

Niue

Nationally Determined Contribution 3.0 For the period through 2030

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Contents

List of abbreviations	ii
Foreword.....	ii
Acknowledgements	iv
1. Introduction	1
1.1 National circumstances.....	2
1.1.1 Geography.....	2
1.1.2 Oceans, marine and coastal ecosystem	2
1.1.3 Climate vulnerability	2
1.1.4 Disaster and risks	3
1.1.5 Waste management and pollution control	3
1.1.6 Demography	3
1.1.7 Gender	4
1.1.8 Socio-economic profile	4
1.2 Governance structure and policy frameworks.....	5
2. Climate change impacts and risks	7
2.1 Present and future climate change impacts	7
2.2 Sectoral climate change impacts and risk.....	8
2.3 Water sector	8
2.3.1 Climate change impacts	8
2.3.2 Climate risk	8
2.4 Agriculture and fisheries	9
2.4.1 Climate change impacts	9
2.4.2 Climate risk	9
2.5 Tourism sector	9
2.5.1 Climate change impacts	9
2.5.2 Climate risk	10
2.6 Biodiversity	10
2.6.1 Climate change impacts	10
2.6.2 Climate risk	10
2.7 Energy sector	10
2.7.1 Climate change impacts	10
2.7.2 Climate risk	10
2.8 GHG emission and sink.....	10
2.9 Climate action in the country	11
2.10 Niue's Nationally Determined Contribution	11
2.11 Mitigation contribution.....	11
2.11.1 Energy	11
2.11.2 Agriculture, forest and other land use	12
2.12 Adaptation contribution	13
2.12.1 Water	13
2.12.2 Agriculture, forestry and fisheries.....	13
2.12.3 Tourism	14
2.12.4 Ecosystems and biodiversity	15
2.12.5 Oceans, marine and coastal ecosystem	15
2.12.6 Loss and Damage	17
2.12.7 Invasive species.....	18
2.12.8 Health.....	19
2.12.9 Waste management and pollution control	19
2.12.10 Disaster risk management	20
2.12.11 Gender and social inclusion	20
3. Means of implementation.....	21
4. Fairness and ambition.....	22
5. NDC planning process	22
Annexure 1: Information necessary for clarity, transparency and understanding of Niue's NDC	24
Annexure 2: Niue NDC Strategies and SDGs	30

List of abbreviations

AFOLU	Agriculture, Forest and Other Land Use
BMZ	German Federal Ministry for Economic Cooperation and Development
EU	European Union
CEDAW	Convention on the Elimination of All Forms of Discrimination against Women
CMA	Conference of the Parties serving as the meeting of the Parties to the Paris Agreement
COP	Conference of the Parties
CPUE	Catch per Unit of Efforts
DFAT	Australian Department of Foreign Affairs and Trade
EEZ	Exclusive Economic Zone
EIA	Environmental Impact Assessment
ENSO	El Niño–Southern Oscillation
GDP	Gross Domestic Product
GHG	Greenhouse gas
IPCC	Intergovernmental Panel on Climate Change
MEPSL	Minimum Energy Performance Standards and Labelling
MFAT	New Zealand Ministry of Foreign Affairs and Trade
NbS	Nature-based solutions
NCDs	Non-communicable diseases
NDC/s	Nationally Determined Contribution/s
NELD	Non-Economic Loss and Damage
NiSERM	Niue Strategic Energy Road Map
NNSP	Niue National Strategic Plan
NOW	The Niue and Ocean Wide Trust
NZD	New Zealand Dollar
OCC/s	Ocean Conservation Commitment/s
SCADA	Supervisory Control and Data Acquisition
SDGs	Sustainable Development Goals
SPC	The Pacific Community
SPREP	Secretariat of the Pacific Regional Environment Programme
UNDP	United Nations Development Programme
UNFCCC	United Nations Framework Convention on Climate Change
USD	United States Dollar

Foreword



Fakaalofa Lahi Atu,

As we stand at a crucial point in our journey toward a sustainable future, I am honoured to present Niue's Updated Nationally Determined Contribution (NDC). This document reflects our deep commitment to protecting our environment, empowering our communities, and ensuring a resilient and prosperous future for generations to come.

Niue is one of the world's largest elevated coral atolls. It's not just a small dot on the map; it's a symbol of resilience and hope. We face significant challenges such as rising sea levels, extreme weather events, biodiversity loss, and ocean acidification. Yet, we are strengthened by our rich cultural heritage, traditional knowledge, and unique biodiversity.

Although Niue's contribution to global greenhouse gas emissions is minimal compared to many other nations, we are acutely aware of our shared responsibility to address the global climate crisis. Our NDC 3.0 sets ambitious targets to lead by example. We pledge to increase and consolidate Renewable Energy generation to 80% by 2030 with international support. Additionally, we aim to make renewable technology accessible to households, raise awareness about low-emission sources, promote fuel switching to reduce transport emissions, review energy legislation, and develop energy efficiency guidelines.

We believe that climate action is an opportunity to innovate, transition fairly, adapt, and thrive. Adaptation is particularly important for Niue, and we are dedicated to developing and implementing strategies to address climate risks and vulnerabilities in key sectors such as water, agriculture, fisheries, tourism, ocean, marine and coastal ecosystems biodiversity, and disaster risk management. By 2030, we pledge to enhance our carbon storage capacity through initiatives to restore and convert unproductive or degraded land and preserve our vast marine territory.

Niue is committed to gender, disability, and social inclusion in our climate efforts. We envision an NDC that uplifts every member of our society, ensuring that in adaptation planning, disaster risk reduction, and capacity-building initiatives, every voice is heard, and the quality of life for everyone in Niue is improved.

I extend my deepest gratitude to our partners, both regional and international, who have stood by our side. Your support, technical expertise, and solidarity have been invaluable. Let us continue to collaborate, share knowledge, and forge pathways toward a sustainable and climate-resilient Blue Pacific.

As Prime Minister of Niue, I acknowledge all government departments, agencies, and the private sector for their contributions to this NDC. I appreciate their hard work, wearing many hats and achieving this important task with limited resources for their people.

The Government of Niue remains committed to diligently working toward the successful implementation of the Paris Agreement and extends congratulations to all those directly or indirectly involved in the development of this NDC 3.0.

In 2025, as we submit this NDC, we also reflect the recent 50th anniversary of our Constitution of Self-Governance, a special and historic milestone that underscores our enduring aspirations for peace, security, prosperity, and environmental stewardship. Our island may be small, but our vision is boundless. Together, we will navigate the tides of change, guided by the stars of wisdom, resilience, and unity.

With warm regards, Fakaue Lahi

Hon. Dalton Tagelagi

PRIME MINISTER & MINISTER OF CLIMATE CHANGE OF NIUE

A handwritten signature in blue ink, appearing to read "Hon. Dalton Tagelagi".

Acknowledgements

The Government of Niue would like to acknowledge the support of the Pacific Community (SPC), implementing partner of the Regional Nationally Determined Hub and its donors the European Union (EU), New Zealand Ministry of Foreign Affairs and Trade (MFAT), Australian Department of Foreign Affairs and Trade (DFAT), and the German Federal Ministry of Economic Cooperation and Development (BMZ), in enhancing Niue's NDC.

Special thanks to the Niue NDC Update Committee (comprising Mr Haden Talagi, Director, Department of Environment; and Mr Taveli Pavihi, National Coordinator, Department of Environment) which coordinated the NDC revision process. The Government also acknowledges the former Director-General for the Ministry of Natural Resources, Dr. Josie Tamate.

Thanks to the Prime Minister & Minister of Climate Change of Niue and Minister for Central Agencies and Commercial Agencies, Honourable Dalton Tagelagi, and Hon Mona Ainu'u, Minister for the Ministry of Natural Resources (MNR) for support and critical leadership during the NDC enhancement.

Appreciation to technical experts who undertook technical work and enabled the compilation of the enhanced NDC including Coral Pasisi, Anne-Claire Goarant, Amit Singh, Roxane Degueuse and Dr Noim Uddin.

Niue's enhanced NDC further owes its success to the unwavering support from Niue's government ministries, the private sector, Chamber of Commerce, and The Niue and Ocean Wide (NOW) Trust.



1. Introduction

Niue became a signatory to the Paris Agreement and submitted its first Nationally Determined Contribution (NDC) to the United Nations Framework Convention on Climate Change (UNFCCC) in October 2016.

Niue 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 serving as the meeting of the Parties to the *Paris Agreement* (CMA).

In accordance with Decision 1/CP.21, Niue hereby communicates its NDC 3.0 under Article 4 of the *Paris Agreement*.

As part of the United Nations Development Programme (UNDP) Climate Promise, support was extended to Niue to conduct necessary technical studies to enhance the NDC. Based on technical studies and stakeholder consultations, Niue has prioritised key sectors and identified mitigation and adaptation measures for each.

This document details Niue's national circumstances, climate change context, climate change mitigation and adaptation commitment and strategies, narrative on fairness and ambition, and processes for NDC planning, preparation and implementation.

Niue's NDC 3.0 includes unconditional, conditional and aspirational contributions to meet *Paris Agreement* goals. Efforts to reduce greenhouse gas (GHG) emissions in Niue add value and complement Niue's vision for a sustainable future that meets economic and social needs while preserving environmental integrity, social stability and the Niuean culture.

The emphasis on the energy sector in the NDC 3.0 will allow Niue to work towards achieving both the NDC and the goals and targets of the *Niue Strategic Energy Road Map 2015–2025 (NiSERM)*.¹

Some key commitments in this update to Niue's NDC, pursuant to Article 4.11 of the *Paris Agreement*, are outlined below.

- Reduce energy sector emissions by increasing the share of renewable energy to 80% of total electricity generation by 2030.
- With international support, increase the share of renewable energy by 80% in total electricity generation by 2030.
- Manage demand-side energy consumption by facilitating household access to renewable technology and increase consumer awareness on lower emission sources.
- Facilitate fuel switching in the transport sector to lower emissions sources.
- Undertake energy legislative review and develop and implement the energy efficiency technical guidelines, Minimum Energy Performance Standards and Labelling (MEPSL), and a green building rating system, to reduce emissions of energy intensive activities.
- Increase carbon storage capacity by pursuing actions to restore and convert unproductive/degraded land such as degraded forest, barren land, and abandoned land.

¹ Government of Niue (2015), *Niue Strategic Energy Road Map 2015–2025 (NiSERM)*. Available at <https://www.pcreee.org/publication/niue-strategic-energy-road-map-2015-2025>

1.1 National circumstances

1.1.1 Geography

Located in the southwest Pacific Ocean, the island of Niue is approximately 259 square kilometres in size with an Exclusive Economic Zone (EEZ) of 300,000 square kilometres. The average height above sea level is 23 metres and its highest point is less than 70 metres. Niue is considered the world's largest elevated coral atoll and its biodiversity is restricted by geographic location and size. It has seven types of vegetation in total which are categorised as cropland and fern land (both grouped as managed land vegetation), littoral shrub land, littoral forest, coastal forest, mature forest and secondary forest (grouped as natural vegetation). According to the *Forest Management Plan for Niue* of 2013, the area of native forest is approximately 19,000 hectares, which is about 70% of the total area of the island.²

There was a significant decline in forest area between the 1950s and the late 2000s. This has been attributed to population settlement, agricultural demand, availability of technology for clearing land, and lack of awareness. Cyclones and coastal tourism development are additional threats to forests, and cause vegetation and species loss. However, forest cover is observed to have improved in the past decade due to a declining population, reduced agricultural activities and low demand for timber. This has resulted in significant conversion of cropland to secondary rainforest. Currently, mature dense forests and regenerating medium dense forests form the largest share of vegetation with total areas of 5,566 hectares and 13,191 hectares respectively.³

Niue also suffers from the impact of invasive species that are present in the country. *Niue's National Invasive Species Strategy and Action Plan 2013–2020*⁴ highlights the threats posed by invasive species to native biodiversity, agricultural production and human wellbeing, and outlines actions to address the control or eradication of invasive species.

1.1.2 Oceans, marine and coastal ecosystem

Niue is a global leader in ocean conservation and one of the first countries to commit to sustainably managing 100% of waters in its EEZ. This includes a 127,000 square kilometre no-take Marine Protected Area (Niue Moana Mahu) constituting 40% of Niue's EEZ. In 2022 Niue launched the Ocean Conservation Commitment (OCC)⁵ to secure sustainable sponsorship for building a climate resilient, sustainable blue economy that reinforces long-term ocean conservation. The OCC helps to fund Niue's broader adaptation, resilience and sustainable blue economy activities.

1.1.3 Climate vulnerability

Niue is situated on the edge of the southern tropical cyclone belt and within the influence of southeast trade winds. The country has a tropical marine climate with two distinct seasons. The wet season (November–April) is characterised by tropical cyclones, high temperatures and high humidity. The dry season (April–October) has warm sunny days and cool nights. The annual average temperature is 25°C with little variation across seasons. Niue experiences considerable change in its climate every year which is a

² Government of Niue (2013), *Forest Management Plan for Niue*. Available at <https://niue-data.sprep.org/index.php/system/files/Forest%20Management%20Plan%20for%20Niue%202013.pdf>

³ *Ibid.*

⁴ Government of Niue (2013), *Niue's National Invasive Species Strategy and Action Plan 2013–2020*. Available at <https://faolex.fao.org/docs/pdf/niu176159.pdf>

⁵ Government of Niue (2022), *Media Release*. Available at <https://www.gov.nu/wp-content/uploads/2022/07/12-july-media-release-gon-niue-occ.pdf>

characteristic climate pattern in the tropical Pacific Ocean.^{6,7} In general, El Niño events bring drier conditions to Niue while La Niña events bring wetter conditions.

Niue is naturally susceptible to tropical cyclones and droughts which have caused immense damage to the country's socio-economic development.

Between 1969 and 2010, the country experienced 63 tropical cyclones with the frequency higher during El Niño years. In 2004, Tropical Cyclone Heta wrought death and destruction in Niue. Two lives were lost and the cost of damage to homes and government infrastructure was estimated at NZD 90 million. The cyclone destroyed 90% of the artefacts housed in Niue's national museum, along with countless archives and records. This is an example of the Non-Economic Loss and Damage (NELD) brought about from climate change.

Niue has also experienced severe droughts, most recently in 1983, 1991 and 1998.

1.1.4 Disaster and risks

Niue's risk profile is inherently linked to its isolation and limited capacity to manage and respond to disasters and the effects of climate change. Traditional coping strategies have tended to make way for an increased reliance on external support, with New Zealand fulfilling its obligations to provide support to Niue in times of disaster.

Niue has no surface water and relies on groundwater resources and rain catchments. Groundwater is recharged via rainfall infiltration and rainfall currently exceeds the rate of extraction. However, porous soil renders Niue's underground fresh water vulnerable to contamination from both human causes (such as agricultural chemicals) and natural sources (such as sea water). Agriculture is focused on subsistence production, principally of root crops. The combination of relatively poor soil and dependence on rainfall makes agricultural production highly sensitive to changes in rainfall frequency and volume.

1.1.5 Waste management and pollution control

Niue is committed to addressing issues related to waste management. However, there are limited viable options for the end-of-life management and/or export of items that are imported into Niue. As such, most imported items are disposed of at landfills or stockpiled on vacant land. This has resulted in end-of-life electronic items building up in unmanaged stockpiles – causing environmental pollution and health risks. In 2021 a waste audit⁸ was undertaken in Niue to support the development and monitoring of waste and resource recovery projects and identify necessary infrastructure and policy interventions.

1.1.6 Demography

Niue is considered the world's least populated country with a total population of 1,681 in 2022.⁹ Males account for 47.9% of the population and 52.1% are female. The country faces the serious challenge of out-migration that has led to steady population decline since 1979. Some of the key factors restricting social and economic growth in Niue are its small population, limited labour force, out-migration, high cost of transport connectivity and infrastructure, poor land quality and increasing vulnerability to natural disasters.

There are two vulnerable demographic groups in Niue.

⁶ Government of Niue (2014), Second National Communication to United Nations Framework Convention on Climate Change. Available at <https://unfccc.int/sites/default/files/resource/niunc2.pdf>

⁷ Government of Australia, Pacific Climate Change Science Program, Niue Department of Meteorology and Climate Change (2022), Current and future climate of Niue. Available at https://www.preventionweb.net/files/28164_12pccspniue8pp.pdf

⁸ Secretariat of the Pacific Regional Environment Programme (2022), Waste Audit Report Niue. Available at <https://www.gefislands.org/sites/default/files/downloads/best-practices/Niue-Audit-Report.pdf>

⁹ <https://niuestatistics.nu/population/niue-census-of-population-and-housing-2022/>

- **Youth:** There are limited economic opportunities and livelihood options for young people in Niue. This is a major contributing factor to out-migration.
- **Women:** There is a lack of reliable data and gender-centric research around gender inequality in Niue. Legislation needs to be strengthened to promote women's rights and gender equality.¹⁰

1.1.7 Gender

Niue is committed to supporting equal rights, equal opportunities, and access to services for all people. Niue acceded to the *Convention on the Elimination of All Forms of Discrimination against Women* (CEDAW) through New Zealand's ratification of the treaty in 1985¹¹ and to the *Convention on the Rights of the Child* in 1995.¹² Both Conventions have informed the guiding principles of the *Niue National Strategic Plan 2016–2026*.

A gender-responsive approach has been integrated into Niue's climate action and efforts are being made to ascertain and address gender gaps and facilitate the development of structures that support the implementation of gender aspects of national policies.

1.1.8 Socio-economic profile

Niue has high levels of human development and absolute poverty does not exist. Access to clean water and improved sanitation is universal in the country. Between 2006 and 2011, 80–90% of households had taps outside and inside and there was a decline in the number of households with rainwater-fed water tanks (from 53% in 1997 to 14% in 2011). The number of households with rainwater-fed water tanks increased to 65% in 2015. Access to alternative water sources, such as wells, remained stable at 2–3%.¹³

Primary and secondary health care services are available and free for all residents. Tertiary medical treatment is provided through transfers to New Zealand and through visiting specialists.¹⁴ In 2017 the average life expectancy was reported as 76 years.

Most households have electricity and telephone connections but the related infrastructure is frequently exposed to natural disasters and prone to damage. Similarly, road connectivity is affected by disasters like cyclones and storms. Disrupted infrastructure and connectivity not only affects economic development but impairs social growth.

Niue's education system provides free primary and secondary education to all children. There is a growing need to strengthen higher education through the introduction of skills-based technical courses, particularly in tourism and energy. Skills in traditional sectors such as agriculture and fisheries also need to be updated.¹⁵

Niue is predominantly agrarian in nature with tourism gaining economic importance over the last few decades. The Gross Domestic Product (GDP) of Niue increased from NZD 22.8 million in 2010 to NZD 28 million in 2020.¹⁶

The economy is hinged on three climate-sensitive sectors – agriculture, fisheries and tourism.

¹⁰ <https://asiapacific.unwomen.org/en/countries/fiji/co/niue>

¹¹ Pacific Community (2015), *Stocktake of the gender mainstreaming capacity of Pacific Island governments – Niue*. Available at <https://pacificdata.org/data/dataset/76f40190-fe80-412d-b85f-488ce6b2158d/resource/50814bb4-7949-4dd2-bb6d-602138a9a38b/download/niue-gender-stocktake-4.pdf>

¹² UN Women (2022), *Gender Equality Brief for Niue*. Available at https://asiapacific.unwomen.org/sites/default/files/2022-11/UN_WOMEN_NIUE.pdf

¹³ Government of Niue (2020), *Niue's Sixth National Report to the Convention on Biological Diversity*. Available at <https://www.cbd.int/doc/nr/nr-06/nu-nr-06-en.pdf>

¹⁴ Asian Development Bank (2021), *Niue: Country Classification*. Available at <https://www.adb.org/sites/default/files/institutional-document/752631/niue-country-classification.pdf>

¹⁵ National Accounts Estimates of Niue. Available at <https://niuestatistics.nu/category/economic/national-accounts/>

¹⁶ *Ibid.*

- **Agriculture:** Agriculture is subsistence-based and characterised by shifting cultivation practices. Niue's soil profile predominantly consists of limestone and is shallow and low in nutrient content. Alongside this, Niue largely depends on rainfall for crop cultivation due to the absence of surface water, shifting farming practices and the high cost of artificial irrigation facilities. Talo, bananas, cassava, breadfruit, sweet potato, yams, vegetables (cabbages, tomatoes) and mixed tropical fruit trees are the main crops grown. Key challenges to Niue's agriculture sector are small local markets, lack of scale, geographic isolation from overseas markets resulting in transport and post-harvest problems, brain and labour-force drain and lack of effective and efficient services.
- **Fisheries:** The fisheries sector is important for maintaining food security and the economic sustenance of the population. The sector has both inshore and offshore fisheries. The inshore fisheries, spread across 12 nautical miles from the coastline, are for subsistence and semi-subsistence fishing. These areas are responsible for meeting most of the food and nutritional needs of the population and are characterised by traditional fishing practices and equipment. The offshore fisheries operate in the area under Niue's EEZ where commercial fishing is practiced. People engaged in the fisheries sector earn their income by either selling fish or working in the Niue Fish Processing factory.
- **Tourism:** Tourism is an upcoming sector which has the potential to increase income and employment. Most of the country's tourist inflow is from New Zealand, but investment should be made to develop tourism infrastructure so that Niue can establish itself as an international tourism destination.

Niue's high dependence on imports from New Zealand is a significant barrier for economic sustenance as it has created a large trade deficit in the country. Fuel forms the largest share among all imported goods. Niue imports 96% of fuel for power generation and 100% of fuel for land, sea and air transportation.

1.2 Governance structure and policy frameworks

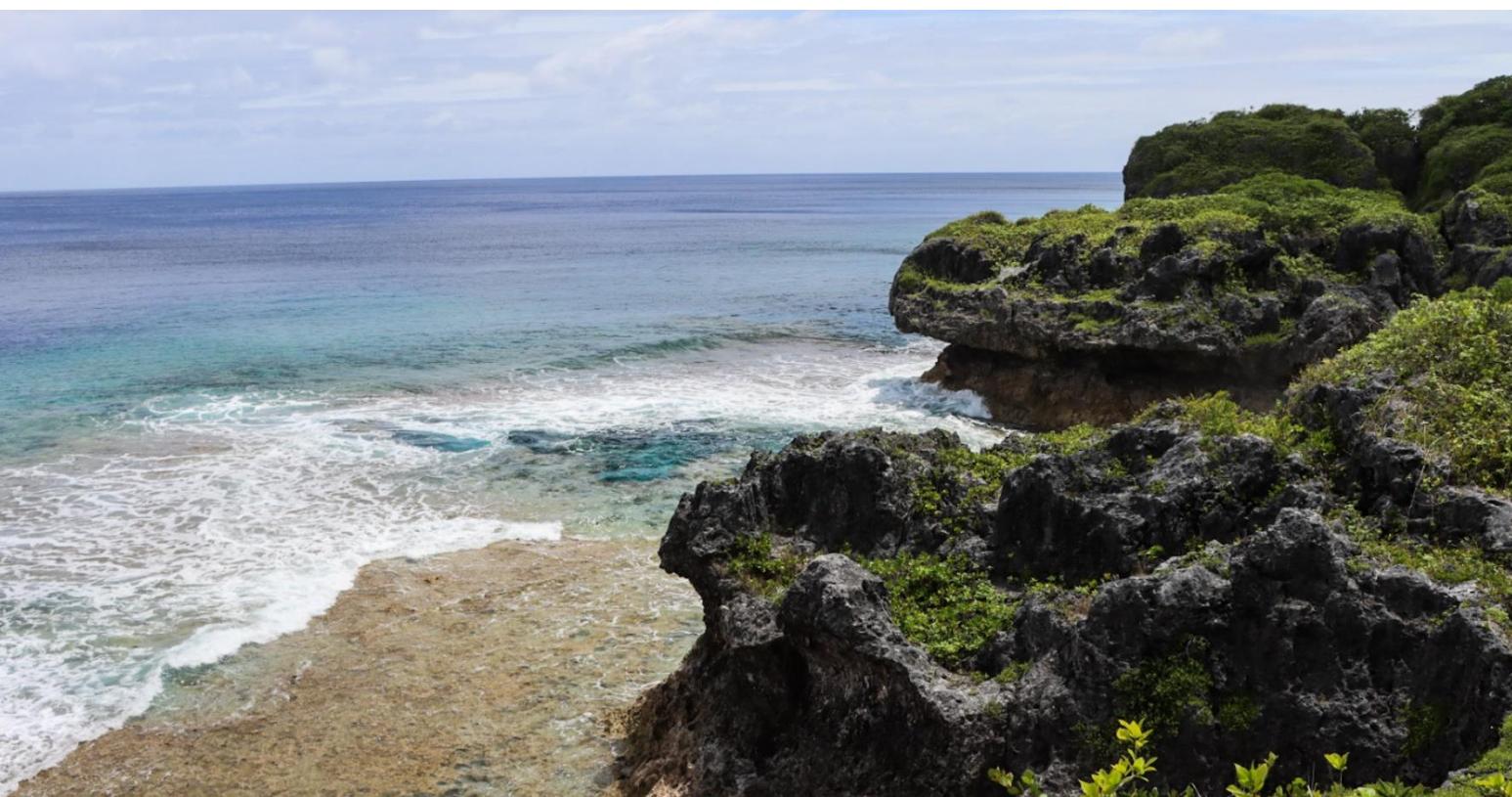
Decision-making in Niue falls under the purview of the Legislative Assembly (Parliament), which consists of 20 members representing 14 village constituencies and six common roll members. The Niue Cabinet of Ministers is chaired by the Prime Minister & Minister of Climate Change of Niue and three other members of the Niue Assembly. It is responsible for exercising the general authority of Niue and has the general direction and control of the executive government of Niue. Planning and coordination of climate action in Niue takes place at this level.

At a sub-national level, the responsibilities devolve from the Legislative Assembly to Village Councils. The Church, which is an indirect political figure, is an important institution in Niue's governance structure. In terms of climate governance, both the Village Council and the Church play a key role in implementing climate action at the local level.

To pursue sustainable socio-economic development and environmental sustainability, the Government of Niue has introduced a range of national and sectoral policies.

- *Niue National Strategic Plan 2016–2026:* The ten-year strategic framework for the country's sustainable development provides broad goals and strategies aimed at achieving the seven national development pillars: finance and economic development; governance; infrastructure; social services; environment and climate change; Taoga Niue; and private sector. The plan addresses environmental concerns including the need to manage the effects of climate change while emphasising economic growth.
- *National Forest Policy (2004):* This policy provides direction to develop Niue's forest resources. Although climate change is not directly mentioned, the guiding principles of sustainable resource use, conservation and protection, individual and collective responsibility for control, and management of forests, and provision of economic opportunities, contribute towards addressing climate impacts.
- *Niue National Energy Policy (2005):* This policy encourages fuel conservation and efficiency to achieve energy security. Key principles underlying the policy include economic efficiency, energy efficiency and environmental protection.

- *National Climate Change Policy (2009)*: Niue's climate change policy recognises that climate change affects all sectors and directly impacts on the livelihoods of its people. The policy outlines Niue's broad objectives and strategies for responding to the impacts and challenges of climate change and assists government's efforts to access and leverage resources to formulate and implement appropriate responses.
- *Niue Strategic Energy Road Map (2015–2025)*: This road map builds on the 2005 Niue National Energy Policy and the Niue National Strategic Plan 2014–2019 (NNSP) and is aligned to current national, regional and international emerging issues related to the energy sector. It endorses a whole-of-government approach to addressing the energy security challenges of Niue. It looks at the entirety of the energy sector – electricity, renewable energy, energy efficiency and petroleum – and involves all partners working together in its implementation.
- *Ecosystems Approach to Fisheries Management (2010)*: This plan endorses a sustainable approach to managing fisheries that seeks to maximise economic benefits and minimise the negative impact of general environmental factors (such as cyclones and extreme weather) on fish resources and water quality.
- *Food and Nutrition Security Policy 2015–2019*: This policy outlines the importance of food and nutrition for life, health, and livelihoods. It also emphasises the importance of food to Niuean society, culture, customs, and traditions.
- *National Agriculture Sector Plan 2015–2019*: Niue faces many challenges in sustaining agricultural growth. This plan was formulated to guide a coordinated approach in addressing the challenges to the agriculture sector and to strengthen the contribution of the sector to economic growth.
- *Water Act (2012)*: This Act makes provision for the management, conservation and use of water resources in Niue. It also provides for the control of water pollution and the protection of ecosystems that depend on water. It makes provision for the investigation, extraction, use, control, protection, and management of water.



2. Climate change impacts and risks

Climate change is one of the biggest drivers of environmental degradation in Niue. Some of the most prevalent impacts include rising temperature, rainfall variation, high intensity storms and tropical cyclones.

These manifest into sectoral risks which threaten income, food availability, water access, energy security and more.

The natural environment is an important part of the Niuean identity that has shaped the island's culture and traditions over centuries. Today the country stands at risk of losing its identity.

The following section describes the present and future climate change impacts and risks to Niue.

2.1 Present and future climate change impacts

Niue's contribution to global GHG emissions is negligible compared to many other nations, but the climate change impacts felt in the country are significant.

The main changes in Niue's climate at the present time are outlined below.

- **Increase in land and sea surface temperatures:** The annual and seasonal maximum and minimum temperatures have recorded an increase since 1950 with maximum temperatures rising at a rate of 0.15°C per decade. Niue has also experienced a rise in sea surface temperature of approximately 0.08°C per decade from the 1970s to the 2010s.¹⁷
- **Variation in annual rainfall pattern:** Niue has recorded substantial variation in rainfall since 1950. However, no clear trend can be deciphered from the data.
- **Sea level rise:** Since 1993, sea levels near Niue have increased by approximately 5 mm per year.¹⁸ This is higher than the global average in the same period (1993–2020) of 2.8–3.6 mm per year.¹⁹
- **Ocean acidification:** Niue has recorded a gradual increase in ocean acidity. The aragonite saturation state has declined in the Niue region from about 4.5 in the late 18th century to an observed value of about 4.0 ± 0.1 in 2000.²⁰

Projections indicate that the climate of Niue will continue to change.²¹ Key climate related projections, obtained through a collaborative effort between the Niue Department of Meteorology and the Pacific Climate Change Science Program, are outlined below.

¹⁷ Australian Bureau of Meteorology and CSIRO (2011), *Climate Change in the Pacific: Scientific Assessment and New Research. Volume 1: Regional Overview. Volume 2: Country Reports*. Available at <https://www.pacificclimatechangescience.org/wp-content/uploads/2013/09/Volume-2-country-reports.pdf>

¹⁸ *Ibid.*

¹⁹ Church, J.A., P.U. Clark, A. Cazenave, J.M. Gregory, S. Jevrejeva, A. Levermann, M.A. Merrifield, G.A. Milne, R.S. Nerem, P.D. Nunn, A.J. Payne, W.T. Pfeffer, D. Stammer and A.S. Unnikrishnan, (2013), *Climate Change 2013: The Physical Science Basis. Contribution of Working Group I to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change*. Available at https://www.ipcc.ch/site/assets/uploads/2018/02/WG1AR5_Chapter13_FINAL.pdf

²⁰ Australian Bureau of Meteorology and CSIRO (2011), *Climate Change in the Pacific: Scientific Assessment and New Research. Volume 1: Regional Overview. Volume 2: Country Reports*. Available at <https://www.pacificclimatechangescience.org/wp-content/uploads/2013/09/Volume-2-country-reports.pdf>

²¹ *Ibid.*

- **Annual average air and sea surface** temperatures are projected to increase in the range of 0.3–1.1°C under the highest emission scenarios by 2030. El Niño and La Niña events will continue to occur in the future.²²
- **Hot days and warm nights** are predicted to increase in number because of rising temperatures. Simultaneously, periods of cooler weather will decline in future.
- **Variation in annual rainfall pattern** is predicted in Niue with a decrease in dry season rainfall and an increase in wet season rainfall over the course of the 21st century.
- **Frequency of intense rainfall days** are likely to increase in future.
- **Proportion of high intensity storms** will increase despite an anticipated decline in the frequency of tropical cyclones.
- **Sea level rise** is projected to be in the range of 4–17 cm by 2030 under high emission scenarios.²³
- **Ocean acidification** will continue to increase in Niue waters under all emission scenarios (low, medium and high) projected for this century.

2.2 Sectoral climate change impacts and risk

Climate change hazards have severe consequences on Niue's critical sectors. Poor climate resilience of both natural and human systems makes them vulnerable to these impacts, while exposing them to multiple climate risks. Key climate impacts and risks on each sector are described below.

2.3 Water sector

2.3.1 Climate change impacts

Disruption to the natural water cycle: Higher temperatures disrupt the natural water cycle by catalysing water evaporation in larger amounts, which leads to higher levels of atmospheric water vapor and more frequent, heavy, and intense rain. Variation in rainfall patterns affects groundwater recharge which is the main source of water in Niue. There is no surface water and Niue depends entirely on its groundwater resources and catchment. Recharge of the freshwater lens is through rainwater infiltration. Studies show that the groundwater lens yield will be adequate to meet supply demands during the rainy season, however, it may be insufficient for water demands during the dry season. Drought occurrences are likely to fluctuate towards the higher side which raises concern over water quantity.

Damage to water infrastructure: Niue is situated near the edge of the tropical cyclone belt and is subject to gale force winds during the wet season. An increase in tropical cyclones and high intensity storms will likely damage existing water infrastructure such as pipelines, storage tanks and borewells. This poses the risk of contaminated water supply. Sea level rise is also a threat to Niue's underground freshwater supplies as it increases the salinity of coastal aquifers, thus degrading water quality.

2.3.2 Climate risk

Water insecurity: Climatic factors have directly and indirectly affected the quality and quantity of Niue's water by disrupting the natural water cycle, damaging water infrastructure, contaminating water supply and reducing ground water recharge. Niue is already facing challenges with access to water for domestic, agricultural and commercial use. Climatic risks are likely to exacerbate this water scarcity in future.

²² Government of Australia, Pacific Climate Change Science Program, Niue Department of Meteorology and Climate Change (2022), Current and future climate of Niue. Available at https://www.preventionweb.net/files/28164_12pccspniue8pp.pdf

²³ Ibid.

2.4 Agriculture and fisheries

2.4.1 Climate change impacts

Disruptions to agriculture: In the context of Niuean agriculture, rises in temperature and the CO₂ fertilisation effect are predicted to boost plant growth in the short term. However, extreme heat may stunt growth in the long term, raising concern over the sustainability of domestic food production. Intense rainfall may cause seedling damage, leaching of important soil nutrients and increased competition of weeds in farmlands which may lead to increased use of – and dependence on – chemical fertilisers, pesticides or herbicides. Lack of soil moisture on the other hand can result in increased evapotranspiration leading to a decline in crop yield. Changes in climatic conditions also create uncertainty among farmers who rely on traditional knowledge to cultivate crops. Increases in wind speed from high intensity storms cause significant physical damage to crops, especially tree crops such as breadfruit, mangos, coconuts and bananas. High wind speed, combined with dry soil has the potential to increase soil erosion, thus reducing land available for cultivation.

Disruption to fisheries: Climate change affects species mortality leading to a decline in fish stock. Changes in El Niño-Southern Oscillation (ENSO), which could cause changes to ocean currents, may affect the availability and seasonality of deep water fish. It is observed in the Niuean fisheries sector that catch per unit of efforts (CPUE) are lower than average in El Niño years and higher than average in La Niña years.

Rising sea surface temperature may increase coral bleaching and the risk of ciguatera poisoning caused by disturbance to the reefs. Ocean acidification also decreases net productivity and increases variation in catch.

An increase in high intensity storms may also impact on fisheries development through damage to and loss of boats, boat launching facilities, fuel facilities, and fish storage and processing facilities.

Highly skilled Niuean fishermen rely on traditional knowledge, but increasing climate variability creates uncertainty, making it difficult to determine species range and abundance.

2.4.2 Climate risk

Food and nutritional insecurity: Stunted plant growth, reduced soil moisture, decline in water availability and crop mortality threaten Niue's rainfed subsistence cultivation. Similarly, fisheries in Niuean waters have experienced a decline in catch per unit, habitat loss, and damage to fishing infrastructure. Declines in crop and fisheries productivity – combined with limited opportunities to diversify livelihoods, a high food import burden and the subsistence nature of Niue's production system – places the country at high risk of food and nutritional insecurity.²⁴

Fall in income level: Agriculture and fisheries are among the most important livelihoods in Niue. A fall in crop productivity and decline in the health of fisheries will affect household income levels. The number of artisanal and subsistence fishers may also decline due to disruptions to fisheries and fish stock.

2.5 Tourism sector

2.5.1 Climate change impacts

Disruption to the tourism sector: Tropical cyclones and high intensity storms have the potential to damage tourism infrastructure leading to an increased expenditure on repair and maintenance. Additionally, the potential risk of climate events such as cyclones, storms, extreme heat and intense rainfall are major deterrents to tourist in-flow. The risk of coral bleaching and loss of biodiversity will likely depreciate the value of Niue as a destination for international tourists.

²⁴ Government of Niue (2014), Second National Communication to United Nations Framework Convention on Climate Change. Available at <https://unfccc.int/sites/default/files/resource/niunc2.pdf>

2.5.2 Climate risk

Reduced economic opportunity: The development of the tourism sector has the potential to increase income levels in Niue and diversify livelihoods away from traditional sectors like agriculture and fisheries. The risks posed by climate change are a significant barrier in establishing Niue as an international tourist destination. Furthermore, supply disruptions due to global shocks are likely to have a detrimental effect on the food supply chain for the tourism sector.

2.6 Biodiversity

2.6.1 Climate change impacts

Disruptions to biodiversity: Temperature rise, extreme heat, and rainfall variation increase the risk of prolonged dry spells. Such conditions support the increase in invasive species which compete with native vegetation for resources. They also make Niue more susceptible to forest fires, pests and diseases. Rising sea surface temperature increases ocean acidification and induces coral bleaching which affects the growth of coral and shell forming organisms. Sea level rise is likely to damage coastal infrastructure and ecosystems by causing shoreline erosion, inundation and habitat loss. In addition to these impacts, high intensity tropical cyclones and storms cause significant damage to habitat.

2.6.2 Climate risk

Habitat loss and vegetation destruction: The impacts of climate change are likely to cause vegetation loss and habitat destruction, thus threatening the survival of terrestrial biodiversity.

Marine biodiversity loss: Rising sea surface temperature and sea level rise cause species mortality and widespread marine biodiversity loss.

2.7 Energy sector

2.7.1 Climate change impacts

Increased energy demand: Extreme hot weather and rising temperatures increase energy demands for cooling. Damage from the increased frequency and intensity of extreme weather events pose a risk to Niue's existing energy infrastructure. Efforts to increase supply using renewable energy is challenging in the face of increasing extreme heat, tropical cyclones and high intensity storms that can damage infrastructure.

2.7.2 Climate risk

Energy insecurity: Niue's energy demands are likely to increase due to climate change impacts across different sectors. Climate-induced water shortages, for example, are likely to increase energy needs for water purification and supply purposes. Given its heavy dependence on fuel imports, an increase in energy demand risks the country's energy sufficiency.

2.8 GHG emission and sink

Niue's emissions account for less than 0.0001% of global GHG emissions. The carbon sequestration of Niue's forests exceeds its emissions many times over, making the country a net carbon sink.

The sectoral breakdown of GHG emissions from Niue's *Second National Communication to the UNFCCC* shows that the majority of Niue's emissions in 2009 came from the energy sector.²⁵ Transport contributed

²⁵ Government of Niue (2014), *Second National Communication to United Nations Framework Convention on Climate Change*. Available at <https://unfccc.int/sites/default/files/resource/niunc2.pdf>

57%²⁶ to energy sector emissions, followed by electricity generation at 42%.²⁷ Emissions from the waste sector were non-material (<1). The lack of environmental baseline data to support evidence-based decision-making and limited capacity to gauge cost or emission reduction effectiveness for energy supply initiatives are two key challenges to Niue's mitigation action. Niue has accounted for offsetting 144 Gg CO₂ by converting former managed lands (assumed to be cropland) back into secondary forest.²⁸

2.9 Climate action in the country

The Government of Niue has long recognised the impacts of climate change and integrates climate considerations in development planning. The 2009 *National Climate Change Policy* is the overarching national policy framework that guides climate action to mitigate the causes of climate change and adapt to its impact. It aligns with the objectives of the *Niue National Strategic Plan (2016–2026)* and builds linkages between climate change and sustainable development at the national level through improved planning and assessment and the effective implementation of priority adaptation and mitigation initiatives.

2.10 Niue's Nationally Determined Contribution

Despite its negligible contribution to global GHG emissions, Niue is conscious of the collective responsibility to resolve the global climate crisis. With support from UNDP, Niue has bolstered its NDC by strengthening mitigation commitments and placing high value on adaptation measures to deal with the impacts of climate change. Support was received from the Regional Pacific NDC Hub to include the priority areas of: Loss and Damage; oceans, marine and coastal ecosystem; invasive species; and waste management and pollution control.

Niue has set targets outlining its commitment to the *Paris Agreement* and reduction of GHG emissions in line with its national circumstances. Noting that Niue is at the receiving end of climate change rather than contributing towards it, adaptation measures to address adverse impacts on human and natural systems must take precedence.

Niue's *Updated Nationally Determined Contribution* commits to adaptation measures in nine critical sectors. The revision process has strived to align NDCs with the Sustainable Development Goals (SDGs) – see Annexure 2. Niue recognises the synergy between these two frameworks and the shared goal of addressing human and environmental vulnerabilities to achieve a sustainable and climate-resilient future.

2.11 Mitigation contribution

2.11.1 Energy

Niue understands the need to transition from fossil fuel-based electricity generation to renewable energy to reduce the GHG emissions footprint and ensure energy security. Niue pledges to increase the share of renewable energy in total electricity generation to reaching 80% by 2030 through international support. Niue aims to facilitate household access to renewable technologies, promote fuel switching to reduce transport emissions, review energy legislation, and establish energy efficiency guidelines and a green building rating system. Niue's commitments in the energy sector are outlined below.

Priority	Strategies	Conditionality	Budget (USD)
1	Increase the share of renewable energy (particularly solar and biomass) to 80% in total generation by 2030 electricity generation by	Conditional on finance, capacity and technology	35,000,000

²⁶ Aviation fuel – 1.40 Gg CO₂e, non-powergen diesel and unleaded petrol – 2.92 Gg CO₂e

²⁷ Electricity generation – 2.11 Gg CO₂e

²⁸ Government of Niue (2014), *Second National Communication to United Nations Framework Convention on Climate Change*. Available at <https://unfccc.int/sites/default/files/resource/niunc2.pdf>

	2030.		
2	Manage demand-side energy consumption by facilitating household access to renewable technology and increase consumer awareness on lower emission sources, and conducting a Technology Needs Assessment for the energy and water sectors.	Conditional on finance	5,000,000
3	Facilitate lower emissions energy sources in the transport and fisheries sectors.	Conditional on finance, capacity and technology	6,000,000
4	Undertake energy legislative review and develop and implement energy efficiency technical guidelines, MEPSL, and a green building rating system to reduce emissions associated with energy intensive activities.	Conditional on finance, capacity and technology	1,000,000

With international support, Niue will increase the share of renewable energy by 80% in total electricity generation by 2030.

2.11.2 Agriculture, forest and other land use

Niue's substantial forest area and low emissions makes it a net carbon sink. Therefore, by 2030 Niue is committing to increase its carbon storage capacity. The country will pursue actions to restore and convert unproductive/degraded land such as degraded forest, barren land, and abandoned land. This will include maintaining mature dense forest (21% of total land area) and regenerating medium dense forest (51% of total land area).²⁹



²⁹ Government of Niue (2013), Forest Management Plan for Niue, Available at <https://niue-data.sprep.org/index.php/system/files/Forest%20Management%20Plan%20for%20Niue%202013.pdf>

2.12 Adaptation contribution

While Niue's first NDC briefly discussed adaptation, the revision process explored adaptation options in more detail to identify solutions to help reduce the increasing climate impacts felt by communities.

Niue is committed to develop and implement adaptation strategies to address the climate risks and vulnerabilities of key sectors such as water, agriculture and fisheries, tourism, ecosystems and biodiversity, and disaster risk management. Specific actions that the country will pursue are discussed below.

2.12.1 Water

Niue acknowledges the critical link between climate vulnerability and spatiotemporal water availability, quality, and accessibility. Recognising these risks, Niue aims to enhance collaboration with other sectors and partners to forecast, plan, and invest in securing Niue's water resources. Niue relies on both groundwater and rainwater for domestic needs. Urban areas primarily rely on shallow karstic aquifers. Niue's commitments in the water sector are outlined below.

Priority	Strategies	Conditionality	Budget (USD)
1	Develop, upgrade and maintain water infrastructure, and replace damaged water assets to improve household water accessibility.	Conditional on finance, capacity and technology	45,000,000
2	Improve wastewater disposal by setting up a treatment plant and increasing awareness with communities on the importance of proper disposal.	Conditional on finance, capacity and technology	5,000,000
3	Construct water harvesting structures and soil moisture conservation through watersheds to improve ground water recharge.	Conditional on finance and capacity	3,500,000
4	Identify, develop and implement data management systems including Supervisory Control and Data Acquisition (SCADA) systems to build the capacity of the Department of Utilities to control, monitor, and analyse water and energy systems.	Conditional on finance and capacity	5,000,000
5	Enhance knowledge of communities on risks to the water sector and conservation methods that can be employed at the household level.	Conditional on finance and capacity	840,000
6	Upscale and replicate rainwater harvesting systems for communities with planning for the agriculture sector.	Conditional on finance and capacity	1,000,000

2.12.2 Agriculture, forestry and fisheries

Much agriculture and fisheries in Niue is micro-scale subsistence, mainly for household consumption or small local market. Agriculture is often dependent on rainfall, making it extremely vulnerable to climate impacts. Adaptation in the agriculture sector is vital for securing food and nutrient security and supporting household income. Niue's commitments in the agriculture and fisheries sector are outlined below.

Priority	Strategies	Conditionality	Budget (USD)
1	Integrate climate variability, climate change and disaster risk reduction using adaptation and mitigation strategies in agricultural initiatives and developments.	Conditional on finance	250,000
2	Formulate and implement the climate and disaster preparedness plans for resilience of the agriculture and	Conditional on finance	500,000

	fisheries sector to climate shocks, disaster response, invasive species, ecological disasters and disease outbreaks.		
3	Assess vulnerability of production systems to climate change stressors and non-climate change stressors, and mitigation and adaptation strategies developed and implemented.	Conditional on finance	250,000
4	Foster care of coastal fisheries to enhance resilience against environmental and climate change impacts.	Conditional on finance	250,000
5	Strengthen management of coastal fisheries through appropriate legal frameworks, regular monitoring, and evaluation of the state of coastal fisheries (including development and implementation of procedures for climate change monitoring and impact assessment protocols for the sector).	Conditional on finance	1,000,000
6	Promote awareness and applied research to ensure sustainability of coastal resources, taking into account traditional knowledge and sustainable cultural practices, enhancing life skills for youth and all fishers (including the elderly who engage in subsistence fishing) and ensuring community-driven sustainable cultural practices.	Conditional on finance	2,000,000
7	Develop forestry-related climate change adaptation demonstration projects around food security, soil stabilisation, water management, coastal protection, and innovative sustainable financing including mainstreaming biodiversity.	Conditional on finance	3,000,000
8	Implement sustainable forest management concepts to reduce forest degradation and GHG emissions, and to maintain healthy forest ecosystems to enhance resilience against climate change.	Conditional on finance	250,000
9	Develop, pilot and upscale climate-smart management practices for the agriculture sector.	Conditional on finance	250,000
10	Develop high value agriculture commodities for export and encourage the use of improved genetic varieties for food system sustainability.	Conditional on finance	250,000
11	Scale up Climate Information Services initiatives for farmers to better understand and evaluate the impacts of climate change and variability on farming practices, food production and linked supply chain.	Conditional on finance	1,000,000
12	Ensure food security and maximise benefits for communities of Niue through enhancing and maintaining fisheries stocks at levels that ensure productivity and sustainable benefits.	Conditional on finance	1,000,000
13	Improve access to appropriate adaptation technology, infrastructure access, knowledge and skills for climate resilient fisheries food production.	Conditional on finance	250,000

2.12.3 Tourism

Niue advocates for sustainable tourism with the Niuean culture and heritage at its core. Niue recognises the tourism should adopt a sustainable path to integrate it into the overall economy for continued economic prosperity. Niue's commitments in the tourism sector are outlined below.

Priority	Strategies	Conditionality	Budget (USD)
1	Encourage climate resilient strategies for the development, site-specific design, and management of tourism facilities. Consider how tourism sites contribute to the sustainability and resilience of Niue (including integrating infrastructure planning, EIA planning, and innovative financing options to ensure sustainability and adherence to the Niue Building Code).	Conditional on finance	2,000,000
2	Identify and address climate technology gaps in the agriculture sector – especially related to crop diversification and new varieties – ensuring food security for tourism, strengthened water supply and water safety monitoring, and improved waste management systems.	Conditional on finance	3,000,000
3	Review, develop and manage the tourism industry's activities in relation to climate change adaptation and resilience strategies and identify innovative options.	Conditional on finance	500,000
4	Commit to tourism product diversification, including tourism that is mutually supportive of Niuean culture and heritage, to enhance the resilience of the tourism sector.	Conditional on finance	2,000,000
5	Strengthen waste management initiatives through sustainable, environmentally friendly tourism product diversification, and practices to enhance the resilience of the tourism sector in technology transfer, recycling and promotion.	Conditional on finance	2,000,000
6	Ensure that tourism industry stakeholders are aware of climate-related risks and actively engage in climate change adaptation strategies. This includes direct and indirect service providers and appropriate supply.	Conditional on finance	500,000

2.12.4 Ecosystems and biodiversity

Niue recognises that a wide range of interventions for ecosystem conservation, management and restoration are critical to achieving the 1.5°C target of the *Paris Agreement*. Ecosystem management is critical to stop and reverse the loss of ecosystems and to build resilience against climate change impacts while supporting sustainable livelihoods. Niue's commitments in the biodiversity sector are outlined below.

Priority	Strategies	Conditionality	Budget (USD)
1	Identify, develop and implement nature-based solutions for terrestrial and marine ecosystems.	Conditional on finance and capacity	6,000,000
2	Strengthen the enforcement of legislation that protects and preserves key terrestrial and marine ecosystems and biodiversity.	Conditional on finance, capacity and technology	4,000,000
3	Develop human resource and technical capacities and data collection systems for biodiversity and environmental monitoring.	Conditional on finance, capacity and technology	1,500,000

2.12.5 Oceans, marine and coastal ecosystem

Niue is a large ocean state. Niue recognises that its vast marine territory holds immense ecological, cultural, and economic value to its people. Its ecosystem services also provide regional and global environmental benefits. Niue's commitments in the oceans, marine and coastal ecosystem sector are outlined below.

Priority	Strategies	Conditionality	Budget (USD)
1	Effectively capitalise and operationalise the Niue Ocean Wide Trust and Ocean Conservation Commitments (OCCs) as a game changing sustainable financing mechanism to support the sustainable management, conservation and resilience of the blue economy.	Conditional on finance and capacity	32M for endowment supporting 20-year commitment
2	By 2030, effectively manage 100% of Niue's marine space and resources through its EEZ-wide marine spatial plan, including coastal resources, domestic and commercial fishing, and ocean related tourism. This will include at least 40% of Niue's EEZ (127,000 square kilometres under no-take zone as a large scale marine protected area).	Conditional on finance and capacity (being proposed through the NOW Trust and OCCs)	1.5M per annum
3	Encourage private partnership in sustainable ocean management and resilience through the NOW Trust and ensure that appropriate funding is sustainable and directed towards specified activities that contribute to the conservation and sustainable management of Niue's marine and terrestrial ecosystems.	Conditional on finance	100,000 per annum
4	Strengthen the resilience of Niue's blue economy by implementing sustainable practices that support long-term ocean conservation and foster economic growth, particularly in the areas of ecotourism, cultural traditions and sustainable fisheries.	Conditional on finance and capacity	5,000,000
5	Strengthen legislation and enforcement capabilities and actions that protect and preserve key coastal and marine ecosystems and biodiversity.	Conditional on finance and capacity	4,000,000
6	Implement programmes to address marine invasive species and other potential and emerging threats.	Conditional on finance	5,000,000
7	Strengthen and develop Integrated Resource Management Plans to effectively and holistically protect and sustain terrestrial, coastal and marine ecosystems building on existing plans such as the Nukutuluea Marine Park. ³⁰	Conditional on finance	2,000,000
8	Expand and/or establish new Community Protected Areas and their coordination through Community Protected Area Networks.	Conditional on finance and capacity	1,000,000
9	Strengthen education, capacity building, and awareness (including traditional knowledge) about climate change impacts on oceans and ocean related livelihoods.	Conditional on finance and capacity	2,000,000
10	Promote nature-based solutions (NbS) to sustain ecosystems that ensure resilience against climate-related threats (such as coral reefs) involving local communities.	Conditional on finance	840,000
11	Advocate for the recognition of the mitigation	Conditional on	600,000

³⁰ The Niue Nukutuluea Marine Park is an EEZ-wide Marine Spatial Management Plan, established by law in 2021.

	benefits under Article 6 of the Paris Agreement, emphasising the importance of non-market approaches in achieving effective climate action and SDGs within the context of ocean conservation and effective ocean management.	finance and capacity	
12	Recognising the climate mitigation benefits of blue carbon ecosystems, Niue states its conditional goal of protecting all ocean components with carbon sequestration potential by 2030.	Conditional on finance and technology	2,500,000
13	Recognise traditional knowledge and its potential to contribute to better understanding of the ocean and to the effective management of resources.	Conditional on finance and partnerships with traditional knowledge holders and authorities	250,000 per annum
14	Enforce compliance with local, national, and international laws, ensuring that the ocean is not utilised for criminal activities or any actions that violate established regulations.	Conditional on finance and capacity	100,000

2.12.6 Loss and Damage

Niue is already experiencing the effects of climate change manifested as Loss and Damage. Niue recognises challenges associated with addressing loss and damage from slow onset events and addressing NELD. The following strategies identify actions that are urgently required for addressing Loss and Damage, including finance, technology and capacity building.

Priority	Strategies	Conditionality	Budget (USD)
1	Niue prioritises to the following: - Adequate capacity and training of a L&D coordinator to manage delivery of activities with support from partners. - State of evidence report developed for Niue through National dialogue. - Development of national relocation guidelines and investment strategy on infrastructure including development of Non-Economic Loss and Damage (NELD) communication products. - Pilot project: Research and engagement of Loss & Damage and Health.	Conditional on finance	5,000,000
2	Establish mechanisms to document and analyse Loss and Damage incurred because of climate change and develop a comprehensive national strategy for identifying and addressing climate-induced Loss and Damage in Niue.	Conditional on finance and capacity	100,000
3	Establish an enabling framework for quantifying and monitoring both economic and NELD caused by climate change.	Conditional on finance and capacity	100,000
4	Establish mechanisms to coordinate and channel financial resources for addressing Loss and Damage, ensuring effective and equitable distribution across sectors.	Conditional on finance and capacity	100,000
5	Strengthen the integration of climate resilience measures within sector plans, with a particular emphasis on those sectors most vulnerable to Loss and Damage.	Conditional on finance and capacity	100,000
6	Outline specific measures and strategies to reduce the risk of	Conditional on	100,000

	Loss and Damage caused by climate change. This may involve investing in resilient infrastructure and planned relocation, disaster risk reduction, ecosystem restoration, and community-based adaptation initiatives.	finance and capacity	
7	Enhance community-based resilience through the promotion of sustainable livelihoods, diversified economic activities, and improved social safety nets.	Conditional on finance and capacity	100,000
8	Implement capacity-building programmes to enhance Niue's ability to assess, address, and respond to both rapid-onset and slow-onset climate events.	Conditional on finance and capacity	300,000
9	Conduct a comprehensive assessment of the country's vulnerability to climate change impacts, including extreme weather events, sea-level rise, and other climate-related risks and identify communities, and sectors most susceptible to Loss and Damage.	Conditional on finance and capacity	200,000
10	Ensure that the design and construction of public and other major infrastructure and development projects consider current and projected risks to minimise Loss and Damage, through climate-resilience planning.	Conditional on finance and capacity	100,000
11	Improve climate change related economic and NELD data collection (where possible in a gender-differentiated manner), analysis, monitoring, and observation systems. This can be achieved by institutionalising and strengthening national capacity to collect and analyse data in a systematic manner. This could be done by developing tools and methods in estimating Loss and Damage and their associated costs.	Conditional on finance and capacity	50,000
12	Build on existing climate change policies and strategies, to develop new and/or revised policies to take Loss and Damage into account.	Conditional on finance and capacity	100,000
13	Explore and establish enabling mechanisms for easier accessibility to the proposed global Loss and Damage Fund, to assist in covering the costs associated with Loss and Damage. This may involve national institutional strengthening (policy and planning).	Conditional on finance and capacity	150,000
14	Articulate the scale of Loss and Damage finance needs: identify ways to strengthen existing financing mechanisms if relevant; expand innovative, pro-poor, people-centred financial instruments; and more importantly, call for enhanced international support beyond adaptation, especially the provision of and access to finance.	Conditional on finance and capacity	100,000

2.12.7 Invasive species

Invasive species threaten native biodiversity, agricultural production and human wellbeing. Niue's commitments to the control or eradication of invasive species are outlined in the table below.

Priority	Strategies	Conditionality	Budget (USD)
1	Develop actions and capabilities to prevent the arrival and establishment of invasive species and to control and eradicate invasive species, diseases and pests.	Conditional on finance	30,000,000

2	Develop an adaptive forestry management and conservation plan (terrestrial and marine) to prevent, invasive species and diseases, including training/capacity building by 2030.	Conditional on finance, capacity, and technology	1,000,000
3	Implement programmes to enhance the resilience of ecological and economic systems towards possible biological invasions and outbreaks.	Conditional on finance and capacity	2,000,000
4	Strengthen biosecurity capabilities for invasive species, and other potential threats.	Conditional on finance and capacity	500,000

2.12.8 Health

Challenges faced by the Niuean health sector are exacerbated by climate change. Climate change induced emergencies and disasters affect water and food availability and vector related outbreaks. The *Government of Niue Health Strategic Plan 2011–2021* recognises the impacts of climate change and related events on health. It also emphasises the importance of improving the capacity of the health sector to respond to the effects of climate change and extreme events. There is also a link between non-communicable diseases (NCDs), food security and access to nutrition.

Priority	Strategies	Conditionality	Budget (USD)
1	Develop a health sector-specific disaster and climate change preparedness and response plan that addresses food security, access to nutrition and improving human health through integrated actions.	Conditional on finance and capacity	100,000
2	Design and undertake a technical needs assessment of the Ministry of Health to respond to the effects of climate change and extreme events.	Conditional on finance and capacity	100,000
3	Promote and pursue sustainable climate finance for health-related adaptation and climate-resilient development of health-related infrastructure (water monitoring, public health, disaster response) and systems for vulnerable groups and communities.	Conditional on finance and capacity	2,000,000
4	Develop, implement and promote sustainable climate finance for health adaptation and climate-resilient development of health through a One-Health initiative with communities, including an updated Health Strategic Plan 2025-2035.	Conditional on finance	2,000,000

2.12.9 Waste management and pollution control

Niue recognises the importance of sustainable waste management practices that take its geographical circumstances into account. The following strategies seek to enhance the safe and effective management of waste in Niue and minimise negative environmental and health consequences.

Priority	Strategies	Conditionality	Budget (USD)
1	Develop a legal and policy framework for the sustainable management of solid waste in Niue.	Conditional on finance, and capacity	250,000
2	Develop a waste-to-energy strategy for solid waste.	Conditional on finance	1,000,000
3	Develop and implement a waste minimisation plan (including 3Rs, composting, characterisation and source separation) by 2030.	Conditional on finance and capacity	100,000

4	Conduct awareness and capacity building programmes to encourage behaviour change in waste generators and waste management personnel.	Conditional on finance	500,000
5	Implement the first phase of Collect, Sort and Export of Recyclable Materials in Niue.	Conditional on finance, technology and capacity	3,000,000
6	Implement Collect, Sort and Export of Recyclable Materials as identified by the E-Waste and Recyclables Project.	Conditional on finance, technology and capacity	2,000,000
7	Strengthen composting of organic waste to produce soil enhancer.	Conditional on finance	200,000
8	Develop and deliver a Training of Trainers programme on waste management and pollution control.	Conditional on finance	250,000

2.12.10 Disaster risk management

Niue's inherent vulnerability to climate induced disasters is exacerbated by the growing impacts of climate change, undermining years of development in this sector.

Priority	Strategies	Conditionality	Budget (USD)
1	Develop guidelines and disaster management plans to reduce vulnerability to climate hazards for communities through an integrated multi-sectorial approach.	Conditional on finance	500,000
2	Establish, assess, integrate and promote climate resilient development best practices for the design and construction of public and other major infrastructure to minimise Loss and Damage, including climate-proofed facilities utilising the national standards on building codes where relevant.	Conditional on finance	10,000,000
3	Increase communication and awareness on climate change impacts among communities and government agencies.	Conditional on finance	500,000
4	Promote design and construction of multi-purpose (dual purpose) community evacuation centres that are sustainable and adhere to building codes.	Conditional on finance	5,000,000
5	Mobilise resources for the provision of climate resilient utilities (water, road, electricity) to identified sites for planned relocations and strengthen the same for existing communities.	Conditional on finance	10,000,000
6	Undertake an assessment of the only wharf on Niue to enhance capabilities, efficiency and to ensure strengthening against natural disasters. Outcomes from the assessment will determine costs required for the wharf upgrade.	Conditional on finance	3,000,000
7	Development of costed Integrated Village Development Plans to align with the National Strategic Plans and sector plans from agencies.	Conditional on finance	200,000

2.12.11 Gender and social inclusion

Niue recognises that climate vulnerability and its impacts not only exacerbate gender inequality, but reinforce social power asymmetries, norms, and practices that constrain progress towards gender and social inclusion. Niue's commitments in this sector are outlined in the table below.

Priority	Strategies	Conditionality	Budget (USD)
1	Uphold gender equity and responsiveness when planning and implementing climate action and solutions that are responsive to the different risks and needs of all people (inclusive of women, girls, men, boys, youth, and people with disability) to increase resilience for all.	Conditional on finance	100,000
2	Empower individuals as catalysts for change, fostering inclusivity in climate action initiatives, and providing equal opportunities for leadership in community-driven efforts for mitigation, adaptation, and response to loss and damage. Review and update the <i>Niue Gender Policy</i> and develop tangible steps to ratify the <i>United Nations Convention on the Elimination of all Forms of Discrimination against Women</i> .	Conditional on finance	500,000
3	Develop, strengthen and integrate the inclusion of people with disability in national climate decision-making processes (involving planning and programme implementation) which directly and indirectly affect their lives. This includes identifying barriers to adapting to climate change, enhancing access and applying an integrated approach to ensure appropriate support networks are in place for their families and community.	Conditional on finance	1,000,000
4	Uphold Niue's global and regional obligations regarding gender equality, human rights, and climate change by strengthening systems, policies and strategies to foster and enhance all genders.	Conditional on finance	250,000
5	Ensure an appropriate environmental and social safeguards framework is in place and develop appropriate social protection infrastructure and systems to reduce climate shocks and indirect and direct natural disasters.	Conditional on finance	2,000,000



3. Means of implementation

Niue's unique national circumstances and developmental challenges make it challenging to implement its ambitious NDC measures. The country has limited technical and financial capacity to act upon climate change on its own. The country seeks the support of developed nations to mitigate the impacts of climate change on the island. Therefore, implementation of mitigation and adaptation actions as identified in this NDC is conditional on external support received in the form of finance, technical capacity, technology transfer and skills development.

4. Fairness and ambition

Despite the socio-economic constraints faced by Niue as a Small Island Developing State, the country has committed to ambitious targets within its capacity, aligned with the principle of 'common but differentiated responsibilities and respective capabilities'.

5. NDC planning process

The NDC 3.0 of Niue is the outcome of a consultative process. Key stakeholders were engaged to develop an inclusive NDC document. The NDC revision process identified and prioritised the most critical challenges in the context of Niue's national development and climate change impacts. These development priorities and plans were integrated into the NDC to adopt a holistic approach to climate action.

As part of the NDC planning, a review of national policy documents and plans was undertaken to gain perspective on the national circumstances and to identify gaps and barriers in climate action. Findings were discussed with key government departments and other stakeholders. Technical studies were conducted on the two key challenges to the country – food and water security – to develop greater understanding of the problem and articulate linkages to climate change. Further, a gap assessment of the first NDC submitted in 2016 was conducted with respect to the requirements of the *Paris Agreement*. Findings of the literature review, technical studies and gap analysis were synthesised to help frame the revised NDC. Relevant stakeholders from the government were consulted to validate findings and develop a truly inclusive NDC document.



Annexure 1

Information necessary for clarity, transparency and understanding of Niue's NDC

1. Quantifiable information on the reference point (including, as appropriate, a base year)	
Reference year(s), base year(s), reference period(s) or other starting point(s)	The latest data on GHG emissions is available for 2009.
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	<p>As per the GHG inventory conducted in 2009, Niue accounted for a total of only 5.1 Gg CO₂e GHG emissions. The energy sector is the largest contributor to emissions in the country.</p> <p>Reference indicators are:</p> <ul style="list-style-type: none">• Share of emissions from electricity generation – 42%• Emissions associated with electricity generation – 2.11 Gg CO₂e
Target relative to the reference indicator, expressed numerically, for example in percentage or amount of reduction	<p>Increase % by 2030</p> <p>Conditional to receiving financial, technology and capacity building support, there is potential for the country to increase and consolidate renewable generation to 80 % of total electricity generation by 2030.</p> <p>Manage demand-side energy consumption by facilitating household access to renewable technology and increase consumer awareness on lower emission sources.</p> <p>Facilitate fuel switching to lower emissions sources in the transport sector.</p>
Information on sources of data used in quantifying the reference point	The NDC 3.0 has used the base year information from the GHG inventory in 2009. It has utilised national energy statistics and default emission factors.
Information on the circumstances under which the Party may update the values of the reference indicators	Information on emissions and reference values may be updated and recalculated as and when the GHG inventory is reviewed, and a new one is conducted in the future.
2. Time frames and/or periods for implementation	
Time frame and period of implementation	Timeframe for NDC implementation is 2024 to 2030.
Whether it is a single-year or multi-year target, as applicable	Niue has committed to a single-year target.

3. Scope and Coverage

(a) General description of the target	Please refer to 1 (c) above
(b) Sectors, gases, categories and pools covered by the nationally determined contribution, including, as applicable, consistent with Intergovernmental Panel on Climate Change (IPCC) guidelines;	<p>Sectors covered: Energy sector (electricity generation sub sector).</p> <p>Gases covered: Carbon dioxide (CO₂), methane (CH₄), nitrous oxide (N₂O).</p> <p>Geographic coverage: Country wide.</p>
(c) How the Party has taken into consideration paragraphs 31 (c) and (d) of decision 1/CP.21:	Niue commits to extend, over time, the scope of its NDC to all categories of anthropogenic emissions in line with paragraph 31 (c).
(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.	<p>Biodiversity: Protection and conservation of Niue's terrestrial and marine biodiversity and ecosystem will reduce GHG emissions and increase carbon sequestration.</p> <p>Agriculture: Adopting climate smart agriculture will contribute to better land management practices thus, improve soil health and reduce GHG reduction.</p> <p>Sustainable tourism: Developing sustainable tourism activities will reduce fossil-based energy use, encourage different stakeholders (such as hotels and transportation partners) to use low emissions and energy efficient equipment, and promote renewable energy.</p>

4. Planning Processes

(a) Information on the planning processes that the Party undertook to prepare its NDC and implementation plans, including:

(i) Domestic institutional arrangements, public participation and engagement with local communities and indigenous peoples, in a gender-responsive manner;	Niue's NDC revision followed a robust methodology of (i) reviewing national policies and plans, (ii) technical studies on food and water security, (iii) an in-depth gap analysis of the first NDC and (iv) detailed consultations with key stakeholders. The process has helped in identifying and prioritising the most critical challenges in the context of national development and climate change in Niue.
(ii) Contextual matters, including, <i>inter alia</i>, as appropriate: National circumstances, such as geography, climate, economy, sustainable	a. National circumstances, such as geography, climate, economy, sustainable development and poverty eradication

development and poverty eradication		
	b. Best practices and experience related to the preparation of the nationally determined contribution	The revision process in Niue has integrated its development priorities and plans into the NDCs, thereby strengthening their relevance in the national context. Similarly, continuous engagement with key stakeholders has enriched the revision process to develop a truly inclusive NDC document.
	c. Other contextual aspirations and priorities acknowledged when joining the Paris Agreement;	Niue acknowledges the need for immediate collective action to reduce the increasing impacts of climate change. Aligned with this goal, Niue's NDCs adopt pathways to increase the climate resilience of communities.
(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 Party's preparation of its nationally determined contribution has been informed by the outcomes of the global stock take, in accordance with Article 4, paragraph 9, of the Paris Agreement;		Not applicable as the global stock take is yet to take place.
(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:	<p>(i) How the economic and social consequences of response measures have been considered in developing the nationally determined contribution;</p> <p>(ii) Specific projects, measures and activities to be implemented to contribute to mitigation co-benefits, including information on adaptation plans that also yield mitigation co-benefits.</p>	<p>The NDCs defined in the process aim to address five socio-economic challenges facing Niue. The adaptation measures work towards achieving food and nutritional security, enhancing access to clean water, improving income levels and reducing disaster risks. In addition to mitigation co-benefits from the mitigation target, it will also help achieve energy security in the country.</p> <p>Please refer to 1 (d) and 3 (d).</p>

5. Assumptions and methodological approaches, including those for estimating and accounting for anthropogenic greenhouse gas emissions and, as appropriate, removals:

<p>(a) Assumptions and methodological approaches used for accounting for anthropogenic greenhouse gas emissions and removals corresponding to the Party's nationally determined contribution, consistent with decision 1/CP.21, paragraph 31, and accounting guidance adopted by the CMA.</p>	<p>Current methodological approach and metrics used by Niue are in accordance with the Revised 1996 IPCC Guidelines for National Greenhouse Gas Inventories. The inventory has compiled GHG emissions at Tier 1 and has utilised national energy statistics and default emission factors.</p>
<p>(b) Assumptions and methodological approaches used for accounting for the implementation of policies and measures or strategies in the nationally determined contribution</p>	<p>Niue's GHG inventory does not include all the five major emission sources categorised by the IPCC as several of them are not relevant in the country's context.</p> <p>Energy: Electricity generation, transport uses, domestic energy and aviation use are the main sources of emissions included in the inventory.</p> <p>Industrial Processes and Product Use: There are no large-scale industrial facilities in Niue and the solvent use and product emissions are non-material. Hence, detailed records are not kept.</p> <p>Agriculture, forest and other land use: Although shifting agriculture is practiced in Niue, the usual practice of farmers is to plant amongst cleared vegetation. Similarly, the size of ruminant stock is generally low. Niue has made attempts to calculate emissions from land-use but is constrained by the lack of recent satellite imagery.</p> <p>Waste: Emissions (only methane) from the country's waste sector were calculated using the IPCC Waste Model. Though, the calculated emissions were non-material (<1), they are included for completeness.</p>
<p>(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</p>	<p>Same as 5 (a) and 5 (b).</p>
<p>(d) IPCC methodologies and metrics used for estimating anthropogenic greenhouse gas emissions and removals</p>	<p>Same as 5 (a) and 5 (b).</p>
<p>(e) Sector-, category- or activity-specific assumptions, methodologies and approaches consistent with IPCC guidance, as appropriate,</p>	<p>(i) Approach to addressing emissions and subsequent removals from Natural disturbances on managed lands;</p> <p>Not applicable.</p>

including, as applicable:	(ii) Approach used to account for emissions and removals from harvested wood products;	Not applicable.
	(iii) Approach used to address the effects of age-class structure in forests;	Not applicable.

(f) Other assumptions and methodological approaches used for understanding the nationally determined contribution 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	Niue's GHG emissions were calculated using the methodology and criteria provided in the Revised 1996 IPCC Guidelines for National Greenhouse Gas Inventories. Details are described in 1 (a), 1 (b), 5 (a) and 5 (b).
(ii) For Parties with nationally determined contributions that contain non-greenhouse-gas components, information on assumptions and methodological approaches used in relation to those components, as applicable	Niue's NDCs cover non GHG components in the adaptation section. These were identified and prioritised based on scientific data analysis which followed a robust methodology including (i) literature review on the national circumstances and policies and programmes, (ii) technical studies and gap analysis and (iii) stakeholder consultation.
(iii) For climate forcers included in nationally determined contributions not covered by IPCC guidelines, information on how the climate forcers is estimated	Not applicable.
(iv) Further technical information, as necessary	None.
(g) The intention to use voluntary cooperation under Article 6 of the Paris Agreement, if applicable	Niue is committed to contributing towards international discourse on developing voluntary markets. Based on these discussions, Niue will identify mechanisms to use international market mechanisms to achieve its NDC targets.

6. How the Party considers that its nationally determined contribution is fair and ambitious in the light of its national circumstances

<p>(a) How the Party considers that its nationally determined contribution is fair and ambitious in the light of its national circumstances;</p>	<p>Niue's contribution to global greenhouse gas emissions is negligible (less than 0.0001%) and the country is a net carbon sink. However, the country aims to reduce energy sector emissions and has committed to a target. The target is to increase and consolidate Renewable Energy generation to 80% by 2030. Also, as per the 2009 GHG inventory of the country, electricity generation contributes to 42% of total GHG emissions.</p>
<p>(b) Fairness considerations, including reflecting on equity;</p>	<p>Despite the constraints faced by Niue as a Small Island Developing State, the country has committed to ambitious targets within its capacity, aligned with the principle of 'common but differentiated responsibilities and respective capabilities'.</p>
<p>(c) How the Party has addressed Article 4, paragraph 3, of the Paris Agreement;</p>	<p>The NDC revision process involved consultations with different stakeholders to include sectoral perspectives and to ensure that the commitments address relevant issues.</p>
<p>(d) How the Party has addressed Article 4, paragraph 4, of the Paris Agreement;</p>	<p>Niue assessed its national circumstances and prioritised key sectors based on input received from stakeholders. Based on these findings, sectors were prioritised. Niue strengthened its commitment by introducing new mitigation measures. Adaptation commitments were also enhanced by formulating specific measures.</p>
<p>(e) How the Party has addressed Article 4, paragraph 6, of the Paris Agreement.</p>	<p>Niue is currently in the process of developing specific strategies, plans and actions to implement NDC measures that are aimed at reducing GHG emissions.</p>

7. How the nationally determined contribution contributes towards achieving the objective of the Convention as set out in its Article 2

<p>(a) How the nationally determined contribution contributes towards achieving the objective of the Convention as set out in its Article 2;</p>	<p>The NDC commits to increase the share of renewable energy in the electricity mix with the objective of decarbonizing the electricity generation sub-sector that contributes 42% of the total GHG emissions of the country. A reduction of 977,000 litres of diesel per annum, or approximately 3.1 Gg CO₂e per annum could be achieved if the country achieves the conditional target of 80% renewable energy share in the energy mix.</p>
<p>(b) How the nationally determined contribution contributes towards Article 2, paragraph 2(a), and Article 4, paragraph 1, of the Paris Agreement.</p>	<p>Consistent with the objectives of the Paris Agreement, and to achieve the long-term temperature goal set out in Article 2 paragraph (a) and Article 4, paragraph 1 of the Paris Agreement, Niue's has committed to reducing GHG emissions by increasing and consolidating renewable energy generation to 80% by 2030. Additionally, Niue has introduced new measures and sectors with mitigation co-benefits. The NDC 3.0 of Niue represents the small island country's commitment to limit the increase in the global average temperature to well below 2°C above pre-industrial levels and pursuing efforts to limit the temperature increase to 1.5°C above pre-industrial levels.</p>

Annexure 2

Niue NDC Strategies and SDGs

Contribution	Related SDG	Sector / Theme	Niue's NDC Strategy
Mitigation	SDG 7 Affordable and Clean Energy	Energy	By 2030, increasing the share of renewable energy in total electricity generation by 80%, managing energy consumption, and facilitating fuel switching in the transport sector will make energy more affordable and cleaner.
Mitigation	SDG 2 Zero Hunger SDG 15 Life on Land	Agriculture, Forest and Other Land Use (AFOLU)	Restoring and converting degraded land can help to increase carbon storage capacity by 2030. This, in turn, can contribute to sustainable agriculture and forest management, which have the potential to reduce hunger and protect life on land.
Adaptation	SDG 6 Water Security	Water	Developing and maintaining water infrastructure through water harvesting structures, wastewater disposal improvements, and technical capacities for water quality monitoring contribute to ensuring the availability and sustainable management of water and sanitation for all.
Adaptation	SDG 2 Zero Hunger	Agriculture and Fisheries	Improving food security, reducing land degradation, and supporting the fisheries sector are key to promoting sustainable agriculture, ending hunger, and achieving improved nutrition.
Adaptation	SDG 8 Decent Work and Economic Growth	Tourism	Developing technical capacities and supporting infrastructure for sustainable tourism promotes economic growth, employment, and decent work.
Adaptation	SDG 15 Life on Land	Ecosystems and Biodiversity	Implementing nature-based solutions, strengthening enforcement of legislation, and developing technical capacities for biodiversity monitoring contribute to protecting, restoring, and promoting the sustainable use of terrestrial ecosystems, managing forests sustainably, combating desertification, and halting and reversing land degradation and biodiversity loss.
Adaptation	SDG 14 Life Below Water	Oceans, Marine and Coastal Ecosystem	Managing marine resources, encouraging sustainable sponsorship, building the resilience of Niue's blue economy, and protecting ocean components with carbon sequestration potential will contribute to

			the conservation and sustainable use of the oceans, seas, and marine resources for sustainable development.
Adaptation	SDG 13 Climate Action	Loss and Damage	Efforts to combat climate change and its impacts require a multidimensional approach. Establishing mechanisms to assess and redress loss and damage, developing a comprehensive national strategy, establishing a robust framework to quantify and monitor loss and damage, and strengthening the integrating climate resilience measures will contribute to urgent and effective action to mitigate and adapt to the consequences of climate change in Niue.
Adaptation	SDG 2 Zero Hunger SDG 3 Good Health and Wellbeing SDG 13 Climate Action	Health	Developing tailored preparedness and response plans that include food security and nutrition is essential for improving the health sector's ability to withstand the impacts of climate change and natural disasters. Adopting a community-engaged One-Health approach, which is tailored to the specific needs of different communities, will not only help combat climate change, but also ensure healthy lives, promote overall wellbeing of individuals and communities, and build a more sustainable future.
Adaptation	SDG 15 Life on Land	Invasive Species	Preventing the establishment, control, and eradication of invasive species, diseases, and pests is crucial for protecting, restoring, and promoting the sustainable use of terrestrial ecosystems. It also helps in sustainably managing forests, combating desertification, and halting and reversing land degradation and biodiversity loss.
Adaptation	SDG 12 Responsible Consumption and Production	Waste Management and Pollution Control	Developing a Waste-to-Energy strategy, strengthening composting for organic waste, and implementing Collect, Sort and Export of Recyclable Materials contribute to sustainable consumption and production patterns.
Adaptation	SDG 13 Climate Action	Disaster Risk Management	Developing guidelines and a disaster management plan is essential to reducing vulnerability to climate hazards. Key steps to combat climate change and its impacts also include strengthening climate and disaster risk monitoring capacity within relevant institutions, improving communication, and raising awareness of the impacts of climate change among communities and government agencies.

Adaptation	SDG 5 Gender Equality	Gender Equality	Conducting research to identify environmental challenges and impacts of climate change specific to each gender, improving women's access to finance and credit, enhancing women's access to specialised skills, and promoting women's representation in leadership roles can all contribute to achieving gender equality and empowering all women and girls.
Means of Implementation	SDG 17 Partnerships for the Goals	External Support	Niue seeks the support of developed nations to mitigate the impacts of climate change on the island. This emphasises the importance of international cooperation and partnerships in achieving the SDGs and the NDC targets.
Fairness and Ambition	SDG 13 Climate Action	Ambitious targets	Niue has committed to ambitious targets within its capacity, aligned with the principle of 'common but differentiated responsibilities and respective capabilities'. This emphasises the importance of each country's role in addressing climate change and its impact, considering their different capacities and responsibilities.
NDC Planning Process	SDG 17 Partnerships for the Goals	Consultative process	Niue's revised NDC is the result of a consultative process which included the integration of development priorities and plans into the document. This has ensured an holistic approach to addressing climate action. It has also helped improve the planning process and highlights the importance of collaboration and partnership in achieving a comprehensive response to climate action.

