235,488 by 2090.³ This growth, however, will be affected by climate change induced reduction of available land to live on. Scientists estimate that climate change will wipe out most of Kiribati before the end of the 21st century.⁴

More than half Kiribati’s population lives on the main island of Tarawa.⁵ Tarawa has just 15 square kilometres of available land, three kilometres of which include roads, causeways, the airport and offshore islets.

The problems of a predominantly young population (dependent on adult labour for food, goods and services) are exacerbated by high

¹ Betsy Morais “President Tong and His Disappearing Islands,” June 8, 2014 The New Yorker

² *Census Preliminary Report 2015*, Kiribati Ministry of Finance and Economic Development, 23/3/2016 www.mfed.gov.ki/publications/census-preliminary-report-2015-final

³ Worldpopulationreview.com/countries/Kiribati-population/

⁴ Worldpopulationreview.com/countries/Kiribati-population/

⁵ *Census Preliminary Report 2015*

internal migration with people moving from the outer islands to Tarawa, creating overcrowding and stress on infrastructure.

Economy

The economy depends on:

- A sovereign wealth fund established in 1956 to act as a wealth store for its phosphate mining earnings. (Phosphate mining on Banaba was exhausted by 1979 and rendered the island uninhabitable;)
- A vast exclusive economic zone of 3.6 million square kilometres of ocean which means Kiribati can issue fishing licences to nations such as Japan;
- I-Kiribati employed as seamen on foreign ships who send their earnings home.

There is limited domestic production with copra and fish being the bulk of production and exports. Tourism provides more than one-fifth of GDP. Traditionally, people rely on fish caught locally, seafood gathered from the shore and perennial food sources such as taro, breadfruit, coconut and pandanus.

Kiribati's changing climate

Research by the Pacific Climate Change Science Program, a collaboration between CSIRO, the Australian Bureau of Meteorology and the Kiribati Meteorology Service, shows that Kiribati will experience increasing temperatures, changes to rainfall, ocean acidification, more extreme weather events and sea level rise.⁶

It predicts that

- there will be a large increase in the number of very hot days and warmer nights with longer droughts.
- an increase in rainfall over the region with more intense storms and heavier rainfall.
- by 2055 sea level will rise 9 to 25 cm under a low emissions scenario or 10 to 29 with high emissions.

A small example of what can happen: In 1997, Kiritimati Island was devastated by El Niño, which brought heavy rainfall, a half-metre high storm surge and surge inundation. Some 40 per cent of the coral was killed and the 14 million bird population, reputed to be the world's richest, deserted the island.⁷

Threats to water and food

Long before the islands are inundated by rising seas, they will become uninhabitable due to a lack of fresh water. I-Kiribati rely on fresh water from

lenses (wells) which are under a dual threat from salt water: Sea water inundation from above during high tides and storms surging over the landscape and seeping into the water lenses; and salt water underlying the lens mixing with the fresh water above it during storms.

Food sources are badly affected by increased salinity. Coconut and pandanus tree populations, a crucial part of the I-Kiribati diet, will decline due to loss of land from inundation and erosion.

Degradation of coastal ecosystems is causing a decline in shell fish, crustaceans and fish.



A former babai (taro) pit on the island of Abaiang, - destroyed by salt water intrusion.

Climate change is not the only threat to Kiribati's future. Unsustainable and often short term aid and development strategies have led to fragile environments becoming even more fragile. For example, the poor design and lack of maintenance of solid waste containment structures has led to adverse health consequences.

Fish, the key food resource in Kiribati, is also a crucial renewable resource, which could provide a path towards development. Fish stocks however, are being threatened not only by increasing acidification and warming of the seas, but also by over-fishing and illegal fishing by international fishing boats, the licensing for which provides many Pacific Island countries with a large portion of their GDP.

Shaping the Future

Pacific Island nations need more finance to adapt to the adverse effects of global warming and to manage the funds effectively to benefit their most vulnerable communities.

Most importantly, civil society and vulnerable communities must be able to hold governments accountable for the use of adaptation finance, and governments must play a leadership and coordinating role to mobilise a broad response across Pacific societies based on a common aim to build resilience.⁸

⁶ Australian Bureau of Meteorology & CSIRO, 2011 Climate Change in the Pacific: Scientific Assessment and New Research, Vol 1.

⁷ <http://thecommonwealth.org/our-member-countries/kiribati#sthash.UdYSJgaj.dpuf>

⁸ OXFAM (2012) 'Owning Adaptation in the Pacific' Nic Maclellan Lead researcher <http://www.oxfam.org.nz/reports/owning-adaptation-pacific-strengthening-governance-climate-adaptation-finance>