



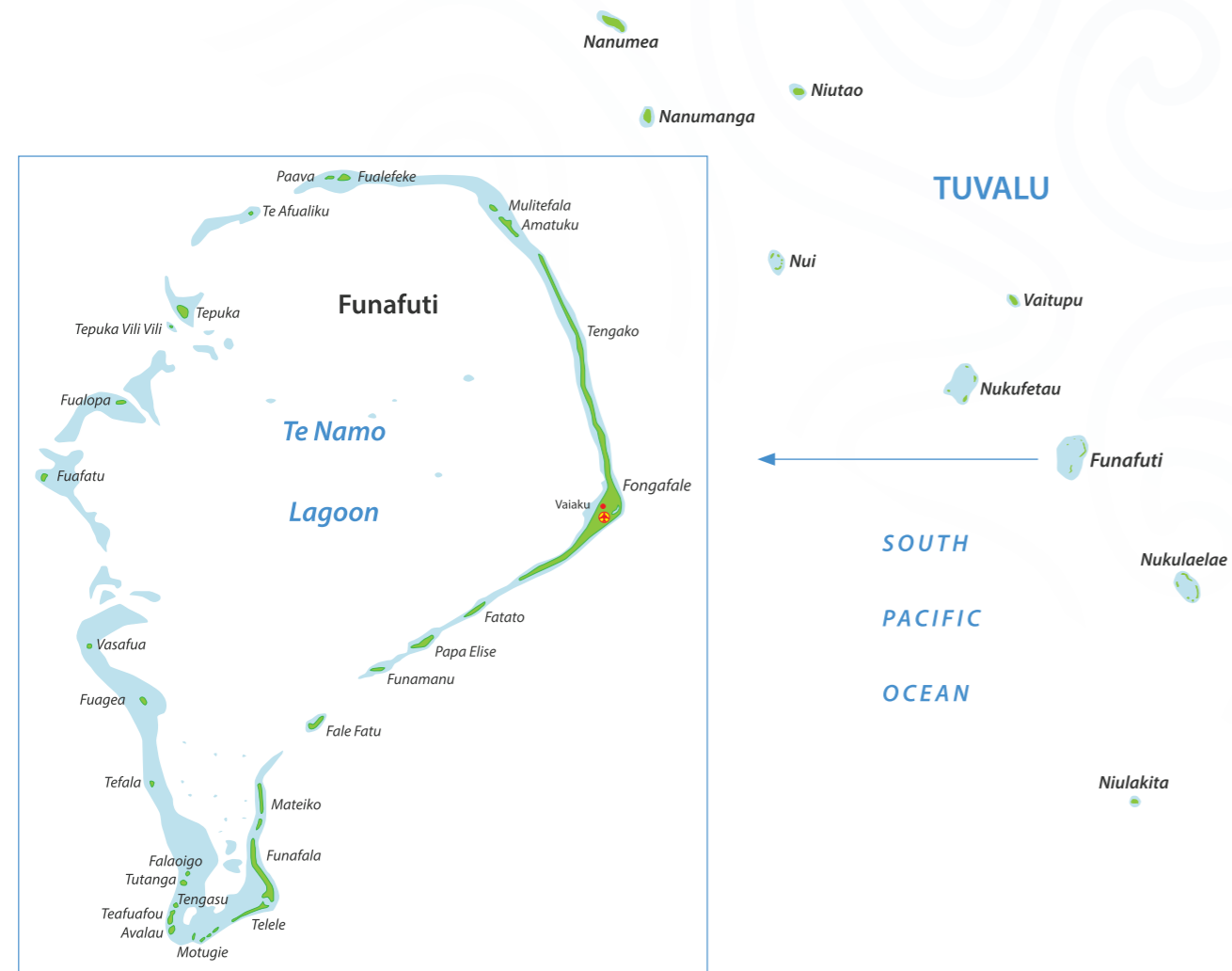
TUVALU

CLIMATE SECURITY RISK ASSESSMENT PROFILE

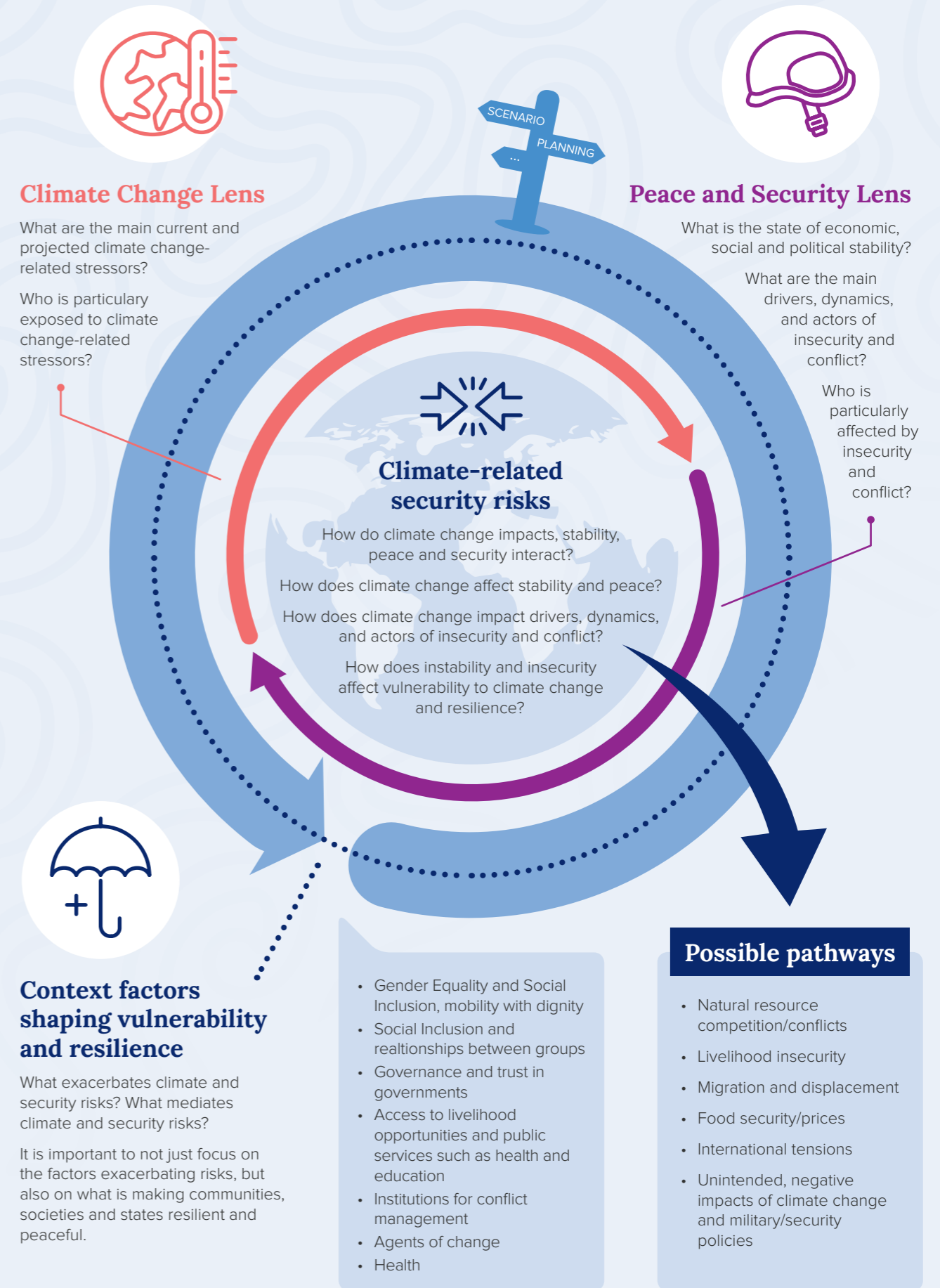
Overview

Security in the Pacific context takes on a more varied form from security's more traditional conceptions. While traditional concepts of security remain important in this context, the region is unique for expanding that concept to be inclusive of other, no less consequential risks. That conception has been shaped and crafted through various country and regional level initiatives, statements, and declarations, which have collectively embedded **climate change as the single greatest threat** that Pacific Island Countries and Territories (PICTs) face.

This climate security risk assessment for Tuvalu is meant to improve understanding of climate-related security risks in the country. It is the first of its kind of assessment for Tuvalu and provides an in-depth understanding of the security implications of climate change. It does so by **identifying key climate security concerns** that affect Tuvalu, which are presented through five interlocked and interacting pathways. Using these pathways, the document aims also at formulating the means to respond to them: the overarching **entry points** aim to support Tuvaluan stakeholders to respond to climate-related security challenges.



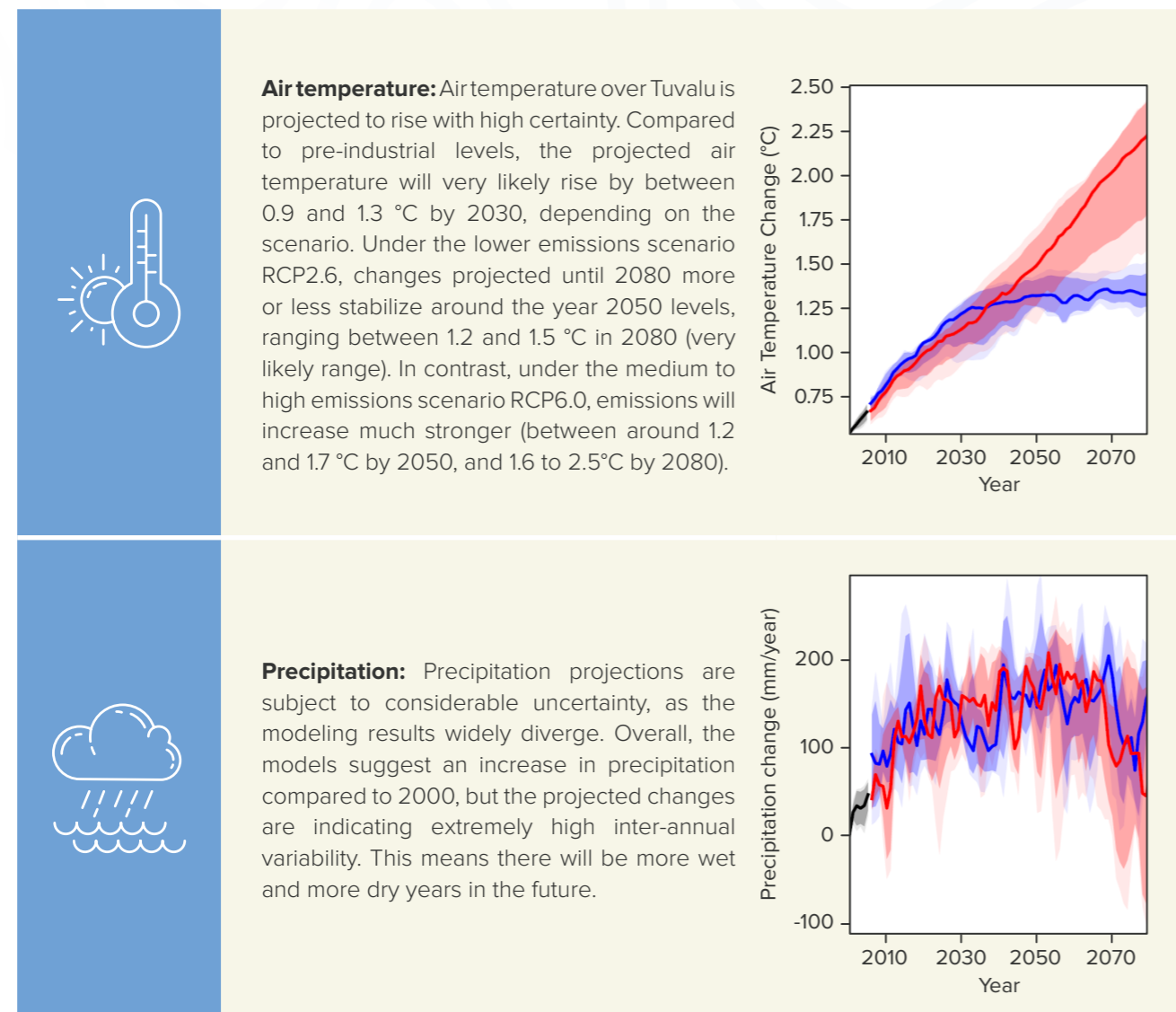
The climate security analytical framework developed by the think-tank Adelphi outlines the interactions between climate change and security through different lenses.



Climate Risks

The following climate change projections provide an overview of climate change impacts in Tuvalu under two different climate change scenarios¹: **RCP2.6** represents a **low emissions scenario** that aims to keep global warming likely below 2°C, and **RCP6.0** represents a **medium to high emissions scenario**.

**Please note that, due to complexities and challenges in predictions, uncertainties remain high.*



How to read the line plots

- historical
- RCP2.6
- RCP6.0
- best estimate
- likely range (central 66%)
- very likely range (central 90%)

¹ The climate-modelling community has developed four Representative Concentration Pathways (RCPs). The four RCPs span a large range of future global warming scenarios. RCPs are space and time and dependent trajectories of future greenhouse gas concentrations and different pollutants caused by different human activities. This assessment only focuses on RCP2.6 and RCP6.0

Pathways

This section identifies and explains how climate change impacts livelihoods, politics, and society and contributes to insecurity. To do so, five key and interrelated climate security pathways for Tuvalu have been identified.

**Please note that the findings are provisional and the pathways are still being finalized.*



LAND, WATER AND FOOD SECURITY: Climate change in Tuvalu is already leading to **land issues**, a commodity that is in short supply. **Sea level rise, coastal erosion, and more intense storms all affect land.** Land change has significant consequences for the **well-being and human security** of Tuvaluans. Food and water are **doubly threatened** due to other climate risks, including drought and high interannual rainfall variability. Together, land, water and food insecurity threaten not only the **health and well-being** of Tuvaluans but also **societal stability** more broadly.



CHALLENGES TO THE BLUE ECONOMY: Climate change's various impacts, in particular changing oceans, and weather patterns, directly **threaten vital economic sectors** in Tuvalu. **Oceanic and near-shore fishing**, and their associated **subsistence and economic activities**, as well as agriculture, are most at risk. In an already **vulnerable economy** like Tuvalu's, one characterized by a **small market, poor physical and digital infrastructure**, and heavy **reliance on food and energy imports**, such a threat is considerable. The human consequences could be profound, including **reduced livelihoods and resilience** of citizens, and a **reduction of government revenue and capacity**. Such consequences can exacerbate existing fragilities with concerning **societal implications**.



CLIMATE INDUCED MOBILITY: Mobility has always been an aspect of Tuvaluan life, offering both **opportunities and challenges**. Mobility, either international or internal, can help individuals find new livelihoods, gain new education opportunities, or respond positively to challenges, including those brought on by climate change. Mobility doesn't come without risks, however, which in the Tuvaluan context can range from **overcrowding and tensions** in receiving areas to feelings of **'placelessness'** among those who have left. **Environmental and climate pressures** are increasingly acting as a **push factor** for migration in Tuvalu, which is mainly happening internally from the outer islands to the capital. As climate change impacts increase, the risk-benefit balance may shift in the wrong direction unless **supportive measures**, including planning and foresight, are taken.



CLIMATE-RELATED DISASTERS: Tuvalu is **highly vulnerable** to climate induced hazards, including **tropical cyclones, storm tides, flooding, and droughts**. Tuvalu's low-lying geography and **limited individual and state capacity** to manage, prevent and respond to disasters **exacerbate its vulnerability**. Human-induced factors also contribute to **vulnerability**, including **insufficient urban planning and mal-adaption** practices. Disaster risks can directly impact the **security of communities and individuals** harming people and leading to **loss of life and assets**, while increasing risks for negative impacts on **mental health** and exacerbating **gender inequality**. If disaster preparedness, response and recovery are ineffective or unfair, **perception and trust in government can be undermined**. These all put pressure on near-, medium- and long-term **social and political stability**.



TERRITORIAL INTEGRITY AND REGIONAL COOPERATION: The impacts of climate change, in particular sea-level rise, challenges the **traditional concept of statehood** for Tuvalu as well as the country's own **identity**. Key risks include **rising sea levels threatening territory** important for maintaining maritime baselines and increased coastal erosion or floods and storms that could make islands **uninhabitable**, forcing a move internationally in worst-case scenarios. Regional cooperation remains robust, including through the Leader's "Declaration on Preserving Maritime Zones in the Face of Climate Change-related Sea-Level Rise". However, given the geopolitical backdrop characterized by increasing geostrategic powerplay in the region, regional cooperation could be undermined as countries are increasingly pulled into geostrategic contests. Perhaps more than any other climate risk, threats to identity and territorial integrity reach the very heart of state and regional security and are therefore a key climate security risk.

Entry points

The following entry points and suggested actions provide actors with concrete support in two main ways: helping to outline how interventions can address climate security concerns, and what activities can be concretely undertaken in support. By supporting the how and the what, Tuvaluan actors are given a comprehensive framework to ensure that the security implications of climate change are mitigated and prevented through a more targeted and comprehensive approach.

** Please note that the findings are provisional and the analysis are still being finalized.*

Target vulnerable communities and make sure no one is left behind: Given the **unequal impact of climate security risks on different groups**, interventions should target those **most vulnerable and ill-equipped** to confront the climate security risks. **Women and girls** are particularly vulnerable to climate insecurity and regularly face domestic violence. Strong efforts have been made to target this group, including strategies and policies, but a **more concerted effort** to actualize strategies and policies on the ground will be critical. **Urban poor**, in particular **migrants and youth**, and **outer island communities** often lack the resources and **land** and are particularly affected **by food and water** insecurity, leaving them vulnerable to disasters and other climate impacts. Given the disparate nature of these communities, sensitivity and specificity are paramount to effective intervention.

Improve knowledge, capacities and communication to inform action: To address the security implications of climate change, **detailed and context-specific information** is vital. In addition, **better and more available climate data and climate models with higher resolution** reinforce the evidence base that decision-makers can and should draw from. The findings of this assessment should be **integrated** throughout the **policy and strategy** landscape and be designed in the Tuvaluan context. Furthermore, the relevant framework and architecture governing crucial sectors, such as national policies and frameworks, should be updated and upgraded. To ensure measured and cautious communication is disseminated, specific capacities and technical expertise on climate-related security risks have to be developed **on local, national and regional levels**. These include capacities and knowledge to undertake climate security **analyses and to design and implement integrated programming** to address the multidimensional nature of climate-related security risks.

Avoid mal-adaptation and mitigation through climate, conflict-sensitive and peacebuilding approaches: Adaptation and mitigation activities are important to address and manage the **worst effects of climate change on human security** in Tuvalu. To avoid mal-adaptation, responses need to be sensitive to their context and especially focused on **gender, conflict prevention, peacebuilding, and climate sensitivity**. Activities around **mobility, land reclamation, infrastructure development, gender and disaster relief** should be especially considered. Context-specific approaches which consider and harness **Tuvalu's culture, history, political, social, and environmental traits** should be prioritized. Activities that carry **high risks** such as deep-sea mining or soil dredging should be assessed very carefully. Actions that have **livelihood benefits** while increasing resilience against climate change and reinforcing **social cohesion and relationships** must be prioritized. **Tracking** where and how climate, security, and development finances are spent should also be reinforced, given increased perception by citizens of **unfair aid distribution** which could lead to grievances.

Improve land, water, and food security: Interaction between **land, water and food** is a very pressing risk for communities which needs to be addressed. How this play **out differs geographically**, between outer islands and urban islands and between **people and groups**, such as women, men, youth and other stakeholders, including the church, Kapule or state. For example, **land** remains a central issue in **Funafuti** islet while in outer islands **food and water security** is threatened by shrinking landmass and more catastrophic waves, tides, floods and droughts take precedence. However, in all instances, these **three compounding climate security risks** are highly relevant in terms of **insecurity and instability** and must be targeted with a broad range of interventions. Not only does that mean adopting strategies and activities which bolster against land loss or ameliorate food and water insecurity, but also **conflict mitigation measures** must be in place to allow for the resolution of conflicts borne from these compounding risks.

ENTRY POINTS



NEXT STEPS: This preliminary summary report outlines the key findings and priorities to be addressed in Tuvalu in relation to the security implications of climate change. The final report will be available in January 2023 to support the government of Tuvalu and its partners to better prepare for and respond to climate security challenges through informed decision-making.



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 undp.org/pacific/projects/climate-security