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Inclusive, Sustainable, Prosperous and Resilient Health Systems in Asia and the Pacific

INSPIRE Health Forum

7-11 July 2025 • A Hybrid Event

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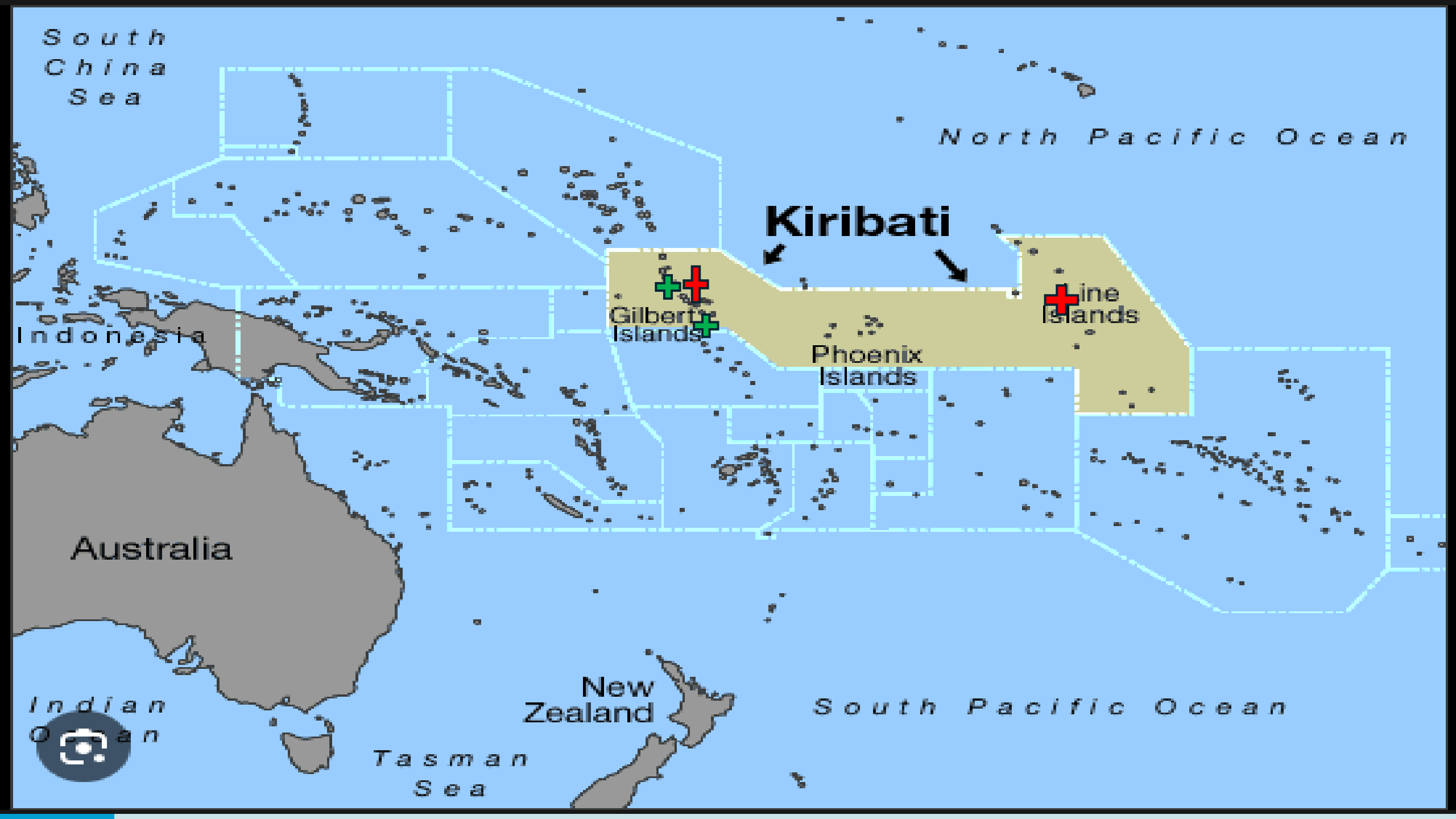
Climate Impact on Betio Hospital: Rising sea levels and extreme weather events

Mrs. Benny Teuea

Secretary, Ministry of Health and Medical Services, Kiribati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Gilbert Islands
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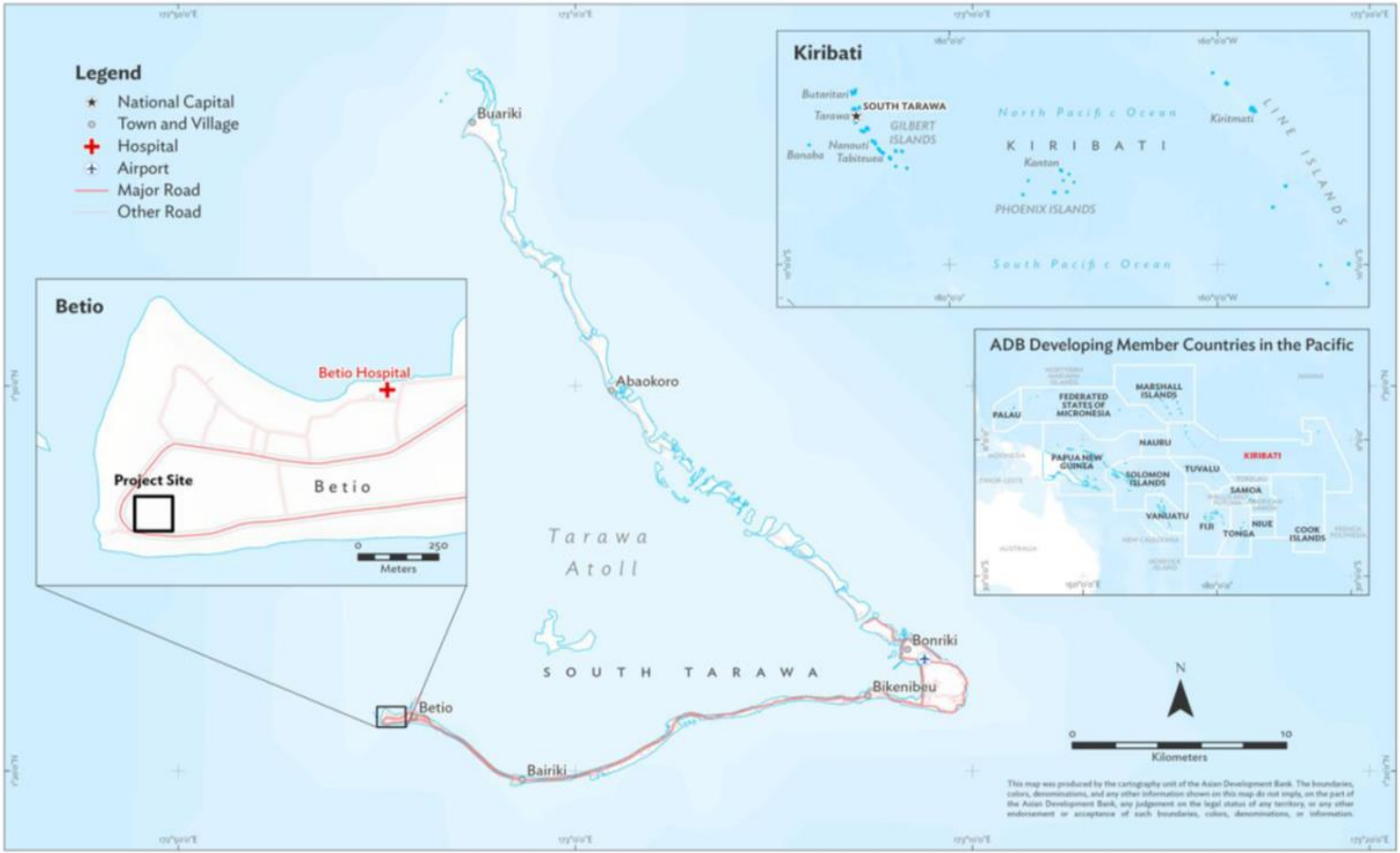
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ADB Developing Member Countries in the Pacific
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Kiribati

- Low-lying island nation.
- Population of around 120,000+
- 33 coral atolls and islands, of which 22 are inhabited.
- Land area of just over 800 square kilometers.
- Highly vulnerable to rising sea levels and climate change, including ocean acidification.
- 2m (7ft) highest point on main atoll, Tarawa, which is home to more than 50% of the Kiribati population.

Healthcare

- Tarawa, the main island of Kiribati, is home to more than 50% of the population and has 2 major hospitals – Tungaru Central Hospital and Betio Hospital
- The thin atoll of Tarawa faces increasing impact of climate change from droughts, cyclones, high tides, and changing weather patterns.
- Escalating the risk of noncommunicable diseases (NCDs), mental health, injuries, and infectious and waterborne diseases.
- Most health facilities (including the BHUs – Basic Health units) are deteriorating, posing significant risks to infection prevention and control (IPC)

Overview of the current Betio Hospital

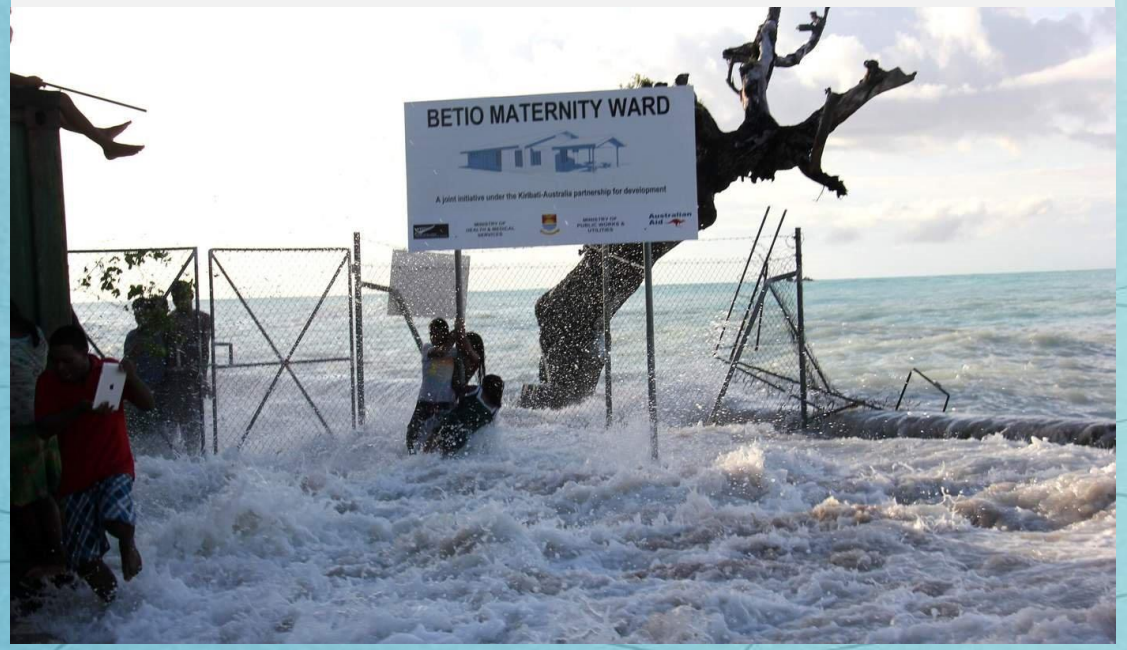
Health Services

30+ bed facility that provides inpatient general medicine, maternity and birthing, respiratory diseases, and outpatient clinics supported by visiting specialized staff.

There are no facilities for conducting surgical procedures

The buildings are in poor condition and not fit for purpose.

BH serves one of the most densely populated areas, 15,000 inhabitants per square kilometer.



Population Served

Betio Hospital serves a population of over **35,000 people (at 15,000/km2)** and is a vital lifeline for the community in providing healthcare services.

Challenges Faced

Betio Hospital faces many challenges in providing healthcare services, particularly in the context of climate change, such as **flooding, rising sea levels, wave action, coastal erosion and storm surges** are negatively impacting the hospital's ability to provide care to patients.

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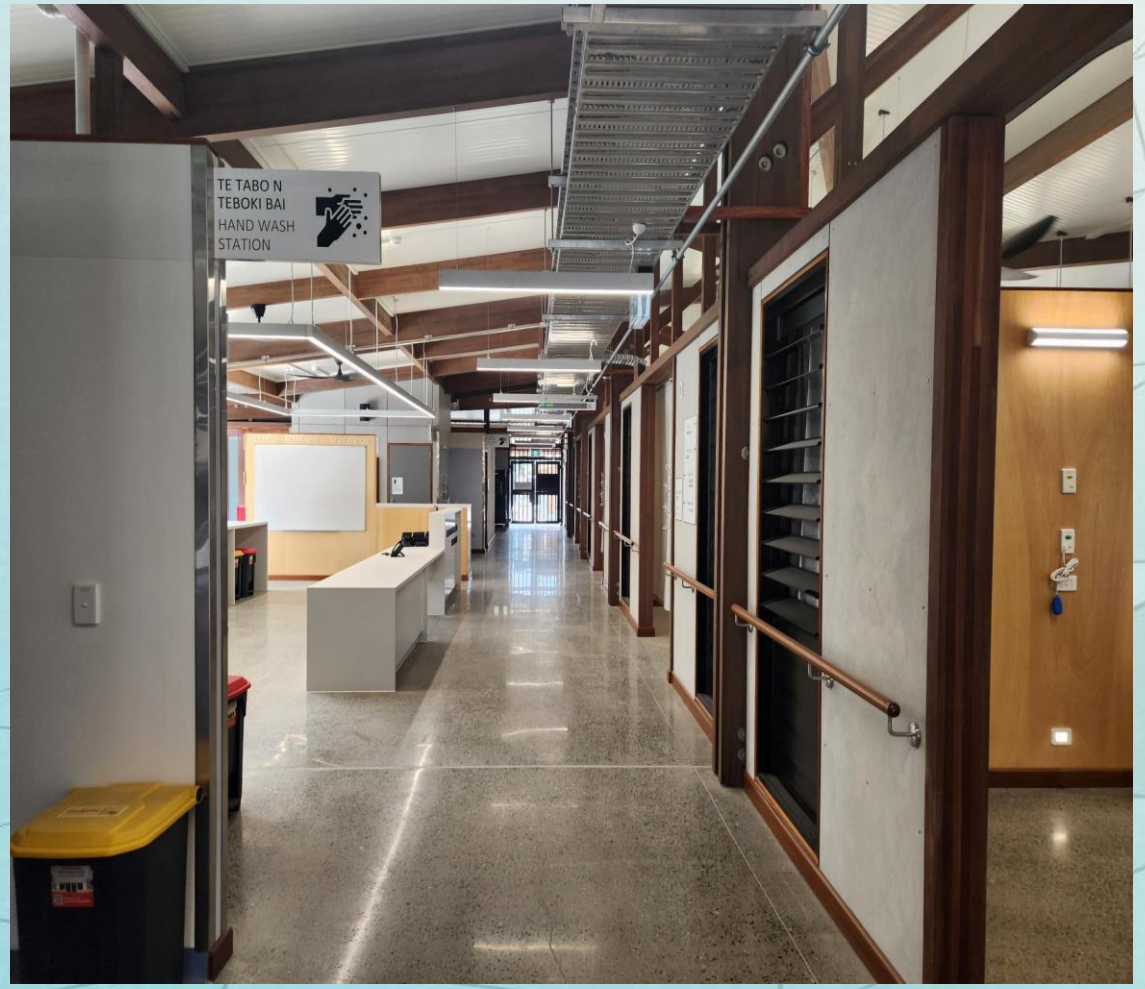
Challenges for Betio Hospital

Rising Sea Levels	Coastal Erosion & Inundation	Increased Flooding
Water Security	Saltwater Intrusion	Clean Water Supply at Risk
Infrastructure	Structural Damage	No Expansion Capacity
Disaster Preparedness	No Evacuation Routes or Points	Access Disruption During Flooding
Inadequate Protection Measures	Seawall is Insufficient	Ongoing Exposure

Climate-Smart Upgrades for New Facility

- **Flood and Climate Resilience:** Hospital relocated to higher ground with a raised foundation (4.6m), elevated utilities, and storage of medical equipment above flood level to protect against storm surges and sea-level rise.
- **Sustainable Infrastructure:** Use of climate-resilient construction materials, natural ventilation, and thermal-efficient design to reduce power consumption.
- **Emergency Preparedness:** Back-up generators and fuel tanks elevated on concrete plinths, with multiple access points and elevated evacuation routes for safe egress.
- **Water Security:** Adequate water storage and rainwater harvesting systems included in the design.
- **Inclusive Design:** Features for persons with disabilities (PWDs) and designated meeting points for coordination during emergencies.


TE TABO N
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HAND WASH
STATION

Way Forward: Making the Health Sector in Kiribati Climate Resilient

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New Hospital by Late 2027
Includes radiology and surgical departments; will serve as Betio's primary hospital.

Climate-Resilient Design
Inland, elevated location protects against storm surges and flooding.

Low-Carbon Infrastructure

- Improved ventilation and energy-efficient medical equipment
- Ready for solar panel installation
- Contractors required to track carbon emissions during construction

Improved Access & Equity
Local facility eliminates need to travel 1 hour to referral hospital; reducing emissions and improving access.

Strengthened Health System

- Training in infection prevention and control (IPC) to combat climate-related disease
- National standards to include climate resilience and infrastructure adaptation