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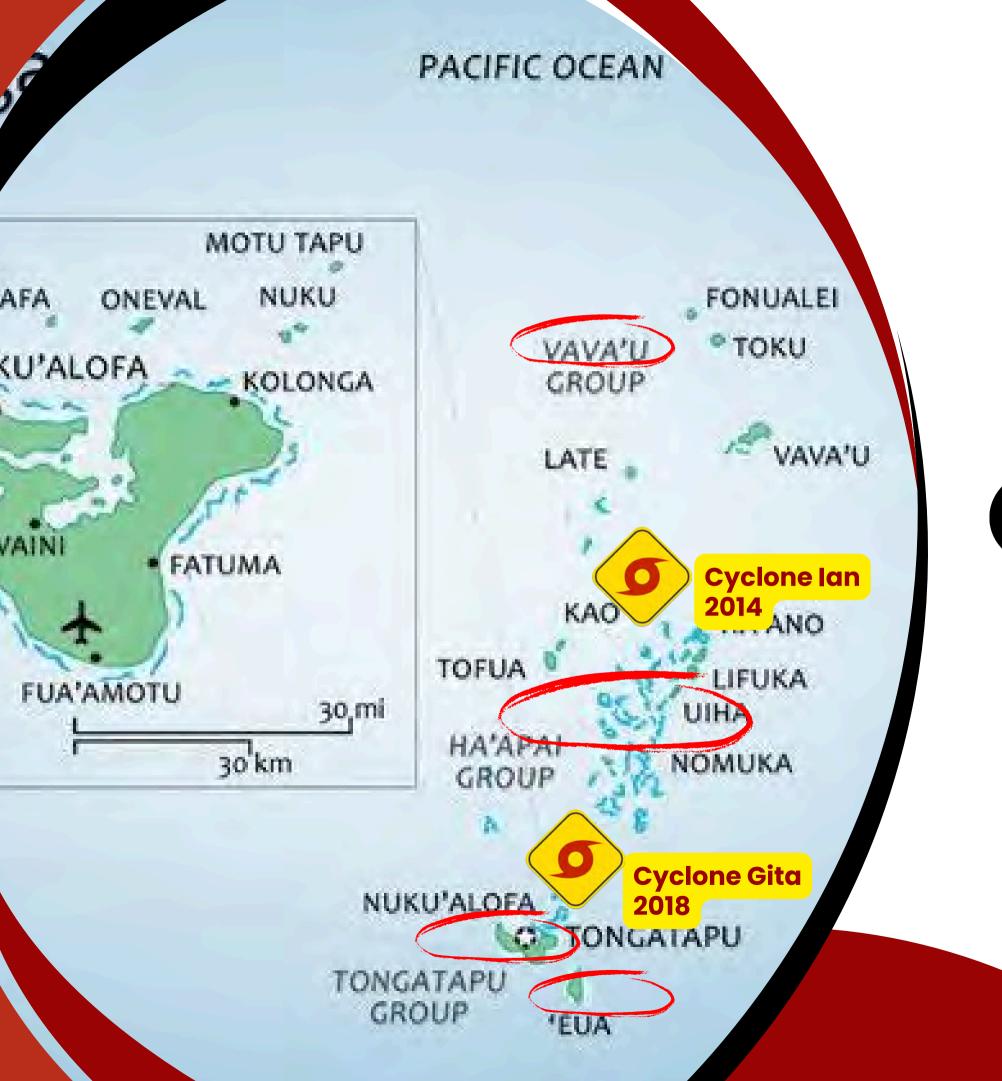


CLIMATE & DISASTER RESILIENT RECOVERY

ADB WEBINAR- JAN 2025



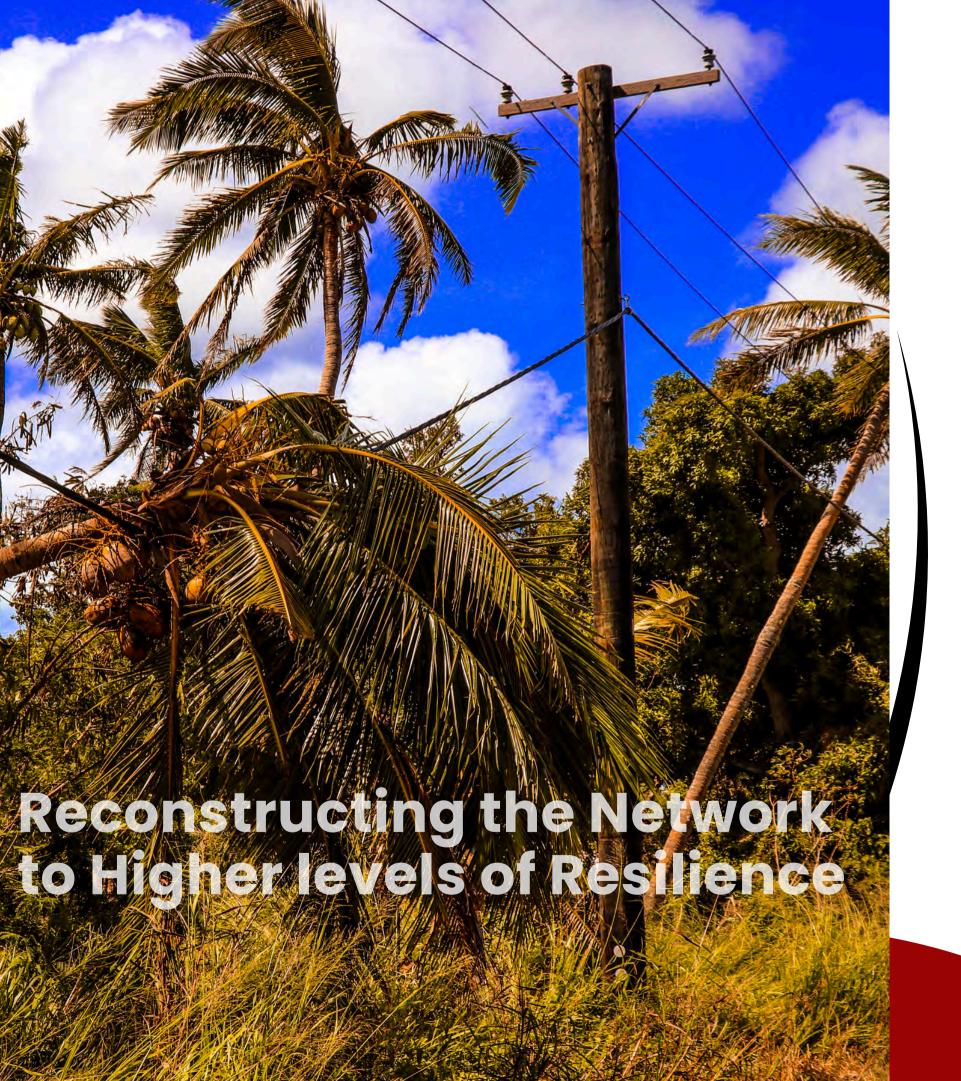




- Tonga is located in the South Pacific with 4 main island groups and 176 island groups of which 36 is habited approx. 100,000 inhabitants
- Tonga is considered one of the most vulnerable countries to natural disasters and climate change, often ranking very high on the list, with some reports placing it as the third most at-risk nation globally; this is primarily due to its exposure to threats like volcanic eruptions, tsunamis, earthquakes, and tropical cyclones.
- Status of Power Distribution Infrastructure in disarray and prone to natural disasters with high line losses approx. 18-20% and unreliable power supply due to ageing distribution asset structure from the 1970's

Tropical Cyclone Impact

- TC Ian (2014): Category 5 storm, destroyed 90% of the Ha'apai power network. Reconnection efforts took approximately 3 weeks to restore power to the majority of customers.
- TC Gita (2018): Category 4 cyclone, caused widespread damage in Tongatapu and 'Eua. Damage to the power network left many areas without electricity, and reconnection efforts took approximately 5 weeks to restore power to the majority of customers.
- TPL's recovery journey is guided by the principle of "Build Back Better" (TODAY)



- Photo taken post TC Harold in 2020..2 years later since TC Gita
- Resilience and Robustness of the Recovery journey since 2018 is evident in the way Tonga has combated recent cyclones & natural disaster
- Reduced line losses from 18-20% to 9% in 2020

Key Resilience Initiatives

- Transitioned to underground service lines to customers homes and critical facility infrastructure especially CBD Area which consist of majority of TPL's customers
- Replaced overhead lines from an open wire standard to bundled aerial conductors to enhance climate resilience.
- Bundled aerial conductors are more durable during cyclones, reducing the risk of conductor clashing and outages caused by high winds. Additionally, they lower the likelihood of damage from flying debris, enabling faster restoration and minimizing disruption.



- Promoting gender inclusion strengthened TPL's recovery efforts and project implementation
- Approx about 18% of women in the Project teams in technical roles Aiming to reach 20% by end of year

Key Actions

- Women actively participated in line crews, demonstrating resilience in action and currently progressing forming all female line team
- Increased senior line woman mechanics promotions as part of the Network Upgrade project showing high performance of women in the team Aswell as working collaboratively with the linesman
- Increase in interested females taking up technical studies in the local technical institutions which reflects a good awarness and opportunities in technical roles in Tonga.



- **Strategic Disaster Budgeting:** Prioritize disaster preparedness in annual budgets to ensure stockpiling of essential resources like repair kits, spare parts, and materials, enabling rapid response.
- **Pre-Positioning of Resources:** Strategically locate critical materials and equipment near high-risk areas to reduce response times during disasters.
- Continuous Training and Capacity Building: Invest in training line crews and staff for emergency response, improving efficiency during recovery efforts.
- Leveraging Partnerships: Collaborate with regional and international partners such as ADB for funding, technical assistance, and knowledge-sharing. In order to meet affordability goals donors, play a key role in bridging this gap
- Community Engagement: Ensure transparent and consistent communication with local communities during disaster recovery efforts. Share regular updates on recovery progress, planned outages, and timelines for reconnection to build trust. Engage communities in planning processes to align recovery initiatives with their needs and expectations.



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