PNGAus Partnership

INCENTIVE FUND

Building a more climate and disaster-resilient Papua New Guinea

The Incentive Fund supports organisations seeking to build quality, sustainable and resilient social and economic infrastructure for Papua New Guinean communities. We encourage organisations to incorporate climate change and disaster risk reduction measures into project designs so that they contribute to a prepared and resilient Papua New Guinea.

Why consider climate change and disaster risk?

Papua New Guinean communities are experiencing the impacts of climate change through changing weather patterns that affect all aspects of society, including food and income security. Climate change exacerbates the frequency and intensity of natural hazards such as extreme temperatures, excessive rainfall and associated flooding, droughts and storms. The benefits of building climate-resilient infrastructure include increased asset life, more reliable service provision and reduced repair and maintenance costs, and extend to climate change mitigation, such as biodiversity conservation and reduced emissions, as well as providing benefits for health and livelihoods.

As one of the most disaster-prone countries in the world, Papua New Guinea frequently experiences disasters caused by natural hazards, including earthquakes, volcanic eruptions, tsunamis, tropical cyclones, river and coastal flooding, landslides, bushfires and droughts. The impacts of these disasters on communities can be reduced with proper infrastructure planning and design. For example, building to withstand a cyclone or earthquake, or planning for a building to be used as emergency shelter in times of disaster.

Importantly, the impacts of climate change and natural hazards are different for different people, with women and people with disability and other marginalised groups often the most vulnerable. When we plan, design and build infrastructure that can reduce or manage the impacts of climate change and disaster risks, we build communities that are resilient and able to adapt to current and future risks.

At the Incentive Fund, we are committed to ensuring that projects we support are contributing to a strong, resilient Papua New Guinea that can prepare for, adapt and respond to climate change and disasters.

Infrastructure, climate change and disaster risk

Climate change and natural hazards affect infrastructure in different ways. They also influence the design and demand for infrastructure and the services provided. Examples include:

- Higher temperatures result increased demand for air conditioning and water.
- Larger dams or tanks might be needed to store more water during longer dry periods.
- Increased frequency and severity of flash floods means infrastructure must be built to ensure people and assets are protected.
- Rising sea levels pose a risk to existing infrastructure,communities, businesses and the natural environment and must be considered when designing any new projects in coastal locations.
- Damage to infrastructure during a disaster can disrupt services such as electricity, water, phone and internet. Planning for this at the design stage can build preparedness and resilience.

How can we build more climate and disaster-resilient infrastructure?

Climate and disaster-resilient infrastructure is achieved through the consideration of climate and disaster risks throughout the project lifecycle – planning, design, construction and operations. This includes:

- Design and build infrastructure so that it reduces the risks associated with natural hazards such as earthquakes, tsunamis/king tides, strong winds, flash floods, landslides and droughts.
- Build infrastructure that can reduce the impact of severe climatic events.
- Plan for disruptions due to infrastructure damage and ensure response plans are in place.
- Consider locations to avoid or minimise exposure to natural hazards.
- Consider design elements such as solar power, hydro power, desalination plants and water tanks that will enhance resilience to climate change and natural hazards.

How do we support organisations to consider climate change and disaster risk reduction?

The Incentive Fund has a range of resources and tools to support organisations in their grant applications, as well as in-house climate change and disaster risk reduction expertise. Our team is available to work with organisations at different stages of the grant application process and provides the following support:

- Work with organisations to ensure they understand the Incentive Fund's requirements for climate change and disaster risk reduction.
- Review project proposals to ensure climate change and disaster risk reduction has been adequately considered and incorporated.
- Review project designs and support partner organisations throughout construction and project completion to ensure compliance with relevant Papua New Guinean and Australian standards.
- Work with organisations to refine aspects of design, construction and operations to ensure opportunities to reduce disaster risks and adapt to climate change risks are maximised.

Tapini secondary school benefits from hydroelectricity and water supply

An Incentive Fund's PGK7.4 million grant to Tapini District in 2005 was a game-changer for the community, as it provided the necessary funding for an integrated development program that paved the way for numerous infrastructure improvements. These included the re-establishment of the hydroelectricity supply, upgrading the town water system, installation of a standby generator, and upgrading the community's electricity reticulation system. Thanks to the hydroelectricity supply, students at the Sacred Heart Secondary School - Tapini were able to access ICT learning and, in 2019, the Australian Government funded a PGK1.5 million ICT laboratory to support STEM skills and drive innovation. Furthermore, in 2024, the Sacred Heart Secondary School - Tapini received another PGK10.18 million in funding from Australia's

Incentive Fund to upgrade existing facilities and provide high-quality secondary education to students in the district. These developments have had a significant impact on the community, reducing the challenges associated with access to clean water, sanitation and electricity.

The Incentive Fund is an Australian Government competitive grants program that seeks to improve social and economic development outcomes that benefit Papua New Guinean communities. Funding is available for organisations seeking to implement high-quality, social and economic infrastructure and other projects. Projects should be designed to improve the provision of essential services and/or strengthen local economies, and be inclusive of all Papua New Guineans, including women, girls, and people with disabilities.

For more information, visit:

www.incentivefund.org

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Australian Government

Australia is working in partnership with Papua New Guinea to enable improved economic growth and service delivery.