



**Cook Islands**

**NATIONAL ACTION PLAN FOR  
DISASTER RISK MANAGEMENT  
2009 – 2015**



*SOPAC*



Produced by the Government of the Cook Islands with support of the Pacific Disaster Risk Management Partnership Network (PDRMPN) as represented by Pacific Islands Applied Geoscience Commission (SOPAC), Pacific Islands Forum Secretariat (PIFS) and the United Nations Development Programme Pacific Centre (UNDP PC).

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Government of the Cook Islands

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# Acknowledgements

The Office of the Prime Minister would like to acknowledge and express our gratitude for the efforts of the members of the National Action Plan Advisory Committee and as well our local and external stakeholders and partners for the support provided to develop the Cook Islands National Action Plan for Disaster Risk Management. In addition we would also like to acknowledge the contributions of the members of the Pacific Disaster Risk Management Partnership Network.

We look forward to working closely with all of you in implementing the National Action Plan and to continue to strive to find ways to make the Cook Islands safer and more resilient to natural disasters

**Mac Mokoroa**  
Chief of Staff  
Office of the Prime Minister

# Foreword

In early 2005, the Cook Islands experienced five damaging cyclones, four of which were assigned a severity rating of Category 5, within a period of five weeks. These cyclones reminded us of our vulnerability to the forces of nature and provided us with a wake up call to be better prepared. Furthermore, each day, we note the receding coastline of our islands or we observe the water supply in some of our communities decline to a trickle. At these points, we are also reminded of our susceptibility to climate change and extreme weather phenomenon and are once again alerted to the fact that we must reduce our risk and manage our vulnerability.

Our long term visionary framework 'Te Kaveinga Nui' Living the Cook Islands Vision – A 2020 Challenge carries the long term hopes and dreams of our people. The National Sustainable Development 2007 – 2010 (NSDP) highlights our strategic priorities in the short to medium term.

Goal 6 of our NSDP seeks to assure our people of a safe, secure and resilient community. A key strategic target in the achievement of Goal 6 of the NSDP is "establishing a coordinated and effective national disaster risk reduction and disaster management system for all hazards". To achieve this, the Government in 2007 approached the Pacific Islands Applied Geoscience Commission and the Pacific Disaster Risk Management Partnership Network to assist the Cook Islands to develop the Disaster Risk Management National Action Plan. This Plan brings greater focus and coordination to our efforts in Disaster Risk Reduction and Disaster Management. It will add to the strategic suite of other sectoral plans and policies that help to guide our own internal development resourcing mechanisms as well as those provided by our donors.

The National Action Plan represents a new beginning in the effort to improve our overall safety and well being. It is a starting point and not an end and so over time we hope that the implementation of the National Action Plan will bring about a change in our attitude and behaviour to disasters and indeed to development. Disasters are an inevitable part of our lives and we must all work together to ensure that we have a 'safe, secure and resilient community'.

**Kia Manuia**  
The Honorable Jim Marurai  
Prime Minister

# List of Acronyms

ADB	Asian Development Bank
AusAID	Australian Agency for International Development
CCA	Climate Change Adaptation
CEAL	Cyclone Emergency Assistance Loan
CIIC	Cook Islands Investment Corporation
CPPO	Central Policy and Planning Office
CROP	Council of Regional Organizations of the Pacific
CSO	Civil Society Organisation
DM	Disaster Management
DRM	Disaster Risk Management
DRR	Disaster Risk Reduction
EIA	Environment Impact Assessment
EMCI	Emergency Management Cook Islands
EU	European Union
FATF	Financial Action Task Force
GEF	Global Environment Facility
HLAT	High Level Advocacy Team
HOM	Head of Ministry
HRD	Human Resources Department
HRPT	High Resolution Picture Transmission
INTAFF	Internal Affairs
M&E	Monitoring and Evaluation
MFAI	Ministry of Foreign Affairs and Immigration
MFEM	Ministry of Finance and Economic Management
MIA	Ministry of Internal Affairs
MMR	Ministry of Marine Resources
MoA	Ministry of Agriculture
MoCD	Ministry of Culture Development
MoE	Ministry of Education
MoW	Ministry of Works
MP	Member of Parliament
MTBF	Medium Term Budgetary Framework
NAPAC	National Action Plan Advisory Committee
NCD	Non Communicable Disease
NDF	National Development Forum
NDRMC	National Disaster Risk management Council
NES	National Environment Service
NESF	National Environment Strategic Framework
NGO	Non-Government Organisation
NSDP	National Sustainable Development Plan
NZAID	New Zealand's International Aid & Development Agency
NGOs	Non Government Organisations
OIDGF	Outer Islands Development Grant Fund
OMIA	Office of the Minister for Island Administration
OPM	Office of the Prime Minister
PACC	Pacific Adaptation to Climate Change
PDRMPN	Pacific Disaster Risk Management Partnership Network
PIFS	Pacific Islands Forum Secretariat
POPs	Persistent Organic Pollutants
PSC	Public Service Commission
QR	Queen's Representative
SIDS	Small Island Developing States
SPCZ	South Pacific Convergence Zone
SPREP	Secretariat for the Pacific Regional Environment Programme
SOP	Standard Operation Procedure
TA	Technical Assistance
UNDP	United Nations Development Programme
VSAT	Very Small Aperture Terminal (a two-way satellite ground station)
WCDR	World Conference on Disaster Reduction
WSSD	World Summit on Sustainable Development

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# Definitions<sup>1</sup>

Disaster:	an actual event, or a high probable risk, involving serious disruption to the functioning of a community causing widespread human, material, economic or environmental loss and which exceeds the ability of the affected community to cope using its own resources.
Disaster Risk Management:	performing and undertaking all activities including structural and non-structural measures to avoid or to limit risks and lessen the impacts of natural, man-made, environmental or technological Disasters or Emergencies.
Disaster Risk Reduction:	minimising and reducing Disaster risks or vulnerabilities so as to avoid adverse impacts of hazards within the broad context of sustainable development.
Emergency:	an actual or imminent event that endangers or threatens life, property or the environment and which requires a significant coordinated response.
Mitigation:	regulatory and physical measures to ensure that Emergency Disaster events are prevented or their effects mitigated.
Preparedness:	having arrangements and systems in place to ensure that should an event occur the resources required for an affected community to cope are efficiently mobilised and deployed.
Recovery:	the coordinated process of supporting communities affected by an event in reconstruction of physical infrastructure and restoring their social, economic and physical wellbeing.
Response:	activities undertaken during and immediately after an event to ensure that its effects are minimised and that the people affected are given immediate relief and support.

<sup>1</sup> Source: Cook Islands Disaster Risk Management Act 2007.



# Executive Summary

The National Action Plan for Disaster Risk Management (DRM NAP) provides a roadmap of how the Cook Islands will go about implementing the strategy of “establishing a coordinated and effective national disaster risk reduction and disaster management system for all hazards” as articulated under Goal 6 of the National Sustainable Development Plan 2007 – 2010. The NSDP is itself a key planning document linked to Te Kaveinga Nui – Living the Cook Islands Vision. A 2020 Challenge.

It is based on a growing realisation that development processes and people in the Cook Islands are increasingly vulnerable to disasters resulting from natural and human-made hazards, and that a culture of risk reduction and preparedness needs to be instilled across all levels of society in order to minimize (and preferably prevent) disaster impact.

Following a thorough process of review and participatory consultation, the DRM NAP highlights key gaps in the planning, policy, institutional, operational and awareness arenas related to the management of disaster risk and disaster preparedness, response and recovery in the Cook Islands. Disaster Risk Management is by nature a cross-sectoral activity requiring coordinated interventions at all levels of society and amongst all stakeholders – government, private sector, civil society and communities as all sectors are vulnerable to disaster risks. The plan provides a number of inter-linked strategies and actions that have been specifically designed to address the critical gaps identified.

Strategies and actions have been organised under five overarching Goals (Section 3) that closely reflects the themes of the Pacific Disaster Risk Reduction and Disaster Management Framework for Action 2006 – 2015, which is the Pacific region’s response to the international Hyogo Framework for Action 2005 – 2015: Building the Resilience of Nations and Communities to Disasters.

The Vision of the Cook Islands DRM NAP is: A Safe, Resilient and Sustainable Cook Islands.

The Goals of the Cook Islands DRM NAP are:

Goal 1: Good Governance for Mainstreaming Disaster Risk Management at all levels

Goal 2: Strong Knowledge Base for more Effective Disaster Risk Management

Goal 3: Effective Preparedness, Response and Recovery

Goal 4: Maintain Effective Early Warning Systems

Goal 5: Analysis and Assessment of Hazards to Reduce Underlying Risk

Goal 6: Monitoring, Evaluation and Reporting

The DRM NAP includes a costed Implementation Programme (Section 4). The Implementation Programme offers a number of guiding principles, attaches a cost to the first three years of DRM NAP implementation, puts in place an appropriate management structure, identifies potential financing options, and provides guidelines for a communication strategy and monitoring and evaluation procedures.

The overall indicative cost for implementing the DRM NAP over the period 2009 – 2011 is estimated to be NZ\$ 3.6 million. Of this, it is estimated that Cook Islands agencies such as

government departments could absorb around NZ\$ 0.2 million worth of costs into business as usual. It is anticipated that the balance, just under NZ\$ 3.5 million, would require donor support.

Given the high and economically debilitating costs of natural disasters (recovery from the 2005 cyclones alone amounted to NZ\$ 20 million), the potential economic benefits from investing in the implementation of the DRM NAP are likely to be substantial.

The structure proposed to lead and support DRM NAP implementation is the NAP Advisory Committee (NAPAC). This committee has been integrally involved in all stages of DRM NAP development and represents a good cross section of relevant structures in the Cook Islands. The NAPAC will be supported directly by Emergency Management Cook Islands (EMCI) who will provide secretariat services and also the required staff and other resources to enhance the implementation by the relevant Ministries and agencies. The NAPAC will be responsible to the National Disaster Risk Management Council (NDRMC) for the implementation of DRM NAP actions but will also receive assistance from Council members who will facilitate senior-level support and influence in terms of ensuring that the NAP actions are integrated into the Medium Term Budgetary Framework and the annual business/work plans and budgets of relevant Ministries and agencies.

To facilitate linkages between DRM, Climate Change and their effects on development planning and implementation, it is proposed that the National Environment Service, as the mandated national agency for the coordination of the national climate change adaptation programme and development impact assessment, provides the direct link for this programme to EMCI and to the NAPAC.

EMCI will require strengthening in order to fulfil its role as the lead DRM agency within the Cook Islands Government and the operational leader for NAP implementation. In this regard it is anticipated that EMCI will receive additional positions consistent with the recommendations of the EMCI Business Plan 2009 – 2011. The additional positions recommended under the Business Plan are: 1) Information and Communications Officer, and 2) Disaster Risk Planning Officer. In addition, EMCI will require specialist support at a senior technical level for a defined period to assist the Director EMCI in the oversight and coordination of NAP implementation.

The Pacific DRM Partnership Network (PDRMPN), under the leadership of SOPAC, will assist the Cook Islands Government in marketing the DRM NAP to donors and other support agencies.

The financing strategy of the DRM NAP has two main objectives, 1) Ensure that the national planning and budgetary processes and systems and in particular the Medium Term Budgetary Framework (MTBF) are adhered to, and 2) Ensure consistency with the aid management requirements stipulated by donors and other partners. Two strategies are provided: the first for the activation of funds and in-kind contributions through the Cook Islands Government budget, the second for the activation of funds and in-kind contributions through donor support.

The DRM NAP Communication Strategy will utilise selected mediums of communication to: a) create awareness and inform; b) build capacity of the target beneficiaries, c) influence behavioural change, d) serve as a mechanism to facilitate feedback for the purposes of monitoring and evaluation; and e) inform the public of DRM NAP implementation and its outcomes.

The Monitoring and Evaluation framework for the NAP will ensure conformity with the reporting requirements developed in connection with the MTBF and others as may be stipulated by Office of the Prime Minister (OPM) / Central Policy and Planning Office (CPPO) and the Public Service Commission (PSC) and as articulated in the Monitoring and Evaluation Readiness Assessment (OPM 2008).

The report concludes with a summarised and costed Goal Profiles which provide further detail on the proposed implementation of Actions (Section 5).



# Situation Analysis

## Country Profile

### Geographical setting

The Cook Islands are located in the southern Pacific Ocean between American Samoa in the west and French Polynesia in the east ( $5^{\circ} - 25^{\circ}\text{S}$ ,  $150 - 175^{\circ}\text{W}$ ). It lies in the centre of what is referred to as the Polynesian Triangle, a region anchored between the islands of Hawai'i (4,730 km to the north), Rapa Nui (Easter Island – 5,179 km to the east), and New Zealand (3,010 km to the south west) (Figure 1).

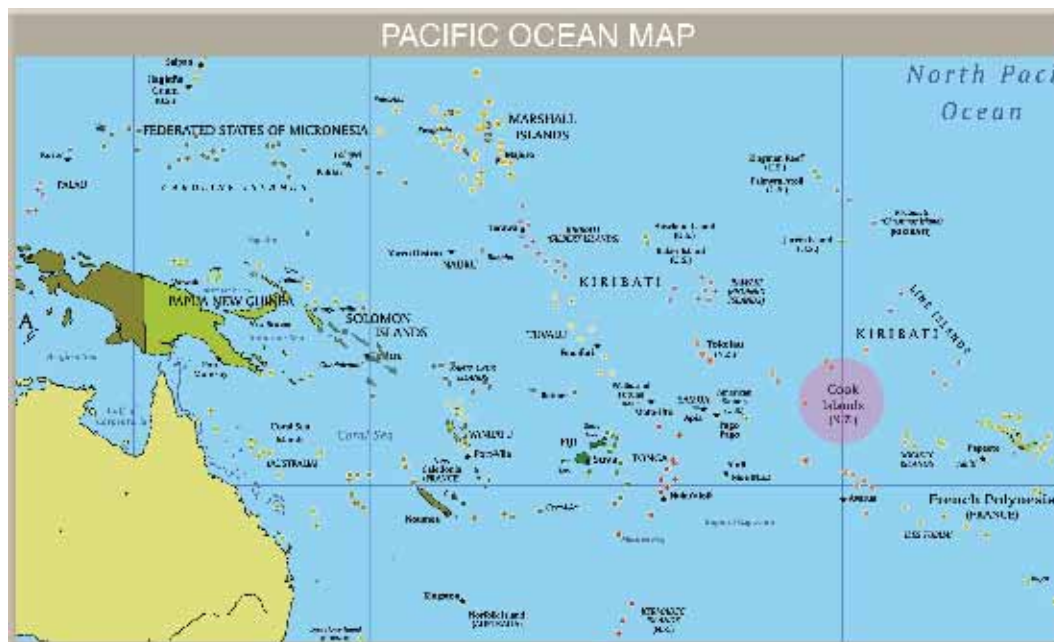


Figure 1 – Location of Cook Islands.

The Cook Islands comprises thirteen inhabited and two uninhabited islands which are clustered towards the northern and southern extremes of the nation's nearly two million square kilometres of territorial waters (Figure 2). The islands in the north – referred to collectively as the Northern Group – comprise the atoll islands of Pukapuka, Rakahanga, Manihiki, Penrhyn, Nassau and Suvarrow. The islands in the south – referred to collectively to as the Southern Group – are of volcanic origin and include the islands of Rarotonga, Aitutaki, Mangaia, Palmerston, Manuae, Mitiaro, Mauke, Takutea and Atiu. The Cook Islands represent one of the smaller 'small islands states' with a combined land area of only 240 square kilometres.

The majority of the resident population lives on Rarotonga (67 km<sup>2</sup>), the capital island and main commercial centre. Rarotonga has an international airport, is the centre of government and is a popular tourist destination. The national airline – Air Rarotonga – has scheduled flights connecting Rarotonga with the other islands in the Southern Group. Islands in the Northern Group are however difficult to reach given the vast distances and absence of regular connecting transportation. As a result they remain relatively less developed and rural in nature.

The climate of the Cook Islands is maritime tropical, dominated by easterly trade winds. There is a marked seasonality in the rainfall regime, with a dry season from May to October (average rainfall 666 mm) and a wet season from November to April (average rainfall 1333 mm). The wet season is also the tropical cyclone season, and is associated with the easterly shift of the South Pacific Convergence Zone (SPCZ) over the country. The monthly average temperatures range between 21°C and 28°C. Extreme temperatures have been recorded in the mid-thirties and mid-teens. The climate of the Cook Islands displays large inter-annual variability, especially in relation to the El Niño/Southern Oscillation (ENSO)<sup>2</sup>.

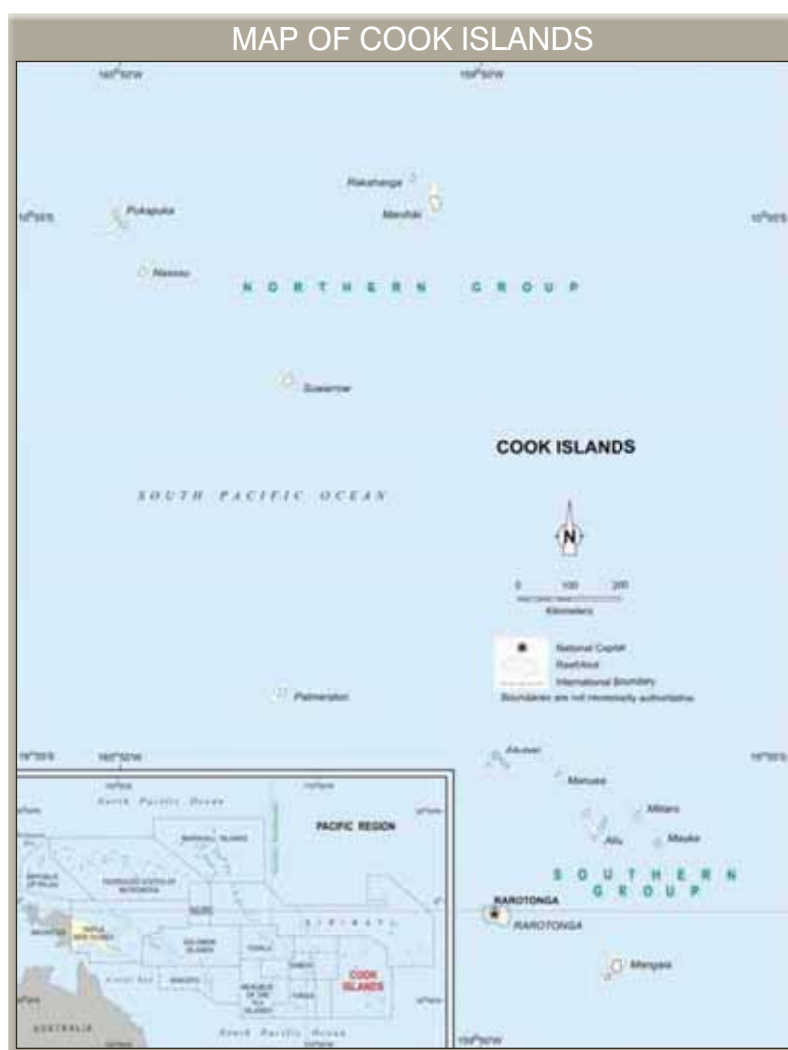


Figure 2 – Map of the Cook Islands.

<sup>2</sup> ADB Strengthening Disaster Management and Mitigation. Volume 4 – Climate Change Considerations. 2006.

## Population

The resident population of the Cook Islands in 2008 is estimated at approximately 15,750 people<sup>3</sup> of which approximately two thirds live in Rarotonga. Since 1965 the Cook Islands population has been in decline. Issues relating to the continuing outward migration of Cook Islanders is a major priority for Government, so much so that it is listed as a major threat to sustainable development. A national census conducted in 2001 revealed that all islands except Rarotonga suffered a decline in population since the previous census in 1996 - Atiu, Mangaia, Nassau, Rakahanga and Penrhyn all experienced declines of over 30% in five years. Aitutaki is the most populous outer island in the Southern Group reflecting the impact of the development of the tourism industry on that island and Pukapuka remains the most populous island in the northern group. The 2001 census report shows a recovery in the population of Manihiki following the forced evacuation in November 1997 as a result of the devastating effects of Cyclone Martin. Manihiki is the centre of the Cook Islands black pearl industry.

Pukapuka has the highest population density (188 people per km<sup>2</sup>) followed by Rarotonga (179 people per km<sup>2</sup>) and Aitutaki (167 people per km<sup>2</sup>).

Tourist arrivals have been consistently growing in recent years and in 2007 stood at 97,000 tourists per annum – over six times greater than the resident population.

Table 1 – Distribution of the Cook Islands population (source: EMCI Business Plan 2009 – 2011).

Island	No. of Villages	Est. 2008 Resident Population	Est. Area (km <sup>2</sup> )
Population	Est.	10,600	67
Area (km <sup>2</sup> )	21	3,840	146
Aitutaki	7	2,000	18
Mangaia	3	640	52
Atiu	5	560	27
Mauke	3	390	18
Mitiaro	2	190	22
Palmerston	1	60	2
Northern Cooks	12	1,310	24.5
Manihiki	2	350	5.5
Penrhyn	2	250	10
Rakahanga	4	140	4
Pukapuka	3	500	3.5
Nassau	1	70	1
<b>Total</b>	<b>33</b>	<b>15,750</b>	<b>237.5</b>

## Governance

The Cook Islands have been a self-governing nation in free association with New Zealand since 1965. As a result of this special relationship Cook Islanders are citizens of New Zealand. Cook Islands' Head of State is the Queen of England, represented in the Cook Islands by an appointed Queen's Representative (QR). Government is headed by a Prime Minister. Cook Islands' Parliament has 25 elected Members – 10 from Rarotonga, 14 from the outer islands and one representing Cook Islands' overseas constituency.

<sup>3</sup> Source: SPC Statistics and Demography Unit. 2008 PICTs Population Estimates. Excludes tourists and visitors.

In addition to the central government, the outer islands operate local governments under statutory powers devolved by Parliament to local councils. Each elects a local council and a Mayor. An Island Secretary manages operations of the local government in the outer islands. Until recently, local government in Rarotonga was by way of three local (Vaka) councils, one for each of the three districts. The Vaka councils were abolished in 2008 in favour of a political arrangement under elected Members of Parliament.

## Economy

The four leading producers of income in the Cook Islands are tourism, fishing (including pearl farming), agriculture and financial services.

Tourism has been the leading growth sector, bringing huge economic benefits and major developments in tourist infrastructure on both Rarotonga and the northern island of Aitutaki. Tourism and related service industries have generated an average of 80 percent of gross domestic product in recent years. The main markets for tourism are New Zealand, Australia, Europe, the United States and Canada.

In recent years, the fisheries sector has been a prominent export sector accounting for 60 to 80 percent of total exports (excluding tourism) and earning between \$7 and \$14 million over the period (2003 – 2005). The development of the commercial offshore fisheries since 2000 has seen a rise in fresh chilled fish exports from the tuna industry, a timely development given the steep decline in the pearl industry around this time as a result of a disease outbreak.

About 70 percent of all households in the Cook Islands engage in some form of agricultural activity, with the tourism sector constituting an important market outlet. Agriculture contributes about 18 percent of the country's GDP. Agricultural production for export has been in decline since the removal of preferential tariffs by New Zealand in the mid 1980s.

The Cook Islands have a well developed offshore financial services business sector. The industry's total contribution to the national economy is about 8.2 percent of GDP.

## The Economic Recovery Programme

The Cook Islands experienced a major economic crisis in the mid-1990s. Factors contributing to crisis included a bloated civil service, large foreign debt, a downturn in tourism and an outbreak of dengue fever. As a result Gross Domestic Product fell by seven percent from 1996 to 1997 and by 3.2 percent in 1997-1998.

In 1996 the Government introduced a programme designed to revive the economy by reducing the number of public servants, selling state assets and encouraging strong economic growth in the public sector. The number of Ministries was cut from 52 to 22 and this also resulted in the reduction of about 1600 government jobs. Some people were absorbed into the private sector, but the near-collapse of the country's economy triggered major emigration by Cook Islanders to New Zealand, Australia and other countries. The exodus contributed to increasing human resource challenges in government and elsewhere.

## Socio-economic status

The Cook Islands has a high GDP per capita compared to many other countries in the Pacific region and is on track to meet most of the MDGs by 2015<sup>4</sup>. While the levels of human development are good by Pacific standards there remains concern over the unequal distribution of development benefits. Communities on the outer islands and pockets of outer island migrants on Rarotonga are considered vulnerable and experience hardship resulting from lack of both employment opportunities and access to basic social services.

<sup>4</sup> Cook Islands Millennium Development Goals National Report 2005.



Of national concern is the growing number of young adults and school leavers without formal education qualifications and lacking the necessary skills for the local job market. The high rate of teenage pregnancies is also an issue of concern.

The Cook Islands has a well functioning social welfare system based on non-contributory state grants. In 2001, 38 percent of the outer island population were dependent on welfare benefits. In the same year unemployment on the outer islands was between 27 and 35 percent. Highlighting the spatial disparities in socio-economic status further, income levels on Rarotonga were 80% higher than on the outer islands.

As in other Pacific Island Countries, Non Communicable Diseases (NCDs) linked to changing lifestyles are a major cause of morbidity and mortality in the adult Cook Islands population.

## Environment

Despite growing pressure from modernisation, tourism development, agriculture and fishing, the natural environment of the Cook Islands is still in relatively good shape. While threats such as pollution (liquid and solid waste) and sedimentation of in-shore coastal ecosystems, contamination of underground water, soil erosion, over-harvesting of coastal marine resources, and loss of biodiversity resulting from the transformation of natural landscapes still remain, the government has made significant progress in putting in place stronger environmental management systems, raising public awareness and building institutional capacity.

An Environment Act was promulgated 2003 and following a number of comprehensive national environmental assessments, a five-year National Environment Strategic Action Framework (NESF) was developed in 2005. A National Capacity Self Assessment stocktake was undertaken in 2003.

In terms of the Environment Act development applications are now subject to a robust system of Environmental Impact Assessment. There is an initiative underway to introduce a system of agro-ecological land-use zoning to better manage the impact of development activities linked to agriculture, tourism and industrial expansion.

An Environmental Protection Fund consisting of a proportion of departure taxes has become the most active funding mechanism for environment-related activities such as domestic rubbish collection for Rarotonga and the management of the new engineered dump site, and provides support funds for environment activities on all islands.

The Government, together with the private sector, promotes an active programme of recycling with increasing volumes of recycled waste being shipped to New Zealand. The country has also rid itself of stockpiles of persistent organic pollutants (POPs) and tighter controls are now in place to manage the importation of agricultural fertilisers and pesticides.

Planning for adaptation to, and mitigation of, the impacts of Climate Change is gaining momentum at the national and community levels. The NESF includes a strategy dealing specifically with this issue and proposes a number of immediate, short-term and medium-term actions to strengthen capacity and resilience. This includes a shift to greater utilisation of renewable energy sources.

Management of sewerage waste remains a concern, particularly with many of the high density tourist facilities discharging treated effluent into the lagoon. The wide spread use of septic tanks also contributes to pollution of both ground and in-shore waters. A new sewerage code has recently been introduced to strengthen environmental management in this area.

## National development policy and priorities

In 2006 the Government charted a milestone document entitled “Te Kaveinga Nui – Living the Cook Islands Vision. A 2020 Challenge”. This document charts the country’s vision for how it would like to develop and where it aims to be by 2020. A National Sustainable Development Plan (NSDP) has been developed for the period 2007 – 2010 as a first step to implementing “Te Kaveinga Nui”.

“Te Kaveinga Nui” is seen as a visionary way forward for the country in the context of the many and varied challenges as a result of changing socio-economic circumstances, rapidly increasing globalization, an expanding private sector, resource constraints and declining national population. It also heralds a new approach to national planning and budgeting.

The national vision as articulated in the NSDP is “To enjoy the highest quality of life consistent with the aspirations of our people, and in harmony with our culture and environment.”

The primary strategic objective of the NSDP is: “To build a sustainable future that meets our economic and social needs without compromising prudent economic management, environmental integrity, social stability and the needs of future generations.”

Referred to as the “8 point strategic plan” – the NSDP contains eight strategic goals as a means to achieve this primary strategic objective (Box 1).

A key strategy identified under Goal 6 is to “Establish a coordinated and effective national disaster risk reduction and disaster management system for all hazards”. The National Action Plan for Disaster Risk Management represents the details of this key strategy.

### BOX 1 – The Eight Strategic Goals of the National Sustainable Development Plan 2007 – 2010

Strategic Goal 1: Equal opportunities for education, health and other social services towards maintaining an inclusive, vibrant, resilient and productive society in harmony with our culture.

Strategic Goal 2: A society built on law and order and good governance at all levels

Strategic Goal 3: Innovative and well-managed private sector-led economy

Strategic Goal 4: Sustainable use and management of our environment and natural resources

Strategic Goal 5: A strong basic infrastructure base to support national development

Strategic Goal 6: A safe, secure and resilient community

Strategic Goal 7: A foreign affairs policy that meets the needs and aspirations of the Cook Islands people

Strategic Goal 8: Strengthened National Coordination and Institutional Support Systems for Development Planning, Evaluation and Monitoring

(Source: NSDP 2007)



## Risk Context

The physical geography of the Cook Islands is one of stark contrast between the Northern Group of islands composed of atolls and one sand cay, and the Southern Group of islands composed of hilly volcanic islands. Each island has its own specific set of environment risks, with islands in the Northern Group suffering from low fertility, porous soil, low-lying, and scant terrestrial resources, and the southern islands displaying richer soils and arable land, but suffering from higher population pressures, increasing tourism development and associated environment problems.

Key weather related hazards affecting the Cook Islands are cyclones, storm surges, floods and droughts. The Cook Islands lies within the “cyclone belt” and their vulnerability to cyclones was emphasized in 2005 when the country was hit by five consecutive cyclones over a period of two months causing damage estimated at NZ\$ 20 million<sup>5</sup>. Prior to this Cyclone Sally extensively damaged Rarotonga in January 1997 and in November 1997 Cyclone Martin destroyed about 90 percent of the houses and killed 19 people on Manihiki atoll.

During El Niño the Southern Cook Islands experienced severe drought conditions and many households have been without water for periods ranging from several weeks to some months. Agriculture has also been severely affected. During the contrasting La Niña phase, flash flooding is a frequent problem for the volcanic and Makatea Southern Group islands, while the Northern Group islands suffer drought.

Being an island nation Cook Islands is equally vulnerable to the impacts of Climate Change, such as sea level rise, increasing frequency and intensity of cyclonic activity, changing precipitation patterns, coral bleaching, shifting fish stocks, accelerated coastal erosion, loss of agriculture productivity, health issues (disease outbreaks, transmission and distribution, especially of mosquito carried diseases) and quality and quantity of freshwater resources for communities and tourism. By the end of this century, the global average sea level is predicted to rise by between 0.19 m to 0.58 m above the 1980 – 1999 baseline. Sea levels in the Pacific island region have risen at an average rate of 1.6 mm/yr over the last 50 years<sup>6</sup>. A recent report predicts that the costs of damages to the Avatiu area from accelerated sea surge as a result of climate change over the next 50 years will be in the region of \$40 million<sup>7</sup>.

Taken together the above translates into an island nation at risk of a combination of natural elements.

The occurrence of tropical cyclones tends to be more frequent during an El Niño event when warmer than normal sea surface temperatures occur between latitudes 10 and 15 degrees South (°S) and there is an eastward migration of the South Pacific Convergence Zone in the vicinity of the Cook Islands and French Polynesia. During an El Niño event the Southern Group experiences a reduction in rainfall, to as little as 60% of normal, while in the Northern Group rainfall increases to as<sup>8</sup> much as 300% above normal. Tropical Cyclones Martin and Pam caused extensive damage to property and infrastructure and brought human suffering, including loss of lives, during the 1997/98 ENSO. The Southern Group of islands experienced prolonged drought during the same period. In the southern Cook Islands cyclones are seldom associated with heavy rainfall.

Traditional resource utilization practices and community management regimes are eroding. This has a direct negative impact on the health of the nation’s environment. The deterioration has been exacerbated in more recent times due to the changes from subsistence to a commercial economy (including increased tourism), increasing urbanization and population drift to the main island and overseas, and the focus by outer island authorities on economic development that may not factor in natural resource sustainability.

<sup>5</sup> ADB Strengthening Disaster Management and Mitigation. Volume 4: Climate Change Considerations. 2006.

<sup>6</sup> IPCC (2007). Impacts, Adaptation and Vulnerability. Contribution of Working Group 11 to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change. Cambridge University Press, Cambridge, UK, p.896.

<sup>7</sup> National Environment Strategic Framework 2005-2009.

<sup>8</sup> ADB Strengthening Disaster Management and Mitigation. Volume 4 – Climate Change Consideration.

In addition, human activities have contributed to pressures on the environment that could worsen the effects of climate change and sea-level rise. Pressures that must be considered and may be difficult to overcome include:

- Soil erosion as a result of poor land management.
- Liquid and solid waste, a problem common to all islands but especially on Rarotonga where effluent seeps into the lagoon from household septic tanks, tourist resorts and pig and chicken farms, and makes reefs less resilient to coral bleaching.
- Over-harvesting of certain species including clams, reef fish, and coconut crabs.
- Mining of sand, coral and gravel aggregate from the beaches for construction contributing to coastal erosion and lagoon sedimentation.
- Foreshore development, resulting in reclamation of land for construction and inappropriate sea walls being major problems on Rarotonga and Aitutaki.

An example of human activities leading to increased vulnerability to a natural disaster was the outbreak of the bacterial disease that decimated the Manihiki Pearl Industry in 2000 (Box 2). Agricultural pests such as the flat moth that has devastated coconut trees on Rarotonga and several of the outer islands are also the result of unregulated human activities.

#### **BOX 2 – Links between Human Activities, Vulnerability and Natural Disasters - The Rise and Fall of the Pearl Industry**

Pearl farming has been one of the main export earners for the Cook Islands since the first black pearl oysters were farmed in the Manihiki Lagoon back in the 1980's. The industry grew steadily over the years and by 1989, a total of about forty small farms, mainly family owned, were operating in Manihiki with an estimate of around 400,000 oysters. This number quickly expanded and by 2000 there were about 80 to 85 farms in Manihiki, farming over 2 million oysters, with several farms in Rakahanga and Penrhyn. The three atolls form the production base for the industry, with around 90 to 95 percent of production coming from Manihiki.

Between 1990 and 1999 the industry earned an average of \$3.6 million a year from pearl exports, making it one of the major contributors to GDP. Since then, the value of pearl exports gradually increased over the years and by 2000, pearl exports peaked earning a total of \$18.4 million.

In late November 2000, the industry suffered a major setback with the outbreak of the *Vibrio harvey* bacterial disease, which devastated the main pearl producing farms in Manihiki atoll. A combination of climatic conditions, overstocking and inappropriate farm husbandry pushed the lagoon beyond its maximum sustainable capacity, leaving the naturally occurring bacteria to thrive. In addition, world market prices for black pearls tumbled in the same year, placing further pressure on an industry already in turmoil. Since then the industry has experienced a decline in production and plummeting pearl prices, which were further compounded by rising fuel and transportation costs, and loss of investor confidence, with farmers running loan debts, and some farmers leaving the industry.

The social and economic impact of this disaster has been severe. In the last six years, the value of Cook Islands pearl exports have been declining, dropping from an all time high of \$18.4 million in 2000 to \$1.6 million in 2005. While government has taken a number of initiatives to assist the industry – such as the development of a Manihiki Lagoon Management Plan and a Code of Conduct for pearl farmers – the industry continues to struggle to recover to former levels of production.

(Source: Situation and Outlook for Cook Islands Marine Resources 2006)



## Institutional Arrangements for Disaster Risk Management

The five cyclones of 2005 focused government attention on the need to review and update the institutional arrangements for disaster management. While the general population proved to be relatively well prepared and resilient (there were no fatalities and surprisingly few injuries), the same could not be said about infrastructure with damage caused by the cyclones amounting to NZ\$ 20 million. With the assistance of the Asian Development Bank (ADB), the government embarked on an extensive process of institutional and infrastructure planning review. Key outcomes of the review included:

- a shift in policy from focusing only on cyclones and on Disaster Management (Preparedness, Response and Recovery) to a more holistic all-hazards, all-of-government approach including a focus on Disaster Risk Reduction (termed mitigation in the Cook Islands).
- The establishment of Emergency Management Cook Islands (EMCI) as the key coordination agency and its placement under the Office of the Prime Minister (Box 3).
- The development and passing of a new Disaster Risk Management Act (November 2007) and a new National Disaster Risk Management Plan.
- The establishment of a National Disaster Risk Management Council, chaired by the Prime Minister.
- The preparation of a 'Preventative Infrastructure Master Plan' which identifies and prioritizes infrastructure needs for the next 20 years, and enhances resilience by minimizing the harmful effects of future disasters on the built environment.

Other relevant national initiatives to date include:

- The development of a Cyclone Recovery Reconstruction Plan (2006 – 2009) and a National Hurricane Safety Plan (2005-2006).
- The development of a National Climate Change Strategy.
- The development of a Health Pandemics Response Plan; and
- The enactment of a new, more comprehensive Biosecurity Act.

Despite the progress that has been made to date, there remains work to be done to ensure that strategic Goal 6 of the NSDP – A Safe, Secure and Resilient Community is achieved. While the policy, legislative and planning framework is beginning to take shape, there is a need to continue to strengthen linkages between DRM and other sectoral policies, planning and budgetary initiatives, as well as at the local government/community level. In addition, implementation capacity needs to be strengthened to ensure that the various plans are in fact realised. Other areas requiring urgent and immediate attention include the development of DRM plans by key response agencies as well as reviewing and improving the national system of safety shelters.

**BOX 3 – Mandate of Emergency Management Cook Islands (EMCI)**

- Supporting the National Disaster Risk Management Council by providing professional advice and secretariat and administrative support
- Coordinating and supporting the development and monitoring of national, outer island and village disaster risk management plans, in accordance with its strategic plan, Annual Work Plan, allocated budget and normal government procedures
- Ensuring that there is appropriate agency representation and administrative support for disaster risk management advisory committees (mitigation, preparedness and recovery)
- Coordinating the drafting and maintenance of contingency plans for approval by Council and supporting other agencies in preparing and maintaining their responding agency plans
- Developing and maintaining effective relationships: with the national planning office to ensure appropriate links between disaster risk reduction and disaster management activities and with relevant regional bodies, notably SOPAC, to ensure synergies between national and regional programmes
- Coordinating the development of a database of emergency management information to include hazard maps, vulnerability assessments reports and resulting maps, training information, exercise reports, disaster management resources and emergency contact details.
- Supporting the development of public awareness information and programmes, particularly prior to the annual cyclone season
- Managing the National Emergency Operations Centre, facilitating training and exercises, facilitating post-disaster and post-exercise debriefs; and preparing reports for the National Disaster Risk Management Council highlighting critical areas for improvement

(Source: EMCI Business Plan)



# Development of the National Action Plan for Disaster Risk Management

## Introduction

The past twenty years have seen significant conceptual advances in the field of disaster management. This has coincided with an increase in the number, scale of impact and cost of natural and man-made disasters globally. Over this period, greater consciousness has emerged about the relationship between disasters and development, with national development efforts often being significantly set back as a result of hazard events. Years of hard work and development gains can be undone over a matter of hours in the wake of tropical cyclones, tsunamis, earthquakes, etc. Depending on the scale of the devastation, the impact of these disasters can be catastrophic on small country economic growth and well-being, taking countries years to climb back to the point of development before the disaster. The development cost not only in terms of lives lost and injuries, but to the national and international aid community can be astronomical. There is also growing realisation that development processes themselves can at times increase people's exposure to risk – e.g. tourism development in flood-prone areas.

In light of the above, new thinking has emerged that emphasises the need to take a more proactive approach to the management of disasters. This is the disaster risk management approach – an approach that identifies the key hazards and vulnerabilities in advance, and puts in place measures to reduce the risk and vulnerability of countries and communities to hazard events while also addressing disasters that occur. Risk management is a well-established concept in the field of financial and corporate planning and its value as a tool in the field of disaster management is now coming to the fore. Disaster Risk Management does not replace the more traditional Disaster Management which is more focused on emergency response, but adds to it the stronger proactive approach of Disaster Risk Reduction.



Disaster risk management comprises disaster management and disaster risk reduction. Disaster Management (DM) concerns responding to disasters and includes preparation for disasters ('preparedness'), response (emergency relief, rescue work, medical assistance etc.) and/or recovery/rehabilitation. Disaster risk reduction aims to reduce the likelihood that disasters will occur or reducing their scale. It includes, for example, hazard analysis and vulnerability assessment. Disaster Risk Reduction enhances community resilience to hazard events so that when such events occur, countries are prepared and have the capacity to absorb their impact and the ability to recover rapidly – socially and economically – thus minimizing (or even avoiding) the damage.

In order to achieve disaster risk management, it is necessary that a 'culture of risk reduction and preparedness' be instilled throughout all aspects of society, and amongst all stakeholders: government, private sector, NGOs, churches and communities (Box 4). This 'mainstreaming' needs to occur across society and within government planning and budgeting processes, amongst all sectors and at all levels. Everybody and every agency has an active role to play in reducing disaster risk and managing disaster events. Government, in particular is committed to ensuring that DRR thinking becomes integrated into all aspects of governance and that appropriate actions are taken and tools developed to assist this process.

This National Action Plan for Disaster Risk Management spells out exactly how government and other stakeholders plan to go about mainstreaming DRM into the national consciousness in a concerted effort to reduce the collective and individual vulnerability and increase resilience to hazard events. This is done to ensure that the Cook Islands remain on track to achieve the social and economic growth targets and goals outlined in "Te Kaveinga Nui" and to 'disaster proof' the national sustainable development effort.

#### BOX 4 – The Case for a Change of Paradigm to "Building a Culture of Preparedness"

- Cook Islands like other Pacific Island Countries, needs to improve its disaster reduction programme through an integrated holistic approach that places it in the national context as part and parcel of governance, sustainable development, security and the freedom of people to live a life of their choice. (Cook Islands statement at the World Conference of Disaster Reduction (WCDR) 2005)
- Disasters seriously undermine the results of development investments in a very short time, and therefore, remain a major impediment to sustainable development and poverty eradication... We recognise that a culture of disaster prevention and resilience and associated pre-disaster strategies, which are sound investments must be fostered at all levels, ranging from the individual to the international levels. (Hyogo Declaration, WCDR 2006)
- Small island developing States have undertaken to strengthen their respective national frameworks for more effective disaster management. (Mauritius International Meeting on Small Island Developing States (SIDS) 2005)
- An integrated, multi-hazard, inclusive approach to address vulnerability, risk assessment and disaster management, including prevention, mitigation, preparedness, response and recovery, is an essential element of a safer world in the twenty-first century. (World Summit on Sustainable Development (WSSD) 2002)

(Source: EMCI Business Plan 2009 – 2011)

## International and Regional Policy Context

The international context for DRM is shaped by a number of inter-related conventions and framework documents relating to sustainable development, environment, climate change, the millennium development goals and disaster risk management. Key amongst these is the Hyogo Framework for Action 2005 – 2015: Building the Resilience of Nations and Communities to Disasters, which was the outcome of the Second World Conference on Disaster Reduction held in Kobe, Japan, in January 2005. The 'Hyogo Framework for Action' was signed by 168 world leaders and a dedicated UN institutional structure, called the International Strategy for Disaster Reduction (UN-ISDR) was established to oversee its implementation.

**ISDR MISSION STATEMENT**

The ISDR aims at building disaster resilient communities by promoting increased awareness of the importance of disaster reduction as an integral component of sustainable development, with the goal of reducing human, social, economic and environmental losses due to natural hazards and related technological and environmental disasters.

**HYOGO FRAMEWORK STRATEGIC GOALS**

- (a) The more effective integration of disaster risk considerations into sustainable development policies, planning and programming at all levels, with a special emphasis on disaster prevention, mitigation, preparedness and vulnerability reduction.
- (b) The development and strengthening of institutions, mechanisms and capacities at all levels, in particular at the community level, that can systematically contribute to building resilience to hazards.
- (c) The systematic incorporation of risk reduction approaches into the design and implementation of emergency preparedness, response and recovery programmes in the reconstruction of affected communities.

The Hyogo Framework identifies five key priorities for action:

1. Ensure that disaster risk reduction is a national and a local priority with a strong institutional basis for implementation.
2. Identify, assess and monitor disaster risks and enhance early warning.
3. Use knowledge, innovation and education to build a culture of safety and resilience at all levels.
4. Reduce the underlying risk factors.
5. Strengthen disaster preparedness for effective response at all levels.

The framework lists a number of key activities for each priority action and encourages States, regional and international organizations and other actors to implement them, as appropriate, to their own circumstances and capacities.

Realising the importance of the Hyogo Framework to the Pacific, Pacific Island Governments acted swiftly to translate it into a context relevant for the Pacific. Thus the 'Pacific Disaster Risk Reduction and Disaster Management Framework for Action 2005 (Regional Framework)' was endorsed by the 12th Pacific Disaster Managers Meeting, held in Madang, Papua New Guinea, in June 2005 and by Pacific Forum Leaders later in October of the same year.

**VISION OF THE PACIFIC REGIONAL DRM FRAMEWORK**

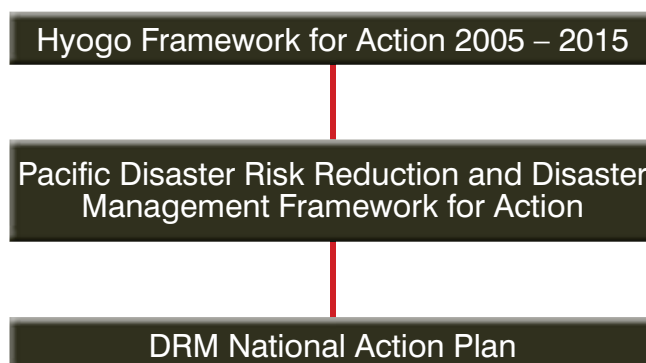
'Safer, more resilient Pacific island nations and communities to disasters, so that Pacific peoples may achieve sustainable livelihoods and lead free and worthwhile lives'.

The Regional Framework is organised around six thematic areas which link closely to the Hyogo Framework:

- Theme 1: Governance – Organisational, Institutional, Policy and Decision-making Frameworks
- Theme 2: Knowledge, Information, Public Awareness and Education
- Theme 3: Analysis and Evaluation of Hazards, Vulnerabilities and Elements at Risk
- Theme 4: Planning for Effective Preparedness, Response and Recovery
- Theme 5: Effective, Integrated and People-Focused Early Warning Systems
- Theme 6: Reduction of Underlying Risk Factors

In order to translate the Regional Framework to the national level, Pacific Island Countries are being encouraged to develop DRM National Action Plans as a means to promote an integrated approach to disaster risk reduction and disaster management. The Regional Framework is further supported by the Pacific Plan (Kalibobo Roadmap) which has been endorsed by Pacific Island Form Leaders. In addition the Pacific Plan strives to link the Regional Framework with an equally important document, namely the Pacific Islands Framework for Action on Climate Change 2006 – 2015.

This is the international and regional context in which the Cook Islands Disaster Risk Management National Action Plan has been developed.



## National Policy Context

The Cook Islands Disaster Risk Management National Action Plan (DRM NAP) aligns itself closely to the Regional Framework as well as to a number of other national planning frameworks, such as the National Sustainable Development Plan, the Medium Term Budgeting Framework, the Cyclone Recovery Reconstruction Plan, the Preventative Infrastructure Master Plan, the National Environment Strategic Framework and the Climate Change Country Strategy.

In fact the DRM NAP directly links with NSDP Goal 6: A Safe, Secure and Resilient Community for which the strategy is to 'Establish a coordinated and effective national disaster risk reduction and disaster management system for all hazards' by means of developing a 'Whole of country and stakeholder driven DRM National Action Plan'.

NATIONAL SUSTAINABLE DEVELOPMENT PLAN	
GOAL 6: A SAFE, SECURE AND RESILIENT COMMUNITY	
STRATEGY	KEY POLICY TARGETS 2007-2010
ALL HAZARD RISK MANAGEMENT	
Establish a coordinated and effective national disaster risk reduction and disaster management system for all hazards	<ul style="list-style-type: none"> <li>• Whole of government approach and stakeholder driven public-private partnership is adopted in the disaster risk reduction and disaster risk management efforts associated with each hazard.</li> <li>• National Risk Plan of Action for Disaster Risk Reduction and Disaster Management implemented by 2007, putting in effect the 2005 Cook Island National Disaster Risk Management Policy.</li> </ul>



The DRM National Action Plan can be thought of as a 'Sector Plan' for the Disaster Risk Management Sector. It is however important to remember that the DRM National Action Plan is cross-cutting in nature in that it strives to encourage a whole-of-government, all-hazards approach. This means that many of the strategic actions identified in the plan relate to the activities of line ministries and as such should be replicated in their respective planning frameworks. This is critical to ensure that the linkages are made and that implementation across all relevant government ministries and agencies occurs. (A more detailed description of how the DRM National Action Plan links to the various national policy, planning and budgetary frameworks is provided in Section 4 – DRM NAP Implementation Arrangements).

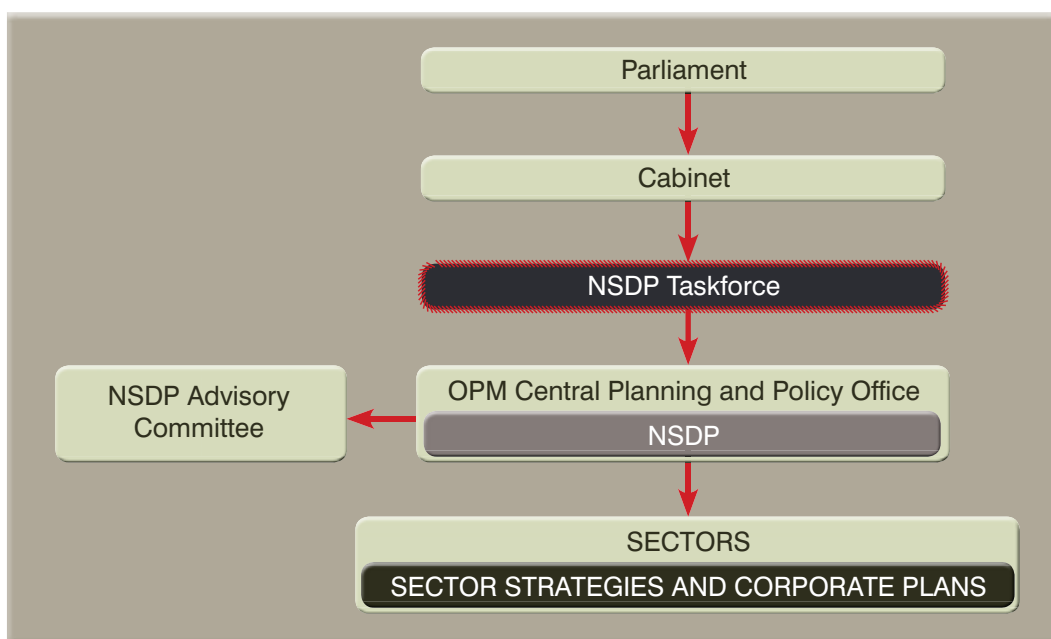


Figure 3 – NSDP implementation arrangements (Source: NSDP 2007).

## DRM NAP Development Process

The initiative for developing a DRM National Action Plan began in April 2008 when a High Level Advocacy Team (HLAT) from SOPAC made representation to the Cook Islands Government. SOPAC is the regional inter-governmental agency with the mandate for coordinating DRM capacity building in the Pacific. A manifestation of this mandate is in its coordination of the implementation of the Regional Framework. SOPAC has a long history of constructive engagement on DRM issues with the Government. Government responded positively to SOPAC's advocacy and following the HLAT visit a letter of invitation was sent by the Prime Minister of the Cook Islands to the Director of SOPAC inviting SOPAC and its partners to facilitate the development and implementation of a DRM NAP for the Cook Islands.

In supporting the development of DRM NAP processes in the region, SOPAC has brought together a number of international and regional development organisations, NGOs and donors under the umbrella of the Pacific Disaster Risk Management Partnership Network (PDRMPN). A sub-group comprising SOPAC, the UNDP Pacific Centre and the Pacific Islands Forum Secretariat facilitated the development of the Cook Islands DRM NAP.

As depicted in Figure 4, the DRM NAP development process commenced with a desk-based 'situation analysis' of disaster risk management structures and activities in the Cook Islands. This was followed by a number of stakeholder consultations between 14 and 25 April 2008 to provide more detail to the situation analysis. To facilitate a holistic and broad-ranging situation analysis, i.e. one that would include natural and man-made disasters, as well as risks associated with development processes, it was decided to adopt a sectoral approach.

Key sectors were identified and each key sector was subjected to analysis of the following:

- Hazard and vulnerability context
- DRM institutional arrangements, relevant national policies and plans
- Development planning, decision making and budgetary planning processes
- Current initiatives and responses addressing DRM
- National and international/regional partners including donors supporting DRM
- Key national stakeholders and players
- Mainstreaming issues
- Inter-sectoral collaboration
- Key DRM sectoral issues and root causes

The results were presented back as a series of 'Key Sector DRM Briefing Papers'.

The next step was the establishment of a DRM NAP Advisory Committee (NAPAC) to provide operational guidance in the NAP development process. The NAPAC represented by a cross-section of line ministries, agencies, NGO and private sector (see Annex 2 for a list of members). Through a series of workshops held between 2 and 13 June 2008 the NAPAC members and their representatives discussed and analysed DRM issues, root causes of risks and disasters and key problems brought forward by the situation analysis briefing papers using techniques such as 'gap identification', 'prioritisation', 'root cause' and 'problem tree' analysis. Additional issues raised by the Committee that had not been captured in the situation analysis were also documented.

### A focus on DRM 'gaps'

At this point in the process the NAPAC decided to limit the scope of the DRM National Action Plan to addressing only the gaps in disaster risk management i.e. DRM issues that were not already addressed elsewhere. This decision accommodates the fact that a number of DRM concerns and initiatives, such as climate change, infrastructure development, water and sanitation, environment and emerging issues such as SARs among others are already covered by existing and planned government initiatives.

DRM gaps that were identified were further subjected to a process of prioritisation in acknowledgement of the fact that i) the DRM NAP should not be overly ambitious, and ii) the need to make strategic use of limited resources.

Following from the above, the NAPAC determined that the DRM NAP is not intended to be comprehensive of all gaps, but rather represents a starting point in the long-term and on-going process of ensuring that development in the Cook Islands remains sustainable. The DRM NAP should therefore be viewed as a 'living document'. Part of the DRM NAP development process included the identification of a robust system of monitoring and evaluation and NAP review (documented in Section 4). It is the intention that issues not prioritised in the current version of the DRM NAP, and/or new and emerging issues, be captured through the process of on-going and regular review of NAP implementation.

Returning to the process, issues that were considered priority gaps were then taken through the problem tree analysis process during which root causes were systematically identified.

Once the root causes of DRM issues had been agreed, the NAPAC identified potential solutions to address the root causes. These solutions (rigorously discussed and debated) were reformulated through a process of iteration. With the assistance of a sub-group of the PDRMPN acting as facilitators of the process, the final draft solutions (rephrased into actions) were arranged and packaged in a logical manner into the DRM NAP Matrix, which forms the core of the Action Plan.



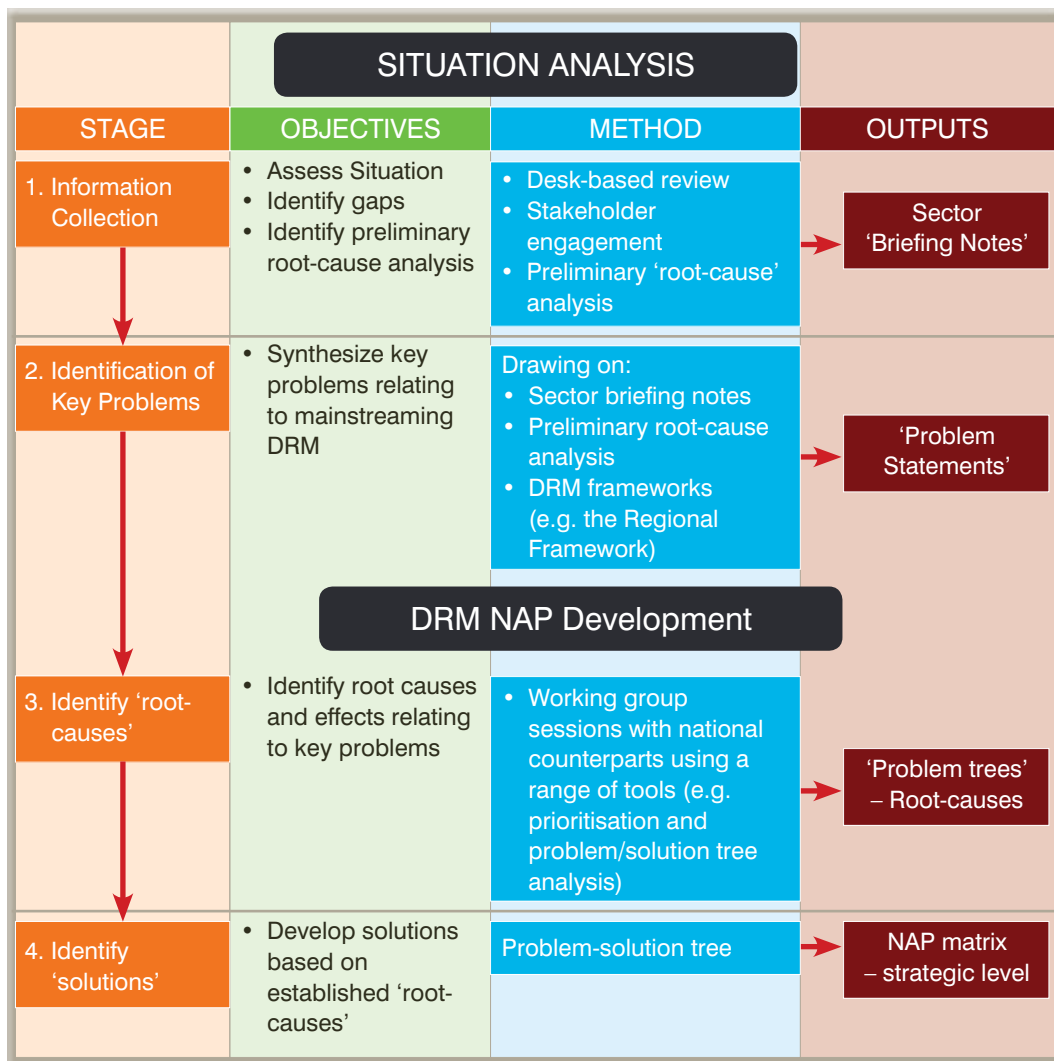


Figure 4 – Depiction of the DRM NAP development process (Source: SOPAC DRM Guide, 2008)

# National Action Plan for Disaster Risk Management

## Vision

The vision of the Cook Islands National Action Plan for Disaster Risk Management outlines where the Cook Islands wants to be from 2009 – 2015. Each action to be implemented aims to make the Cook Islands Vision a reality. The Vision of the National Action Plan for Disaster Risk Management is:

### A Safe, Resilient and Sustainable Cook Islands

It is envisaged that the National Action Plan designed here provides a framework and guidance to the Government of the Cook Islands and all communities to better respond to their vision. This vision is strongly tied to Te Kaveinga Nui 2020 vision, Goal 6 of the National Sustainable Development Plan 2007 – 2010 and the Cook Islands National Disaster Plan 2006.

## Structure of the National Action Plan Matrix

The National Action Plan includes the components of goals, strategic targets, actions and responsible agencies<sup>5</sup>. These components were constructed to address similar key issues that impact on all aspects of effective disaster risk reduction and preparedness, recovery and response at the national level and in the outer islands. There are a total of five (5) goals established to guide disaster risk reduction and disaster management. A sixth goal focuses on the monitoring and evaluation of the DRM NAP.

The components were then tabulated on a matrix with the following column headings:

<b>Goals:</b>	High level and broad statements indicating what to achieve. The goals are all complementary and mutually reinforcing.
<b>Strategies:</b>	Cluster of similar activities to address root causes of identified issues or problems. The 'strategy' is a lower level statement than a 'goal statement'.
<b>Strategic Targets:</b>	The tangible outputs of the completed actions that will collectively lead to the achievement of the strategies and collective targets lead to the achievement of the goals.
<b>Actions:</b>	The 'steps to be implemented to achieve the targets and subsequently the strategies
<b>Responsible agencies:</b>	The agencies that should lead or initiate the implementation of specified actions that falls under their mandate.

The objectives of each Goal and key actions and sub-actions that identify the resource requirements for the implementation of each action is listed in Section 5 – Indicative Costs and Goal Profiles.

<sup>5</sup> It is anticipated that the NAP Advisory Committee in consultation with relevant stakeholders will nominate Lead Agencies and Supporting Agencies from the list of Responsible Agencies identified.



# The Cook Islands Disaster Risk Management National Action Plan 2009 – 2015

Vision: A Safe, Resilient and Sustainable Cook Islands

## Goal 1 - Good Governance for Mainstreaming Disaster Risk Management at all levels

### Key issues identified and DRM gaps addressed

- Key sectoral policies and plans and national budgeting processes do not adequately integrate DRM issues (including assessments of economic, social and environmental risks)
- Current funding mechanisms for disaster risk management are not sustainable
- Disaster Risk Reduction assessment criteria do not form part of existing development planning processes (i.e. EIA, Building Code, etc.)
- Outer Islands development plans do not adequately address the issue of Disaster Risk Reduction
- Coordination and partnerships between ministries, agencies, civil society, private sector and communities are weak

Strategies	Strategic Targets	Actions	Responsible Agencies
<ol style="list-style-type: none"> <li>1. Mainstream DRM (including economic, social and environmental disaster risks) into key sectoral policies, legislation, plans and budgeting planning processes</li> </ol>	<ol style="list-style-type: none"> <li>1. All agencies understand that DRM is everyone's responsibility</li> <li>2. Sectoral policy and plans at all levels include economic, social and environmental disaster risk assessments</li> </ol>	<ol style="list-style-type: none"> <li>1. Review relevant national policy, legislation, organisational and decision making arrangements for DRM at Rarotonga and the Outer Islands</li> <li>2. At each sector level (Rarotonga and Outer Islands) develop and strengthen DRR programmes and activities, including identifying priority hazards requiring attention and measures to deal with them and incorporate in Corporate, Business Plans and budgets</li> <li>3. At the community levels (Rarotonga and Outer Islands), including CSOs and NGOs, develop and strengthen DRR programmes and activities, including identifying priority hazards requiring attention and measures to deal with them and incorporate in the respective Plans and budgets</li> <li>4. Develop a Policy Paper on DRM mainstreaming at all levels</li> <li>5. Conduct awareness on DRM mainstreaming for agencies at all levels</li> </ol>	<ol style="list-style-type: none"> <li>1. CPPO</li> <li>2. EMCI, OMIA, Internal Affairs, CIC</li> <li>3. CPPO and EMCI</li> <li>4. Ministry of Infrastructure and Planning (former Ministry of Works and OMIA), EMCI</li> <li>5. CPPO and EMCI</li> </ol>
<ol style="list-style-type: none"> <li>2. Establish sustainable funding for disaster risk reduction and disaster response and recovery</li> </ol>	<ol style="list-style-type: none"> <li>1. New policy for DRM financing</li> <li>2. Funding readily available for disaster risk reduction and emergency disaster</li> </ol>	<ol style="list-style-type: none"> <li>1. Incorporate DRM activities (including DRM NAP Actions) in budget line submissions in every budget cycle and incorporate DRM in CCA activities (e.g., PACCC) such as awareness raising, climate proofing etc.</li> <li>2. Finalise the policy for disaster response funding to include roll over of funds including incorporation of disaster insurance and aid relief</li> <li>3. Civil Society response agencies to establish formal arrangements with the government for assistance</li> </ol>	<ol style="list-style-type: none"> <li>1. MFEM and All Agencies</li> <li>2. CPPO, MFEM, EMCI</li> <li>3. NGOs,</li> </ol>

<p>3. Incorporate DRM measures in all regulations addressing development planning processes (EIA, Building Code, etc.)</p>	<ol style="list-style-type: none"> <li>1. Improved development planning processes with the inclusion of DRM measures</li> <li>2. Capacity available within key development agencies to enforce DRM provisions/measures</li> <li>3. Awareness and compliance of developers improved regarding DRM requirements</li> </ol>	<ol style="list-style-type: none"> <li>1. Review all existing development planning regulations in view of incorporating DRM and CCA provisions</li> <li>2. Adoption of EIA in all planning regulations</li> <li>3. Assess the Technical Capacity and Needs of Developing planning agencies to effectively enforce the DRM provisions within their regulations</li> <li>4. Conduct appropriate awareness programmes for developers including property and infrastructure developers on DRM requirements of the regulations</li> <li>5. Develop and adopt relevant DRM by-laws to address Outer Islands sustainable development</li> </ol>	<ol style="list-style-type: none"> <li>1. EMC, NES, Ministry of Health and other relevant line agencies</li> <li>2. EMC, Internal Affairs</li> <li>3. EMC, and relevant line agencies</li> <li>4. Ministry of Infrastructure and Planning (OMIA), Island Councils, EMC</li> <li>5. CPPO and relevant line agencies</li> </ol>
<p>4. Strengthen DRM coordination and partnerships between and within Government, civil society and the private sector, at all levels</p>	<ol style="list-style-type: none"> <li>1. Improved political support, leadership, communication and awareness raising</li> <li>2. Partnership among agencies for DRM improved</li> <li>3. Government agencies, CSOs and NGOs engage in joint DRM planning and consultations</li> </ol>	<ol style="list-style-type: none"> <li>1. Develop an awareness programme to include information on economic and social risk profiles of their constituencies (incl. climate change scenarios) for politicians and other decision makers</li> <li>2. Initiate a national dialogue (including CSOs and NGOs) of ways to improve joint DRM programming</li> <li>3. Strengthen capacity of EMC to monitor and facilitate coordination and partnerships (including communication flow and sharing of resources)</li> </ol>	<ol style="list-style-type: none"> <li>1. EMC, OPM, Ministry of Infrastructure and Planning (OMIA)</li> <li>2. CSO/NGOs, EMC, CPPO</li> <li>3. EMC, CSOs, relevant line agencies</li> </ol>
<p>5. Strengthen capacity of Outer Islands Councils and all agencies for DRM</p>	<ol style="list-style-type: none"> <li>1. Improved Outer Islands Council capacity for DRM</li> <li>2. Improved awareness of central agencies and Outer Islands Councils of DRM needs and requirements</li> <li>3. Increased technical assistance from central agencies on DRM to Outer Islands Councils</li> </ol>	<ol style="list-style-type: none"> <li>1. Appoint a focal point for disaster risk reduction in each Outer Island Council</li> <li>2. Improve and formalise Outer Islands Councils and central agencies partnership and coordination</li> <li>3. Provide training to Outer Islands Councils for sustainable planning processes including planning</li> </ol>	<ol style="list-style-type: none"> <li>1. EMC, Island Councils, PSC, NDRM Council</li> <li>2. EMC, Island Councils, NDRM Council, relevant line agencies</li> </ol>
<p>6. Strengthen EMC capacity to coordinate and facilitate DRM responsibilities as per legislative mandate accorded by the Disaster Risk Management Act 2007</p>	<ol style="list-style-type: none"> <li>1. EMC capacity and profile increased</li> <li>2. Improve the facility of EMC</li> <li>3. Improved communication between EMC and relevant agencies</li> <li>4. Active participation of relevant agencies in EMC activities</li> </ol>	<ol style="list-style-type: none"> <li>1. Develop and implement long-term communication strategies using all media available</li> <li>2. Build partnerships with NGOs and Civil Society groups to assist the EMC to implement the DRM communication strategies and awareness programmes</li> <li>3. Facilitate the acquisition of required technical assistance, TA (including volunteers) for EMC</li> <li>4. Build a National Emergency Operations Centre, including EMC office</li> </ol>	<ol style="list-style-type: none"> <li>1. EMC</li> <li>2. EMC, NGOs</li> <li>3. EMC, Ministry of Foreign Affairs, Aid Management</li> <li>4. Aid Management, MFEM, EMC</li> </ol>



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## Goal 2 – Strong Knowledge Base for more Effective Disaster Risk Management

### Key issues identified and DRM gaps addressed

- Traditional knowledge relating to risk reduction and management are not integrated into existing DRM knowledge management systems
- Skills base and human resources for DRM in the Cook Islands is limited
- National baseline database for DRM is poorly coordinated

Strategies	Strategic Targets	Actions	Responsible Agencies
1. Incorporate traditional knowledge where appropriate in DRM programmes	1. Traditional knowledge relating to DRM is preserved and integrated into disaster risk management	<ol style="list-style-type: none"> <li>1. Document traditional DRM knowledge and practices</li> <li>2. Explore the use of traditional knowledge for application to current disaster risk reduction and disaster preparedness, response and recovery initiatives</li> </ol>	<ol style="list-style-type: none"> <li>1. EMCi, Ministry of Cultural Development, Ministry of Education, Ministry on Internal Affairs, Red Cross, Community Groups</li> <li>2. EMCi, Ministry of Cultural Development, Ministry of Education, Ministry of Internal Affairs, Red Cross, Community Groups</li> </ol>
2. Improve DRM formal education and training opportunities	<ol style="list-style-type: none"> <li>1. Increase in the number of Cook Islands DRM professionals</li> <li>2. Career opportunities in the area of DRM becomes attractive and is available to young Cook Islanders</li> </ol>	<ol style="list-style-type: none"> <li>1. Provide vocational guidance in DRM to high school students and at other interested institutions</li> <li>2. Offer two bonded scholarships every year for formal DRM training (certificate diploma/degrees)</li> <li>3. Strengthen the incorporation of DRM into the school curriculum</li> </ol>	<ol style="list-style-type: none"> <li>1. Ministry of Education, EMCi and all line agencies responsible for DRM programmes</li> <li>2. Ministry of Education, EMCi, Scholarship Committee, Public Service Commission</li> <li>3. Ministry of Education, EMCi</li> </ol>
3. Strengthen overall information management and specifically information required for DRM and information collected from DRM programmes	<ol style="list-style-type: none"> <li>1. Capacity exists for effective DRM data and information management</li> <li>2. DRM data is openly shared among agencies that collect data and information</li> <li>3. Public is able to obtain information relevant to DRM</li> <li>4. DRM information is included in the new Statistical Master Plan</li> </ol>	<ol style="list-style-type: none"> <li>1. Develop and formalise a policy position paper on DRM data and information management and sharing</li> <li>2. Increase training opportunities for data collection and data management including design and analysis, and GIS for statisticians and staff from all responsible agencies to meet information users' needs</li> <li>3. Mobilise increased funding for data collection activities</li> </ol>	<ol style="list-style-type: none"> <li>1. OPM ICT, CPFO, Statistics, Telecom</li> <li>2. OPM ICT, Statistics, Telecom, EMCi, Ministry of Infrastructure Planning (merger of MoW and OMIA), NES, Met. Services</li> <li>3. MFEM</li> </ol>

## Vision: A Safe, Resilient and Sustainable Cook Islands

### Goal 3 – Effective Preparedness, Response and Recovery

#### Key issues identified and DRM gaps addressed

- The existing system of Emergency Safety Shelters is poorly maintained
- Capacity to respond to disasters amongst key DRM ministries and agencies is weak
- Insufficient preparedness for medical disbursement during times of disaster
- Inadequate institutional capacity for search and rescue
- Poor preparedness for management of hazardous waste

Strategies	Strategic Targets	Actions	Responsible Agencies
1. Strengthen the system of safety shelters and their management for times of disaster	<ol style="list-style-type: none"> <li>1. Safety shelters are all disaster proof around Cook Islands</li> <li>2. Safety shelters are well managed when in use</li> <li>3. Improved partnerships and coordination of safety shelters</li> <li>4. Adequate number of safety shelters exist, and are easily accessible by all (including vulnerable groups)</li> </ol>	<ol style="list-style-type: none"> <li>1. Commission a review of the safety shelters evacuation system (to cover safe location, management responsibilities, number that could be accommodated in a centre, structural integrity etc.)</li> <li>2. Create an implementation plan based on the review in consultation with key stakeholders</li> <li>3. Create formal partnerships with Government NGOs, CSOs and Communities to ensure commitments to the long-term management of safety shelters</li> <li>4. Fund and retrofit safety shelters as per implementation plan</li> </ol>	<ol style="list-style-type: none"> <li>1. EMCi, CiIC</li> <li>2. EMCi and all relevant stakeholders</li> <li>3. EMCi and all relevant stakeholders</li> <li>4. EMCi, Aid Management, Ministry of Infrastructure and Planning, CiIC</li> </ol>
2. Develop disaster response plans and conduct operational exercises for relevant agencies	<ol style="list-style-type: none"> <li>1. All response agencies in Rarotonga and Outer Islands have approved disaster response plans</li> <li>2. Improved capacity in response agencies to develop response plans and to conduct operational exercises (drills)</li> </ol>	<ol style="list-style-type: none"> <li>1. Provide technical assistance to EMCi to coordinate the development of disaster response plans with all relevant agencies</li> <li>2. Provide appropriate training to response agencies on plan development and operational exercises</li> <li>3. Conduct operational exercises (drills) involving all stakeholders</li> </ol>	<ol style="list-style-type: none"> <li>1. EMCi, Aid management other agencies depending on disaster (e.g., Ports Auth, NES etc.)</li> <li>2. EMCi, Aid Management</li> <li>3. EMCi, Aid Management</li> </ol>

Strategies	Strategic Targets	Actions	Responsible Agencies
3. Improve availability of medicine and access to medication and first aid before, during and after emergency	1. Improved capacity to provide emergency health services at times	<ol style="list-style-type: none"> <li>1. Develop a contingency plan to maintain emergency medical supply at all times</li> <li>2. Actively maintain partnerships with those who provide medical support in times of disaster</li> <li>3. Increase the capacity to conduct social and health impact assessment after a disaster</li> <li>4. Train community members in first aid and keep an updated register of trained members</li> </ol>	<ol style="list-style-type: none"> <li>1. EMC, Ministry of Health, Red Cross, Ministry of Infrastructure and Planning</li> <li>2. EMC, Health, Foreign Affairs</li> <li>3. EMC, Health</li> <li>4. Red Cross</li> </ol>
4. Strengthen capacity for search and rescue	1. Functional and effective search and rescue arrangements	<ol style="list-style-type: none"> <li>1. Review existing search and rescue arrangements and capacity needs</li> <li>2. Implement the review recommendations</li> </ol>	<ol style="list-style-type: none"> <li>1. EMC, Police, Aid Management, NGOs</li> <li>2. EMC, Police</li> </ol>
5. Strengthen capacity to manage the importation, use and disposal of hazardous substances and to improve response to disaster events in relation to the spillage of hazardous substances	<ol style="list-style-type: none"> <li>1. Hazardous substances are well managed from the point of importation, through to use and disposal</li> <li>2. A plan is in place for evacuation of people and containment of spillage or fire</li> <li>3. Cook Islands well prepared for an oil spill or hazardous substances incident available to young Cook Islanders</li> </ol>	<ol style="list-style-type: none"> <li>1. Develop a policy and protocol for importation, use and disposal of hazardous substances</li> <li>2. Assess needs of relevant agencies and procure appropriate equipment and materials (booms, chemicals, etc.)</li> <li>3. Conduct appropriate training for relevant agencies</li> <li>4. Develop Standard Operations Procedures and conduct operational exercises</li> </ol>	<ol style="list-style-type: none"> <li>1. EMC, Agriculture, MFEM, Ports Authority, Ministry of Transport, Ministry of Infrastructure and Planning, CIC, NES, Private Sector, Police</li> <li>2. Ministry of Agriculture, Ports Authority, Ministry of Infrastructure and Planning, NES, CIC, Private Sector, Police, Public Health, Red Cross</li> <li>3. Ports Authority, Ministry of Transport, Ministry of Infrastructure and Planning, Ministry of Agriculture, Public Health, Red Cross</li> </ol>

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## Goal 4 – Maintain Effective Early Warning Systems

### Key issues identified and DRM gaps addressed

- Weak institutional capacity for hazard forecasting and communication of early warnings
- Public poorly prepared to respond to early warnings

Strategies	Strategic Targets	Actions	Responsible Agencies
1. Improve capacity for hazard forecasting and information dissemination	<ol style="list-style-type: none"> <li>1. Strengthened hazard forecasting systems and capacity</li> <li>2. Fully functional communication systems to disseminate bulletins and warnings</li> <li>3. ICT requirements fulfilled</li> <li>4. Fully functional back-up communication systems</li> </ol>	<ol style="list-style-type: none"> <li>1. Assess the ICT and human resources capacity and asset needs of the Met. Service and other agencies responsible for hazard forecasting and develop costed implementation programme</li> <li>2. Review the communication systems and procedures used by the Met. Service, EMCI, Police and others at the onset of a disaster</li> <li>3. Investigate and procure a back-up communication system for the Met. Service</li> </ol>	<ol style="list-style-type: none"> <li>1. Met Service Police, EMCI,</li> <li>2. Met. Service, Police, Telecom, EMCI, Red Cross</li> <li>3. Met. Service</li> </ol>
2. Improve understanding of early warning systems including appropriate actions to take for different kinds of hazards	<ol style="list-style-type: none"> <li>1. Appropriate early warning programmes are available in the media, and conducted at schools and at vulnerable communities</li> <li>2. Improved understanding of early warning systems for multi-hazards</li> <li>3. Response to early warnings tested through appropriate drills</li> </ol>	<ol style="list-style-type: none"> <li>1. Develop and conduct Early Warning public awareness programmes for the general public, school children and other vulnerable groups (with explicit explanations on what EWS are, the levels of hazard warnings, and expected actions) for key hazards</li> <li>2. Conduct regular table-top and operational exercises (drills) to test the early</li> </ol>	<ol style="list-style-type: none"> <li>1. Met. Service, Police, EMCI, Ministry of Education, Red Cross, Telecom</li> <li>2. Met. Service, Police, Telecom</li> </ol>

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## Goal 5 – Analysis and Assessment of Hazards to Reduce Underlying Risk

### Key issues identified and DRM gaps addressed

- Institutional weaknesses in the management of energy supplies for the Outer Islands
- Insufficient planning for disaster risk reduction in the tourism and agriculture sectors
- Limited technical capacity for conducting hazard and vulnerability assessments in key development sectors
- Decision-making in key development sectors inadequately informed by risk reduction considerations

Strategies	Strategic Targets	Actions	Responsible Agencies
1. Reduce risks associated with the energy supply in the Outer Islands	<ol style="list-style-type: none"> <li>1. A plan for strengthening energy supply to the outer islands is available to the Government and other stakeholders</li> <li>2. Robust systems of energy supply in Outer Islands at all times</li> </ol>	<p>Strengthen capacity for management of energy supply in Outer Islands at all times (fuel and renewable):</p> <ol style="list-style-type: none"> <li>1. Assess energy demands, storage facilities and capacity in the Outer Islands to cater for sufficient reserves in times of disaster and recommend appropriate strategies</li> <li>2. Develop a contingency plan for maintaining Outer Islands' energy supply at all times including alternative back-up options.</li> </ol>	<ol style="list-style-type: none"> <li>1. Ministry of Transport and Energy, Alternative Energy Committee, Ministry of Infrastructure and Planning, Island Councils, Private Sectors (Oil Companies), MFEM</li> <li>2. Ministry of Transport and Energy, Ministry of Infrastructure and Planning, Island Councils, Private Sector (Oil companies)</li> </ol>
		<p>Reduce risk of exposure to poorly located fuel depots and power stations:</p> <ol style="list-style-type: none"> <li>3. Incorporate the requirements for preparedness and response plans in the regulations and licensing of energy supply companies</li> <li>4. Test preparedness of energy supply companies and other disaster response agencies to respond to a disaster event through regular drills based on worst-case scenarios.</li> <li>5. Develop a relocation strategy for vulnerable properties in close proximity to fuel storage facilities</li> </ol>	<ol style="list-style-type: none"> <li>3. Ministry of Transport and Energy, MFEM, Ministry of Infrastructure and Planning</li> <li>4. Fuel companies, EMCI, Police, Airport Health Authority, Red Cross,</li> <li>5. OPM, MFEM, INTAFF</li> </ol>

<p>2. Strengthen and improve disaster risk reduction measures and procedures in key development sectors such as Tourism and Agriculture</p>	<p>1. Risk reduction considerations are incorporated into Tourism and Agricultural developments 2. Reduced vulnerability of food crops to seawater damage 3. Reduced loss of agricultural crops to flooding</p>	<p>1. Incorporate risk-reduction measures, including present and future Climate Change risks, in the land use policy currently being developed and legislation for tourism and agriculture developments 2. Promote traditional farming methods among farmers 3. Ensure adequate supplies of food crop planting material on-island ahead of cyclone season</p>	<p>1. Crown Law, Ministry of Agriculture, Cook Islands Tourism Corporation, CPPO 2. Ministry of Agriculture, NGOs 3. Ministry of Agriculture, NGOs</p>
<p>3. Improve technical capacity to conduct disaster risk and vulnerability assessments</p>	<p>1. Technical capacity exists to undertake risk and vulnerability assessments 2. Sustainable development is supported through improved planning and development in all sectors at the national level and on the Outer Islands</p>	<p>1. Strengthen technical capacity of the Agriculture Department, Tourism Corporation, NES, Ministry of Infrastructure and Planning and Public Health and other responsible agencies to systematically apply disaster risk assessment and vulnerability assessment measures and tools in development planning and decision making processes</p>	<p>1. HRD, Ministry of Agriculture, Cook Islands Tourism Corporation, Ministry of Infrastructure and Planning, OPM, NES, Public Health</p>
<p>4. Improve DRM management and decision making based on technical information from hazard mapping and vulnerability and risk assessments, including consideration of Climate Change risks</p>	<p>1. Improved decision making based on accurate information 2. Communities are informed of the results of studies carried out in their communities 3. Hazards maps for key areas are available 4. Vulnerability and risk assessments identify potential consequences of hazard impact and treatment options to minimise risks</p>	<p>1. Conduct community-based vulnerability assessments and mapping based on priority country needs, including Climate Change Adaptation, and relevant to the DRM NAP implementation 2. Conduct assessments to determine causes and solutions for coastal erosion, seawater inundation and saltwater intrusion on freshwater and soil, including present and future Climate Change impacts</p>	<p>1. Ministry of Agriculture, Cook Islands Tourism Corporation, Ministry of Infrastructure and Planning, NES, Public Health, EMCI 2. Ministry of Agriculture, Cook Islands Tourism Corporation, Ministry of Infrastructure and Planning, NES, Public Health, EMCI</p>

## Goal 6 - Monitoring, Evaluation and Reporting

### Key issues identified and DRM gaps addressed

- Need to regularly monitor DRM NAP implementation progress and report regularly to ensure a dynamic planning process is maintained to facilitate future identification and implementation of additional DRM measures

Strategies	Strategic Targets	Actions	Responsible Agencies
<p>1. Regularly monitor, evaluate and report the progress of implementation of the DRM NAP to the relevant agencies and fora</p>	<p>1. A monitoring, evaluation and reporting system is developed for the DRM NAP</p>	<p>1. A system of monitoring, evaluation reporting, for the DRM NAP is developed and implemented consistent with the Monitoring and Evaluation Readiness Assessment Report, OPM 2008</p>	<p>1. EMCI, OPM</p>

# DRM NAP Implementation Program

## Introduction

This section describes the manner in which the DRM NAP will be implemented and in particular highlights some key considerations. These are as follows:

- The need for a set of guiding principles for the implementation.
- The need for an appropriate implementation or management structure to be responsible for leading DRM NAP implementation.
- The identification of potential financing options and approaches for the resourcing of DRM NAP actions.
- The development of an appropriate communications strategy to help ensure that the underlying message of increased safety and resilience is conveyed using the most appropriate media.
- The establishment and use of a thorough monitoring and evaluation framework which not only addresses issues in relation to transparency and accountability but also facilitates a systematic approach to change and improvement as a direct consequence of progress reporting.

An Implementation Programme has been developed in consultation with the NAPAC, National Disaster Risk Management Council and other key stakeholders. It is intended that the NAPAC play a lead role in the implementation of the DRM NAP.

## Principles

The implementation arrangements for the DRM National Action Plan have been developed in accordance with a set of guiding principles (Box 5). These are considered necessary so as to protect the integrity and overall intent of the whole DRM NAP development and implementation process and to add value to the national ambition to create as embodied in the National Sustainable Development Plan 2007 – 2010 Strategic Goal 6 “A safe, secure and resilient community”.

## Approach to the Development of an Implementation Program

The development of the Implementation Programme has been carried out through an inclusive approach which has involved extensive consultations with the NAPAC and with other key officials. The approach has involved NAPAC consideration of draft ‘principles for implementation’ prepared by the PDRMPN followed by consultations with key individual stakeholders such as: Emergency Management Cook Islands (EMCI), Office of the Prime Minister (OPM), Central Policy and Planning Office (CPPO), Ministry of Finance and Economic Management (MFEM), Ministry of Education, National Environment Service (NES), Met. Service, Airport Authority, Cook Islands Red Cross Society, NZAID and the CEAL Office.

#### BOX 5 – Principles to Guide the Implementation of the Cook Islands DRM National Action Plan

**Leadership by Government:** The improved application of disaster risk reduction and disaster management measures will only take root and be successful throughout the community if Government actively takes a leadership role. Local partners need to see that Government is itself actively pursuing improved DRM to be able to ensure a meaningful flow on to other potential beneficiaries.

**Inclusivity:** As much as possible the implementation must, like the development of the DRM NAP, involve as many stakeholders as possible. This will increase the probability of success over the longer term.

**Focus on the community:** There is a need to ensure that the focus on community safety and well being is retained and is at the forefront of the whole DRM NAP implementation process.

**Clarity in role definition:** It is essential that the roles of all key players in DRM NAP implementation are properly defined and understood.

**Stress reduction:** It is important to keep stresses on the national or Government system at a minimum; and of equal importance is the need to keep stress and burden on key individuals at a minimum. The implementation programme must take into account that other Government-led initiatives are also putting stresses on the system.

**Clear communication:** The intent of the DRM NAP and of the importance of DRM needs to be clearly communicated to stakeholders at national, local and community level.

**Accountability and transparency:** The implementation will draw on resources that will be provided internally through the national budget (taxpayer funds) and through external support through donors and partners. Because of this it is important that there is accurate monitoring and reporting of implementation results and that transparency is maintained at all times.

**Dynamism:** The implementation programme involves a dynamic process in which learning, change and improvement are very important. The implementation will ensure that any lessons learned and new initiatives or actions identified are factored in to an on-going programme of DRM strengthening and capacity building in the Cook Islands.

The details relating to the DRM NAP Implementation Programme were developed over the course of a two-week period in which the PDRMPN engaged with Cook Islands stakeholders in both workshops and on an individual basis. The consultative approach used over the course of the two-week engagement is outlined below:

1. Workshop with the NAPAC (29 – 30 September, 2008) to:
  - a. validate and finalise the draft DRM NAP matrix (as initially developed in an earlier country engagement from 28 May – 13 June 2008); and
  - b. Identify specific sub-actions (linked to the overall Actions, Strategies and Goals as per the draft DRM NAP matrix).
2. Individual consultations with key NAPAC members and other stakeholders to:
  - a. identify resources required to facilitate the implementation of each of the sub-actions; and
  - b. provisionally estimate costs of resource needs.
3. Drafting of implementation arrangements (implementation structure, financing strategy, outline for a communications strategy and monitoring and evaluation framework to facilitate the implementation of the DRM NAP).
4. Workshop with NAPAC (8 October, 2008) to validate the final DRM NAP, review provisional cost estimates and the proposed Implementation Programme.

A list of all stakeholders consulted throughout the process of developing the Implementation Programme is attached as Annex 4.



## Indicative Costing Methodology

### Scope of costing: what is covered and what is not

Provisional estimates of the cost to Cook Islands' stakeholders to implement the DRM NAP are provided in Table 2; however, before interpreting these figures, some caveats are provided.

First, as indicated in Section 2, the Cook Islands DRM NAP is a living document that will inevitably mature and evolve over time, with some actions being completed and removed and other actions emerging. This has implications for costing as it means that estimates of the cost of disaster-proofing the Cook Islands is time bound (because the living DRM NAP may change as conditions change in the future and/or as actions are revised or new issues emerge). Therefore the Cook Islands DRM NAP has been costed for the first three years of execution only. During this time, the contents of the NAP should be relatively 'set'. Nevertheless, it is possible that some activities may emerge which are not in the current plan. Obviously, actions that emerge or develop over time are not included in the estimated costs presented here.

Second, a few specific issues in the DRM NAP cannot be costed. At a broad level, the estimates reflect costs to Cook Islands stakeholders only. Accordingly, estimates do not include any administration and similar costs etc. incurred by donors or other partners in supporting the Cook Islands to execute the Plan. Additionally, one or two individual sub-actions in the plan could not be costed. For instance, while the cost of reviewing the status of emergency shelters (Goal 3) can be estimated, the cost of implementing the findings of the review cannot since it is unclear at this point what the scale of any required interventions will be.

Aside from these caveats, indicative costs to implement the DRM NAP over the first three years of implementation were estimated. The costs were estimated on the basis of sub-actions (the basic unit of costing) and then aggregated back up to actions and goals (Box 6).

#### BOX 6 – Methodology Used for Costing of the DRM NAP

1. Identify specific tasks for each sub-action
2. Determine the responsible agency
3. On the basis of discussion with relevant agencies/stakeholders, estimate the level of key inputs (or resource needs) required for the sub-action, in terms of operating and non-operating items required over the three-year period
4. On the basis of available information (including previous actions and discussions with stakeholders); estimate the costs for inputs
5. Determine total cost for each sub action/actions
6. Determine the potential in-kind contribution of Cook Islands' agencies to implement DRM NAP

Indicative costs include the value of resources and personnel that can be committed by the Government of Cook Islands to execute new actions as well as the cost of actions that have yet to be resourced (unfunded).

## Value of Cook Islands contributions

It was noted in Section 2 that the DRM NAP contained only prioritised ‘gap’ activities – that is, it only includes those activities needed to disaster-proof the country that are not currently being addressed elsewhere. This means that practically all actions included in the NAP are currently without funding. On the other hand, execution of the NAP will involve the time and cooperation of the Cook Islands community and Government and non-government agencies. The time contribution of Cook Islands agencies to execute the DRM NAP has been included in the provisional costing of the DRM NAP. This indicates the minimum in-kind contribution of Cook Islands agencies to DRM NAP execution.

It will be evident from the DRM NAP matrix in Section 3 that it comprises a series of activities of varying sizes. It is expected that single small activities might be absorbed into the day-to-day business of Government agencies and other stakeholders, within limits.

The in-kind contribution that officers of the Cook Islands Government and other agencies might thus make to the implementation of the DRM NAP was estimated on the basis of the following assumptions:

- Where a single activity was predicted to take less than six working days to complete (i.e. a week or less), the task was assumed to be accommodated into ‘business as usual’ for Government agencies and partners.
- Where an activity was predicted to take six days or more it was assumed that some assistance would need to be given to agencies to meet demands on their time. In these cases, the time cost of staff to support those operations are assumed to be outside existing funding arrangements (ie. they are not funded).

In spite of these assumptions, it must be recognised that while many DRM NAP actions may be small individually, their cumulative demands on Government officer time may be significant. There will inevitably come a time when it is no longer possible for Government and other agencies to continue to absorb additional tasks. At this point, agency staff could be so overburdened with work that they are unable to engage effectively in the execution of the DRM NAP. This is particularly likely to be the case for staff at the EMCI who will be required to absorb a multitude of minor and major tasks on top of existing demands. Consequently, the recommendations of the draft EMCI Business Plan for the recruitment of a Planning Officer and a Communications Officer at the EMCI appear valid as a means of supporting DRM NAP implementation. The costs of these two positions are not included in DRM NAP costing as they arose out of a separate, but related, planning exercise. More information about these positions can be found in the EMCI Business Plan. It is recommended that an additional officer would be needed to oversee implementation of the DRM NAP. The value of this post is included in NAP costings but cannot at this point be assigned to any particular donor.

## Interpretation of indicative DRM NAP costings

At the request of representatives of the Government of the Cook Islands, the potential spread of costs of implementing the DRM NAP over the first three years are included in the presentation of costs below. The spread of costs over time is difficult to predict at this point. Activities that emerge in other sectors may influence the sequencing of DRM NAP work. For instance, activities planned by other sectors in the Outer Islands would sensibly catalyse DRM work in the Outer Islands as a way to minimise travel costs, especially where travel to some islands (Pukapuka) can be achieved only through expensive chartered flights. Accordingly, any prediction of the flow of costs over time in the first three years of implementation are necessarily extremely provisional. To provide stakeholders with a hypothetical idea of how the cost of activities might flow over time, the following assumptions were made:

- The cost of ongoing activities is spread evenly across each of the three years.
- Any items that are ‘one-off’ in nature are presumed to occur in Year 1. As this may not be the way things occur in practice, the flow of costs over time is to be treated with caution.



Finally, integration of costs for the DRM NAP is most accurately considered at the goal level. The NAP is highly integrated with activities within (and sometimes across) goals supporting each other. One action may enable another to proceed at a reduced cost or even appear 'for free' because it serves more than one purpose. Costs of these actions could be spread evenly across all those parts of the DRM NAP that they serve, but this is not practical since such actions can often not be broken down (physically or over time). Instead, the cost of activities with multiple purposes have been assigned to that goal and that strategy where they 'fit' best; however, it means that other actions which draw on the same information may appear to occur at nil or an artificially low cost. To avoid confusion and misinterpretation, it is recommended that costs are considered in terms of goals.

## Indicative Costs

The overall indicative cost for implementing the DRM NAP over the period 2009-2011 is estimated to be NZ\$ 3.6 million (Table 2). Of this, it is estimated that Cook Islands agencies such as Government departments could absorb around NZ\$ 0.2 million worth of costs into business as usual. By comparison, just under NZ\$ 3.5 million of actions are unlikely to be absorbed by existing budgets and plans and would require some form of donor support.

Table 2 – Indicative costs of DRM NAP Implementation.

DRM NAP Goal	In kind contributions from the Cook Islands (NZ\$)	Resources required (NZ\$)	Total (NZ\$)
Good Governance for Mainstreaming DRM at all Levels	35,779	1,131,400	1,167,179
Strong Knowledge base within the Cook Islands for more Effective DRM	6,169	217,693	223,862
Effective Preparedness, Response and Recovery	49,968	940,127	990,095
Effective Early Warning Systems	8,431	476,546	484,977
Analysis and Assessment of hazards to Reduce Underlying Risk	18,712	461,425	480,137
Monitoring, Evaluation and Reporting	59,838	226,616	286,454
<b>Total</b>	<b>178,897</b>	<b>3,453,807</b>	<b>3,632,704</b>

If single once-off activities were all conducted during the first year of DRM NAP execution, 84 percent of the NAP would need to be funded in Year 1 with the remaining 16 percent of costs evenly spread out over the remaining two years (Table 3). This is likely to present a substantial management and cost burden to the Cook Islands. Instead, it would appear to be more sensible to spread the implementation of once-off activities more evenly over the three-year period, subject to the scheduled work of other sectors related to DRM, particularly where policy and or Outer Islands work is required.

Table 3 – Breakdown of DRM NAP Implementation costs over first three years.

DRM NAP Goal	Year 1	Year 2	Year 3	Total
Goal 1	995187	85996	85996	1167179
Goal 2	207412	8225	8225	223862
Goal 3	952172	14818	23105	990095
Goal 4	251970	116504	116504	484977
Goal 5	437559	21289	21289	480137
Goal 6 (Implementation and M+E)	221600	32427	32427	286454
<b>TOTAL</b>	<b>3065899</b>	<b>279258</b>	<b>287546</b>	<b>3632704</b>
Share of Total	84%	8%	8%	100%

## Broad Approach to Implementation

In order to facilitate DRM NAP implementation the following broad approach is proposed:

1. The Cook Islands Government with the support of donors and partners to provide funds/resources to strengthen the capacity of EMCI as the key agency for disaster risk management in the Cook Islands in line with the EMCI Business Plan developed under the NZAID Institutional Strengthening Project. This is to ensure that EMCI has the capacity to implement its responsibilities in relation to DRM in general and in particular those in relation to DRM NAP implementation. The current staff strength and resource levels within EMCI are inadequate.
2. A strengthened EMCI to provide operational leadership of the implementation of NAP priorities.
3. The NAPAC (as appointed by the NDRMC) to provide direct operational oversight of implementation and support the integration of DRM NAP actions into the Medium Term Budgetary Framework and annual work/business plan and budgets of relevant Ministries. Such a role requires that all members of the NAPAC have a significant level of commitment to their individual and collective responsibilities. In this connection the NAPAC members must be supported (by their respective Heads of Ministries) in their assignments as DRM NAP focal points for their Ministries and agencies.
4. The NDRMC to provide high-level oversight, policy guidance and direction and advocacy to ensure the integration of DRM NAP actions into the Medium Term Budgetary Framework and annual work/business plan and budgets of the relevant Ministries.
5. Ministries and agencies to facilitate the integration of DRM NAP actions into their respective annual work/business plans.
6. Non-government, civil society and auxiliary organisations to facilitate the integration of relevant DRM NAP actions into their respective annual work/business plans.
7. The NAPAC to establish and activate a monitoring and evaluation framework for the DRM NAP in consultation with the CPPO, MFEM and the Public Service Commissioner. Such a monitoring and evaluation framework may be developed with the support of specialist technical expertise and should be consistent with the overall monitoring and evaluation requirements of Government's Medium Term Budgetary Framework.



## Implementation Structure

The implementation of the DRM NAP will need to be supported by an adequate management structure. This will ensure appropriate leadership from those responsible and the opportunity to embed a transparent accountability framework that accommodates robust monitoring, reporting and evaluation of DRM NAP outcomes. These are key concerns within the Cook Islands Government and amongst donors and partners.

The structure proposed to lead and support DRM NAP implementation is an extension of the institutional arrangements set in place by Government earlier in the year to develop the DRM NAP, i.e. the inter-ministerial and multi-stakeholder DRM NAP Advisory Committee. This committee has been integrally involved in all stages of NAP development and represents a good cross section of relevant sectors in the Cook Islands. For this reason it is proposed that this committee be formalised in terms of the provisions in the Disaster Risk Management Act (2007) and given a clear mandate and operational responsibility for the DRM NAP implementation programme.

The NAPAC will be supported directly by EMCI who will provide secretariat services and also the required staff and other resources to enhance the implementation by the relevant Ministries and agencies.

The NAPAC will be responsible to the NDRMC for the implementation of DRM NAP actions but will also receive assistance from Council members who will facilitate senior-level support and influence in terms of ensuring that the DRM NAP actions are integrated into the Medium Term Budgetary Framework and the annual business/work plans and budgets of relevant Ministries and agencies.

## Climate Change Adaptation – An opportunity for greater harmony with DRM

The implementation programme for the DRM NAP provides an opportunity for the Cook Islands to bring about a greater cohesiveness between the initiatives underway in terms of disaster risk management and similar initiatives in relation to climate change adaptation. Currently the two are being separately implemented with different lead agencies for each in spite of the similarity in focus and intended outcomes.

Climate change adaptation is a process involving the identification and implementation of measures or actions to help countries and their communities to mitigate and reduce the risks posed by hazards such as extreme weather events, sea level rise and prolonged droughts. Thus, climate change adaptation is intended to address issues related to the reduction of disaster risk.

Disaster risk management addresses similar concerns (with the only difference being that it also involves the identification of measures and actions to effectively manage disaster preparedness, response and recovery).

In light of the similarities the DRM NAP implementation programme is a mechanism which should be used by the Cook Islands to ensure the minimisation of overlaps between the two national priority programmes. To facilitate this it is proposed that the National Environment Service, as the mandated national agency for the coordination of the national climate change adaptation programme, provide the direct link for this programme to EMCI and to the NAPAC.

It will, in this connection be responsible for ensuring that the existing and planned climate change adaptation initiatives are made known to EMCI and to the NAPAC and in so doing enhance the implementation of both. If successful the Cook Islands will be able to realise better gains as effectively there will be better coordination, reduction of overlaps and improved efficiencies in terms of the utilisation of scarce national resources to address issues of climate change and disaster risk.

Figure 5 illustrates the suggested linkages between key stakeholders in support of DRM NAP implementation and the linkages in relation to climate change adaptation and the National Environment Service.

EMCI will require strengthening in order to fulfil its role as the lead DRM agency within the Cook Islands Government and the operational leader for DRM NAP implementation. In this regard it is anticipated that EMCI will receive additional positions consistent with the recommendations of the draft EMCI Business Plan 2009 – 2011. The additional positions recommended under the Business Plan are:

1. Information and Communications Officer
2. Disaster Risk Planning Officer

In addition, given the additional burden in coordinating and overseeing the DRM NAP implementation (see explanation on costing methodology above), it has been agreed with EMCI that specialist support at a senior technical level would probably be required for a defined period to assist the Director EMCI. The specialist would have responsibilities (for example, in the drafting of a monitoring and evaluation framework) as well as working with EMCI in corporate capacity building. It is anticipated that through such an engagement the specialist would further provide mentoring and other support as may be deemed necessary by the Director EMCI. In view of the temporary nature (possibly 12 – 18 months) of this planned specialist engagement the recruitment may be facilitated through donor support.

The PDRMPN will also have a role to play in relation to DRM NAP implementation. The Pacific Islands Applied Geoscience Commission (SOPAC) as the lead coordinator of the PDRMPN will support DRM NAP implementation by ensuring that all partner members are aware of DRM NAP priorities and of the local implementation arrangements. SOPAC, with the support of EMCI, will actively market the DRM NAP to its partner members which include donors such as AusAID, the European Union and NZAID and other organisations (examples of which are the UNDP Pacific Centre and Foundation for the Peoples of the South Pacific (International) both of whom support community based DRM capacity building). SOPAC will further ensure that EMCI and the NAPAC are fully acquainted with the respective areas of DRM interest of all the members of the PDRMPN.

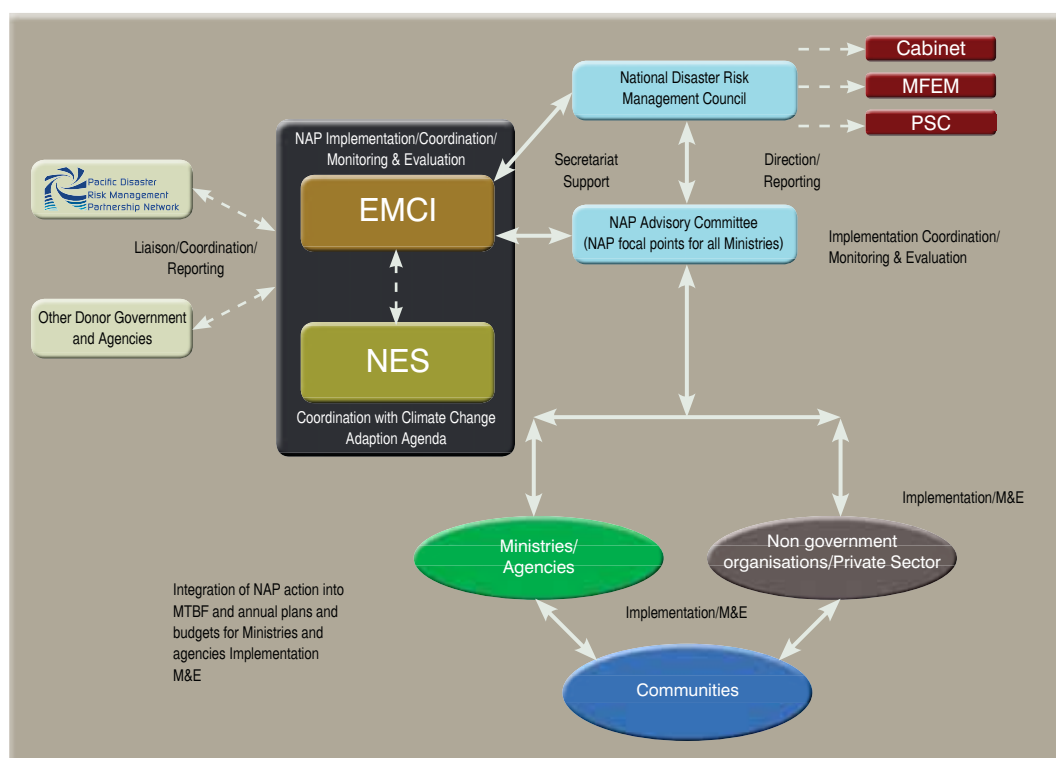


Figure 5 – Conceptual diagram of proposed DRM NAP Implementation Arrangements.



The specific roles and responsibilities of all key stakeholders in the implementation structure are summarised in Table 4.

Table 4 – Roles and responsibilities for DRM NAP Implementation.

Stakeholder Group	Role/Responsibility
NDRMC	<ul style="list-style-type: none"> <li>■ High-level oversight, policy guidance and direction</li> <li>■ Advocacy at Cabinet and with MFEM and PSC to ensure the integration of DRM NAP actions into the Medium Term Budgetary Framework and annual work/business plan and budgets of the relevant Ministries and agencies</li> <li>■ Review of DRM NAP implementation progress</li> </ul>
NAPAC	<ul style="list-style-type: none"> <li>■ Provide direct operational oversight of implementation and support the integration of DRM NAP actions into the Medium Term Budgetary Framework and annual work/business plan and budgets of the relevant Ministries.</li> <li>■ Develop and implement a monitoring and evaluation framework to support the DRM NAP</li> <li>■ Ensure that lessons learned from monitoring and evaluation system are accounted for in the on-going implementation of the DRM NAP and of DRM activities in general across the Cook Islands</li> </ul>
EMCI	<ul style="list-style-type: none"> <li>■ Provide operational leadership and coordination of the implementation of DRM NAP priorities</li> <li>■ Support NAP and general DRM advocacy within Ministries and to the private sector, civil society and the community</li> <li>■ Facilitate regular NAPAC meetings</li> <li>■ Follow up on NAP implementation with Ministries and agencies</li> <li>■ Facilitate reporting to NDRMC, CPPO<sup>10</sup> and SOPAC<sup>11</sup> of DRM NAP implementation progress</li> </ul>
NES	<ul style="list-style-type: none"> <li>■ Facilitate linkages with the national climate change adaptation (CCA) programme</li> <li>■ Work with EMCI to ensure that the implementation of DRM NAP actions and CCA actions are well coordinated to realise greater effectiveness and efficiency in terms of delivery</li> <li>■ CPPO: Review/validate DRM NAP actions for consistency with NSDP</li> </ul>
MFEM and CPPO	<ul style="list-style-type: none"> <li>■ MFEM/CPPO: Analyse the fiscal impact of DRM NAP implementation proposals in line with the MTBF</li> <li>■ MFEM: Agree with Ministries and agencies on the expenditure estimates for DRM NAP actions</li> </ul>
Ministries, agencies and local partners	<ul style="list-style-type: none"> <li>■ Ministries and agencies: Facilitate the integration of DRM NAP actions into respective Medium Term Budgetary Framework plans and also annual work/business plans and budgets</li> <li>■ Local partners: Facilitate integration of DRM NAP actions into respective planning and budget systems</li> <li>■ Facilitate implementation of DRM NAP actions in coordination with EMCI and NAPAC</li> <li>■ Ensure progress reporting on DRM NAP implementation and assist in the evaluation</li> <li>■ Advocate for improved DRM in the Cook Islands</li> </ul>
Villages and Community groups	<ul style="list-style-type: none"> <li>■ Support DRM NAP implementation</li> <li>■ Provide feedback to assist monitoring and evaluation</li> </ul>
PDRMPN and other partners	<ul style="list-style-type: none"> <li>■ SOPAC: inform members of the PDRMPN of the DRM NAP implementation programme</li> <li>■ SOPAC: liaise with EMCI for the activation of funding support</li> <li>■ SOPAC: obtain feedback from EMCI on DRM NAP implementation progress and assist CIG with regional and international reporting of NAP and DRM progress in general</li> <li>■ PDRMPN and other regional and international partners: liaise with EMCI and other local stakeholders in support of DRM NAP actions</li> </ul>

<sup>10</sup> CPPO is responsible for reporting to the Pacific Islands Forum Secretariat of progress against the Pacific Plan. Included in the Pacific Plan is reference to the Pacific DRR and DM Framework for Action 2005 – 2015 and it will be useful for PIFS to (as part of the CIG Pacific Plan report) receive some insight on the progress of DRM NAP implementation as part of the CIG commitment to the implementation of Pacific Plan.

<sup>11</sup> SOPAC is responsible for reporting to Pacific Leaders on the progress against the Pacific DRR and DM Framework for Action and the Hyogo Framework for Action and is developing an on-line reporting system to facilitate DRM NAP updates.

## Financing Strategy

Getting the Government or donors to invest in the DRM NAP means ensuring that investment in DRM is seen as a development issue that leads to enhanced national economic resilience, as well as physical and social resilience. The damage to the economic resilience of the Cook Islands by natural disasters can be effectively illustrated by considering the five cyclones that hit the Cook Islands over February – March 2005. These cyclones alone were estimated to have caused NZ\$20.5 million of losses in 2005 (Cyclone Recovery Committee 2006).

The cost to the Government of the Cook Islands and/or donors of implementing the DRM NAP could then be considered in the context of the additional resilience that the country could have had if a DRM NAP had been already in place. While a DRM NAP would not have prevented the cyclones from occurring, it would certainly have prepared the community and government to better prepare for and mitigate the losses. For instance, if the execution of the DRM NAP reduces disaster costs by even 10 percent, that would represent a savings of NZ\$ 2 million on a repeat of the 2005 cyclones alone. This is more than half the cost of implementing the entire contents of the DRM NAP. Furthermore, the benefits that could be achieved from implementing the DRM NAP would also be experienced through addressing (avoiding or mitigating) other single large disasters as well as chronic disaster problems such as localized flooding or health problems from pollution (see Hajkowicz et al. 2005). The potential economic benefits from investing in the implementation of the DRM NAP are therefore substantial.

These values from the DRM NAP need to be presented to donors and Government agencies when seeking their support to implement or support actions in the DRM NAP. At the same time, it is critical to the implementation of the DRM NAP that funding support is directed in a way that best complements local efforts and systems whilst at the same time being mindful of the requirements of donors and partners who are expected to contribute substantially. The financing strategy for the DRM NAP therefore has two major objectives:

1. Ensure that the national planning and budgetary processes and systems and in particular the Medium Term Budgetary Framework (MTBF) are adhered to.
2. Ensure consistency with the aid management requirements stipulated by donors and other partners.

The point of departure of the financing strategy is the following:

1. The existence of a schedule of resource and cost requirements developed as a result of extensive consultation with the NAPAC and other stakeholders.
2. The integrity of the unit costs identified for use in costing the DRM NAP.
3. The commitment by EMCI and NAPAC to lead the operational implementation of the DRM NAP.
4. The NAP and related costing has been approved by (and in the following sequence):
  - a. NAPAC
  - b. CPPO
  - c. NDRMC
  - d. MFEM
  - e. Cabinet
5. OPM (through the Chief of Staff) and with the support of CPPO and EMCI have undertaken initial awareness briefing of key MFEM officials.
6. A robust monitoring and evaluation framework has been developed consistent with the requirements of the MTBF and donors.



In this regard the following strategy is appropriate:

1. For the activation of funds and in-kind contributions through the Cook Islands Government budget:

Strategy	Intended Outcome
<ol style="list-style-type: none"> <li>1. NDRMC members and in particular the Chief of Staff and the Financial Secretary to undertake a special briefing of all Heads of Ministries and Heads of Agencies to explain the DRM NAP and related costs</li> </ol>	<ul style="list-style-type: none"> <li>• Increased awareness of the DRM NAP</li> <li>• Support for the integration of DRM NAP actions into respective Ministry MTBF proposals</li> </ul>
<ol style="list-style-type: none"> <li>2. NAPAC members, with the assistance of EMCI, to develop proposals for their respective Ministries consistent with the requirements of the MTBF, and obtain support of their Head of Ministry/Head of Agency for such proposals. <ul style="list-style-type: none"> <li>• The proposals from NAPAC members are to clearly indicate: <ul style="list-style-type: none"> <li>■ Why the DRM NAP intervention is proposed and disclosing supportive verifiable information</li> <li>■ The proposed sequencing of DRM NAP actions within the first, second and third year of the MTBF</li> <li>■ The cost estimates related to the sequencing</li> </ul> </li> </ul> </li> </ol>	<ul style="list-style-type: none"> <li>• DRM NAP actions encapsulated within Ministry/Agency MTBF proposals</li> </ul>
<ol style="list-style-type: none"> <li>3. NAPAC members, with the assistance of EMCI, to liaise with the Finance Sections of the relevant Ministries to discuss necessary cash flows to facilitate implementation of actions</li> </ol>	<ul style="list-style-type: none"> <li>• Anticipated expenditure commitments are matched by cash flow forecasts</li> </ul>

2. For the activation of funds and in-kind contributions through the Cook Islands Government budget:

Strategy	Intended Outcome
<ol style="list-style-type: none"> <li>1. Government to seek funding support through existing and proposed bilateral programmes. <ul style="list-style-type: none"> <li>■ Under this scenario All Ministries and Agencies would need to comply with the requirements as set out by MFEM in relation to Aid Management</li> </ul> </li> </ol>	<ul style="list-style-type: none"> <li>• Provision of funding to support DRM NAP implementation packaged in accordance with stipulated donor guidelines and requirements</li> </ul>
<ol style="list-style-type: none"> <li>2. Government to seek funding support through SOPAC and the regional facilities established for DRM NAP development and implementation. <ul style="list-style-type: none"> <li>• Under this scenario SOPAC would: <ul style="list-style-type: none"> <li>■ Clarify parameters and modalities for support</li> <li>■ Undertake contractual processes to activate support including M&amp;E requirements</li> </ul> </li> </ul> </li> </ol>	<ul style="list-style-type: none"> <li>• SOPAC mobilisation of PDRMPN and thus wider cross section of support for DRM NAP implementation</li> <li>• Funding support available for NGOs, CSOs and other bodies auxiliary to the CIG for their respective DRM NAP activities</li> </ul>
<ol style="list-style-type: none"> <li>3. Local partners (for example the Cook Islands Red Cross Society) with the support of EMCI and NAPAC to liaise with PDRMPN partners and other regional and international organisations to support their contribution to DRM NAP implementation. <ul style="list-style-type: none"> <li>• Under this scenario the donor/partner would: <ul style="list-style-type: none"> <li>■ Clarify parameters and modalities for support</li> <li>■ Undertake contractual processes to activate support including M&amp;E requirements</li> </ul> </li> </ul> </li> </ol>	<ul style="list-style-type: none"> <li>• Improved participation by all DRM NAP stakeholders</li> </ul>

It is essential to the integrity of the DRM NAP implementation effort that as much as possible EMCI is kept informed of the progress by NAPAC members in relation to their respective financing proposals.

## Communication Strategy

The need for a communications strategy to support DRM NAP implementation and general DRM awareness in the Cook Islands was discussed at length during NAPAC deliberations. Goal 1, Strategy 6 of the DRM NAP will enable a process for the development of a communications strategy.

The communications strategy will need to:

1. Identify the intended stakeholders in the DRM NAP, including beneficiaries and potential donors for implementation.
2. Explain the nature of the 'message(s)' that need to reach those stakeholders (eg., responsibilities of and benefits to beneficiaries, strategic information for donors such as investment returns as indicated above under the 'Financing Strategy').
3. Maximise the use of the implementation of DRM NAP actions as opportunities for communication.
4. Utilise the selected mediums of communication to:
  - a. create awareness and inform;
  - b. build capacity of the target beneficiaries;
  - c. influence behavioural change; and
  - d. serve as a mechanism to facilitate feedback for the purposes of monitoring and evaluation.

In accordance with the intent of Goal 1, Strategy 6, the development of a communications strategy is to be led by the EMCI through Information and Communications Officer who is to mobilise a small committee to assist the process. As indicated earlier the cost of this officer is not included in the DRM NAP as it is already provided for under the EMCI Business Plan. (On the other hand, other communications costs are provided for under the DRM NAP.) Whilst NAPAC members serve as the obvious choice for the committee, consideration should be given to involving other personalities in the Cook Islands who are familiar with media and marketing as well as those having an involvement for instance in existing community support activities. The benefits of involving a wider group (beyond the NAPAC) lies in the diverse range of ideas that are likely to surface and that will strengthen overall communication and the sustainability of NAP implementation.

## Monitoring and Evaluation

The Government has recently invested significantly in consultations to improve the standard and mode of performance reporting to be used by Ministries and agencies. A recent review resulted in the development of a Monitoring and Evaluation Readiness Assessment (OPM 2008). This review has highlighted a number of key issues which need to be taken into account in the development of a monitoring and evaluation framework for the DRM NAP.

A key consideration in monitoring and evaluation is to ensure that the reporting system focuses on the delivery of Strategic Targets (or outcomes) in addition to the delivery of Actions (or outputs). Furthermore, the monitoring and evaluation system should provide an opportunity for feedback and improvement in terms of the DRM NAP. It should also provide an opportunity to build capacity whereby those utilising the system should benefit by increasing



their competence and be able to identify and develop improvements to the monitoring and evaluation framework as an on-going outcome of implementation. In addition, the target beneficiaries of the DRM NAP (such as community groups) should also benefit by increasing their understanding of the importance of monitoring and evaluation as a requirement of the development planning and implementation process.

The Monitoring and Evaluation Readiness Assessment Report has highlighted various requirements which will need to be considered for adoption in the monitoring and evaluation system for the DRM NAP. These have been contextualised below in relation to DRM NAP implementation:

1. The need to reflect:
  - a. clear targets;
  - b. performance indicators;
  - c. responsibility for target delivery; and
  - d. means of verifying that results have been achieved<sup>12</sup>.
2. Ministries and agencies to use targets and performance indicators presented in the budget proposals as the basis for internal monitoring and management.
3. Ministries and agencies to provide PSC, MFEM and OPM (CPPO) with 6-monthly progress reports:
  - a. PSC: to use 6-monthly review reports and provide feedback to HOMs on agency performance.
  - b. MFEM: to review performance in connection with budget figures and provide feedback to HOMs.
  - c. CPPO: to review performance against the achievement of the relevant NSDP indicators and provide feedback to HOMs, EMCI and NAPAC.
4. EMCI with the support of NAPAC to prepare 6-monthly progress reports for the NDRMC and Cabinet. This should include:
  - a. results achieved including (if possible) impact of NAP implementation in relation to the achievement of NAP Goals and the relevant NSDP indicators.
  - b. Lessons learned.
  - c. Actions taken to improve performance and address issues/risks arising from implementation.
  - d. Forecast programme for the next 6 months.
5. EMCI to submit reports to MFEM on utilisation of financial support directed to non government, civil society and auxiliary organisations etc. These would be based on reports submitted to EMCI by relevant NGOs, CSOs and auxiliary organisations.
6. EMCI to submit progress reports (as in 4 above) to SOPAC for the information of the PDRMPN and for inclusion in the on-line reporting system developed by SOPAC for national progress reporting against Pacific DRR and DM Framework for Action 2005 – 2015 and the Hyogo Framework for Action.
7. Non government and civil society organisations involved in DRM NAP implementation to provide reports to EMCI and to respective donors.
8. Village and community groups to ensure active participation in the review process for DRM NAP implementation where their input has been requested.

<sup>12</sup> Typical means of verification would be reports and publications. However where these are not applicable in terms of the nature of the DRM NAP Action then a suitable means of verification will need to be provided.

The format for all reports referred to above will be developed by technical assistance engaged through EMCI to support DRM NAP implementation. In this regard care should be taken to ensure conformity with the reporting requirements developed in connection with the MTBF and others as may be stipulated by OPM/CPPO and the PSC. In relation to the development of the DRM NAP monitoring and evaluation framework some attention will need to be given to the sequencing of reports and reporting so as to ensure that overall reporting timeframes are adhered to. This can be achieved through the development of a calendar for DRM NAP reporting as part of the monitoring and evaluation framework.

Table 5 lists the reporting requirements for the monitoring and evaluation of the DRM NAP implementation.

Table 5 – M&E Reporting Requirements

Stakeholder Group/ Ministry/Agency	Reports To	Frequency	Reporting Modality	Stakeholder Group/ Ministry/Agency to provide feedback to
NDRMC	Cabinet	6 months	Cabinet paper	EMCI, NAPAC
NAPAC	NDRMC	6 months	NDRMC paper	HOMs/Agencies
EMCI	NAPAC, SOPAC, MFEM	6 months	As appropriate to receiving agency/ group	OPM
MFEM	Cabinet	Annual	Cabinet paper	HOMs/Agencies
CPPO	Cabinet, NDRMC	Annual	Cabinet paper	EMCI, NAPAC, HOMs
Ministries and Agencies	MFEM, CPPO, PSC	6 months	As appropriate to receiving agency/ group	NAPAC, EMCI
NGOs and CSO	EMCI	6 months	As appropriate to receiving agency/ group	Community groups and other stakeholders



# Indicative Costs and Goal Profiles

## Goal 1: Good Governance for Mainstreaming Disaster Risk Management at all Levels

### Description

To accommodate widespread disaster risk management in the Cook Islands, there is a need to incorporate disaster risk management to all major levels of Government planning and budgeting. This means 'mainstreaming' disaster risk management to sectoral plans (tourism, planning etc.) as well as budgets. This mainstreaming requires strategic planning and partnerships across the Government and major stakeholders of the Cook Islands society.

### Objectives

- Mainstream DRM (including economic, social and environmental disaster risks) into key sectoral policies, legislation, plans and budgeting planning processes
- Establish sustainable funding for disaster risk reduction and disaster response and recovery
- Incorporate DRM measures in all regulation addressing development planning processes (EIA, Building Code, etc.)
- Strengthen DRM coordination and partnerships between and within Government, civil society and the private sector, at all levels
- Strengthen capacity of Outer Islands' Councils and all agencies for DRM

### Strategy, Key Actions and Sub-Actions

**Strategy 1 – Mainstream DRM (including economic, social and environmental disaster risks) into key sectoral policies, legislation, plans and budgeting planning processes**

#### Key Actions and Sub-Actions

1. Review relevant national policy, legislation, organisational and decision making arrangements for DRM at Rarotonga and the Outer Islands
  - a. Conduct legislative review
  - b. Develop overarching policy for DRM
  - c. Build and strengthen networks with policy planners and Cabinet in order to include DRM in national policies and plans at all levels
  - d. Develop and implement relevant awareness raising

2. At each sector level (Rarotonga and Outer Islands) develop and strengthen DRM programmes and activities, including identifying priority hazards requiring attention and measures to deal with them and incorporate to Corporate, Business Plans and Budgets
  - a. Incorporate DRM planned policy and programme in budgetary process and NSDP review process
  - b. Inform and advise Cabinet on DRR process and programme
  - c. Develop DRR programme for each sector and Outer Island
3. At the community levels (Rarotonga and Outer Islands), including CSO and NGOs, develop and strengthen DRR programmes and activities, including identifying priority hazards requiring attention and measures to deal with them and incorporate in the respective Plans and Budgets
  - a. Strengthen Rarotonga DRR programmes
  - b. Strengthen Outer Islands DRR programmes as well as to incorporate outcomes to Outer Islands DRM plans
4. Develop a Policy Paper on DRM mainstreaming at all levels
5. Conduct awareness on DRM mainstreaming for agencies at all levels

### **Strategy 2 – Establish sustainable funding for disaster risk reduction and disaster response and recovery**

#### **Key Actions and Sub-Actions**

1. Incorporate DRM activities (including DRM NAP Actions) in budget line submissions in every budget cycle and incorporate DRM in CCA activities (e.g., PACC) such as awareness raising, climate proofing etc.
  - a. Conduct training workshop for Ministries to incorporate DRM to submissions
  - b. Conduct training workshop for Budget Committee to understand DRM
2. Finalise the policy for disaster response funding to include roll over of funds including incorporation of disaster insurance and aid relief
  - a. Incorporate DR policy to Aid Management Policy (make consistent)
  - b. Review insurance options
3. Civil Society response agencies to establish formal arrangements with the Government for assistance
  - a. MoU established between Red Cross and Government to be implemented as part of DRM policy

### **Strategy 3 – Incorporate DRM measures in all regulations addressing development planning processes (EIA, Building Code, etc.)**

#### **Key Actions and Sub-Actions**

1. Review all existing development planning regulations in view of incorporating DRM and CCA provisions
  - a. Review of regulations and gaps in planning processes, including capacity of Government to enforce regulations, making recommendations to CIIC
  - b. Incorporate recommendations from above to revised legislation (e.g., EIA etc.)



- c. Commence processes for the incorporation of SIA to existing decision making
- d. Conduct workshops for Rarotonga landowners and other stakeholders on ideas/ principles (conducted as part of existing fora)
- 2. Adoption of EIA in all planning regulations
- 3. Assess the Technical Capacity and Needs of Developing planning agencies to effectively enforce the DRM provisions within their regulations
- 4. Conduct appropriate awareness programmes for developers including property and infrastructure developers on DRM requirements of the regulations
  - a. Develop and implement awareness raising on new arrangements (brochures for distribution, TV, radio etc.)
- 5. Develop and adopt relevant DRM by-laws to address Outer Islands sustainable development
  - a. Assess current development activities on Outer Islands and identify sustainable measures
  - b. Incorporate recommendations to DRM plans
  - c. Awareness campaign on change in DRM plans for the Outer Islands

#### **Strategy 4 – Strengthen DRM coordination and partnerships between and within Government, civil society and the private sector, at all levels**

##### **Key Actions and Sub-Actions**

- 1. Develop an awareness programme to include information on economic and social risk profiles of their constituencies (including climate change scenarios) for politicians and other decision makers
  - a. Conduct annual awareness session for Parliamentarians and Island Councils to understand the economic and social risk/impacts
- 2. Initiate a national dialogue (including CSOs and NGOs) of ways to improve joint DRM programming
  - a. Recommend membership of CSOs/NGOs at NDRMC
- 3. Strengthen capacity of EMCI to monitor and facilitate coordination and partnerships (including communication flow and sharing of resources)
  - a. Recruit communications advisor to EMCI
  - b. Develop and implement monitoring and evaluation plan for EMCI

#### **Strategy 5 – Strengthen capacity of Outer Islands Councils and all agencies for DRM**

##### **Key Actions and Sub-Actions**

- 1. Appoint a focal point for disaster risk reduction in each Outer Island Council
- 2. Improve and formalise Outer Islands Councils and central agencies' partnership and coordination
  - a. Conduct awareness with Outer Islands and agencies on DRM
- 3. Provide training to Outer Islands Councils for sustainable planning processes including planning for Climate Change.
  - a. Conduct training and capacity building workshops for each island on sustainable planning processes

**Strategy 6 – Strengthen EMCI capacity to coordinate and facilitate DRM responsibilities as per legislative mandate accorded by the Disaster Risk Management Act 2007**

**Key Actions and Sub-Actions**

1. Develop and implement long-term communication strategies using all media available
  - a. Develop long-term communication plan
2. Build partnerships with NGOs and Civil Society groups to assist the EMCI to implement the DRM communication strategies and awareness programmes
3. Facilitate the acquisition of required technical assistance (including volunteers) for EMCI
  - a. Liaise with international agencies to acquire volunteers
  - b. Attachments/secondment to EMCI
4. Build a National Emergency Operations Centre, including EMCI office

## Implementation Costs (NZ\$)

Categories	Local Contribution (In-kind CiG and other stakeholders)	Non-Funded (Requiring donor/partner support)	Total
Workshops and refreshments		75840	75840
Technical assistance (consultancy)		217460	217460
Government of Cook Islands personnel time	35779	101580	137359
Office equipment and supplies		400000	400000
Advertising/awareness raising		186000	186000
Per diems (local and international)		65120	65120
Flights (local and international)		62900	62900
Other		22500	22500
<b>Total</b>	<b>35779</b>	<b>1131400</b>	<b>1167179</b>



## Goal 2: Strong Knowledge Base for more Effective Disaster Risk Management

### Description

Information management is a vital element of disaster risk reduction and disaster management. Similarly, traditional knowledge is also vital as it can save lives when disaster strikes. The importance of traditional knowledge not only contributes to the strengthening of the interventions but more importantly to its sustainability in the long term as people will always rely on their knowledge of the community and of the hazard.

Formal education is equally important as Cook Islands are increasingly challenged with both natural and man-made hazards associated with Climate Change and development. It is important that the technical capacity for disaster risk management is incorporated in formal and vocational school systems. When these young people enter their chosen fields of development; they are well informed of DRM principles.

### Objectives

- Appropriate traditional knowledge and practices are incorporated to strengthen disaster risk management
- Formal training opportunities in the area of DRM are available
- Enabling policy available for data and information sharing
- DRM guide and teaching aid for teachers at the primary and secondary levels are developed

### Strategy, Key Actions and Sub-Actions

#### Strategy 1 – Incorporate traditional knowledge where appropriate in DRM programmes

##### Key Actions and Sub-Actions

1. Document traditional DRM knowledge and practices
  - a. Identify key users/stakeholders
  - b. Secure resources for programme implementation
2. Explore the use of traditional knowledge for application to current disaster risk reduction and disaster preparedness, response and recovery initiatives
  - a. Conduct investigation and consultation

#### Strategy 2 – Improve DRM formal education and training opportunities

##### Key Actions and Sub-Actions

1. Provide vocational guidance in DRM to high schools and other interested institutions
  - a. Encourage relevant line agencies to have annual schools programmes
2. Offer two bonded scholarships every year for formal DRM training (certificate diploma/degrees)
  - a. Secure funding and arrangements

3. Strengthen the incorporation of DRM into the school curriculum
  - a. Re-introduce DRM units at primary schools level
  - b. Develop teachers teaching guide and teaching aid and provide training for teachers

**Strategy 3 – Strengthen overall information management and specifically information required for DRM and information collected from DRM programmes**

**Key Actions and Sub-Actions**

1. Develop and formalise a policy position paper on DRM data and information management and sharing
  - a. Develop enabling policy through consultation for approval
2. Increase training opportunities for data collection and data management including design and analysis, and GIS for statisticians and staff from all responsible agencies to meet information users' needs
  - a. Needs assessment and training arrangements and execution
3. Mobilise increased funding for data collection activities
  - a. Explore all sources, incorporate training in appropriate projects

## Implementation Costs (NZ\$)

Categories	Local Contribution (In-kind CIG and other stakeholders)	Non-Funded (Requiring donor/ partner support)	Total
Workshops and refreshments		3645	3645
Technical assistance (consultancy)		26250	26250
Government of Cook Islands personnel time	6169	69913	76082
Advertising/awareness raising		6000	6000
Per diems (local and international)		30580	30580
Flights (local and international)		81305	81305
<b>Total</b>	<b>6169</b>	<b>217693</b>	<b>223862</b>



## Goal 3: Effective Preparedness, Response and Recovery

### Description

This goal is considered as key to timely, efficient and effective disaster management. Effective preparedness, response and recovery will ultimately save lives, properties and livelihoods.

Although the National Sustainable Development Plan (NSDP 2007 – 2010) Goal 6 ('A Safe, Secure, and Resilient Community'), the Disaster Risk Management Act 2007, and the National Disaster Risk Management Plan 2006 provided the national framework for the coordination of the most effective methods and relationships for dealing with disaster impacts; it was apparent from the process of developing this National Action Plan that the agencies responsible for disaster preparedness, response and recovery lack capacity, technical skills and resources to develop and maintain effective disaster preparedness, response and recovery programmes and plans.

### Objectives

- Systems of safety shelters are strategically located, maintained and its management strengthened
- National capacity for disaster preparedness, response and recovery are strengthened through regular exercises and drills as supported by Disaster Response Plans
- Capacity to provide medical services and first aid at times of disaster is strengthened and maintained
- Reliable search and rescue capacity maintained
- Reliable capacity to respond to hazardous substances disaster events maintained

### Strategy, Key Actions and Sub-Actions

#### Strategy 1 – Strengthen the systems of safety shelters and their management for times of disaster

##### Key Actions and Sub-Actions

1. Commission a review of the safety shelters evacuation system (to cover safe location, management responsibilities, number that could be accommodated in a centre, structural integrity etc.)
  - a. Technical assistance to review existing status of safety shelters
2. Create an implementation plan based on the review (see action 1) in consultation with key stakeholders
  - a. Develop implementation plan
3. Create formal partnerships with Government, NGOs, CSOs and Communities to ensure commitments to the long-term management of safety shelters.
  - a. Consult and draft Partnership MOUs
4. Fund and retrofit safety shelters as per implementation plan
  - a. Secure resources for implementation

### Strategy 2 – Develop disaster response plans and conduct operational exercises for relevant agencies

#### Key Actions and Sub-Actions

1. Provide technical assistance to EMCI to coordinate the development of disaster response plans with all relevant agencies
  - a. Strengthen EMCI capacity with technical assistance and one additional staff
2. Provide appropriate training to response agencies on plan development and operational exercises
  - a. Needs assessment and appropriate training programmes implemented
3. Conduct operational exercises (drills) involving all stakeholders
  - a. Conduct regular exercises

### Strategy 3 – Improve availability of medicine and access to medication and first aid before, during and after emergency situations

#### Key Actions and Sub-Actions

1. Develop a contingency plan to maintain emergency medical supply at all times
  - a. Develop enabling policy through consultation for approval
2. Actively maintain partnership with those who provide medical support in times of disaster
  - a. Develop MOUs, funding arrangements and communication to promote partnership arrangements
3. Increase the capacity to conduct social and health impact assessment after a disaster
  - a. Conduct training on post-hazard social and health impact assessments
4. Train community members in first aid and keep an updated register of trained members
  - a. Conduct up-skilling training for emergency and first aid providers

### Strategy 4 – Strengthen capacity for search and rescue

#### Key Actions and Sub-Actions

1. Review existing search and rescue arrangements and capacity needs
  - a. Review and report
2. Implement the review recommendations
  - a. Cost implementation programme and secure resources



**Strategy 5 – Strengthen capacity to manage the importation, use and disposal of hazardous substances and to improve response to disaster events in relation to the spillage of hazardous substances**

**Key Actions and Sub-Actions**

1. Develop a policy and protocol for importation, use and disposal of hazardous substances
  - a. Align national policy to related conventions that the Cook Islands is party to
  - b. Conduct training on hazardous substance trade requirements
2. Assess needs of relevant agencies and procure appropriate equipment and materials (booms, chemicals, etc.)
  - a. Needs assessment and procurement arrangements
3. Conduct appropriate training for relevant agencies
  - a. Conduct appropriate training
4. Develop Standard Operations Procedures and conduct operational exercises
  - a. Strengthen SOPs with regular drills

### Implementation Costs (NZ\$)

Categories	Local Contribution (In-kind CIG and other stakeholders)	Non-Funded (Requiring donor/ partner support)	Total
Workshops and refreshments		43660	43660
Technical assistance (consultancy)		182168	182168
Government of Cook Islands personnel time	49968	559307	609275
Office Equipment and Supplies		10582	10582
Advertising/awareness raising		2100	2100
Per diems (local and international)		59360	59360
Flights (local and international)		82950	82950
<b>Total</b>	<b>49968</b>	<b>940127</b>	<b>990095</b>

## Goal 4: Maintain Effective Early Warning Systems

### Description

Cook Islands like many other small islands in the Pacific rely on effective early warning systems that deliver accurate and understandable information in a timely manner. Natural hazards like cyclones and associated impacts such as flooding, strong wind and storm surges destruction are common in the Cooks Islands. There is a need to improve weather and climate forecasting through the use of modern ICT technology and appropriate capacity building. The Cook Islands is also vulnerable to a range of other hazards and in a small economy context, consideration for multi-hazard early warning systems would be more cost effective.

Effective measures for disaster preparedness should include an effective early warning system that delivers accurate and understandable information in a timely manner. An effective early warning system for the Cook Islands requires a two-way process. Firstly, it requires institutional capacity strengthening through training and procurement of equipment and secondly through conducting community awareness and education programmes.

### Objectives

- Forecasting and information dissemination capacity for the Met. Service, Telecom and other supporting agencies improved
- ICT and back-up communication systems procured
- Fully functional EWS
- Improved level of public understanding about early warning systems for multi-hazards and the expected actions that the public should heed with each warning through appropriate programmes in the media, schools and for vulnerable communities

### Strategy, Key Actions and Sub-Actions

#### Strategy 1 – Improve capacity for hazard forecasting and information dissemination

##### Key Actions and Sub-Actions

1. Assess the ICT and human resources capacity and asset needs of the Met Service and other agencies responsible for hazard forecasting and develop costed implementation programme
  - a. Conduct capacity needs assessment for Met. Service and Telecom
  - b. Procure of a High Resolution Picture Transmission (HRPT) satellite imagery
  - c. Provide training on hazard forecasting and information dissemination to Met. Service, Telecom and other stakeholders
2. Review the communication systems and procedures used by the Met. Service, EMCI, Police and others at the onset of a disaster
  - a. Provide training e-Met for Met. Service
  - b. Strengthening of SOP
3. Investigate and procure a back-up communication system for the Met. Service
  - a. Procure VSAT capability



### Strategy 2 – Improve understanding of early warning systems including appropriate actions to take for different kinds of hazards

#### Key Actions and Sub-Actions

1. Develop and conduct Early Warning public awareness programmes for the general public, school children and other vulnerable groups (with explicit explanations on what EWS are, the levels of hazard warnings, and expected actions) for key hazards
  - a. Appropriate programmes and materials for schools and for the media
2. Conduct regular table-top and operational exercises (drills) to test the early warning systems
  - a. Drills preparation, programmes and exercise undertaken

### Implementation Costs (NZ\$)

Categories	Local Contribution (In-kind CIG and other stakeholders)	Non-Funded (Requiring donor/ partner support)	Total
Workshops and refreshments		1575	1575
Technical assistance (consultancy)		22400	22400
Government of Cook Islands personnel time	8431	55519	63950
Office Equipment and Supplies		80000	80000
Advertising/awareness raising		253240	253240
Per diems (local and international)		8510	8510
Flights (local and international)		55302	55302
<b>Total</b>	<b>8431</b>	<b>476546</b>	<b>484977</b>

## Goal 5: Analysis and Assessment of Hazards to Reduce Underlying Risk

### Description

A risk is a combination of the impact of a hazard and the vulnerability of the island or village community. Assessments of the interaction of a hazard with a vulnerable community identify the underlying risks or priority risks that the community would like to be addressed to ensure community safety, well-being or resilience.

Analysis and assessments of Cook Islands interactions with impacts of hazards including those associated with climate vulnerability, Climate Change and extreme weather events is critical for Cook Islands' sustainable development.

Key development sectors such as Tourism, Agriculture and Energy should be strengthened with proper risk assessment, codes and standards and supported by enabling policies. Improved technical capacity with experience in risk assessments tools and methodologies is important in ensuring that the objectives and intended targets of this Goal are achieved.

### Objectives

- Strengthen energy supply for the Outer Islands
- Reduce the disaster risks associated with the Tourism and Agriculture sectors
- Strengthen the technical capacity of agencies responsible for implementing risk and vulnerability assessments
- Improve decision making based on accurate and up-to-date information
- Produce hazards and vulnerability maps

### Strategy, Key Actions and Sub-Actions

#### Strategy 1 – Reduce risks associated with the energy supply in the Outer Islands

##### Key Actions and Sub-Actions

1. Assess energy demands, storage facilities and capacity in the Outer Islands to cater for sufficient reserves in times of disaster and recommend appropriate strategies
  - a. Conduct assessment
2. Develop a contingency plan for maintaining Outer Islands' energy supply at all times including alternative back-up options
  - a. Develop the plan through consultation
3. Incorporate the requirements for preparedness and response plans in the regulations and licensing of energy supply companies
  - a. Review appropriate legislative and provide recommendations for amendment
4. Test preparedness of energy supply companies and other disaster response agencies to respond to a disaster event through regular drills based on worst-case scenarios
  - a. Strengthen preparedness
5. Develop a relocation strategy for vulnerable properties in close proximity to fuel storage facilities
  - a. Develop strategies for approval and funding



### **Strategy 2 – Strengthen and improve disaster risk reduction measures and procedures in key development sectors such as Tourism and Agriculture**

#### **Key Actions and Sub-Actions**

1. Incorporate risk-reduction measures, including present and future Climate Change risks, in the land use policy currently being developed and legislation for tourism and agriculture developments
  - a. Develop appropriate policy paper for Cabinet consideration
  - b. Develop a risk-reduction measures checklist for developers to use
2. Promote traditional farming methods among farmers
  - a. Prepare demonstration plots
  - b. Plan and execute an agricultural show and competitions
3. Ensure adequate supplies of food crops planting material on-island ahead of cyclone season
  - a. Prepare a contingency plan and provide training and workshops

### **Strategy 3 – Improve technical capacity to conduct disaster risk and vulnerability assessments**

#### **Key Actions and Sub-Actions**

1. Strengthen technical capacity of the Agriculture Department, Tourism Corporation, NES, Ministry of Infrastructure and Planning and Public Health and other responsible agencies to systematically apply disaster risk assessment and vulnerability assessment measures and tools in development planning and decision making processes
  - a. Conduct training and capacity needs assessment
  - b. Prepare arrangements for implementation

### **Strategy 4 – Improve DRM management and decision making based on technical information from hazard mapping and vulnerability and risk assessments, including consideration of Climate Change risks**

#### **Key Actions and Sub-Actions**

1. Conduct community-based vulnerability assessments and mapping based on priority country needs, including Climate Change Adaptation and relevant to the DRM NAP implementations
2. Conduct assessments to determine causes and solutions for coastal erosion, sea-water inundation and salt-water intrusion on freshwater and soil, including present and future climate change impacts
  - a. (for both 1 and 2) – Conduct training of community based facilitators
  - b. Facilitate the workshops
  - c. Analyse technical data and information and generate reports/fact sheets/profiles
  - d. Conduct risk and vulnerability assessments
  - e. Generate maps using GIS
  - f. Conduct household surveys
  - g. Prepare a community action plan with the target community

## Implementation Costs (NZ\$)

Categories	Local Contribution (In-kind CIG and other stakeholders)	Non-Funded (Requiring donor/ partner support)	Total
Workshops and refreshments		183375	183375
Technical assistance (consultancy)		70350	70350
Government of Cook Islands personnel time	18712	104970	123682
Per diems (local and international)		12130	12130
Flights (local and international)		60600	60600
Other		30000	30000
<b>Total</b>	<b>18712</b>	<b>461425</b>	<b>480137</b>

## Goal 6: Monitoring, Evaluation and Reporting

### Costs Associated with Implementation and Monitoring and Evaluation (NZ\$)

Categories	Local Contribution (In-kind CIG and other stakeholders)	Non-Funded (Requiring donor/ partner support)	Total
Workshops and refreshments		15660	15660
Technical assistance (consultancy)		120000	120000
Government of Cook Islands personnel time	59838	2056	61894
Per diems (local and international)		4000	4000
Flights (local and international)		8000	8000
Other		76900	76900
<b>Total</b>	<b>59838</b>	<b>226616</b>	<b>286454</b>



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# Schedule of DRM NAP Country Engagements

Activity	Timing (2008)	Result
<b>COUNTRY ENGAGEMENT 1</b>		
Situation Analysis	Apr 14 – 25	<ul style="list-style-type: none"> <li>Comprehensive Situation Analysis completed and DRM and institutional gaps identified</li> </ul>
High Level Advocacy Team Visit	Apr 23 – 24	<ul style="list-style-type: none"> <li>Support from the National Disaster Risk Management Council for NAP development to address DRM gaps determined from comprehensive Situation Analysis</li> </ul>
<b>COUNTRY ENGAGEMENT 2</b>		
NAP Task Force Workshop	May 12 – 23	<ul style="list-style-type: none"> <li>NAP TF identify solutions to address DRM gaps</li> </ul>
Stakeholders Workshop	May 12 – 23	<ul style="list-style-type: none"> <li>Stakeholders identify solutions to address DRM gaps</li> </ul>
NAP Task Force Workshop	May 12 – 23	<ul style="list-style-type: none"> <li>NAP log frame finalised</li> </ul>
<b>COUNTRY ENGAGEMENT 3</b>		
Development of Implementation Plan/Costing of NAP	Sep 29 – Oct 9	<ul style="list-style-type: none"> <li>Resources and costs of NAP identified</li> <li>Implementation Plan developed</li> </ul>
Development of NAP and Implementation Plan Text	Sep 29 – Oct 9	<ul style="list-style-type: none"> <li>Draft NAP supporting text developed</li> </ul>
NAP and Implementation Plan Text Review – Review by Suva Partners – Review by CI	Oct 10 – Nov 14	<ul style="list-style-type: none"> <li>NAP text finalised</li> </ul>
<b>COUNTRY ENGAGEMENT 4</b>		
NAP & PIP Presented to NDRMC	Nov 24 – 28	<ul style="list-style-type: none"> <li>NDRMC endorsement of NAP</li> </ul>
Presentation of NAP/PIP to Cabinet	Nov 24 – 28	<ul style="list-style-type: none"> <li>Cabinet approval of NAP/PIP</li> </ul>



# NAP Advisory Committee Members & Alternates

NAME	AGENCY
Charles Carlson	EMCI (Chairman)
Patrick Enoka	AMD – MFEM
Enua Pakitoo	STATS – MFEM
Arona Ngari	MET
Fred Hosking	OMIA
Keu Mataroa	MOW
Arthur Taripo	MP (Aunty Mau)
Derek Johnston	Planning/Policy
Mark Brown	Chamber of Commerce
Andrew Iroa	Te Aponga (power company)
Stuart	TCI
Joe Ngamata	Airport Authority
Donye Numa	EMCI
Nane Matapo	Tourism
Dr Aumea	Health
Nicky Rattle	Red Cross
Pasha Caruthers	Environment
Leane Towgood	Internal Affairs
Ruth Pokura	Internal Affairs
Anna Pokino	Education
Oscar	MOT

# Stakeholders Consulted in the Situation Analysis

NAME	AGENCY
Charles Carlson	EMCI
Donye Numa	Office of the Prime Minister
Mac Mokoroa	Office of the Prime Minister
Derek Johnson	Policy and Planning Office
Paul Lynch	Crown Law
Inoke Ratukalou, Marita Manley and David Leslie	SPC Land Use Team
Liane Towgood	INTAFF
Ruth Pokura	INTAFF
Anaseini Pokino	Education
Vaipo Mataroa	Works
William Tuivaga	EMCI
Nooroa Tokari	Ministry of Agriculture
Andrew Iro	TAU
Ngatoko Ngatoko	Ministry of Agriculture
Arona Ngari	MET Service
Nga Jessie	Airport Authority
Mata Hetland, Niki Rattle, and Charlie Numanga	Cook Islands Red Cross
Patrick Tasker	Police Commissioner
Otheniel Tanginau	OMIA
Patrick Arioka	AMD
Stephenie Knight	NZAID
Matilda Aukino	ADB Project



# Stakeholders Consulted in Preparing the Implementation Programmes

NAME	MINISTRY/ORGANISATION
Mac Mokoroa	Office of the Prime Minister
Sholan Ivaiti	Ministry of Finance & Economic Management (MFEM)
Garth Henderson	MFEM
Florence Buchanan	Office of the Deputy Prime Minister
Matilda Miria Tairea	CEAL Project
Russell Thomas	Office of the Public Service Commissioner (PSC)
Carmen Temata	PSC
Alex Henry	PSC
Julie Affleck	NZAID
Patrick Arioka	Aid Management, MFEM
Nikki Rattle	CI Red Cross
Andrew Iroa	Te Aponga Uira (Electricity Authority)
Keu Mataroa	Ministry of Works
Travel Tou	Ministry of Works
Pare Rongorea Jnr.	Ministry of Works
Pasha Carruthers	National Environment Service
Charlie Numanga	CI Red Cross
Ruta Pokura	Ministry of Internal Affairs
Charles Carlson	EMCI
Nga Jessie	Airport Authority
Ana Pokino	Ministry of Education
Liz Koteka	CPPO

# Detailed Breakdown of DRM NAP Implementation Costs

## Provisional costing of Cook Islands DRM NAP

Overall NAP: costing by goal

	<b>Goal 1</b> Good governance for mainstreaming DRM at all levels	<b>Goal 2</b> Strong Knowledge base within the Cook Islands for more effective DRM	<b>Goal 3</b> Effective Preparedness, Response and Recovery	<b>Goal 4</b> Maintain Effective Early Warning Systems	<b>Goal 5</b> Analysis and Assessment of Hazards to Reduce Underlying Risk	<b>Goal 6</b> Implementation and M + E	<b>TOTAL</b>
Workshops and refreshments	75840	3645	43660	1575	183375	15660	<b>323755</b>
Technical assistance (consultancy)	217460	26250	182168	22400	70350	120000	<b>638628</b>
Government of Cook Islands personnel time	137359	76082	609275	63950	123682	61894	<b>1072242</b>
Office equipment and supplies	400000		10582	80000		4000	<b>494582</b>
Advertising/ awareness raising	186000	6000	2100	253240			<b>447340</b>
Per diems (local and international)	65120	30580	59360	8510	12130		<b>175700</b>
Flights (local and international)	62900	81305	82950	55302	60600	8000	<b>351057</b>
Other *	22500				30000	76900	<b>129400</b>
<b>TOTAL OVER 3 YEARS</b>	<b>1167179</b>	<b>223862</b>	<b>990095</b>	<b>484977</b>	<b>480137</b>	<b>286454</b>	<b>3632704</b>
%	32	6	27	13	13	8	100

\* volunteers, planting materials, seedlings, operations, prizes



## Costing by strategy

Goal 1	In kind contribution	Non funded	Total
Strategy 1	1645	199235	200880
Strategy 2	8842	37400	46242
Strategy 3	6374	294940	301315
Strategy 4	18506	21300	39806
Strategy 5	411	149855	150266
Strategy 6	0	428669	428669
<b>TOTAL</b>	<b>35779</b>	<b>1131400</b>	<b>1167179</b>

Goal 2	In kind contribution	Non funded	Total
Strategy 1	4113	7613	11725
Strategy 2	0	182824	182824
Strategy 3	2056	27256	29313
<b>TOTAL</b>	<b>6169</b>	<b>217693</b>	<b>223862</b>

Goal 3	In kind contribution	Non funded	Total
Strategy 1	4421	167947	172368
Strategy 2	6374	272318	278692
Strategy 3	13366	444434	457800
Strategy 4	9356	38479	47835
Strategy 5	16450	16950	33400
<b>TOTAL</b>	<b>49968</b>	<b>940127</b>	<b>990095</b>

Goal 4	In kind contribution	Non funded	Total
Strategy 1	5346	95035	100381
Strategy 2	3084	381511	384596
<b>TOTAL</b>	<b>8431</b>	<b>476546</b>	<b>484977</b>

Goal 5	In kind contribution	Non funded	Total
Strategy 1	11926	41490	53417
Strategy 2	617	142459	143076
Strategy 3	6169	13000	19169
Strategy 4	0	264475	264475
<b>TOTAL</b>	<b>18712</b>	<b>461425</b>	<b>480137</b>

Goal 6	In kind contribution	Non funded	Total
Implementation and M+E			
<b>TOTAL</b>	<b>59838</b>	<b>226616</b>	<b>286454</b>

## Costing by strategy over time

Goal 1	Year 1	Year 2	Year 3	Total
Strategy 1	150002	25439	25439	200880
Strategy 2	19667	13288	13288	46242
Strategy 3	253315	24000	24000	301315
Strategy 4	17269	11269	11269	39806
Strategy 5	126266	12000	12000	150266
Strategy 6	428669	0	0	428669
<b>TOTAL</b>	<b>995187</b>	<b>85996</b>	<b>85996</b>	<b>1167179</b>

Goal 2	Year 1	Year 2	Year 3	Total
Strategy 1	11725	0	0	11725
Strategy 2	174599	4113	4113	182824
Strategy 3	21088	4113	4113	29313
<b>TOTAL</b>	<b>207412</b>	<b>8225</b>	<b>8225</b>	<b>223862</b>

Goal 3	Year 1	Year 2	Year 3	Total
Strategy 1	172368	0	0	172368
Strategy 2	251113	13790	13790	278692
Strategy 3	447456	1028	9316	457800
Strategy 4	47835	0	0	47835
Strategy 5	33400	0	0	33400
<b>TOTAL</b>	<b>952172</b>	<b>14818</b>	<b>23105</b>	<b>990095</b>

Goal 4	Year 1	Year 2	Year 3	Total
Strategy 1	100381	0	0	100381
Strategy 2	151588	116504	116504	384596
<b>TOTAL</b>	<b>251970</b>	<b>116504</b>	<b>116504</b>	<b>484977</b>

Goal 5	Year 1	Year 2	Year 3	Total
Strategy 1	53417	0	0	53417
Strategy 2	100498	21289	21289	143076
Strategy 3	19169	0	0	19169
Strategy 4	264475	0	0	264475
<b>TOTAL</b>	<b>437559</b>	<b>21289</b>	<b>21289</b>	<b>480137</b>

Goal 6	Year 1	Year 2	Year 3	Total
Implementation and M+E				
<b>TOTAL</b>	<b>221600</b>	<b>32427</b>	<b>32427</b>	<b>286454</b>





# Government of the Cook Islands





Government of the Cook Islands