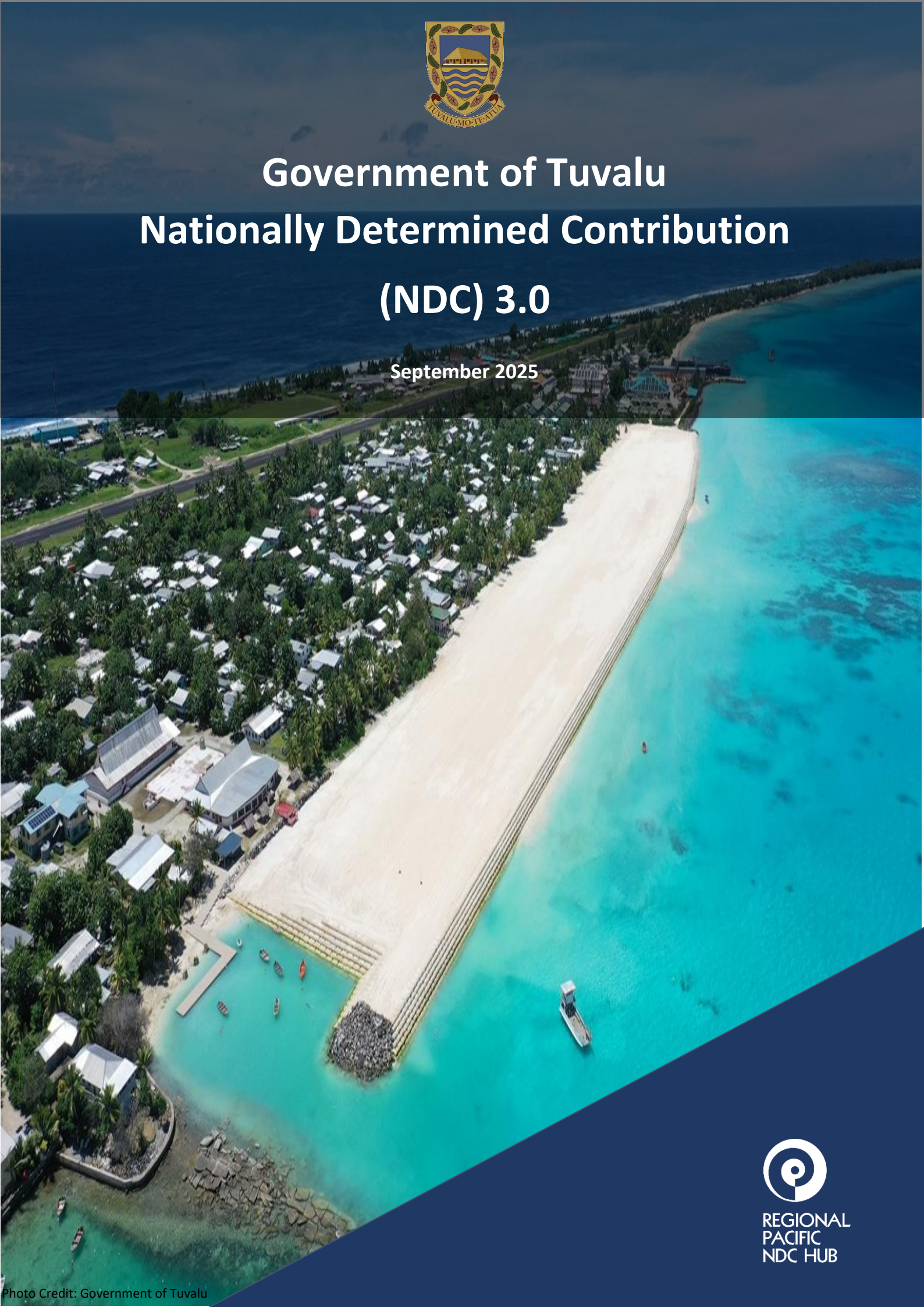
Government of Tuvalu
Nationally Determined Contribution
(NDC) 3.0

September 2025



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Contents

Acronyms and abbreviations

ADB	Asian Development Bank
AFOLU	agriculture, forestry and other land use
CDP	Committee for Development Policy
CH_4	methane
CMA	Conference of the Parties serving as Meeting of the Parties
CO	carbon monoxide
CO_2	carbon dioxide
CO_2e	carbon dioxide equivalent
COP	Conference of the Parties
COVID-19	Coronavirus
DOCK	(SIDS) DOCK is a United Nations-recognised international organisation established in 2015. SIDS DOCK represents 32 small islands and low-lying developing states across the globe and is so named because it is designed as a DOCKing station.
DWM	Department of Waste Management
EEZ	exclusive economic zone
ESMAP	Energy Sector Management Assistance Program
EU	European Union
FASNETT	Facilitation of the Achievement of Sustainable National Energy Targets of Tuvalu
GCF	Green Climate Fund
GDP	gross domestic product
GEF	Global Environment Facility
Gg	gigagram
GHG	greenhouse gas
GNI	gross national income
IDA	International Development Association
INDC	Intended Nationally Determined Contribution
IPCC	Intergovernmental Panel on Climate Change
IPPU	industrial processes and product use
J-PRISM	Japanese Technical Cooperation Project for Promotion of Regional Initiative on Solid Waste Management in Pacific Island Countries
kL	kilolitre
km	kilometre
km^2	kilometre squared
KSA	Key Strategic Actions
kVA	kilo Volt Ampere
kW	kilowatt
LDC	Least Developed Country
L-TAP	Tuvalu Long-term Adaptation Plan
m	metre
MFAT	Ministry of Foreign Affairs and Trade
MTET	Ministry of Transport, Energy, and Tourism
MW	megawatt
MWh	megawatt-hour
N_2O	nitrous oxide
NAP	National Adaptation Plan
NAPA	National Adaptation Programme of Action
NDC	Nationally Determined Contribution
NMVOC	non-methane volatile organic compound
NO	National Outcomes
NO_x	nitrous oxide

NSAP	National Strategic Action Plan for Climate Change and Disaster Risk Management
^{o}	degree
PV	photovoltaic
SIDS	Small Island Developing State
SNC	Second National Communication
SO_2	sulphur dioxide
SPREP	Secretariat of the Pacific Regional Environment Programme
Te Kaniva	Tuvalu National Climate Change Policy 2012–2021
Te Kete	National Strategy for Sustainable Development 2021–2030
TISIP	Tuvalu Infrastructure Strategy and Investment Plan 2016–2025
UN	United Nations
UNFCCC	United Nations Framework Convention on Climate Change
USD	United States dollar

Foreword

For Tuvalu, climate change is not a distant threat; it is a relentless reality that erodes our cultural heritage and threatens to silence our sovereignty beneath the rising waves. From the shores of our nine islands, we issue this document not merely as a national plan, but as a profound statement of resilience. This Third Nationally Determined Contribution (NDC 3.0) of Tuvalu is our updated pledge in the global fight against climate change.

This enhanced commitment is the product of our collective national vision, guided by the principles of *Te Kete: National Strategy for Sustainable Development 2021–2030* and the actionable framework of the *Te Vaka Fenua o Tuvalu National Climate Change Policy 2021–2030*. These foundational documents steer our path, ensuring that our climate actions are inextricably linked to our sustainable development, the preservation of our culture, and the wellbeing of our people. In line with this integrated approach, we are pioneering adaptation strategies to secure our land and water, and we are steadfast in our transition to 100% renewable energy, demonstrating that even the smallest nations can lead with ambition.

However, our efforts, though unwavering, are fundamentally insufficient against a challenge we did not create. Our survival is contingent on the ambitious actions of major emitters and the fulfilment of promises made by the international community. Access to adequate and predictable climate finance is not a negotiation point; it is a lifeline essential for implementing the vision of *Te Kete* and *Te Vaka*.

This NDC 3.0 is therefore both a blueprint and a testament. It outlines our path to a more resilient and sustainable future, affirming our deep connection to our land and ocean. We call upon every nation to match our ambition with unprecedented global action. The fate of Tuvalu is a test for all of humanity. Let history record that we did not fail it.

Hon. Maina Vakafua Talia, PhD
Minister of Home Affairs, Climate Change and Environment (MHACCE)

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The development of Tuvalu's NDC 3.0 has been led by the Climate Change Department of the Ministry of Home Affairs, Climate Change and Environment under the guidance of the Director of Climate Change Department, Mr Jamie Ovia, and supported by the Third National Communication/Biennial Transparency Report Coordinator, Ms Joanna Latasi. Special thanks to the SPC team, Mr Sagaitu Konusi, Dr Noim Uddin and Mr Amit Singh.

Sincere thanks are also conferred upon all the national stakeholders and experts who contributed their time to the workshops and consultations and provided valuable insights and expertise into preparing Tuvalu's NDC 3.0.

Introduction

The Government of Tuvalu developed its Intended Nationally Determined Contribution (INDC) and submitted it to the United Nations Framework Convention on Climate Change (UNFCCC) in 2015 and ratified the Paris Agreement on 22 April 2016. When the Paris Agreement came into force on 04 November 2016, Tuvalu's INDC submitted in 2015 automatically became Tuvalu's First NDC. Tuvalu submitted its Updated Nationally Determined Contribution (NDC) on 16 November 2022.

The Government of Tuvalu is committed to the full, effective and transparent implementation of the Paris Agreement in accordance with its provisions and the relevant Decision of the Conference of the Parties (COP) to the UNFCCC serving as the Parties to the Paris Agreement (CMA).

In accordance with decision 1/CP.21, Tuvalu communicates its NDC 3.0 under Article 4 of the Paris Agreement.

In its NDC 3.0, Tuvalu communicates to the UNFCCC:

- Tuvalu commits to the reduction of greenhouse gas (GHG) emissions from the electricity (power) sector by 100%, i.e., almost zero emissions by 2035
- Increase energy efficiency in Funafuti by 30%.
- Tuvalu's indicative quantified economy-wide target to reduce total GHG emissions from the entire energy sector to 80% below 2014 levels by 2035.
- Zero carbon development pathway by 2050.

Tuvalu's mitigation targets outlined in its Updated NDC 2022 reflect a high level of ambition, which Tuvalu remains committed to maintaining in its NDC 3.0. Tuvalu's GHG emissions will be further reduced from the other key sectors, agriculture, and waste, conditional upon necessary technology and finance.

The Government of Tuvalu submits its NDC 3.0 which is the country's highest level of climate communication informed by people, communities, and government stakeholders.[1] All commitments as communicated by Tuvalu through its NDC 3.0 are fully guided by human rights obligations, principles and standards in its development process and will continue the approach throughout its implementation.

Tuvalu maintains its renewable energy targets for electricity generation on the basis that when the renewable energy contribution exceeds 98% or so, the cost of energy becomes a lot flatter, meaning that the increase in renewable energy at this point has marginal benefit and becomes more expensive. Tuvalu looks to maintain these electricity generation, energy efficiency and GHG reduction targets as part of its NDC 3.0.

Overall, GHG emissions reduction from the energy sector takes into account the increasing demand for imported fuels for transportation. Since 1996, the total import of diesel has tripled and only in 2015, a total of 1,402 kL of fuel was used for electricity generation.[2] The increase in demand for imported fuel is directly proportional to economic growth. However, with the addition of renewables to the generation mix, consumption of fuel has steadied to approximately 2,976 kL in 2024.[3] With additional renewable energy for electricity, imported fuels will be freed up for transportation. However, unless there are alternative fuels for transportation, fuel demand for transportation will increase especially for people living on outer islands and as urbanisation continues.

[1] As part of the NDC 3.0 development,

[2] Government of Tuvalu, 2023, Third National Communication to the UNFCCC

[3] Consultations with TEC

Tuvalu's NDC 3.0 also aligns with the Global Stocktake by accelerating renewable energy for electricity generation, advancing towards zero-emission electricity sector by 2030, increasing energy efficiency, and zero-carbon development pathway by 2050. Tuvalu also recognises the principle of a just and equitable transition as essential to the fair, equitable and effective implementation of NDC 3.0.

Tuvalu maintains that the focus of its NDC 3.0 should primarily be mitigation. Tuvalu also recognises the importance of adaptation and loss and damage to combat the existing alarming effects of climate change. In terms of adaptation, Tuvalu's adaptation actions are comprehensively articulated in the Environmental and Social Management Plan 2021, the Third National Communication 2023, the National Climate Change Policy 2021-2030, the National Adaptation Plan[4] and Tuvalu's Long-term Adaptation Plan (L-TAP).[5] The specific actions being communicated in the NAP are also included under the adaptation section of NDC 3.0 as narratives under the key focus areas of the NAP.

Despite Tuvalu's unique national circumstances, Tuvalu has committed to ambitious targets within capacity aligned with principles of the Paris Agreement and the UNFCCC.

Tuvalu's national circumstances

Tuvalu's archipelago comprises of nine small islands scattered over 500,000 km^2 of the western Pacific Ocean between 5° to 11° South and 176° to 180° West. Six out of nine of these small islands are atoll[6] islands (with ponding lagoons) namely Nanumea, Nui, Vaitupu, Nukufetau, Funafuti, and Nukulaelae. The remaining three islands, Nanumaga, Niutao and Niulakita are raised limestone reef islands. Funafuti atoll is the capital of Tuvalu and consists of two main islands – Fongafale and Amatuku. All the islands are less than five metres above sea level, with the biggest island, Vaitupu, having a land area of just over 560 hectares. The total land area is approximately 26 kilometre square (km^2) with an exclusive economic zone (EEZ) of 719,174 km^2.[7] Tuvalu's land reclamation initiative has added a targeted 7 hectares, which has increased the area of Fongafale – the principal islands of Funafuti atoll by 5%.[8] These land reclamation activities are ongoing. The islands are made up of infertile sandy or gravel coralline soil, which limits agricultural development and food security in most places. The island is less than 75 m wide in certain areas, which provides limited space for development.

Climate change poses the most serious threat to the security and survival of Tuvalu. Tuvalu is the world's second lowest-lying country[9] with most areas barely exceeding 3 metres above sea-level, sea-level rise poses a fundamental risk to its very existence. Tuvalu's geography makes it susceptible to the impacts of climate change, given that the highest elevation is less than 4.6 metres above sea level and may vary across the nine atolls depending on local socio-economic and cultural context. Storm surges, king tides, and floods are common occurrences and have intensified due to changes in weather patterns and sea-level rise (estimated at about 5 millimetres/year and estimated to be up to 0.97 m in next 100 years).

Sea level rise has generated particular concern since all human settlements and development of Tuvalu is effectively coastal and is thereby vulnerable to coastal inundation and erosion. Furthermore,

[4] In partnership with SPREP, Department of Climate Change is developing Tuvalu's National Adaptation Plan (2022-2025). Tuvalu NAP will include medium to long-term adaptation plans and findings from Tuvalu's Climate Impact, Vulnerability, and Risk Assessment (CIVRA). https://www.sprep.org/news/development-of-tuvalu-national-adaptation-plan-progresses-to-next-steps

[5] L-TAP is the first technically feasible, national adaptation plan founded in science and consistent with known sea level rise. The plan is designed to accommodate the national population from across all islands into the capital, safely beyond 2100. https://ocean-climate.org/en/l-tap-tuvalu-long-term-adaptation-plan/

[6] An atoll is a ring-shaped island, including a coral rim that encircles a lagoon.

[7] Government of Tuvalu, 2025, Biennial Transparency Report

[8] https://www.benarnews.org/english/news/pacific/tuvalu-seeks-1-billion-for-land-reclamation-12122023032813.html

[9] Government of Tuvalu, 2023 Third National Communication to the UNFCCC

sustainable supply of freshwater is at risk due to changes in rainfall patterns, lack of rainwater storage capacity as well as potential salinization of ground water due to high sea-level rise. The groundwater table is just 1 to 1.3 m below the surface and is even shallower in some parts of Funafuti.

Tuvalu's vulnerability to the impacts of climate change characterizes it as a 'sinking' nation. Tuvalu has high levels of exposure to both local and abstract climate change stressors. Tuvalu is one of the Pacific Islands countries (PICs) which provided submissions to the International Court of Justice (ICJ). The ICJ delivered its first-ever advisory opinion on the obligations of states in respect of climate change.[10]

Considering Tuvalu's geophysical setting with socio-economic contexts, Tuvalu faces development challenges with its small population size, remoteness, and vulnerability to external shocks such as the COVID-19 pandemic and accelerating economic hardship by natural disasters such as the Category 3 tropical cyclone which hit Tuvalu in January 2020, as well as king tides which happen annually in Tuvalu, usually flooding low-lying areas. The 2024 king tide flooded and damaged parts of the main road of the islands, pushed rocks on the land, inundated homes and crops. To safeguard communities from severe climate and natural disasters, Tuvalu and Australia have signed the Falepili Union.[11]

Tuvalu's socio-economic context

Tuvalu faces numerous vulnerabilities across various sectors due to its unique geographic and socio-economic characteristics. Fongafale Islet – a sliver of land 12 km long and between 10 m and 400 m wide, hosts the capital of Tuvalu, and is home to over 50% of Tuvalu's population of 9,748 as of 2025.[12] The other islands are sparely populated, and some reefs are inaccessible to large boats. Fongafale is also the location of Tuvalu's hospital, primary school, a branch campus of the University of the South Pacific, radio station, main port, international airport, power and water utilities, and most businesses. Tuvalu's Maritime Training Institute is located in Amatuku, the other island of Funafuti.

Social life in Tuvalu is dominated by the family, island community and church. Tuvalu's guiding social principles include *fakalogo* (obedience), *ava* (respect), *fakamaoni* (integrity), and *alofa* (love, caring and the sharing of resources).

Tuvalu is a Least Developed Country (LDC) as well as a Small Island Developing State (SIDS). Tuvalu faces unique social, economic, and environmental vulnerabilities. However, since the publication of Tuvalu's First NDC, the Committee for Development Policy (CDP) of the UN Economic and Social Council recommended deferring Tuvalu's graduation from LDC status to developing country status in 2024.[13] This is due to unprecedented socio-economic impacts during the COVID-19 pandemic, which impacted Tuvalu's economy due to closure of borders and restrictions in the movement of goods and people as well as immediate threat of climate change and natural disasters.

Tuvalu has a narrow economic base with the fisheries sector contributing up to 60% of the Government's revenue. Other significant revenue sources include sovereign wealth contracts and donor aid. Tuvalu's economy has expanded over the last seven years. As of 2023, Tuvalu has a gross national income (GNI) per capita of approximately USD 8,320.[14] Tuvalu's gross domestic product (GDP) has also increased from USD 38.6 million in 2013 to USD 62.3 million in 2023.[15] Tuvalu's GDP is

[10] https://www.icj-cij.org/sites/default/files/case-related/187/187-20250723-adv-01-00-en.pdf

[11] https://www.dfat.gov.au/geo/tuvalu/australia-tuvalu-falepili-union

[12] https://pacificdata.org/population-dashboard

[13] N2114960.pdf (un.org) https://documents-dds-ny.un.org/doc/UNDOC/GEN/N21/149/60/PDF/N2114960.pdf?OpenElement

[14] GNI per capita, PPP (current international $) - Tuvalu | Data

[15] GDP (current US$) - Tuvalu | Data

dependent on fishing and internet domain licensing fees, remittances and trust fund returns. Tuvalu's exports in 2022 equated to USD 52,128.[16]

Tuvalu remains extremely reliant on imports, particularly food, fuel, and skilled services. Tuvalu's economic diversification is minimal due to Tuvalu's small population and lack of land area and resources. This economic landscape is shaped by the interplay of environmental vulnerabilities, development and climate finance flow, and the persistent challenge of decoupling economic progress and environmental impact. Tuvalu remains heavily reliant on imports. Tuvalu's annual imports totalled approximately USD 33 million in 2022.[17] However, Tuvalu's economy is expected to rebound as growth is expected to increase to 3.3% in 2024.[18]

Tuvalu is highly dependent on imported energy resources, primarily petroleum products. This is due to Tuvalu not having any conventional energy resources. Despite increasing use of renewable energy sources for electricity generation, Tuvalu is heavily reliant on imported fuels for transport (including domestic maritime) as well as household use. High petroleum product prices, fluctuations and supply disruptions have a destabilising effect on business and households, limiting growth and reducing food security, especially in the most isolated outer islands.

Tuvalu's national development priorities

Tuvalu has outlined its overarching national development priorities in *Te Kete: National Strategy for Sustainable Development 2021–2030* (Te Kete). Tuvalu's National Strategy for Sustainable Development Plan is a 10-year plan that focuses on the national vision of 'a peaceful, resilient and prosperous Tuvalu', which is firmly grounded in traditional cultural values and strong Christian faith. Te Kete is a high-level planning and result oriented (*seai ko pati kae ko faiga – not words but deeds*) strategic plan. Te Kete includes five strategic priority areas: the enabling environment for sustainable development; economic development; social development and inclusion; islands and culture; and infrastructure development. These five strategic areas include 20 national outcomes (NOs) and 89 key strategic actions (KSAs). The planning framework that underpins Te Kete requires Government departments to submit annual work plans and budgets that are aligned with the strategic priority areas.

Out of 20 national outcomes, the following outcomes are identified as they appear linked to the increase of GHG emissions over the short term.

- **National Outcome 7** – increasing fisheries contribution to socio-economic development and quality of life is likely to increase GHG emissions from Tuvalu's maritime sub-sector.
- **National Outcome 8** – increasing agricultural productivity, particularly through increasing local food production, including crops and livestock, may increase GHG emission from Tuvalu's agriculture sector.
- **National Outcome 17** – developing and implementing resilient housing and upgrading national building facilities may increase GHG emissions from Tuvalu's energy sector temporarily.
- **National Outcome 18** – improving shipping, networking, and harbour facilities may increase GHG emissions across the energy sector and sub-sectors.

[16] https://stats.pacificdata.org/vis?lc=en&df%5bds%5d=SPC2&df%5bid%5d=DF_IMTS&df%5bag%5d=SPC&df%5bvs%5d=4.0&dq=A..AMT.TB%2BX%2BM._T._T._T.USD&pd=2015%2C&to%5bTIME_PERIOD%5d=false&ly%5bcl%5d=TIME_PERIOD&ly%5brw%5d=TRADE_FLOW%2CUNIT%2CGEO_PICT

[17] https://stats.pacificdata.org/vis?lc=en&df%5bds%5d=SPC2&df%5bid%5d=DF_IMTS&df%5bag%5d=SPC&df%5bvs%5d=4.0&dq=A..AMT.TB%2BX%2BM._T._T._T.USD&pd=2015%2C&to%5bTIME_PERIOD%5d=false&ly%5bcl%5d=TIME_PERIOD&ly%5brw%5d=TRADE_FLOW%2CUNIT%2CGEO_PICT

[18] Tuvalu: Staff Concluding Statement of the 2025 Article IV Mission

- **National Outcome 20** – access to clean water and sanitation may require additional energy as well, which could also be associated with increase in GHG emissions.

Tuvalu has several national guidelines, strategies, plans and policies which also forms part of the national development strategy and have been taken into consideration when developing NDC 3.0:

- **Tuvalu Infrastructure Strategy and Investment Plan 2016–2025 (TISIP)**
  The TISIP plan provides a country-led and prioritized investment plan for Tuvalu's economic infrastructure between 2016-2025. It identifies the investment needs and priorities for economic infrastructure and assess the financial resources essential to support implementation. It covers multiple sectors, including maritime transport, land transport, water and sanitation, waste management, energy, and coastal protection.
- **Integrated Waste Policy and Action Plan 2017–2026**
  This policy and action plan aims to minimize waste being transferred to the landfills and enhance management of hazardous waste while ensuring compliance with Tuvalu's international obligations such as the Basel Convention.
- **Tuvalu's NDC Implementation and Investment Plan 2022**
  Sectors include renewable energy, energy efficiency, transport and other sectors; agriculture, waste and resilient infrastructure.
- **Third National Communication to the UNFCCC (TNC) 2023**
  The TNC provides information on the policies, action and progress on climate change made by Tuvalu and includes the national inventory of anthropogenic GHG emissions.
- **Biennial Transparency Report (BTR) 2025 (to be completed in 2025)**
  The BTR provides an overview of Tuvalu's efforts towards tackling climate change, including progress in achieving the targets set within Tuvalu's NDC.
- **National Adaptation Plan (NAP) (to be completed in 2025)**
  The NAP outlines the short- and long-term adaptation priorities for Tuvalu, including its priority sectors and planned projects for implementation. The NAPs objective is to reduce Tuvalu's vulnerability to climate change with a key component being to integrate climate change adaptation considerations into all levels of national planning and development.

- **Te Vaka Fenua o Tuvalu National Climate Change Policy 2021–2030**
  Te Vaka Fenua o Tuvalu has been developed to respond to the needs of Tuvalu's people. The policy advances Tuvalu's national priorities set out in the National Strategy for Sustainable Development 2021–2030 Te Kete, some of which contribute towards addressing regional and international commitments on climate change.

- **L-TAP: Tuvalu's Long-term Adaptation Plan (2022–)**
  In response to the pressing challenges incurred by the sea-level rise, the Government of Tuvalu with the support of UNDP, has developed L-TAP: Tuvalu's Long-term Adaptation Plan. L-TAP is designed to accommodate the national population from across all islands into the capital safely beyond 2100. It involves the provision of raised land to accommodate staged relocation of people and infrastructure, new and upgraded housing and transport facilities, as well as improved water supply. An estimated USD 1.3 billion is needed to finish it and Tuvalu's chance of avoiding full submergence by mid-century at current emission levels.[19]

Mitigation

Tuvalu, as one of the most vulnerable countries to the climate change, have committed to a zero-carbon development pathway by 2050. Tuvalu's position is that a climate-resilient and low- to zero-carbon development pathway can be achieved without causing negative impacts on communities,

[19] https://www.icj-cij.org/sites/default/files/case-related/187/187-20240814-wri-08-00-en.pdf

nature and the economy. Accordingly, just transition principles are embedded in all of Tuvalu's NDC 3.0 commitments. However, without inclusive planning and careful consideration of socio-economic risks – tailored to the Tuvalu's unique local, national and regional circumstances and development priorities, the rapid transition to low- to zero- carbon future could worsen existing challenges as faced by Tuvaluan communities.

While progress is being made in implementing renewable energy, scaling up and accelerating these efforts (for example, ocean thermal energy conversion, grid integrated solar PV and waste-to-energy) is key to achieving Tuvalu's net zero-emission in the electricity sector. Enhancing energy efficiency for grid stabilisation, along with the introduction of energy efficient appliances, also supports aligning Tuvalu's mitigation ambition with the Global Stocktake.

Greenhouse gas emissions

Tuvalu's latest comprehensive national GHG inventory was prepared in 2025. Data on electricity sector GHG emissions has been updated until 2023. According to Tuvalu's first Biennial Transparency Report (BTR), Tuvalu's total GHG emissions in 2023, excluding removals, were 25.89 kt CO_2e.

Of this total, 15.81 kt CO_2e came from the energy sector (61% of total GHG emissions). Within the energy sector, electricity generation is the largest source of GHG emissions included in Tuvalu's BTR, contributing 7.13 kt CO_2e (45% of the total energy sector GHG emissions). Road transport produced the second-largest share of energy sector GHG emissions, contributing 4.09 kt CO_2e (16% of emissions), while maritime transport contributed only 11% of Tuvalu's energy sector GHG emissions. AFOLU sector GHG emissions include 7.69 kt CO_2e from livestock and 1.14 kt CO_2e from solid waste disposal under the Waste sector. No emissions from the industrial processes and product use (IPPU) sector have been calculated.

Energy

Tuvalu will continue to accelerate renewable energy for electricity generation, which will reduce the demand for fuels to generate electricity. Besides solar PV, other options will also be explored, for example, solar PV with battery storage, wind, ocean tidal energy conversion (once these become available and affordable) and biogas. Alternative transports such as solar-powered e-bikes as well as relevant decarbonisation options in the domestic maritime sector will also be explored.

Large scale energy efficiency improvements will also help reduce electricity demand or fuel use. Combining implementation of renewable energy for electricity generation and improved energy efficiency will not only be cost effective but will ensure that affordable electricity is available to the people of Tuvalu.

Industrial processes and product use GHG emissions from the IPPU sector represent a small share of Tuvalu's total GHG emissions and insufficient information and data prevents the establishment of an accurate mitigation approach.

Agriculture, forestry and other land use

The AFOLU sector contributes around one third of Tuvalu's GHG emissions. GHG emissions mitigation pathway and GHG emission reduction opportunities could be identified based on AFOLU sectoral and

sub-sectoral GHG emission reduction potential and considering Tuvalu's national circumstances and relevant national strategies, including Te Kete and any subsequent work. Tuvalu has early experience in biogas projects which not only produces energy for cooking but also reduces methane emissions from livestock.

Waste

The waste sector contributes 6% of Tuvalu's GHG emissions. On the basis of waste sector's GHG emission reduction potential and taking into account national strategies, including Tuvalu's Integrated Waste Policy and Action Plan 2017-2026, Tuvalu's Infrastructure Investment Plan 2020-2025, and subsequent work, GHG emissions mitigation pathway and GHG emissions reduction opportunities could be identified.

In addition, Tuvalu could initiate ocean-based carbon sequestrations activities especially for nearshore ecosystems such as blue carbon.

Current and planned mitigation actions

Renewable energy

Tuvalu is making steady progress towards its national energy target of achieving 100% renewable energy across all nine islands by 2030. As of 2023, the country is on track with significant integration of solar energy in both Funafuti and outer islands. In the outer islands, 41% of electricity generation is solar-based, while Funafuti has achieved 6%.

The total installed solar-based electricity generation capacity in Funafuti is 1.010 kW[20] supplemented by three diesel-based generators (capacity 750 kVA each) with a combined capacity of 2,250 kVA. In four outer islands, diesel-based generator capacity totals 1,585 kVA, complementing 1,299 kW of installed solar PV capacity. Solar PV systems in three outer islands are currently non-operational. This is because electricity demand is high and solar PV panels alone cannot meet the demand, so diesel generators are being used as standby – especially during the peak demand. However, these non-operational solar PV systems are due to be replaced in 2026.

Tuvalu's renewable energy target is supported by multiple renewable energy projects. However, three out of the 10 solar PV installations in Fongafale are non-operational due to technical issues, including inverter faults, panel cable failures, and underground cable damage (Tofua Pond Floating Solar). Additionally, one solar PV installation has been decommissioned in Fongafale.

To strengthen Tuvalu's energy resilience, three new solar PV projects with integrated battery storage are in the project pipeline with support from development partners. These efforts reflect Tuvalu's commitment to reducing diesel fuel reliance and enhancing energy security in line with its NDCs and national development priorities.

All solar PV electricity generations are grid connected. However, challenges remain. Three of the seven outer islands solar PV systems are non-operational due to battery issues. For the outer islands, there is no plans to increase the size of mini grids at the moment, but urgent maintenance is required for aging solar panels and obsolete battery systems. Tuvalu is focusing on grid's capacity to integrate

[20] Consultation and information shared by TEC on 29 August 2025.

variable solar energy. Technical assessments, including rooftop solar case studies, are being undertaken to address potential integration challenges and inform future infrastructure (transmission, distribution) planning. In addition to this, capacity development on island through existing vocational and tertiary institutions are being considered to ensure continued maintenance of solar PV systems throughout Tuvalu.

Energy efficiency

Tuvalu does not provide specific targets or actions for commercial, institutional, and residential energy use. Despite this, Tuvalu has implemented some energy efficiency projects to support energy sector targets. The Development Bank of Tuvalu started a subsidy scheme for energy-efficient appliances and housing retrofits in 2016. In November 2020, the bank was given financial assistance of USD 38,600 to buffer the bank's existing energy efficiency program. The programme be enhanced and implemented as part of the FASNETT project.[21] The Department of Energy has also been running a quarterly education programme, broadcast on public radio, covering household energy efficiency. The project was completed by the end of 2022. Tuvalu also passed the Energy Efficiency Act in 2016. The Act promotes energy efficiency and legislates control of the import, use, and sale of inefficient electrical appliances.

Priority	Action	Conditionality
High	Accelerating and scaling up deployment of solar electricity generation and battery storage systems across all islands in Tuvalu	Conditional upon access to finance, capacity and technology
High	Enhancing operations and maintenance of existing solar electricity generation and battery storage systems across all islands in Tuvalu	Conditional upon access to finance, capacity and technology
High	Development of local expertise in installation, operations, management and maintenance of renewable and emerging technologies	Conditional upon access to finance, capacity and technology
Medium	Exploring ocean thermal energy conversion (OTEC) technology for electricity generation	Conditional upon access to finance, capacity and technology
High	Enhancing energy efficiency across energy sector through generation, transmission and distribution network upgrades, load despatch systems	Conditional upon access to finance, capacity and technology
Medium	Procuring energy efficient electrical appliances, enhancing sustainable procurement practices and in alignment of Tuvalu's government procurement requirements	Conditional upon access to finance and technology

[21] GEF and UNDP (n.d.), FASNETT. https://info.undp.org/docs/pdc/Documents/TUV/PIMS%205613%20TUV%20FASNETT%20Project%20Document%20Final.pdf;

Transport

Tuvalu's Ministry of Transport, Energy and Tourism (MTET) is implementing an outer islands maritime infrastructure project which involves building and rehabilitating boat harbours on the island of Nukulaelae, Niutao, and Nui, building better maritime facilities to expedite cargo handling and improve the safety and security of vessel and passenger traffic, building capacity to maintain maritime infrastructure, and developing a master plan for future harbour developments.[22] The project is expected to cost USD 13.3 million. An ADB grant funded USD 11.3 million of the project, a GEF grant funded USD 0.5 million, and the remaining USD 1.5 million was provided by the Government of Tuvalu.[23]

Tuvalu has a pilot e-bike program with 12 e-bikes are currently being procured in the country. The total project cost is USD 35,000 including spare parts and training. While this initiative has been partially successful, it faced several challenges, including limitations of solar-powered energy and the lack of standalone charging ports and more effective business model.

Regarding transport sector institutional arrangement, Tuvalu currently lacks a designated land authority, and relevant land policies. Hence, future efforts in this sector may focus on the formulation of appropriate policy and frameworks.

Priority	Action	Conditionality
High	Upgrading boat harbour infrastructure for maritime vessels	Conditional upon access to finance, capacity and technology
High	Enhancement and improvement of existing e-bike programme by ensuring end-of life management of e-bikes	Conditional upon access to finance and technology
Medium	Low-carbon shipping in Tuvalu	Conditional upon access to finance, capacity and technology
Medium	Exploring alternative fuels for diesel powered land and maritime vessels	Conditional upon access to finance, capacity and technology
Medium	Development of a policy for land and maritime transport	Conditional upon access to finance, capacity and technology
High	Transition from two-stroke to four-stroke engines for community fishing vessels, public-private-community partnerships when addressing transition in maritime transport	Conditional upon access to finance, capacity and technology

[22] ADB (2020), Proposed Grant for Second Additional Financing Tuvalu: Outer Island Maritime Infrastructure Project. https://www.adb.org/sites/default/files/project-documents/48484/48484-005-rrp-en.pdf;

[23] https://www.rnz.co.nz/international/pacific-news/318864/improved-maritime-facilities-for-tuvalu-outer-islands

Medium	Development of strategy to effectively, equitably and sustainably minimise imports of land transport vehicles by ensuring sustainable management of end-of-life of vehicles	Conditional upon access to finance, capacity and technology

Waste

Tuvalu is currently facing challenges in terms of collection, classification, recycling and reuse of waste. Wastes are pilling in current dumpsite including organic, inorganic as well as construction and e-wastes (white goods) and vehicles that have broken down. Waste collection is currently dependent on garbage trucks as collection trucks are not working. In the absence of shredding machines, bulk organic wastes are also piling up at the dumpsite. Besides challenges due to inefficient machines at the dumpsite, Tuvalu lacks maintenance and would require skillsets in the country and challenges in regard to access to required spare parts.

Tuvalu's Integrated Waste Policy and Action Plan 2017–2026 outlines strategic goals and actions to support waste management in Tuvalu. These included introducing waste reduction and resource recovery programmes, improving waste collection services on the outer islands, and creating, amending, and updating laws, regulations, and policies to support waste reduction.[24] The Plan also includes an activity to undertake a baseline survey of existing waste conditions and services and regular collection of data.

Work undertaken by Tuvalu's Department of Waste Management (DWM), SPREP, and the J-PRISM project has improved solid waste collection and the capture of sector data, such as the amount of solid waste sent to the landfill daily.[25]

Priority	Action	Conditionality
High	Exploring opportunities for waste-to-energy through small scale biogas production	Conditional upon access to finance, capacity and technology
High	Development and maintenance of ongoing composting programmes for organic waste	Conditional upon access to finance, capacity and technology
High	Enhancing data collection methods of solid waste and maintenance of data collection equipment	Conditional upon access to finance, capacity and technology
High	Exploring opportunities to deal with e-waste	Conditional upon access to finance, capacity and technology
High	Improvement and enhancement of hazardous waste management	Conditional upon access to finance, capacity and technology

[24] Tuvalu Integrated Waste Policy and Action Plan 2016 https://tuvalu-data.sprep.org/system/files/Tuvalu%20Integrated%20Waste%20Policy%20%26%20Action%20Plan.pdf

[25] PRIF (2019), Tuvalu: Waste Audit Report. https://tuvalu-data.sprep.org/system/files/Tuvalu%20Waste%20Audit%20Report_2019_Final%20v1.1.pdf; SPREP (2019), Tuvalu Waste Audit. https://tuvalu-data.sprep.org/data-dashboard/tuvalu-waste-audit-october-2019

High	Circular economy concepts and implementation – separation, recycling, reuse and reduce of waste by processing scrap materials and producing appropriate building materials in Funafuti	Conditional upon access to finance, capacity building and technology

Agriculture, forestry and other land use

Currently no chemical fertilizer is being used in Tuvalu. The agriculture department is working on several initiatives that align with adaptation in crop sector, for example, agroforestry upscaling in outer islands, and coconut, dalo, breadfruit and banana rehabilitation programs. Additionally, the agriculture department is working on a sector plan and investment plan to guide and finance different activities.

As of 2019, there were 40 biogas digesters in Niulakita, Nukulaelae, Nukufetau, Vaitupu, Nui, Niutao and Funafuti under the EU initiative of Adaptation to Climate Change and Sustainable Energy Community-based Schemes – Tuvalu.[26] In addition to this, a donation from the Israeli government consisting of 20 biogas systems, is currently being tested by the Department of Agriculture.

Priority	Action	Conditionality
High	Scaling up and accelerating financing for existing domestic biogas systems programme	Conditional upon access to finance, capacity and technology
High	Exploring opportunities to utilise manure from piggery waste to support biogas production	Conditional upon access to finance, capacity and technology
High	Appropriate species plantations in reclaimed lands	Conditional upon access to finance, capacity and technology
High	Scaling up agroforestry sites in outer islands	Conditional upon access to finance, capacity and technology

Adaptation

Current and planned adaptation actions

Tuvalu's adaptation actions are articulated in national documents, such as the National Adaptation Programme of Action (NAPA) 2007, Third National Communications, National Strategic Action Plan for Climate Change and Disaster Risk Management 2012–2016, and the National Climate Change Policy 2021–2030. These are then consolidated under Tuvalu's NAP.

Tuvalu's NAP outlines priority sectors that are aligned to the *Te Vaka Fenua o Tuvalu: National Climate Change Policy 2021–2030*. These priority sectors are listed below:

- **Coastal protection and human settlements**

[26] https://www.spc.int/updates/news/2019/05/forty-biogas-digesters-installed-in-the-islands-of-tuvalu-bring-community

- **Critical infrastructure**
- **Food security**
- **Human health and wellbeing**
- **Water security**
- **Disaster risk reduction and management**

Tuvalu's NAP document outlines the specific actions for each of these priority sectors. The NAP identifies 101 adaptation activities, including 66 which are currently underway and 35 new or pending actions. An additional 22 enabling activities focus on institutional strengthening, capacity building, and policy reform. In this NDC 3.0 document, narrative information for the priority sectors will be provided whereas all specific actions can be found under Tuvalu's NAP.

In addition to these priority sectors under the NAP, Tuvalu further communicates new sectors under its NDC 3.0 including education, oceans and loss and damage, the actions and information for these sectors will be articulated in the sections below.

Coastal protection and human settlements

"Coastal protection and human settlements - Tuvalu's coastal environments are protected from rising sea levels and the impacts of climate change"

Tuvalu's coastal zones and human settlements are a key priority due to the severe impacts of climate change that Tuvalu faces through rising sea levels. The systematic protection of Tuvalu's coastal communities is vital in ensuring ancestral homes to local communities and coastal maritime ecosystems are safeguarded. Active community involvement in managing coastal resources, exploring nature-based solutions and implementing ecosystem-based adaptation to protect settlements from inundation are key factors in ensuring these safeguards. The long-term objective is to implement a managed adaptive pathway that secures existing land, protects cultural heritage sites, and ensures safe, planned living environments for all communities.

Critical infrastructure

"All Tuvaluans have access to safe, reliable and climate-resilient critical infrastructure."

Tuvalu's NAP strategy also centres on fortifying the nation's critical infrastructure to ensure continuous service delivery under climate stress. Fortifying essential services, ensuring airports, hospitals, and government buildings can withstand intensifying storms and king tides is essential to ensuring day to day life for Tuvalu and its people continue unhindered. The goal is to guarantee all Tuvaluans undisrupted access to clean energy, reliable transportation, and modern communications, even during extreme weather events.

Food security

"Tuvalu's household food security is enhanced through climate-resilient agricultural practice and Tuvalu's marine biodiversity is protected and ocean resources sustainably managed"

Rising salinity in the soil and warming ocean currents challenge the traditional ways of feeding local communities. Promoting climate-resilient agricultural practices, such as salt-tolerant crops and hydroponic gardens, to enhance household nutrition can help enhance food security for the country. Similarly, strengthening the sustainable management of ocean resources to protect marine biodiversity is just as critical. Elevating food security as a key priority area under the NAP ensures that Tuvalu will address this issue through a climate lens.

Human health and wellbeing

"Existing health sector planning and response to climate-induced health risks are enhanced"

A changing climate brings new health risks, from waterborne diseases after floods to heat stress and malnutrition. Mainstreaming climate change adaptation into the national health sector to mitigate emerging climate-induced health risks and enhancing public health capacity for disaster response are under this key focus area. The planned outcome is a resilient health system capable of protecting population health and ensuring the psychosocial wellbeing of Tuvalu's people.

Water security

"All Tuvaluans have access to safe, clean and undisrupted water supply from climate-resilient water sources"

Freshwater becomes increasingly scarce as droughts lengthen, and saltwater contaminates Tuvalu's underground water lenses. Addressing water security requires a strategic shift towards integrated water resource management to guarantee a reliable supply. Every family, on every island, must have access to a safe, clean, and reliable water supply with an end goal of ensuring a climate-proof water supply network that provides equitable safe water across all the islands.

Disaster risk reduction and management

"Tuvalu's disaster preparedness, response and recovery systems are strengthened to minimize impacts to human lives and livelihoods from climate-related disasters"

Tuvalu is looking to develop a proactive, whole-of-society disaster risk management framework focused on preparedness and resilience. Ensuring communities are well versed on early warning systems and evacuation procedures are essential to developing this responsiveness. Strengthening Tuvalu's national systems for preparedness, response, and recovery ensure local communities can bounce back immediately from sudden and onset climate events.

Education

In Tuvalu, the current focus is on integrating climate change into school curricula and national education framework, along with incorporating traditional knowledge into community-based education and awareness initiatives, for example, climate change and its relationship with biology and oceans. There is ongoing capacity development under the Tuvalu-Australia cooperation program, in which teachers undergo technical training on different climate change thematics. Current work includes cooperation with University of the South Pacific centre in Tonga with emphasis on traditional knowledge and ocean literacy.

There is a need to develop local capacity building and skillsets in renewable energy as well as overall mitigation and adaptation strategies. Additional education focus areas are – biodiversity, early warning systems, disaster risk reduction; sustainable development, vulnerability and adaptation; and engineering aspects of renewable energy into the broader curriculum. Tuvalu's Environment Protection Act 2022 refers to educational campaign – especially on pollution control. Under the Falepili Union, Australia's development cooperation program in Tuvalu addresses education among others.[27]

Priority	Action	Conditionality
High	Integrate climate change education into school curricula at all levels, from primary to secondary education. Develop age-appropriate materials and teaching resources to raise awareness and promote climate-conscious behaviours among young people.	Conditional on finance, capacity and technology
High	Conduct community-based education and awareness campaigns by integrating local government and administrative units such as councils, to raise awareness about climate change impacts and adaptation measures – in the local language. Use local languages and culturally appropriate methods to ensure effective communication and engagement with a focus on traditional knowledge.	Conditional on finance and capacity
High	Develop and deliver targeted training programs for schoolteachers, government officials, community leaders, and local NGOs on climate change impacts, vulnerability assessments, adaptation planning, and project implementation (also in local language)	Conditional on finance, capacity and technology
Medium	Establish a knowledge platform for sharing best practices, lessons learned, and innovative approaches to climate change adaptation among stakeholders including recording of these items. Organise workshops, conferences, and webinars to facilitate knowledge exchange and networking.	Conditional on finance, capacity and technology
Medium	Integration of traditional and local knowledge into national policies.	Conditional on finance

Oceans

Oceans is a priority area for the government of Tuvalu. The ocean is the lifeblood of the economy, and it defines Tuvalu's culture and heritage. Tuvalu is part of High Seas Alliance and in the process of finalising its National Ocean Policy in 2025. The Office of the Prime Minister has an Ocean Unit, who

[27] Climate adaptation, health, telecommunications, connectivity, and economic resilience. https://www.dfat.gov.au/geo/tuvalu/development-assistance/development-assistance-in-tuvalu

is currently overseeing ocean activities in the country. Tuvalu's ocean space has a vast EEZ (719,174km^2) and building resilience (and adaptability) of Tuvalu's coastlines against the impact of sea-level rise is the country's top adaptation priorities.

Priority	Action	Conditionality
High	Scale-up new generation of ocean stewards with knowledge, skills, and tools – overarching architecture	Conditional on finance, capacity and technology
Medium	Ocean-based carbon sequestration – potential and opportunities for Tuvalu	Conditional on finance, capacity and technology
Medium	Wave energy generation potential from ocean for Tuvalu's energy mix – pilot	Conditional on finance, capacity and technology
High	Protection of coastal ecosystems and establishment of additional marine protected areas	Conditional on finance, capacity and technology
Medium	Ocean conservation credits – piloting in Tuvalu ocean space	Conditional on finance, capacity and technology
High	Enhancing capacity of department of oceans under the Office of the Prime Minister	Conditional on finance and capacity

Loss and damage

As a nation of atoll islands, most of the Tuvalu's population lives on land less than two metres above the sea level. The threat of coastal hazards such as sea-level rise, storm wave and king tides impacts pose challenges to people living across nation's islands. Some of the impacts caused by extreme climate events result to irreversible losses and damages, including both economic and non-economic losses.

Tuvalu Climate Change and Disaster Survival Fund, commonly referred to as TSF, was established in 2015 and came into effect on 2 January 2016. The objectives of the TSF are to:[28]

- Provide immediate vital services to the people of Tuvalu in combating the devastating impact of climate change and natural disasters; and
- Allow the government and the people of Tuvalu to respond to future climate change impacts and natural disasters in a coordinated, effective and timely manner.

MFAT is looking to strengthen the TSF during 2025–2026 with over NZD 1.9 million. Major components of this support include – implementing TSF covering recovery, rehabilitation and adaptation. Funds are allocated up to 50% for recovery, 30% for rehabilitation and 20% for adaptation activities.

[28] https://www.tuvaluclimatechange.gov.tv/tuvalu-survival-fund-tsf

TSF has updated the Act in 2024, and communities can now apply for small scale grants. This work program has been adopted by the Cabinet in 2024. The next step will be to consult with communities to access small scale grants and training the communities on project criteria to access the TSF.

One of the key aspects of loss and damage is defining the concept of the loss and damage in the context of Tuvalu. In addition to activities identified in NAP, Tuvalu communicates following additional loss and damage actions.

Priority	Action	Conditionality
Medium	Institutional arrangement in loss and damage governance at the national scale. Developing loss and damage taxonomy in the context of Tuvalu	Conditional on finance
High	Ensuring maintenance and operations of early warning systems across Tuvalu	Conditional on finance, capacity and technology
High	Exploring opportunities to integrate the early warning systems via mobile phone application	Conditional on finance, capacity and technology
High	Development of procedures, guidelines and measures to inform potentially impacted communities	Conditional on finance and capacity
Medium	Research on risks associated with permanent loss and damage due to climate impacts including economic and non-economic loss and damage	Conditional on finance
High	Safeguarding loss and damage from climate impacts by designing risk insurance facilities, climate risk proofing, and other insurance solution	Conditional on finance, capacity and technology
High	Awareness building on irreversible loss and damage from severe impacts of climate change including non-economic losses	Conditional on finance
High	Support and financing for Tuvalu's Survival Fund	Conditional on finance and capacity
High	Development of holistic strategy for local communities on climate mobility and permanent relocation	Conditional on finance and capacity

Means of implementation

Climate change is a cross-cutting development issue as it affects every aspect of the Tuvaluan way of life and livelihoods. Climate change impacts exacerbate existing cultural and socio-economic vulnerabilities. These impacts threaten the security of the nation and cannot be implemented without considering just transition principles. To this end, the people of Tuvalu are collectively building and strengthening the nation's resilience to combat climate change. However, this cannot be done alone

and in isolation; regional and global cooperation is imperative to put Tuvalu on a pathway to climate change resilience and sustainable development.

Tuvalu is of the view that the scientific underpinnings of the discussions on climate change are clear in defining impact thresholds. Therefore, continuous, and long-term international cooperation is required.

Considering Tuvalu's national circumstances, the significant costs of imported fossil fuels are a major factor in Tuvalu's balance of payments. While Tuvalu continues to take actions to reduce its fossil fuel import expenses, thereby reducing its GHG emissions, there is a need for support to assist its ambition to transform the energy sector to zero emissions through use of renewable energy for electricity generation and the transport sector decarbonization strategy. This, however, warrants consideration of just transitions.

Tuvalu's NDC 3.0 includes unconditional, conditional, and aspirational contributions to reduce emissions. The unconditional contribution includes actions that Tuvalu has already undertaken through renewable energy programs to significantly reduce its reliance on imported fossil fuels for electricity generation. It will continue to push for energy conservation, through other measures such as conservation, education and energy efficiency and other measures, recognising its extreme vulnerability to the impacts of fossil fuel prices.

The implementation costs (investment needs) for Tuvalu's NDC 3.0 will be determined through estimations based on a bottom-up approach and available information. Financing needs will be assessed by reviewing preferred financing sources, identifying potential financing instruments, and adopting an appropriate approach to estimate overall investment requirements. Tuvalu's unique national circumstances make it challenging to implement its ambitious NDC measures. Tuvalu has also very limited technical and financial capacity to act upon climate change on its own.

International support is crucial to enable Tuvalu to implement further actions outlined in its policies and plans, including at sector level. For example, the growing emissions in the transport sector needs to be addressed through technological innovations and transport sector decarbonisation strategy. Public-private and community partners are thus important in the context of Tuvalu considering Tuvalu's national circumstances. The goal to pursue a zero-carbon development pathway by 2050 is dependent on availability of finance and technology.

Appendix: Information to facilitate clarity, transparency, and understanding of Tuvalu's NDC 3.0

1. Quantifiable information on the reference point (including, as appropriate, a base year)	
a) Reference year(s), base year(s), reference period(s) or other starting point(s)	2014
b) Quantifiable information on the reference indicators, their values in the reference year(s), base year(s), reference period(s) or other starting point(s), and, as applicable, in the target year	Base year emissions for 2014 were 11.21 $GgCO_2e$. Tuvalu's latest comprehensive national GHG inventory has been prepared in 2023 covering 2010–2023 period. **Energy:** 15.81 kt CO_2e (61 % of total GHG emissions) **AFOLU:** 7.69 kt CO_2e (from livestock) **Waste:** 1.14 kt CO_2e (solid was disposal) **Electricity:** 7.13 kt CO_2e (45% of total energy sector GHG emissions) **Road transport:** 4.09 kt CO_2e (30% of total energy sector GHG emissions) **Marine transport:** (11% to total energy sector GHG emissions)
c) For strategies, plans and actions referred to in Article 4, paragraph 6, of the Paris Agreement, or polices and measures as components of nationally determined contributions where paragraph 1(b) above is not applicable, Parties to provide other relevant information	▪ National Strategy for Sustainable Development 2021–2030 (Te Kete) ▪ Infrastructure Strategy and Investment Plan 2016–2025 ▪ Third National Communication to the UNFCCC (TNC) 2023 ▪ Recovery and Vulnerability Reduction Plan 2015 ▪ Tuvalu National Climate Change Policy 2021–2030 ▪ The National Strategic Action Plan (NSAP) 2012–2016
d) Target relative to the reference indicator, expressed numerically, for example in percentage or amount of reduction	▪ Tuvalu commits to reduction of emissions of GHGs from the electricity generation (power) sector, by 100%, i.e., almost zero emissions by 2035 ▪ Increase energy efficiency in Funafuti by 30%. ▪ Tuvalu's indicative quantified economy-wide target for a reduction in total GHGs emissions from the entire energy sector 60% below 2010 levels by 2030. ▪ Zero-carbon development pathway by 2050.
e) Information on sources of data used in quantifying the reference point(s)	▪ Third National Communication to the UNFCCC (TNC) 2023 ▪ First Biennial Transparency Report (BTR) 2025

f) Information on the circumstances under which the Party may update the values of the reference indicators	▪ The reference indicators for national and sectoral emissions are in accordance with Tuvalu's first BTR.
2. Time frames and/or periods for implementation	
a) Time frame and/or period for implementation, including start and end date, consistent with any further relevant decision adopted by the Conference of the Parties serving as the meeting of the Parties to the Paris Agreement (CMA)	Start: 2025 End: 2035
b) Whether it is a single-year or multi-year target, as applicable	Multi-year
3. Scope and coverage	
a) General description of the target	▪ Electricity – zero emissions by 2035 ▪ Zero-carbon development pathway by 2050
b) Sectors, gases, categories, and pools covered by the NDC, including, as applicable, consistent with Intergovernmental Panel on Climate Change (IPCC) guidelines;	**Sectors:** Electricity, land transport, maritime transport, AFOLU **Gases:** ▪ Targets will apply to all gases: Carbon dioxide (CO_2), Methane (CH_4), Nitrous oxide (N_2O), Carbon monoxide (CO), Sulphur dioxide (SO_2), Non-Volatile organic compound (NMVOC), Nitrogen Oxide (NOx) ▪ All targets will be expressed in CO_2 equivalent (CO_2e)
c) How the country has taken into consideration paragraph 31(c) and (d) of decision 1/CP.21: **(c) Parties strive to include all categories of anthropogenic emissions or removals in their NDCs and, once a source, sink or activity is included, continue to include it** **(d) Parties shall provide an explanation of why any categories of anthropogenic emissions or removals are excluded**	Tuvalu has considered all categories of anthropogenic emissions or removals into its NDC 3.0. A target of GHG emissions reduction for the IPPU sector was not developed due to negligible impact on Tuvalu's NDC 3.0.
d) Mitigation co-benefits resulting from Parties' adaptation actions and/or economic diversification plans, including description of specific projects, measures, and initiatives of Parties' adaptation actions and/or economic diversification plans	Not applicable.
4. Planning processes	
a) Information on the planning processes that the country undertook to prepare its NDC and, if available, on the country's implementation plans, including, as appropriate:	
i) Domestic institutional arrangements, public participation and engagement with local communities and indigenous peoples, in a gender-responsive manner	Tuvalu has developed an NDC Implementation Roadmap and NDC Investment Plan 2022 including Project Pipeline. This includes six projects: ▪ E-bike initiative

	▪ Electrification of Tuvalu's light vehicle fleet ▪ Outboard motor transition from two-stroke petrol outboards to four-stroke ▪ Shore side electrical supply for at berth vessels ▪ Retrofitting of major hotels and commercial and governmental buildings ▪ Cold storage energy efficiency
ii) Contextual matters, including, inter alia, as appropriate:	
a. National circumstances, such as geography, climate, economy, sustainable development, and poverty eradication	Considering Tuvalu's geo-physical setting with socio-economic contexts, Tuvalu faces development challenges with its small population size, remoteness, and vulnerability to external shocks such as COVID-19 pandemic and accelerating economic hardship by natural disasters such as Category 3 tropical cyclone which hit Tuvalu in January 2020 as well as impacts from king tides.
b. Best practices and experience related to the preparation of the nationally determined contributions	Coordination and consultation of all relevant stakeholders and alignment with existing policies and strategies.
c. Other contextual aspirations and priorities acknowledged when joining the Paris Agreement	Not applicable.
b) Specific information applicable to Parties, including regional economic integration organizations and their member States, that have reached an agreement to act jointly under Article 4, paragraph 2, of the Paris Agreement, including the Parties that agreed to act jointly and the terms of the agreement, in accordance with Article 4, paragraphs 16– 18 of the Paris Agreement;	Not applicable.
c) How the country's preparation of its NDC has been informed by the outcomes of the global stocktake, in accordance with Article 4, paragraph 9, of the Paris Agreement	The outcome of global stocktake in 2023 will inform Tuvalu in updating and enhancing future NDC.
d) Each Party with a nationally determined contribution under Article 4 of the Paris Agreement that consists of adaptation action and/or economic diversification plans resulting in mitigation co-benefits consistent with Article 4, paragraph 7, of the Paris Agreement to submit information on: **i) How the economic and social consequences of response measures have been considered in developing the nationally determined contribution.** **ii) Specific projects, measures, and activities to be implemented to contribute to mitigation co-benefits**	Not applicable.
5. Assumptions and methodological approaches, including those for estimating and accounting for anthropogenic greenhouse gas emissions and, as appropriate, removals:	

a) Assumptions and methodological approaches used for accounting for anthropogenic GHG emissions and removals corresponding to the country's NDC, consistent with decision 1/ CP.21, paragraph 31, and accounting guidance adopted by the CMA: ▪ **31a. Parties account for anthropogenic emissions and removals in accordance with methodologies and common metrics assessed by the Intergovernmental Panel on Climate Change and adopted by the Conference of the Parties serving as the meeting of the Parties to the Paris Agreement.** ▪ **31b. Parties ensure methodological consistency, including on baselines, between the communication and implementation of nationally determined contributions"**	The anthropogenic emissions and removals in Tuvalu's GHG inventory were prepared and communicated in Third National Communication in 2023 and in first Biennial Transparency Report (BTR) 2025 in accordance with the methodologies and common metrics described in the 2006 IPCC Guidelines for National Greenhouse Gas Inventories (2006 IPCC Guidelines) and 2019 Refinement to the 2006 IPCC Guidelines for National GHG Inventories.
b) Assumptions and methodological approaches used for accounting for the implementation of policies and measures or strategies in the nationally determined contribution	The anthropogenic emissions and removals in Tuvalu's GHG inventory were prepared and communicated in Third National Communication in 2023 and first Biennial Transparency Report (BTR) in 2025 in accordance with the methodologies and common metrics described in the 2006 IPCC Guidelines for National Greenhouse Gas Inventories (2006 IPCC Guidelines) and 2019 Refinement to the 2006 IPCC Guidelines for National GHG Inventories.
c) If applicable, information on how the Party will take into account existing methods and guidance under the Convention to account for anthropogenic emissions and removals, in accordance with Article 4, paragraph 14, of the Paris Agreement, as appropriate	The anthropogenic emissions and removals in Tuvalu's GHG inventory were prepared and communicated in Third National Communication in 2023 and first Biennial Transparency Report (BTR) in 2025in accordance with the methodologies and common metrics described in the 2006 IPCC Guidelines for National Greenhouse Gas Inventories (2006 IPCC Guidelines) and 2019 Refinement to the 2006 IPCC Guidelines for National GHG Inventories.
d) IPCC methodologies and metrics used for estimating anthropogenic greenhouse gas emissions and removals	The anthropogenic emissions and removals in Tuvalu's GHG inventory were prepared and communicated in Third National Communication in 2023 and first Biennial Transparency Report (BTR) in 2025 in accordance with the methodologies and common metrics described in the 2006 IPCC Guidelines for National Greenhouse Gas Inventories (2006 IPCC Guidelines) and 2019 Refinement to the 2006 IPCC Guidelines for National GHG Inventories.
e) Sector-, category- or activity-specific assumptions, methodologies and approaches consistent with IPCC guidance, as appropriate, including, as applicable:	
i) Approach to addressing emissions and subsequent removals from natural disturbances on managed lands **ii) Approach used to account for emissions and removals from harvested wood products** **iii) Approach used to address the effects of age-class structure in forests** **iv) Treatment of land sector**	The anthropogenic removals in Tuvalu's GHG inventory were prepared and communicated in Third National Communication in 2023 and first Biennial Transparency Report (BTR) in 2025 in accordance with the methodologies and common metrics described in the 2006 IPCC Guidelines for National Greenhouse Gas Inventories (2006 IPCC Guidelines) and 2019 Refinement to the 2006 IPCC Guidelines for National GHG Inventories.

f) Other assumptions and methodological approaches used for understanding the NDC and, if applicable, estimating corresponding emissions and removals, including:	
i) How the reference indicators, baseline(s), and/or reference level(s)—including, where applicable, sector-, category- or activity-specific reference levels—are constructed, including, for example, key parameters, assumptions, definitions, methodologies, data sources, and models used	The anthropogenic emissions and removals in Tuvalu's GHG inventory were prepared and communicated in Third National Communication in 2023 and first Biennial Transparency Report (BTR) in 2025 in accordance with the methodologies and common metrics described in the 2006 IPCC Guidelines for National Greenhouse Gas Inventories (2006 IPCC Guidelines) and 2019 Refinement to the 2006 IPCC Guidelines for National GHG Inventories.
ii) Whether the baseline scenario is static (will be fixed over the period) or dynamic	The baseline scenario target is static.
iii) For Parties with NDCs that contain non-greenhouse-gas components, information on assumptions and methodological approaches used in relation to those components, as applicable	Not applicable.
iv) For climate forcers included in NDCs not covered by IPCC guidelines, information on how the climate forcers are estimated;	Not applicable.
v) Further technical information, as necessary	Not applicable.
g) The intention to use voluntary cooperation under Article 6 of the Paris Agreement, if applicable	None.
6. How the Party considers that its nationally determined contribution is fair and ambitious in the light of its national circumstances	
a) How the Party considers that its nationally determined contribution is fair and ambitious in the light of its national circumstances;	Considering Tuvalu's geo-physical setting with socio-economic contexts, Tuvalu faces development challenges with its small population size, remoteness, and vulnerability to external shocks such as COVID-19 pandemic and accelerating economic hardship by natural disasters such as Category 3 tropical cyclone which hit Tuvalu in January 2020 as well as impacts from king tides. Tuvalu recognizes the potential reduction of GHG emissions to support global efforts to address climate change issues and to support improving quality of life, integrating just transition principles in implementing NDC 3.0 actions. On the basis of Tuvalu's national circumstances, Tuvalu considers its NDC 3.0 is fair and ambitious.
b) Fairness considerations, including reflecting on equity	
c) How the Party has addressed Article 4, paragraph 3, of the Paris Agreement	Tuvalu has set a clear pathway to decarbonize electricity sector by 100% renewable energy sources for electricity generation and setting GHG emissions reduction pathway in transport sector.
d) How the Party has addressed Article 4, paragraph 4, of the Paris Agreement;	Tuvalu's GHG emissions reduction targets as set out in NDC 3.0 covers both sector-specific and economy-wide.

e) How the Party has addressed Article 4, paragraph 6, of the Paris Agreement	Tuvalu has ambition to zero-carbon development pathway by 2050.
How the nationally determined contribution contributes towards achieving the objective of the Convention as set out in its Article 2	
a) How the nationally determined contribution contributes towards achieving the objective of the Convention as set out in its Article 2 ▪ **Anticipated national emissions in the target year or period if the contribution is achieved, the quantified GHG impact of the contribution,**	As part of its NDC 3.0, Tuvalu has identified a clear and transparent target to reduce overall GHG emissions.
b) How the NDC contributes toward Article 2, paragraph 1(a), and Article 4, paragraph 1, of the Paris Agreement	As part of its NDC 3.0, Tuvalu has identified a clear and transparent target to reduce overall GHG emissions.

Photo Credit: Government of Tuvalu

REGIONAL
PACIFIC
NDC HUB

Pacific
Community
Communauté
du Pacifique