

GOVERNMENT OF NIUE

# SUSTAINABLE COASTAL DEVELOPMENT POLICY

2008



Prepared for the Government of Niue

A collaboration between Niue Coastal Policy Steering Committee and SOPAC

*with funding assistance from the*  
SOPAC-EU EDF 9 Project: Reducing Vulnerability in Pacific ACP States



**SOPAC**

[2]

*Prepared by:*

**Netatua Pelesikoti & Litea Biukoto**  
*SOPAC Secretariat*

July 2008

**SOPAC Miscellaneous Report 659**

PACIFIC ISLANDS APPLIED GEOSCIENCE COMMISSION

c/o SOPAC Secretariat  
Private Mail Bag  
GPO, Suva  
FIJI ISLANDS  
<http://www.sopac.org>  
Phone: +679 338 1377  
Fax: +679 337 0040  
[www.sopac.org](http://www.sopac.org)  
[director@sopac.org](mailto:director@sopac.org)

## TABLE OF CONTENTS

BACKGROUND .....	4
The Need for a Sustainable Coastal Development Policy .....	4
Sustaining Coastal Benefits.....	4
Reducing Disaster Risks .....	5
Promoting Proactive and Co-operative Governance .....	5
THE POLICY DEVELOPMENT PROCESS .....	5
Institutional Framework for Policy Implementation .....	6
IMPLEMENTATION, MONITORING AND EVALUATION .....	7
1. THE SUSTAINABLE COASTAL DEVELOPMENT POLICY .....	8
1.1 Vision Statement .....	8
1.2 Scope of the Policy.....	8
2. PRINCIPLES FOR COASTAL MANAGEMENT AND DEVELOPMENT .....	10
3. GOALS, OBJECTIVES AND ACTION STRATEGIES .....	11
Goal 1: Upholding Coastal Areas as National Taoga for all Niueans .....	11
Goal 2: Integrated Coastal Planning, Management and Development.....	12
Goal 3: Pollution Control and Waste Management.....	15
Goal 4: Sustainable Management and Development Of Coastal Resources .....	16
Goal 5: Disaster Risk Reduction and Disaster Management .....	18
Goal 6: Strengthening Governance and Capacity Building.....	20
REFERENCES .....	23
GLOSSARY OF TERMS.....	24
ANNEXES	
Annex 1: List of Participants – 1 <sup>st</sup> National Workshop .....	25
Annex 2: Inter-Departmental Coastal Development Policy Steering Committee .....	26
Annex 3: List of Participants – 2 <sup>nd</sup> National Workshop .....	27
Annex 4: Policy Reviewer: .....	28

## BACKGROUND

This policy document provides a framework to guide sustainable management and development of Niue's coast. Lessons learnt from previous disasters left Niue with huge economic, social and environmental costs; justifying the need for a policy to guide development and in turn safeguard the people of Niue and their livelihood from disastrous events. This policy supports the achievement of national development goals directed by the *Niue Integrated Strategic Plan (NISP) 2003-2008*, the *Heta Recovery Plan 2005*, the *Taoga Niue Strategic Action Plan*, the *Niue Private Sector Development Strategic Plan 2007-2010* and other sector policy and plans such as the *Agriculture, Fisheries and Forestry Coastal Management Plan*, the *Waste Management Plan*, the *National Biodiversity Strategic Action Plan (NBSAP)* and the *National Climate Change Adaptation Programme*.

This policy explicitly addresses the coastal area as a system that has natural and human aspects and components that are inter-related and dependent on one another. The diversity and productivity of coastal ecosystems is interwoven with the safety and growth of livelihoods and development for the people of Niue.

### The Need for a Sustainable Coastal Development Policy

The coast of Niue is a national heritage that provides enormous benefits to its people. The coast offers opportunities for economic and social development. These benefits could be maximised by maintaining the productivity of coastal ecosystems and reducing disaster risks. There is a need for an integrated coastal management and development policy to help Niue sustain the benefits and opportunities the coast offers.

A radical new approach is needed to manage coastal development and resources wisely and to reduce resource and ecosystem degradation, and subsequent losses of lives and livelihoods. The new approach as advocated by this policy paper provides a vehicle for decision makers and the people of Niue to manage the coasts in a sustainable manner.

This Policy Paper sets out approaches to coastal management that aim to:

- sustain coastal benefits through integrated coastal area management and development;
- reduce disaster risks to coastal development and the people of Niue; and
- promote proactive and co-operative governance.

### *Sustaining Coastal Benefits*

Coastal ecosystems involve complex biological, chemical and physical inter-relationships between land and sea. The coast is a high-energy environment that is subject to constant change. These conditions give rise to a variety of landforms, plant and animal species and habitats, and to a rich diversity in natural resources.

The coast is also the site of complex inter-relationships between humans and natural systems. Although coastal ecosystems are resilient, they are finite and vulnerable to over-use, pollution and damage. Inappropriate decisions can expose human life and property to high risks.

## *Reducing Disaster Risks*

Niue, and specifically its 'coastal area', is vulnerable to both natural and human-induced hazards. Cyclone Heta in 2004 devastated Niue's north and north-west coastlines. Approximately 150 buildings including the Niue Hotel and the hospital were destroyed by waves that swept over the Alofi terrace which is at an elevation of 25 m along most of the coast<sup>1</sup>. The estimated direct damage was over NZ\$35 million dollars. From this experience and other similar experiences with cyclones before Heta, it is evident that disaster reduction can only be realised through an effective partnership between government, the private sector, NGOs<sup>2</sup> and village communities to implement Disaster Risk Management<sup>3</sup> (DRM) initiatives.

## *Promoting Proactive and Co-operative Governance*

Current institutional and legal arrangements for coastal management are inefficient and fragmented, and fail to co-ordinate the many activities taking place along the coast. An enabling institutional framework is needed to: promote harmony between sectoral policies; strengthen organisational arrangements; promote co-ordination and integration of planning, management and investment strategies; and to strengthen the human resource base for coastal management and development.

This policy paper proposes an approach to coastal management and development that promotes co-operative governance and public-private partnerships in an effort to encourage shared responsibility for Niue's special coastal heritage. It also suggests mechanisms for co-ordination and integration between different sectors.

The Government of Niue needs to invest in the implementation of this approach to ensure that the coastal ecosystems, diversity and productivity are maintained, and the people of Niue enjoy the maximum benefits and opportunities coastal areas can usefully provide.

## **THE POLICY DEVELOPMENT PROCESS**

The need to develop a coastal development policy to guide the management and development of Niue's coast became more urgent after Cyclone Heta. The Government of Niue was assisted through the SOPAC-EU Reducing Vulnerability of Pacific ACP States Project to develop it.

This policy builds on previous studies undertaken in Niue and lessons learnt from impact assessments of cyclones Ofa and Heta carried out by SOPAC; and other national reports that discuss coastal management and marine conservation issues and initiatives; waste management; water; essential services like power and other energy initiatives; telecommunication; and early warning systems.

An extensive process of public consultation with representatives of the national government, civil society, village councils, businesses, and non-governmental organisations; and a first national workshop (a list of participants is in Annex 1) were conducted to identify specific coastal and related issues to be addressed by the policy.

---

<sup>1</sup> Biukoto L., & Bonte-Graptin M., 2004. Niue Mission Report No. 34. SOPAC, Suva, Fiji.

<sup>2</sup> NGOs – Non Government Organisations

<sup>3</sup> DRM – Disaster Risk Management

At the first national workshop, an inter-departmental steering committee with representatives of the village councils was established to develop the policy with the assistance of SOPAC (members of the steering committee is given in Annex 2). A draft from the steering committee was further discussed in a second national workshop in November 2007 (a list of participants is in Annex 3). The steering committee has had time to further review the draft following the November workshops. The draft policy has also been reviewed by SOPAC technical staff and other Niue nationals (Annex 4). This extensive consultation was deemed as necessary before a final draft policy could be presented to Cabinet for consideration and approval.

## **Institutional Framework for Policy Implementation**

Several Government departments in Niue are involved in various aspects of managing the coast and its resources. These departments however are under-resourced and under-staffed. Government would then increasingly need to form partnerships with NGOs and, community-based organisations, along with other resource user groups to assist in the task of policy implementation. Various forms of co-management between community groups and relevant Government departments are already being implemented such as in the International Waters Project (IWP)<sup>4</sup>. An assessment of the conditions under which these co-management systems operate effectively should inform the development of appropriate and feasible legislative and institutional scenarios for implementing the Coastal Development Policy.

Generally integrated coastal ecosystem management and development is lacking and coordination among key agencies that have some responsibilities for coastal management and development absent. Most Government departments do not consider coastal management responsibilities as within the ambit of their work although there are some activities that they manage that are located in the coastal environment or may affect the coast. As a result there is an absence of policy guidelines, coastal framework legislation and a single coordinating body to provide direction and guidance for coastal management and development.

The Department of Environment, according to the *Environmental Legislation 2004*, has a strong focus and coordination role that could be the basis for their providing the coordination role for the implementation of this policy. Further, the mandate of the Department of Environment is aligned with the goals of this policy. Relevant features of the *Environmental Legislation 2004* relating to the mandate of the Department of Environment are listed below.

Section 4 lists matters to be taken into account by this legislation as:

- maintenance of enhancement of the quality of the environment
- efficient use and development of natural and physical resources
- concept of sustainable development
- protection of water lens from contamination
- protection of indigenous flora and fauna and their habitats
- protection of coastal zone from inappropriate use and development
- protection of historical areas from inappropriate use and development
- relationship of Niueans and their culture and traditions to their lands and historic areas
- conservation and sustainable use of biological resources
- compliance to multilateral environment agreements Niue is a party to

Section 15: The establishment of the Council for Sustainable Development

Section 32 (1&2): Provision for Cabinet to make regulations to give effect to the following:

---

<sup>4</sup> IWP International Waters Programme

- Environmental Impact Assessment (EIA)<sup>5</sup>
- planning and resource management
- waste and pollution control
- hazardous substances and waste
- species and habitat protection
- control of alien species
- preservation of historical areas and
- rehabilitation of contaminated and polluted land.

## IMPLEMENTATION, MONITORING AND EVALUATION

Once the Coastal Development Policy is endorsed by the Government of Niue, it should be implemented. The Department of Environment as the most logical key policy coordination and implementation agency should lead the preparation of a programme of action for policy implementation. Agreement would need to be reached with key stakeholders on the appropriate activities, time-frame and priority actions for such a programme. Every effort should be made to ensure that policy implementation occurs as soon as possible after agreement has been reached on the new Coastal Development Policy and its implementation programme. Many considerations will need to be addressed in the implementation programme; some of which are listed below:

- Programmes to increase the levels of **public awareness, support** and **participation**.
- Plans to improve the **capacity** of those likely to be involved in at different levels of coastal management and development.
- Secure adequate **financial support**.
- Put in place appropriate **institutional and legal arrangements**.
- Provide **incentives** to implement the Policy.
- Develop **mechanisms** to improve coordination between the Department of Environment and other relevant Government agencies and among Government, the private sector and civil society.

Given budgetary and capacity limitations, careful consideration will need to be given to priority issues for policy implementation. The **key policy initiatives should be prioritised within the policy framework for immediate action** in the first phase of policy implementation. The following are examples of possible strategies requiring priority action.

- Improve public access to the coast, whilst taking into account traditional, community and private property rights.
- Maintain the safety and diversity of the coast.
- Protect the lives and properties of the people of Niue.
- Establish and effectively manage a representative system of coastal protected areas. Including, wherever possible a land-marine connection.

Consideration needs to be given to how to ensure a continuing cycle of improvement in implementing the Coastal Development Policy. Most national coastal programmes have statutory requirements for review and readjustment, using monitoring and evaluation mechanisms. The aim is usually to track the impact of a programme, to ensure continual improvement and to promote accountability. Standards for coastal management monitoring and evaluation are not yet well established internationally. There is, however, considerable effort underway to develop a common methodology for monitoring and evaluation, so that experience can be more effectively shared.

Monitoring should focus both on the state of the coastal environment (biophysical, institutional, social and economic) and on the success of policy implementation through coastal management initiatives as measured against policy objectives and performance criteria.

---

<sup>5</sup> EIA Environmental Impact Assessment

# 1. THE SUSTAINABLE COASTAL DEVELOPMENT POLICY

## 1.1 Vision Statement

The vision statement provides the overall intent for the policy and is as follows:

**'A SAFE, PRODUCTIVE AND SUSTAINABLE COASTAL ENVIRONMENT FOR NIUE'**

*<insert Niuean version of Vision>*

## 1.2 Scope of the Policy

1.2.1 The foreshore, internal waters, territorial waters and exclusive economic zone (and seabed thereof) and land are vested in the Crown. The term or the concept 'coast' is not defined in existing legislation, which refer to such an entity. The nearest definition of a 'coast' is a combination of the descriptions provided by the *Niue Land Ordinance, Niue Amendment Act 168* (Section 5) and *1996 Territorial Sea and Exclusive Economic Act* (Section 7) for 'foreshore'. The sea-ward boundary of 'foreshore' being 3 nautical miles (nm) from the nearest point of low water mark and the land-ward boundary 10 m inland from the mean high water mark (MHWM)<sup>6</sup> (Figure 1).

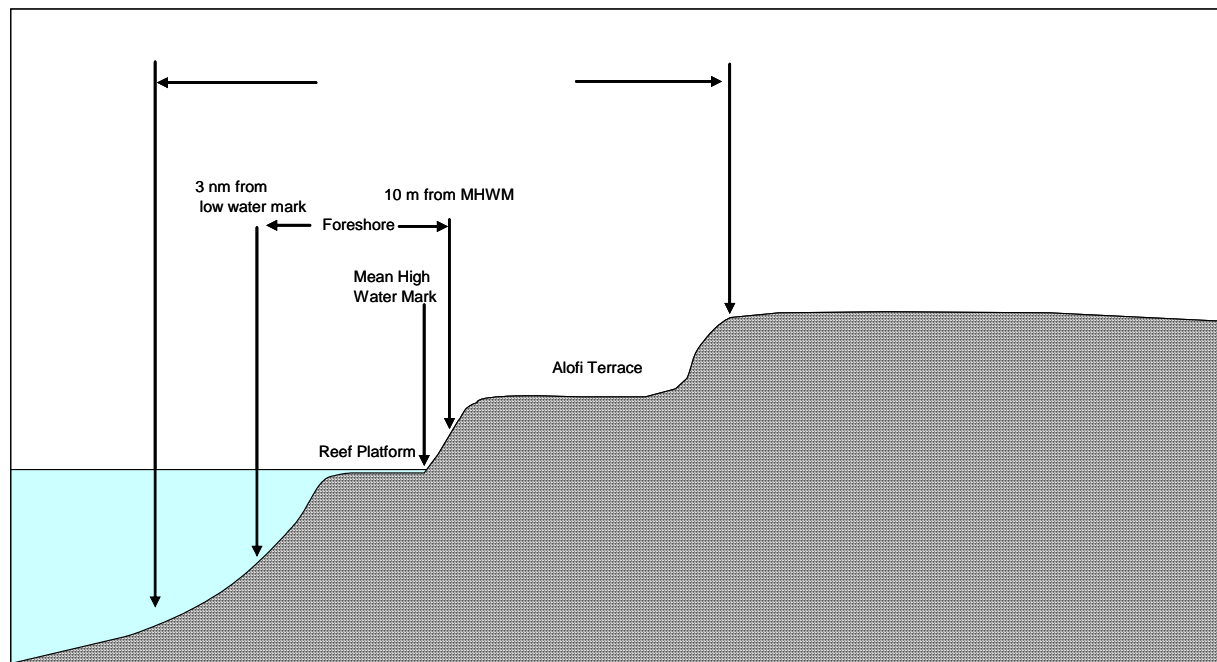


Figure 1. The 'Foreshore' extends 3 nm from the low water mark landward to 10 m from MWHM (not drawn to scale).

1.2.2 Based on lessons learnt from previous disasters such as those caused by cyclones Ofa and Heta and to ensure consistency with existing legislation and resource management plans (e.g. the Integrated Coastal Management Plan for Agriculture, Forestry and Fisheries); the scope of this policy covers all coastal areas of Niue from the edge of the upper terrace cliff as the land-ward boundary to the sea-ward boundary of the Territorial

<sup>6</sup> MHWM



Waters, 12 nautical miles from the edge of the reef exposed at lowest astronomical tide<sup>7</sup> (Figure 2).

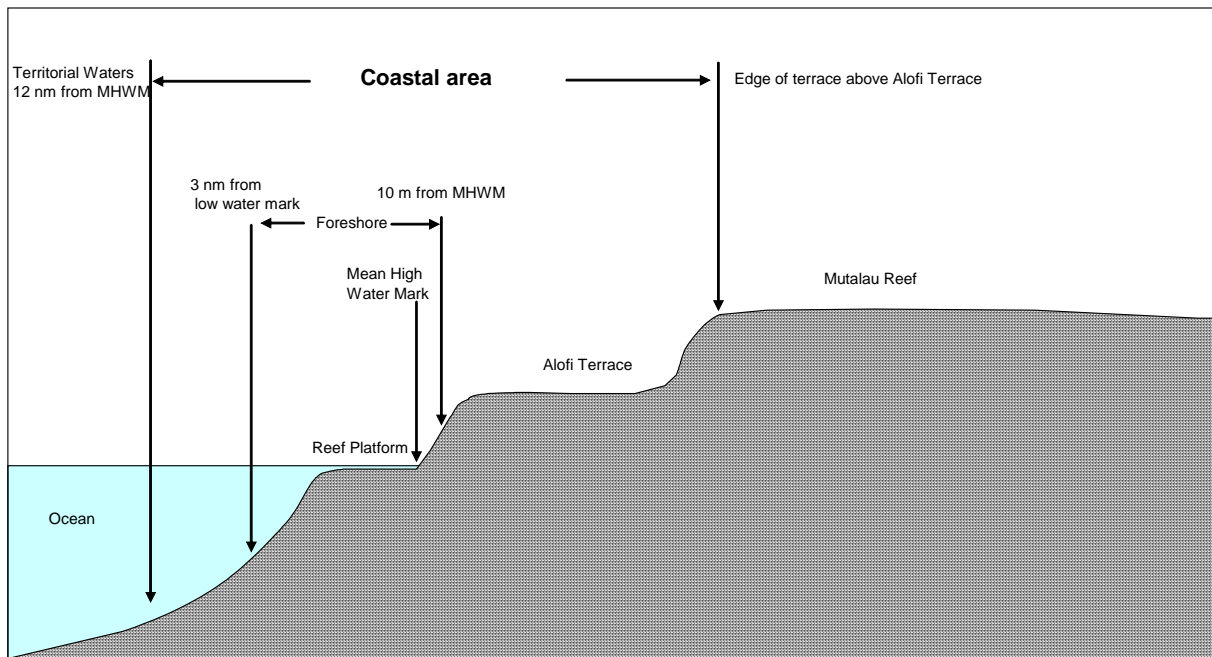


Figure 2. The coastal area is defined by the seaward boundary of the Territorial waters to the edge of the terrace above the Alofi Terrace (not drawn to scale).

- 1.2.3 The major challenges faced in Niue's integrated coastal management related to the segmented responsibilities that are resource based; the lack of zoning policies and the lack of a 'strong agency' with the legislative support to drive management and development coordination. It is common to have habitat and species that are trans-boundary and migratory that might call for a trend to manage the coast on the basis of 'issue-by-issue' boundary definitions; or for adaptive management that does not necessarily mean that the 'coastal area' needs to be redefined but that the management process and methodologies need to be suitable to different management units.
- 1.2.3 Where there are approved existing policies or management plans that have defined 'coastal areas' for the purpose of managing specific 'coastal resources', the scope of the 'coast' defined as the management unit applies to the management or development of that particular resource, or species and should not conflict with the scope of the coastal area for this policy.

<sup>7</sup> Territorial Waters as defined by UNCLOS

## 2. PRINCIPLES FOR COASTAL MANAGEMENT AND DEVELOPMENT

2.1 Principles provide the point of departure for translating the Vision into practice. They are the fundamental basis for reasoning and action. These principles are seen as ‘universal truths’ drawn from principles of integrated coastal management and disaster risk reduction and disaster management in the context of sustainable development. These principles must be considered as a whole – the full meaning of each principle can be realised only in relation to the other principles. To support the Vision, the following principles are established to guide the policy Goals, Objectives and Action Strategies.

1. **National heritage.** The coast should be retained as a national heritage, with public rights to access and benefit from coastal resources.
2. **Economic development.** Suitable coastal economic development opportunities should be optimised to meet the development aspirations of the people of Niue while ensuring that people are safe to enjoy the benefits.
3. **Social equity.** Coastal management and development efforts should ensure the conservation of common property resources; and that all people, including future generations, are treated with dignity and fairness.
4. **Ecological integrity.** The diversity, health and productivity of coastal ecosystems should be maintained.
5. **Governance.** Sustainable coastal management and development is a shared responsibility between the Government in partnership with the land owners, private sector, NGOs requiring a whole-of-country approach in an open, inclusive and transparent manner. All people should be responsible for the consequences of their actions, and have the duty to act with care to avoid hazard and disaster risks to themselves, to their properties, to others and their coastal environment.
6. **Risk reduction and risk management.** Coastal management and development efforts should adopt a risk reduction and risk management precautionary approach under conditions of uncertainty with regard to impacts consequences of climate change (prolonged drought periods, sea-level rise, intensity and frequency of cyclones and changing rain patterns).
7. **Coordination and integration.** The coastal area is a unique resource system with multiple uses and users. These require coordinated and integrated approaches to management and development, recognising the inter-relationships between coastal users and ecosystems; and between the land and sea.

### 3. GOALS, OBJECTIVES AND ACTION STRATEGIES

- 3.1 The goals, objectives and action strategies for a sustainable coastal development policy were developed based on the vision and principles outlined previously. There are six thematic goals.
- Goal 1: Upholding coastal areas as national Taoga for all Niueans.
  - Goal 2: Integrated coastal planning, management and development.
  - Goal 3: Pollution control and waste management.
  - Goal 4: Sustainable management and development of coastal resources.
  - Goal 5: Disaster risk reduction and disaster management.
  - Goal 6: Strengthening governance and capacity building.
- 3.2 The goals and objectives provide more detailed direction for achieving the vision of sustainable coastal development. They address the key issues of concern. They also apply, build upon, integrate and clarify directives outlined in other relevant policies and laws, where appropriate. Under each of the 'goals', a list of key issues, and then a set of proposed objectives and action strategies are presented. These goals and objectives should not be viewed in isolation from each other – they must be considered as a whole as they all contribute to the vision and are inter-related.
- 3.3 Many policies and laws are directly relevant to realising the outcomes of sustainable coastal development. Among the more important of these are the *1974 Constitution*, *1996 Land Act*, *1997 Territorial Sea and Economic Exclusive Economic Zone Act*, *1977 Business Licence Act*, *1992 Building Code* and *Environmental Legislation 2004*. Other relevant policies and laws include those relating to agriculture, fisheries biodiversity conservation, disaster management, energy, forestry, maritime activities, minerals, pollution and waste management, the foreshore, tourism, transport and water. Furthermore, Niue is a signatory to a number of international and regional conventions and agreements that have an important bearing on coastal management and development.

#### Goal 1: Upholding Coastal Areas as National Taoga for all Niueans

The coast holds significant cultural value as Taoga<sup>8</sup> for the Niuean people. As such, it should be planned and managed in the long-term interest of the public. All Niueans have a responsibility to ensure that the coast is maintained as a Taoga.

#### KEY ISSUES

- Rights: public and villages rights, private property, traditional access rights to the foreshore and the sea
- Reef fishing rights of villages and families
- Respecting the traditional canoe fishing grounds (boat owners, recreational users)
- Safe and on-going maintenance of public access to the foreshore and the sea
- Ownership (legality vs traditional and privately owned) issues of sea tracks
- Safe access to canoe landing areas
- Avatele ramp
- Wharf repair (Avatele and Namukulu)
- Aliluki area Plan
- Use of traditional fishing grounds by other vessels and users

---

<sup>8</sup> Taoga – Niuean national heritage

**Objective 1.1 To ensure that the public has fair and equitable rights consistent with the traditional rights to access the foreshore and the sea.**

*Action Strategies*

- Ensure fair and equitable public rights to access the foreshore and traditional sea bed in light of any proposed development that affects those rights through EIA that includes socio-economic aspects.
- Private ownership and/or exclusive usage of the sea tracks and areas above high water mark should be assessed in the interests of the public.
- All new coastal leases that might obstruct public access to the foreshore and the sea shall be assessed in terms of this Policy.
- Investigate mechanisms to bring together key stakeholders of traditional fishing areas including the village councils to decide on the development and protection of traditional fishing grounds and to resolve conflicting and competing uses.
- Clarify the 'ownership status' of sea tracks as public access pertaining to management roles and responsibilities.
- Maintain popular coastal areas for public recreation and enjoyment.
- Investigate the feasibility of new recreational areas.
- Identify and map potential locations for new sea tracks at areas where the fringing reef is wide and conduct appropriate studies (EIA that includes socio-economic impacts).
- Strengthen education and awareness programmes using multiple media to promote awareness of traditional uses and methods related to coastal resources/ecosystems.

**Objective 1.2 To manage public access in order to minimise adverse environmental impacts and to ensure the safety of the access to users.**

*Action Strategies*

- Ensure public health and safety and the physical characteristics and landscape of the surrounding environment are taken into account in the design, development and management of public access to minimise risk to hazards such as storm surge, erosion and run-off.
- Ensure ongoing maintenance of existing sea tracks.
- Assess the capacity of existing sea tracks and ramps and develop a long-term plan for its strengthening including engineering designs and construction to minimise erosion and to better cope when exposed to storm surges and wave run-up.
- Develop a village plan for the removal of canoes and other marine vessels to higher ground in the event that relocation is warranted.

**Goal 2: Integrated Coastal Planning, Management and Development**

The multi-faceted character of coastal management issues merits the adoption of a holistic approach. Integrated coastal planning and management is the process of combining all aspects of the human, physical and biological aspects of the coastal area within a management

framework. Emphasis is also placed on the integration of information and disciplines that deal with a variety of coastal issues, trends, conditions, impacts and risks.

Integrated coastal planning and management should be undertaken proactively to optimise sustainable development opportunities. The coast provides many development opportunities that are dependent on maintaining the diversity and productivity of the coastal ecosystems while at the same time are vulnerable to both human-induced and natural coastal hazards.

## KEY ISSUES

- Policy to guide coastal development for Niue
- Improve integrated coastal ecosystem planning
- EIA regulations to be developed and enforced
- Coastal policy to address socio-economics and environment (people's lives and livelihoods)
- Land-use zoning and plans to be developed
- Coordination among key sectors and stakeholders for management of coastal resources
- Ad hoc planning
- Appropriate baseline information and data and for coastal planning and decision making
- Policy to apply to all coastal areas of Niue
- Need a thorough consultative process for policy development

### **Objective 2.1 To establish an enabling environment for integrated coastal planning, management and development.**

#### *Action Strategies*

- Review key legislation in view of integrated coastal planning and management and develop and clarify coordination roles and responsibilities.
- Develop regulations that enable effective implementation of the *Environment Act 2004* as pertinent to integrated coastal planning and management:
  - Urgent to develop the EIA Regulations and to clarify roles and responsibilities of the regulator and the proponent.
  - Incorporate disaster risk reduction and disaster management principles into the EIA process where potential impacts of key natural or human induced hazards on coastal development are assessed and strategies formulated to minimise the risks.
  - Incorporate appropriate socio-economic assessments into the EIA process.
  - Define the scope of the coastal areas and the type of development that would trigger the application of the EIA process.
  - Review and amend development or business licensing and permitting processes to incorporate the requirements of the EIA regulation and the risk reduction aspects.
  - Urgent EIA capacity building for relevant government agencies.
- Review the membership of the Sustainable Development Council and consider its establishment as provided for by the *Environment Act 2004* to act as the Integrated Coastal Planning Committee (ICPC)<sup>9</sup>.

---

<sup>9</sup> ICPC – Integrated Coastal Planning Committee

- Incorporate ICM principles into key national policy documents such as 'The Niue Integrated Strategic Plan', Niue Integrated Strategic Action Plan (NISP)<sup>10</sup>, and the Niue Private Sector Development Strategic Plan.
- Incorporate ICM principles in the priority areas for development: Tourism, Agriculture and Fisheries
- Consider the need for a standalone umbrella coastal management legislation to amalgamate provisions for coastal management, incorporate key principles of ICM and to provide for an 'ecosystem approach' to management and for disaster risk reduction.
- Develop coastal management plans for vulnerable and/or key coastal areas in close consultation with villages and families.
- Coastal planning and management efforts shall apply to the ecosystem management approach.
- Review the draft landuse zone/town planning plan for implementation

**Objective 2.2 To develop guidelines for new economic development opportunities or activities that are dependent on a coastal location.**

*Action Strategies:*

- Guidelines for development activities (such as tourism and recreational) that applied for a coastal location should be developed as part of the business or company licensing process and incorporate disaster risk reduction and disaster management conditions.
- Activities that are not dependent on a coastal location, as far as practical, shall be relocated inland.
- New village facilities built on the coastal area should also have plans for disaster evacuation and shelters as conditions for construction.
- Assess existing building code process and other relevant ones to incorporate disaster risk reduction considerations.

**Objective 2.3 To take into account the inter-relationships between the land and sea, and between coastal ecosystems and development during planning and management decisions.**

*Action Strategies*

- New structures should be designed and located in a manner that retains the visual beauty, natural character and associated benefits of undeveloped coastal areas.
- Scenic and landscape values should be protected as cultural and economic assets.
- Alterations to landforms in highly dynamic areas should be avoided or at least minimised.
- Village participation and involvement in coastal management should be promoted.
- Consideration of any development on coastal areas should be subject to an environmental impact assessment including a hazard and disaster risk assessment
- Application of precautionary principle where there is uncertainty on the 'best' management course to take.

---

<sup>10</sup> NISP – Niue Integrated Strategic Action Plan

### Goal 3: Pollution Control and Waste Management

A wide variety of point and non-point source pollutants and waste enter coastal ecosystems, largely through the medium of water. This has adverse effects on coastal ecosystems and humans. Fragmented control and authority along with the lack of capacity are key constraints to pollution control and waste management. Development on the coast should be planned and managed to ensure that pollution and waste do not compromise opportunities for sustainable coastal development.

#### KEY ISSUES

- Coastal run-off
- Inadequate sewage treatment
- Direct discharge of untreated waste
- Septic tanks leakages
- Derelict houses
- Asbestos material
- POPs<sup>11</sup>
- High level of nutrients (phosphate, nitrate and ammonium) in coastal waters
- Promote the recycle and re-use of materials and reduce waste
- Land-based activities causing pollution in coastal waters
- Territorial waters and EEZ hazards or disaster impacting coastal waters and foreshore and its resources
- Marine disposal of effluent
- Ballast discharge
- Oil spillage from ships
- Effluent disposal in harbours
- Litter and waste on coastal areas and close to cliff edges
- Lack of pollution monitoring system
- Need to promote the use of phosphate-free detergents
- Solid waste management
- Old vehicles, metals and refrigerators
- Used batteries
- Makato national dump site management

#### Objective 3.1 To implement pollution control and waste management measures in order to minimise and strictly control discharges into coastal ecosystems.

##### *Action Strategies*

- Strategies should be developed to control coastal run-off in consultation with developers, private sector, village councils and the Government
- Design sea tracks with retaining walls to control runoff into marine protected areas.
- Appropriate coastal water quality standards should be determined and maintained according to different uses.
- The direct disposal of untreated waste and or hazardous material into coastal systems should be strictly controlled through appropriate regulation and penalty provisions.
- Appropriate economic incentive should be provided for developers who treat pollution discharges at source or promote waste minimisation, re-use and recycling.
- Incorporation of reduction, recycling and re-use of waste at source should be compulsory for major development on coastal areas that requires a Business License or through the Companies Act, where appropriate; and subject to environmental impact assessment.

---

<sup>11</sup> POPs – Persistent Organic Pollutants

- Landfills should consider a set back by not less than 500 m from the edge of the cliff and vegetation (trees) should be grown as 'buffer zones' between the landfill and the edge of the cliff.
- An assessment of the current capacity of the existing dump at Makato should be carried out as a matter of urgency.
- Based on the assessment; investigate the opportunities (feasibility) for relocation of the dump (landfill).
- Strengthen the capacity of the current waste management system with appropriate resources.

**Objective 3.2 To strictly control and prohibit the discharge of marine pollutants and waste, especially ship-board waste, marine fuels and ballast waters, into coastal waters.**

*Action Strategies*

- International and national marine pollution policies and protocols ratified by Niue should be implemented.
- Release of ballast water into coastal waters should be strictly controlled to minimise the introduction of exotic organisms and/or invasive species.
- Review and incorporate corporate responsibility and compliance to relevant existing policies pertinent to sewage, wastewater discharge, pollution control and solid waste management.
- Develop an eradication plan for the management of invasive species.

**Goal 4: Sustainable Management and Development of Coastal Resources**

Coastal ecosystems provide a range of goods and services that make enormous contributions to the economy and sustain communities. Maintaining the capacity of these ecosystems to provide these goods and services is vital. The coast, and the use of its resources, should be planned and managed to maintain the diversity, health and productivity of coastal ecosystems.

**KEY ISSUES**

- |  |  |
|--|--|
| <ul style="list-style-type: none"> <li>• Degraded coastal habitats</li> <li>• Coastal resources depletion/over exploitation of inshore fisheries</li> <li>• Illegal harvesting on marine protected areas</li> <li>• Size and coverage of marine protected areas are too restrictive/small</li> <li>• Western reef damaged – reef covered with macro algae</li> <li>• Fish poisoning (ciguatera) due to disturbances to reef environment</li> <li>• Lack of knowledge of inshore marine resources</li> <li>• Lack of information about the resources of Niue's three distant reefs</li> <li>• Information base for status of inshore fisheries</li> </ul> | <ul style="list-style-type: none"> <li>• Protect indigenous fauna and flora</li> <li>• Management of existing protected areas</li> <li>• Extend marine protected areas</li> <li>• Few dedicated marine protected areas</li> <li>• Illegal exporting of coral</li> <li>• Lack of baseline data and information on threats to inshore reef ecology</li> <li>• Deep sea (ocean bottom) fisheries baseline data and research</li> <li>• Destructive fishing practices</li> <li>• Vulnerability to invasive species</li> <li>• Strengthen the enforcement and awareness of key relevant legislation that provide protection/conservation status for coastal resources and/or species and its habitat</li> </ul> |
|--|--|



**Objective 4.1 To maintain the diversity, health and productivity of coastal processes and ecosystems.**

- Strengthen the existing scientific monitoring programme for key coastal ecosystems, including species and coastal water quality.
- Strengthen the capacity to collect, analyse, apply and disseminate the monitoring information in support of sustainable management and development of coastal areas and resources.
- Ensure a regular State of the Coastal Environment reporting in line with national reporting requirements.
- Assess government agencies' capacity to access regional and national databases for coastal planning, management and development.
- Update the list of rare and endangered coastal species and strengthen its protected status.
- Investigate the feasibility of ratifying the CITES<sup>12</sup> Convention.
- Community-based management of key coastal ecosystems should be promoted and facilitated.
- Develop strategies for the recovery of corals habitat and other important coastal fauna and flora.
- Conduct a risk assessment of any introduced or translocation species into the coastal areas of Niue.
- Support existing mariculture initiatives to improve coastal resources diversity.

**Objective 4.2 To strengthen protected areas in order to maintain the integrity of coastal ecosystems.**

*Action Strategies*

- Support and strengthen existing protected areas.
- Assess and identify new areas that have potential for protected status due to its biological diversity.
- Promote and document, where possible, traditional biodiversity conservation methods.
- Protected areas should be managed as "benchmarks" or baseline indicators for national resource management efforts.
- Protected areas should be managed to contribute to the regeneration of coastal and reef species.
- Protected area management practices should be based on scientific, local and traditional knowledge.
- Encourage the establishment of temporary closed areas (fono concept) and other alternatives for conservation purposes.
- Protected area management practices should involve the local community.
- Neighbouring human activities should be compatible with protected area management objectives.
- Compatible resource uses and educational activities should be promoted.

---

<sup>12</sup> CITES Convention on International Trade in Endangered Species of Wild Fauna and Flora

- Irreversible impacts and destruction of irreplaceable or rare coastal resources and species should be prohibited.
- Improve awareness of the importance and locality of the protected areas.

**Objective 4.3 To rehabilitate damaged or degraded coastal ecosystems and habitats.**

- An assessment of significantly degraded coastal areas including coral reef should be conducted as a matter of urgency.
- Attention should be given to rehabilitating ecosystems in areas of intense human activity (e.g., ports, stormwater and sewage discharge points, development areas and coastal tourist facilities).
- A rehabilitation programme should be prepared and implemented through a process of public participation, with the relevant agencies of the Government playing lead roles.
- Development of an appropriate regulatory framework to provide for full reparation for any human-induced degradation or damage.

**Objective 4.4 Any coastal prospecting, mining, exploitation of petroleum, oil and gas and commercial development should be conducted in an environmentally responsible manner.**

*Action Strategies*

- Develop appropriate regulations to control the potential adverse environmental impacts.
- Such regulations should provide for the rehabilitation of degraded coastal ecosystems associated with the exploration or prospecting and non-compliance thereof should be remedied by the prospector.
- Revisit the Niue Mining Policy and review its implementation progress in view of this policy.

**Goal 5: Disaster Risk Reduction and Disaster Management <sup>13</sup>**

Coastal development should be planned and managed to minimise disruption of dynamic coastal processes and to avoid exposure of people, property and economic activities to significant risk from natural hazards.

**KEY ISSUES**

- |   |  |
|---|--|
| <ul style="list-style-type: none"> <li>• Emphasise risk reduction in coastal planning and management</li> <li>• Improve disaster management</li> <li>• Predicted sea-level rise threatens freshwater lens</li> <li>• Increased incidence and severity of tropical cyclones and associated storm surges causing damage to coastal infrastructure and the environment</li> <li>• Natural and human-induced hazards impacting coastal areas</li> </ul> | <ul style="list-style-type: none"> <li>• New development on Alofi terrace based on wave hazard zonation, with special emphasis on areas behind channels</li> <li>• Current and future location of fuel tanks and depots away from coastal areas</li> <li>• Existing public facilities located on lower terrace</li> <li>• Review the Building Code</li> <li>• Lack of risk reduction strategies and consideration in existing coastal planning and management</li> </ul> |
|---|--|

<sup>13</sup> DRR – Disaster Risk Reduction; DM – Disaster Management

- Living on an environment/location of Niue vulnerable to natural hazards
- Lack of capacity to deal with impacts of hazards and disasters
- Early warning systems

**Objective 5.1 To plan and manage coastal development so as to reduce risk and exposure of people, property and economic activities to significant risk from dynamic coastal processes**

*Action Strategies*

- Incorporate disaster risk reduction policies and measures into existing and new development policies, plans and actions at the national and village council levels.
- Increase effectiveness, efficiency and longevity of development efforts such that development do not increase risks and/or reduce the impact of disasters.
- Conduct coastal hazard and risk mapping for the whole of Niue as a matter priority.
- Consider a 'set back area' from the edge of the cliff for all new development based on wave impacts and lessons learnt from Heta.
- A precautionary risk reduction approach should guide decision making.
- Conduct a feasibility study on the relocation of water, telecommunication and power facilities cables, transformers and other essential infrastructure to the upper terrace.
- Assess and strengthen the capacity of the early warning systems to provide accurate and timely warning to the community.
- Enhance public/community awareness and education on coastal risks and early warning.
- Promote and strengthen community-based disaster management through appropriate training of village councils, NGOs and community groups in disaster preparedness, response and recovery.
- Strengthen evacuation plans and strategies in view of designing and constructing safe evacuation centres in the upper terrace (linked to the Niue National Disaster Plan<sup>14</sup>).
- Review the appropriateness of the Building Code to Niue and develop standards
- Retrofit existing residential and public buildings for cyclone proofing.
- Strengthen the links between national government and village councils for disaster risk reduction and disaster management.
- Conduct a feasibility study to assess income generation activities (such as eco-tourism among others) and develop a revolving fund managed by the village council for village coastal management and development initiatives.
- Support the removal of the fuel tanks at the wharf to higher ground.
- Restrict development/location of fuel facilities on coastal areas.
- Emergency roads (including existing tracks to the upper terrace) linked to the disaster emergency plan should be upgraded.

---

<sup>14</sup> NNDP Niue National Disaster Plan

**Objective 5.2 To take into consideration the potential and known consequences of climate change and associated sea-level rise in all coastal planning, management and development.**

*Action Strategies*

- Appropriate mitigating and adaptive measures to address the consequences of sea-level rise, droughts and storm surges on the coastal resources should be included in the priorities of climate change programmes.
- Attention should be given to the dynamic, high-energy character of the coast, its complex biophysical and chemical processes, and local variability in the context of coastal development.
- Strengthen appropriate public education and awareness programmes relating to the impacts of climate change on coastal areas and resources.
- A risk reduction and precautionary approach should be adopted under conditions of uncertainty.

**Goal 6: Strengthening Governance and Capacity Building**

Realising the ideal of sustainable coastal development requires meaningful participation by all spheres of Government, the private sector and civil society. Developing the coast should be proactively planned and managed to promote efficient decision making, cooperation, coordination and integration.

**KEY ISSUES**

- Involve community in coastal management
- Processes for public participation
- National and community/village authorities lack capacity
- Lack of enforcement and ongoing monitoring
- Insufficient communication between forums
- Lack of coordination between sectors
- Lack of public awareness
- Coastal Policy to be reviewed and updated
- Low priority of coastal management
- Integrate coastal management plans
- Lack of technical capacity on coastal engineering, monitoring and planning

**Objective 6.1 To ensure meaningful public participation and partnerships between the Government, the private sector and civil society in order to foster co-responsibility in coastal management and development.**

*Action Strategies*

- Support and encourage full participatory and consultative processes for all stakeholders.
- Commercial activities affecting other coastal users should be subject to full public consultative processes.
- Community- and NGO-based generated coastal activities should be encouraged in line with the principle of sustainable coastal management and development.

**Objective 6.2 To strengthen national capacity on coastal planning and management and development.**

*Action Strategies*

- Assess technical capacity required for coastal planning in key Government sectors and facilitate formal or short-term training opportunities.
- Assess the need to incorporate coast-related subjects or teaching aids in primary and secondary schools.
- Support existing appropriate awareness, education and training programmes
- Ensure that adequate provision is made for agencies with multi-sectoral responsibilities affecting coastal areas to assist them to fulfil their responsibilities in accordance with this policy.
- Identify traditional and non-traditional funding sources for coastal planning and management.

**Objective 6.3 To design and maintain an effective and accessible national information system to support coastal planning and management efforts.**

*Action Strategies*

- Assess the capacity of existing information systems and develop a user-friendly, cost-effective and integrated national information system.
- Ensure that all coastal managers and key stakeholders have access to appropriate information.

**Objective 6.4 Coastal planning and management decision making and approval procedures to be clarified and simplified.**

*Action Strategies*

- Clarify the roles and responsibilities of Government agencies in coastal planning and management.
- Identify a lead agency to be responsible for the coordination of the implementation of this policy in line with existing policies and mandates and to generally coordinate coastal management and development.
- Coastal planning and management procedures should be simplified and streamlined to promote efficient decision making.

**Objective 6.5 To monitor and evaluate the progress of the implementation of the Niue Coastal Development Policy.**

*Action Strategies*

- Develop a costed implementation/action plan for this policy.
- The coastal management implementation plan should be developed, implemented, monitored and reviewed.
- The Coastal Development Policy should be reviewed and updated every five years.
- Undertake a mid-term review and evaluation of policy implementation.
- Develop monitoring tools to assess the effectiveness of the implementation of the policy.

## REFERENCES

- Biukoto L., Bonte-Grapentin M. (2004). Niue Country Mission Report. EU-SOPAC Project Report 34. SOPAC, Suva, Fiji.
- Biukoto, L., Bonte-Grapentin, M. 2008. Niue – Technical Note : An assessment of Cyclone Heta’s impact on Niue’s coastline, 23 April – 4 May 2004. EU-SOPAC Project Report 34b. SOPAC, Suva, Fiji.
- Cicin-Sain, B., Knecht, R.W., Jang, D., Fisk, G.W. 1998. Integrated Coastal and Ocean Management: Concepts and Practices. Chicago, Illinois, U.S.A. Island Pr. 1998, First Edition. (ISBN: 1559636041)
- Cooper, D. et. al., (2002). National Assessment Report to the World Summit on Sustainable Development, Department of Environment, Government of Niue, Alofi, Niue
- Forbes, Donald L. (1996). Coastal Geology and Hazards of Niue. SOPAC Technical Report 233, SOPAC, Suva Fiji.
- Food and Agricultural Organisation of the United Nation (2002). Niue Agricultural Policy Paper – A Guide to Agricultural Development, FAO Sub Regional Office for the Pacific Islands, Apia, Samoa.
- Government of Niue (2003). Niue Integrated Strategic Plan (NISP) 2003-2008, Economic Planning and Development & Statistics Unit (EPDSU), Premier’s Department, Alofi, Niue.
- Government of Niue (2005). Heta Recovery Plan, Premier’s Department, Alofi, Niue.
- Government of Niue (2006). Taoga Niue Strategic Action Plan, Government of Niue, Alofi, Niue.
- Jacobson, G., Hill, P. J., (1980b). Hydrogeology of a raised coral atoll Niue Islands, BMR Journal of Australia Geology and Geophysics, v.5.
- Nemaia, Ernest (2002). Combating Land Degradation – Niue’s National Report on the Implementation of the United Nations Convention to Combat Desertification, Niue.
- Oliver, Steve (2004). Niue Wave Modelling Study, *Prepared for* South Pacific Applied Geoscience Commission, Gems Report No 04/19. 18 pp.

## GLOSSARY OF TERMS

**Disaster Management (DM)** – The organisation and management of resources and responsibilities for dealing with all aspects of emergencies/disasters, in particular preparedness, response and (relief/rehabilitation).

**Disaster Risk Reduction (DRR)** – The systematic development and application of policies, strategies and practices to minimise vulnerabilities and disaster risks throughout a society, to avoid (prevention) or to limit (mitigation and preparedness) adverse impact of hazards, within the broad context of sustainable development.

**Disaster Risk Management (DRM)** – The systematic process of using administrative decisions, organisation, operational skills and capacities to implement policies, strategies and coping capacities of the society and communities to lessen the impacts of natural hazards and related environmental and technological disasters. This comprises all forms of activities, including structural and non-structural measures to avoid (prevention) or to limit (mitigation and preparedness) adverse effects of hazards.

**Ecosystem approach to coastal management** – The ecosystem approach is the primary framework for action under the Convention on Biological Diversity, which defines it as “a strategy for the integrated management of land, water and living resources that promotes conservation and sustainable use in an equitable way. It is based on the application of appropriate scientific methodologies focused on levels of biological organization, which encompass the essential processes, functions and interactions among organisms and their environment. It recognizes that humans, with their cultural diversity, are an integral component of ecosystems.”

**Environmental impact assessment (EIA)** – Studies undertaken in order to assess the effect on a specified environment of the introduction of any new factor, which may upset the current ecological balance.

**Integrated coastal management** – ICM is multi-purpose oriented, it analyzes implications of development, conflicting uses, and interrelationships between physical processes and human activities, and it promotes linkages and harmonization among sectoral coastal and ocean activities" (Cicin-Sain & others 1998).

### *Other definitions (sources unknown)*

Holistic approach to coastal management similar to the ecosystem approach with the addition of consideration of the pillars of sustainable development as affected by coastal management namely, socio-economic issues, ecological issues and good governance principles.

"Integrated Coastal Management" (ICM) may be defined as ". . . a continuous and dynamic process by which decisions are taken for the sustainable use, development, and protection of coastal and marine areas and resources." ICM acknowledges the interrelationships that exist among coastal and ocean uses and the environments they potentially affect, and is designed to overcome the fragmentation inherent in the sectoral management approach.



**ANNEXES:****Annex 1: List of Participants – 1<sup>st</sup> National Workshop**

Name	Position and Organisation	Contact Address/Email/Phone
Crossley Tatui	Secretary to Government Fale Fono	<a href="mailto:ctatui.sog@mail.gov.nu">ctatui.sog@mail.gov.nu</a>
George Sionetuato	Trade Officer Fale Fono	<a href="mailto:george_sionetuato@niue.nu">george_sionetuato@niue.nu</a>
Julie Talagi	Pacific Planner Fale Fono	<a href="mailto:pacificplanner.erator@mail.gov.nu">pacificplanner.erator@mail.gov.nu</a>
Sauni Togatule	Director Environment	<a href="mailto:tongatules@mail.gov.nu">tongatules@mail.gov.nu</a>
Logo Seumanu	Conservator Environment	<a href="mailto:niuiwp@niue.nu">niuiwp@niue.nu</a>
Judy Nemaia	Environment	<a href="mailto:biodiversity.ca@mail.gov.nu">biodiversity.ca@mail.gov.nu</a>
Steve Alapaki	Surveyor Justice, Lands & Survey	<a href="mailto:s_alapaki.djls@mail.gov.nu">s_alapaki.djls@mail.gov.nu</a>
Vilitose Vilitama	Chainman Justice, Lands & Survey	
Mohammed Ioane	Chainman Justice, Lands & Survey	<a href="mailto:Oki2@teachertom.com">Oki2@teachertom.com</a>
Shirley Siohane	Cadet Surveyor Justice, Lands & Survey	<a href="mailto:siohane.djls@mail.gov.nu">siohane.djls@mail.gov.nu</a>
Talia Sioneholo	Cadet Surveyor Justice, Lands & Survey	<a href="mailto:tl_sioneholo.djls@mail.gov.nu">tl_sioneholo.djls@mail.gov.nu</a>
Carthy Lavini	Properties Officer Justice, Lands & Survey	<a href="mailto:frmdahill2@yahoo.co.nz">frmdahill2@yahoo.co.nz</a>
Tolana Siataga	GIS/LIS Office Justice, Lands & Survey	<a href="mailto:siataga.djls@mail.gov.nu">siataga.djls@mail.gov.nu</a>
Hubert Kalauni	Senior Surveyor Justice, Lands & Survey	<a href="mailto:hkalauni@yahoo.co.nz">hkalauni@yahoo.co.nz</a>
Danny Panama	Survey Cadet Justice, Lands & Survey	
Deve Talagi	Director Public Works	<a href="mailto:talagi_d@yahoo.com">talagi_d@yahoo.com</a>
Andre' Siohane	Water Supply Manager Public Works	<a href="mailto:waterworks@mail.gov.nu">waterworks@mail.gov.nu</a>
Harry Siataga	Building Supervisor Public Works	<a href="mailto:h.siataga_21@yahoo.co.nz">h.siataga_21@yahoo.co.nz</a>
Brandon Pasisi	Director DAFF	<a href="mailto:fisheries@mail.gov.nu">fisheries@mail.gov.nu</a>
Vanessa Marsh	Fisheries Officer (Coastal) Fisheries Department (DAFF)	<a href="mailto:vlmarsh@niue.nu">vlmarsh@niue.nu</a>
Gaylene Tasmania	Deputy Director Department of Agriculture, Forestry and Fisheries (DAFF)	<a href="mailto:dsapniue@mail.gov.nu">dsapniue@mail.gov.nu</a>
Jamal Talagi	Fisheries Officer DAFF	<a href="mailto:jtalagi.fisheries.daff@mail.gov.nu">jtalagi.fisheries.daff@mail.gov.nu</a>
Sioneheke Leolahi	Development Officer Community Affairs	<a href="mailto:sionel@mail.gov.nu">sionel@mail.gov.nu</a>
Togia Pihigia	Tuapa Village Council	
Tutuli Jock Heka	Alofi North Village Chair Telecom	
Moira Enetama	Manager Taoga Niue	<a href="mailto:taoganiue@niue.nu">taoganiue@niue.nu</a>
Robin Hekau	Taoga Niue	<a href="mailto:rmhekautaoganiue@niue.nu">rmhekautaoganiue@niue.nu</a>
Rossy Pulehetoa	Coordinator Climate Change Adaptation Project	<a href="mailto:rossy.climate@mail.gov.nu">rossy.climate@mail.gov.nu</a>

Name	Position and Organisation	Contact Address/Email/Phone
Gloria Talagi-Lines	Niue Meteorological Service Strategic Planner	<a href="mailto:g_talagi@niue.nu">g_talagi@niue.nu</a>
John Hetutu	Economic, Planning & Development Unit Chief Environmental Health Officer Health	<a href="mailto:environ.health@niue.nu">environ.health@niue.nu</a>
Mary Anne Talagi	Librarian USP Campus	<a href="mailto:talagi_ma@usp.ac.fj">talagi_ma@usp.ac.fj</a>
Rev. Pahetogia Faitala	Chairperson Niue National Council of Churches	<a href="mailto:revpahetofaitala_3617@yahoo.co.nz">revpahetofaitala_3617@yahoo.co.nz</a>
Rev. Hawea Jackson	President Ekalesia Niue	<a href="mailto:lilisharana@yahoo.co.nz">lilisharana@yahoo.co.nz</a>
Netatua Pelesikoti	SOPAC	<a href="mailto:Netatua@sopac.org">Netatua@sopac.org</a>
Litea Buikoto	SOPAC	<a href="mailto:Litea@sopac.org">Litea@sopac.org</a>

## Annex 2: Inter-Departmental Coastal Development Policy Steering Committee

Name	Agency
Deve Talagi (Chair)	Director of Works
Brandon Pasisi	Director of Agriculture, Forestry and Fisheries
Sauni Togatule	Director of Environment
John Hetutu	Health Inspector
Rosy Pulehetoa	Climate Change, Meteorological Office
Sioneheke Leolahi	Community Affairs
Janet Tasman	Ministry of Education
Moira Enetama	Taoga Niue
Gloria Talagi	Planning Department
Togia Pihigia	Village Council Rep
<b>Technical Assistance Provided:</b>	
Netatua Pelesikoti	Sustainable Development Adviser, SOPAC
Litea Biukoto	Disaster Management Adviser, SOPAC
Tagaloa Cooper	Communications & Coordination Advisor – SPSLCMP, SOPAC

### **Annex 3: List of Participants – 2<sup>nd</sup> National Workshop**

Josie Tamate (Acting Sec to Govt)	Dave Poihega (Premier's Office)
Richard Hipa (Telecoms)	Brandon Pasisi (DAFF)
Itzy Tukuitoga (Niue Primary School)	Jieni Mitimeti (Niue High School)
Janet Tasmania (Education)	Kim Gordon (Reef Group)
George Sionetuato (Fale Fono)	Speedo Hetutu (Niue Power)
Vanessa Marsh (DAFF)	Chris Lagiono (Niue Power)
Jamal Talagi (DAFF)	Maira Enetama (Taoga Niue)
James Tafatu (DAFF)	Sidney Lui (PWD)
Hubert Kalauni (Justice)	Mike Fleming (Treasury)
Carthy Lavini (Justice)	Robert Togiamana (Niue Police)
Christine Ioane (External Affairs)	Laga Lavini (Airport)
Jay Eveni (Crown Law)	George Valiana (Bulk Fuel)
Jullie Funaki (Fale Fono)	Richard Siataga (Lands & Survey)
Rossy Pulehetoa (Met Service)	Andre' Siohane (Water Supply)
Gloria Talagi (EPDSU)	Harry Siataga (Building & Engineering)
Mary Talagi (USP)	Robin Hekau (Taoga Niue)
Logo Seumanu (Small Grant, Environment)	Sauni Togatule (Director, Environment)
Deve Talagi (Director PWD)	Netatua Pelesikoti (SOPAC)

#### **Private Sector and Community Representatives:**

Frank Sioneholo	Togia Pihigia
Naki Puheke	Mata Tahafa
Pao Helemoni	Moka Jack
Sifa Ioane	Nogi Poihega
Tutuli Heka	Malua Jackson
Hinemoa Makaia	Moka Talaiti
Charlie Tohovaka	

## **Annex 4: Policy Reviewers**

1. All members of the Steering Committee (as in Annex 2)
2. Ernest Nemaia (Niue Office, Auckland, New Zealand)
3. Mosese Sikivou (CRP Manager)
4. Michael Bonte (Risk Assessment Specialist, CRP SOPAC)
5. Litea Biukoto (Hazard Assessment Adviser SOPAC)
6. Netatua Pelesikoti (Sustainable Development Adviser SOPAC)