



# Climate Resilience

The need for climate-resilient  
health care facilities  
in the Pacific



The **Fred Hollows**  
Foundation NZ

The island nations of the Pacific region stand at the frontline of the climate crisis. Along with the environmental damage it brings, climate change is also impacting economies, societies, livelihoods, and the health and wellbeing of the region's populations, with women, girls and people living with disability disproportionately affected.

## Climate change and the Pacific region

Global sea levels are rising at a rate never before seen. And the situation in the Pacific is more alarming than anywhere else.

Since 1993, sea levels in the western Pacific have risen at almost twice the global rate, and the incidence of coastal flooding has dramatically increased.

Severe storms and cyclones are also having an increasingly damaging effect on the region. In 2023, multiple extreme storm and flood related events across the Pacific resulted in more than 200 deaths and impacted 25 million people.

The populations of the Pacific are experiencing some of the most damaging effects of climate change.

## How the climate crisis is impacting the region's eye health

Climate change continues to be the biggest health threat facing humanity<sup>1</sup>. The World Health Organization (WHO) states that populations in vulnerable countries such as Pacific nations will be more disproportionately impacted – with eye health being increasingly affected.

1. <https://www.un.org/sites/un2.un.org/files/2021/08/fastfacts-health.pdf>

### Climate-related issues that are accelerating eye health problems include:

**An increase in UV exposure**, which increases cataract cases.

**A rise in airborne pollutants**, such as from traffic, which increases cases of allergic eye diseases associated with macular degeneration and glaucoma.

**More frequent and increasingly extreme weather events**, causing more eye injuries.

**Increased vitamin A deficiency** due to food insecurity, which can lead to blindness.

## Protecting health care facilities in the face of climate change

Climate change poses a significant threat to healthcare facilities and services across the Pacific.

In 2020 the WHO released its Guidance for Climate-resilient and Environmentally Sustainable Health Care Facilities (CRESHCF) to address this growing issue. It notes that, to enhance the climate resilience of health care systems in countries particularly vulnerable to climate change, four key areas must be addressed:

- **health workforce capacity**
- **water and waste management**
- **sustainable energy systems**
- **resilient infrastructure.**

Climate change interrupts healthcare delivery in countries where health systems and infrastructure are typically limited or fragile. Issues such as blackouts and water shortages are already disrupting vital eye care surgeries and consultations – so it is increasingly important that health facilities are designed to be sustainable and constructed to withstand progressively severe weather events.

At the same time, these facilities themselves can contribute to climate change, which is why we are working to make them both more resilient, and to significantly reduce their carbon emissions.

## The Fred Hollows Foundation NZ: Supporting sustainability

The Foundation strives to ensure our work is climate-resilient and minimises environmental harm. Our focus aligns with the four keys areas listed by WHO as necessary for enhancing the climate resilience of healthcare systems and reducing emissions.

Some of this work includes:

**The Pacific Eye Institute, Fiji**, is cyclone-proofed and has energy-efficient lighting. The building also includes anchoring fittings to secure the Mobile Eye Clinic when it is stationed in Suva during extreme weather events.

**The Madang Eye Clinic in Madang, Papua New Guinea**, is built with durable materials designed to withstand cyclonic winds and earthquakes. It is powered by a solar system and utilises rainwater during water shortages.

Timber used to construct the **Regional Eye Centre in Honiara, Solomon Islands**, was renewably sourced. The building was designed to withstand cyclonic winds, and has a pre-finished metal roof and wall cladding to ensure maximum durability and minimal maintenance. With solar panels, rainwater capture and sewage treatment systems on-site, the REC operates entirely off-grid.

**The Building Community-level Climate Resilience Project** is designed to perform a climate impact assessment on three eye clinics in the Pacific region (Papua New Guinea, Solomon Islands and Vanuatu), which have implemented climate-proofing upgrades. The impact assessment will provide health and climate change stakeholders with a vital evidence base for climate-proofing in the Pacific region. The overall goal of the project (which has been funded by the New Zealand Ministry of Foreign Affairs and trade, and partners) is for communities and health care facilities to have enhanced resilience and adaptation to the impacts of climate change.





## **The Centre for Eye Health: A new climate-resilient facility in Papua New Guinea**

Due to open in 2026, the new Centre for Eye Health in Port Moresby has been designed to be a climate-resilient and environmentally sustainable facility. This two-level building will harvest rainwater and use rooftop solar photovoltaic technology and battery storage for energy. These measures decrease the building's environmental impact and improve its self-reliance, increasing its ability to continue functioning even in the face of extreme weather events and associated issues such as blackouts.

A high-performance façade and shading, low-flow sanitary fittings, and natural, demand-controlled ventilation further strengthen the Centre's capacity to adapt to a changing climate. The building will also have reduced CO2 output and use significantly less energy than comparable constructions.

The Fred Hollows Foundation NZ is firmly committed to supporting the Papua New Guinea Government in ensuring the country's healthcare infrastructure is climate resilient, part of the Government's overarching Strategic Plan.

**Your investment today can help make lasting change a reality and ensure climate resilience for eye health care in Papua New Guinea.**

**Pledge now to help forge a future with vision.**

If you would like to know more, please contact Stephne Vaughan on [svaughan@hollows.nz](mailto:svaughan@hollows.nz) or call **(+64) 21 460 196**.



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