Samoa

National progress report on the implementation of the Hyogo Framework for Action (2011-2013) - interim

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Section 1: Outcomes 2011-2013

Strategic Outcome For Goal 1

Outcome Statement:

Disaster Risk Management is firmly embedded in the new National Sustainable Development Strategy (NSDS) 2012 – 2016 as Key Outcome 14 - Climate and Disaster Resilience. DRM features more strongly in a number of sector plans, such as the 'Community Sector Plan' and the 'Tourism Sector Development Plan'. The National Disaster Management Plan has been reviewed and updated and a DRM National Action Plan has been developed.

Strategic Outcome For Goal 2

Outcome Statement:

The Disaster Advisory Committee continues to function well and core response agencies have up to date response plans in place. The Disaster Management Office has been upgraded to a 'division'. Officials from the different technical and response agencies continue to attend trainings and simulations and drills are on-going. The DRM extension programmes at village-level continue to gain momentum and many villages now have DRM Committees, DRM Plans, including Tsunami evacuation plans.

Strategic Outcome For Goal 3

Outcome Statement:

Risk reduction approaches were systematically integrated into the national reconstruction programme following the tsunami in 2009 and tsunami monitoring, early warning systems, communications and public awareness have been strengthened within a multi-hazard framework.

Section 2: Strategic goals

Strategic Goal Area 1

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.

Strategic Goal Statement:

The successful review and implementation of the Coastal Infrastructure Management Plans and associated village DRM and climate change projects are prioritised in planning and programming and tangible implementation has begun.

Strategic Goal Area 2

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.

Strategic Goal Statement:

Disaster Management Office is upgraded to a ‘division’ with increased staffing and resources, able to better deliver DRM support and programming to all stakeholders at all levels. The DRM ‘village programme’ continues to roll-out and systematically builds capacity for DRM planning and implementation at the local-level.

Strategic Goal Area 3

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.

Strategic Goal Statement:

The successful establishment and effective operation of relevant Disaster Advisory Council sub-committees to further planning for systematic incorporation of risk reduction approaches in preparedness, response and recovery programmes. Sub-committee members are adequately trained and resourced to effectively perform.

Section 3: Priority for action 1

Ensure that disaster risk reduction is a national and a local priority with a strong institutional basis for implementation.

Priority for action 1: Core indicator 1

National policy and legal framework for disaster risk reduction exists with decentralised responsibilities and capacities at all levels.

Level of Progress achieved: 4

Substantial achievement attained but with recognized limitations in key aspects, such as financial resources and/ or operational capacities

Key Questions and Means of Verification

Is disaster risk taken into account in public investment and planning decisions?
Yes

National development plan	Yes
• Community Sector Plan 2010 - 2015 (2010) [PDF - 376.48 KB] • STRATEGY FOR THE DEVELOPMENT OF SAMOA 2012 - 2016 (2012) [PDF - 1.09 MB]	
Sector strategies and plans	Yes
• Samoa National Infrastructure Strategic Plan Draft for Review (2010) [PDF - 1.03 MB] • Community Sector Plan 2010-2015 (2010) [PDF - 376.48 KB] • Community Sector Plan 2010-2015 (2010) [PDF - 376.48 KB] • Health Sector Plan 2008 - 2018 (2008) [PDF - 251.19 KB] • Samoa Tourism Development Plan 2009 - 2013 (2009) [PDF - 2.69 MB] • SECTORAL PLANNING GUIDELINES: SAMOA MINISTRY OF FINANCE (2003) [PDF - 127.24 KB]	
Climate change policy and strategy	No
Poverty reduction strategy papers	No
CCA/ UNDAF (Common Country Assessment/ UN Development Assistance Framework)	Yes
Civil defence policy, strategy and contingency planning	Yes

Have legislative and/or regulatory provisions been made for managing disaster risk? Yes

Description:

The national policy and legal framework for disaster risk reduction in Samoa is comprised of the Disaster and Emergency Management Act (2007), the National Disaster Management Plan (2011), the National Action Plan for DRM (2011 – 2016)(which also serves as the national DRM policy), Fire and Emergency Service Act 2007, the Red Cross Response Plan, the National Policy on Combating Climate Change (2005), the National Adaptation Programme of Action (2005), the National Tsunami Plan, the Tropical Cyclone Plan, and various statutory and non-statutory pieces of legislation amongst relevant agencies (as listed in the Table 2 in the NDMP). The Disaster Management Office (DMO) has the mandate to coordinate risk reduction activities in Samoa, working alongside a multi-agency Disaster Advisory Committee (DAC) that reports to a high-level National Disaster Council (NDC).

Since the previous review, Samoa has strengthened its disaster risk management arrangements through an update of its National Disaster Management Plan (NDMP) and through the development of a 5-year National Action Plan (NAP) for DRM. These documents have been informed by the experiences of the 2009 Tsunami response and recovery as well as the outcomes of the previous cycle HFA review. The NDMP gives comprehensive coverage and guidance on DRR and serves to clarify operational roles, responsibilities and procedures for DRM. The NAP is designed as ‘a living document’, and provides a useful mechanism to promote a coordinated and strategic approach to DRM implementation.

The NDMP articulates the responsibilities that have been decentralized to key risk reduction and response agencies, as well as to local government structures, as overseen by the DAC. The current version of the NDMP establishes a number of sub-committees to coordinate and take forward the different components of DRM. However these sub-committees have yet to be operationalized.

Capacities vary across agencies and levels, with generally stronger capacities at national level. Capacity of the DMO has recently received a boost, with its upgrade from a ‘section’ under Meteorology Division, to a ‘division’ in its own right. The move reflects the importance attached to DRM by the government of Samoa, a view strengthened following the 2009 Tsunami experience, in which 143 lost their lives and a further 5000 were directly affected. The upgrade to a ‘division’ brings with it a significantly increased staffing budget with five new staff positions having been approved, in addition to the existing three. Two additional 3-year positions are to be attached to Australian Red Cross and New Zealand Ministry of Civil Defence and Emergency Management (MCDEM) DRM projects.

Capacity at local level is weaker due to limited resources and skill-base, but this is likely to be strengthened through more dedicated community support from the expanded DMO as well as a number of large DRM and climate change projects that have either begun or are in the pipeline. Notably there are seven such projects funded by ARCS, MCDEM, Adaptation Fund, EU EDF 10, EU GCCA, GiZ and the Climate Investment Fund. The ARCS Community Disaster and Climate Risk Management programme is an important component of the Government of Samoa’s DRM National Action Plan (2011-2016), with the overall aim to

reduce the social, economic and environmental costs of disasters in Samoan communities. The objective of the programme is to strengthen the disaster risk management capability of Samoan people at the village level. The CDCRM programme will build and complement existing capacities through the practical use of an integrated disaster management and disaster risk reduction approach increasing the self-reliance of communities.

Context & Constraints:

The governance architecture for DRM in Samoa is clearly articulated and provided for in legislation, policy and plans and a well-thought out mechanism for coordination and implementation exists in the form of the DAC and sub-committees. However, levels of understanding of DRM issues, particularly the newer DRR focus, amongst some agencies (and community-level structures) remains low and on-going capacity and awareness building is required. For example, many villagers do not understand the advantages of 'soft' environmental approaches to coastal protection, as opposed to 'hard' engineered structures such as sea walls.

Another constraint lies in the effective implementation of the development regulations that are relevant to Disaster Risk Reduction, for example, Environmental Impact Assessments, Development Consent process, land use planning, etc. There is also a need to review and update these processes to more strongly and explicitly integrate hazard risk reduction screening measures.

Initiatives to strengthen the use of technical GIS based risk management tools in planning need to continue as do initiatives to improve planning coordination (between agencies and between national and local level), and monitoring and evaluation.

Related Attachments:

- NATIONAL ADAPTATION PROGRAMME OF ACTION SAMOA (2005) [PDF - 479.33 KB]
- SAMOA NATIONAL ACTION PLAN For Disaster Risk Management 2011-2016 (2011) [DOCX - 85.05 KB]
- Samoa's National Disaster Management Plan 2011 –2014 (2011) [PDF - 576.15 KB]
- Disaster and Emergency Management Act 2007 (2007) [DOC - 108.00 KB]

Related links:

- National Policy on Combating Climate Change (2005

Priority for action 1: Core indicator 2

Dedicated and adequate resources are available to implement disaster risk reduction plans and activities at all administrative levels

Level of Progress achieved: 3

Institutional commitment attained, but achievements are neither comprehensive nor substantial

Key Questions and Means of Verification

What is the ratio of the budget allocation to risk reduction versus disaster relief and reconstruction?

	Risk reduction / prevention (%)	Relief and reconstruction (%)
National budget	0.5	3
Decentralised / sub-national budget		

USD allocated to hazard proofing sectoral development investments (e.g transport, agriculture, infrastructure)	

Description:

With respect to funding, Samoa's current programme of DRR initiatives is adequately resourced through a combination of government and donor contributions. The effectiveness of the DMO has in the past been constrained by staff and equipment shortages and it continues to be under-resourced in this reagard (although it is expected that its upgrade to a 'division' will assist at least on the staffing side). The DMO continues to be located in a sub-standard building located in a hazard-prone area. Apart from the need for relocation and upgrade of facilites, it is also in need of additional vehicles.

Since the tsunami in 2009, and in the context of increasing international concern for climate change and disaster risk reduction, there has been an increase in the levels of donor aid in these fields and a number of well-resourced programmes are either underway, or anticipated. The coming together of DRM and climate change at the programming level in Samoa has enabled resources to be pooled and used more effectively.

The Samoan government actively promotes DRR as a cross-cutting theme and a shared responsibility, and most of the productive sectors have access to either climate change or DRM related funding. In addition, as in most countries, some of the work that is done by line agencies can be classified as DRR in the broader sense, and much of this is funded through government line-budgets.

Despite the wealth of resources available for DRM and climate change, a concern remains that not enough financial resources are targeted at the community level to support implementation of DRR and Preparedness activities.

Context & Constraints:

The general increase in large donor funded projects for climate change and DRM in Samoa brings with it the operational challenges of coordination, monitoring and management within and across agencies. As pointed out in the previous review, DRR projects can have long time horizons and are operationally complex, and in the context of escalating donor support, there is the danger that the relevant administrations in Samoa will become ‘swamped’ by increasingly complex and competing project management demands. In this light it may be useful for the administration to set a ‘cap’ on the number of new projects and programmes that are operational at any one time in order to achieve a balance between projects and existing operational capacity.

For their part, donors and development partners need to continue to explore ways of delivering aid more strategically and efficiently, and government needs to take a greater lead in directing the flow of funds in terms of strategic planning for the sector. The DRM National Action Plan (NAP) was based on a strong strategic review process and is a good start in this regard. Donors are encouraged to align their programmes with the priority actions that are articulated in the NAP, and/or to consider direct budgetary support. At present much of the DRM and climate change programming is ‘donor driven’ being based on funding criteria and opportunities that are often externally conceptualized. Greater coherence, sustainability and efficiency would result from a strengthening of a ‘country driven’ approach to DRM and climate change programming.

The issue of financial resourcing of community based DRM and climate change adaptation activities needs to be addressed, and better use needs to be made of existing financing facilities for village level activities, such as the Civil Society Support Programme (CSSP). This small and medium size grant- making programme has been in operation in Samoa for two years with about ST4 million having been disbursed to date for the implementation of village based developmental activities, and is scheduled to continue until 2014. Recognising the difficulty that CBOs and NGOs have in accessing conventionally streamed donor funding, the facility strives to remove the entry barriers by simplifying the application process while at the same time providing capacity building support. Funding for community level DRM implementation is set to increase with a new Community Disaster and Climate Risk Management (CDCRM) project being funded by the Australian Red Cross, the Adaptation Fund’s ‘Enhancing resilience of coastal communities of Samoa to climate change’ and the ACP-EU EDF 10 NDF funding facility coming on stream during this reporting cycle, as well as others.

Noting the increasing importance accorded to DRR in Samoa, consideration should be given to developing a monitoring system to enable better tracking of DRR spending and investment across all agencies, as many DRR activities are already integrated into ‘business as normal’. Such a system should be relatively easy to design and would essentially entail deciding which existing ministry and agency activities to tag as DRR, and consistently using this template to conduct annual reviews of the relevant budget expenditures. The resulting information would enable improved analysis of trends in DRR spending and would contribute to strengthened strategic decision making for DRR investments and programming. It would also assist in measuring progress with respect to DRR mainstreaming.

Related Attachments:

- RECEIPTS AND PAYMENTS OF THE GOVERNMENT OF SAMOA FOR THE YEAR ENDING 30 JUNE 2012 (2011) [PDF - 4.80 MB]

Priority for action 1: Core indicator 3

Community Participation and decentralisation is ensured through the delegation of authority and resources to local levels

Level of Progress achieved: 3

Institutional commitment attained, but achievements are neither comprehensive nor substantial

Key Questions and Means of Verification

Do local governments have legal responsibility and regular / systematic budget allocations for DRR? Yes

Legislation (Is there a specific legislation for local governments with a mandate for DRR?)	Yes
• Village Fono Act 1990 (1990) [PDF - 22.86 KB]	
Regular budget allocations for DRR to local government	Yes
Estimated % of local budget allocation assigned to DRR	0

Description:

The National Disaster Management Plan (NDMP), which receives its legal standing from the Disaster and Emergency Management Act (2007), lays the foundation for community participation in DRM, by assigning clear roles and responsibilities to ‘village councils’ for the development of disaster mitigation and preparedness programmes at the community level, and for co-ordinating village response activities for specific threats. More specifically the stated role of ‘village councils’ is to i) Initiate community response, ii) Disseminate information, iii) Manage shelters, iii) Assess damage, iv) Co-ordinate relief, v) Develop community preparedness and evacuation plans, and vi) Implement community vulnerability reduction measures.

It is the role of the Ministry of Women, Community & Social Development (Internal Affairs Division) to support, monitor and liaise with ‘village councils’ and organisations

through the “Sui o le Nuu” (‘village mayor’) and “Sui Tamaitai o le Nuu” (‘women’s representative’) with implementation of disaster management activities, and to ensure a high level of preparedness. The MWCSD is alert to the special needs of vulnerable groups and promotes their participation in these activities.

Resourcing is more problematic as neither the MWCSD nor the ‘village councils’ receive dedicated budget allocations for DRM activities. The MWCSD does however have a capital budget of approximately ST2 million for implementation of community development initiatives aligned with Village Sustainable Development Plans developed under the Community Centred Sustainable Development Programme (CCSDP) – a UNDP supported initiative. MWCSD also have programmes geared at the development of livelihood opportunities, food security, pre-schools, water supply management, etc. but these programmes are not as well funded. It also has a programme focusing on clean and healthy domestic environment (Aiga ma NuuManuia Program), and it is this programme that is seen as the entry point for DRM. Village Development Planning is another area of synergy, although the CCSDP programme has now come to an end. Apart from the salaries of the ‘mayor’ and ‘women’s representative’, the primary local level governance structure, the ‘village council’ (Fono) – a traditional structure composed of the heads of extended families (matai) - does not receive any direct budgetary support.

Samoa has pursued an active programme of village level consultations and risk planning since the implementation of the World Bank funded Infrastructure Asset Management Project (IAMP) which started in 2000 and continues. A number of other initiatives since then included additional consultations, e.g. a village-based DRM programme coordinated by DMO (25 villages), development of the NAPA and Climate Risk Profiles, and the Village Sustainable Development Plans. The Community Disaster and Climate Risk Management (CDCRM) Project, which is currently coming on stream, aims to cover 50 villages, having piloted its DRM planning approach in 10 villages under the World Bank’s tsunami village planning programme in 2009.

Community participation in DRM activities is also facilitated to a certain extent by the network of volunteers associated with the Samoan Red Cross Society and more recently the appointment of community-based Volunteer Emergency Response Teams (VERT) under the Samoa Fire and Emergency Services Authority, funded by AusAID.

Context & Constraints:

The general view suggests that the level of active community participation in DRM remains low despite the many village consultations that have taken place over the years. While Coastal Infrastructure Management (CIM) plans exist for all villages and DRM plans for some, getting communities to take ownership and to better prepare themselves for both quick and slow-onset hazards has continued to be a challenge. Limitations with respect to dedicated resources to implement many of the activities in the plans may be a constraining factor in this regard. However, without a rigorous monitoring and evaluation framework in place it is difficult to measure the impact of community based DRM programmes, and it is more likely that the level of community participation in DRM activities varies between villages.

It has been noted that the Village Fono Act (1990), which articulates the competencies of ‘village councils’, does not include DRM or Preparedness as part of its roles. This may require revision to align it with the responsibilities articulated in the National Disaster Management Plan.

The need to consolidate and develop a standardized approach to village level DRM and climate change planning has been identified and a new comprehensive planning tool has been developed with support from UNESCO. Samoa Red Cross Society, in partnership with DMO and other stakeholders is gearing up to implement a new round of village level planning exercises with a view to i) updating, broadening the scope of, and consolidating existing information, and ii) mobilizing communities to become more active in the implementation of their plans. The programme aims to target 50 high risk villages over its three year lifespan. Part of the initiative involves the establishment of a centralized information facility to be housed at the NEOC, and the development of strong M&E procedures. The Ministry of Natural Resources and Environment's new 4-year Adaptation Fund project entitled: Enhancing resilience of coastal communities of Samoa to climate change proposes to do similar community-level programming, with a strong focus on updating and implementing the CIM plans. It will be constructive, given the similar objectives of these two projects, that they engage in joint programming, with a view towards promoting a unified and standardised approach to community level DRM programming. The same applies for additional CC projects in the pipeline such as the GiZ Coping with Climate Change in the Pacific Island Region (CCCPIR) initiative implemented by MNRE and the Pilot Program for Climate Resilience (PPCR) being implemented by the Ministry of Finance.

As the official support agency and link to villages, the role of MWCSD in supporting DRM programming will need to be strengthened as a review of its annual reports suggests that it is not yet fulfilling its DRM support role to the extent envisaged in the National Disaster Management Plan. Levels of engagement are likely to increase however following the completion of its 'Community Sector Plan' (2010) which lists 'Climate Change and Community Preparedness' as one of its five key priority areas. Details of its work programme will be contained in an 'Implementation Plan' for the Community Sector Plan which is currently being developed.

The roles and capacities of NGOs in Samoa to support community level DRM programming will also continue to need on-going strengthening. The Samoa Red Cross Society and faith-based NGOs such as ADRA and CARITAS are important players in this regard. The rest of the NGO sector is relatively weak in terms of DRM planning and support, and generally struggles to access sufficient resources to increase its impact. To address this, government had established the Community Civil Society Support Programme, which channels donor support directly to NGOs and CBOs in the form of capacity building and grants. The CCSSP represents a good entry point for government agencies to engage and partner with civil society organisations in providing village level support for DRM activities.

Related Attachments:

- ANNUAL REPORT OF THE MINISTRY OF WOMEN, COMMUNITY AND SOCIAL DEVELOPMENT For the period ended June 30 2011 (2011) [PDF - 3.11 MB]
- Community Sector Plan 2010-2015 (2010) [PDF - 376.48 KB]

Priority for action 1: Core indicator 4

A national multi sectoral platform for disaster risk reduction is functioning.

Level of Progress achieved: 4

Substantial achievement attained but with recognized limitations in key aspects, such as financial resources and/ or operational capacities

Key Questions and Means of Verification

Are civil society organizations, national finance and planning institutions, key economic and development sector organizations represented in the national platform? Yes

Civil society members (specify absolute number)	1
National finanace and planning institutions (specify absolute number)	1
Sectoral organisations (specify absolute number)	10+
Private sector (specify absolute number)	8
Science and academic institutions (specify absolute number)	1
Women's organisations participating in national platform (specify absolute number)	1
Other (please specify)	3 FBOs, 7 Diplomatic, 4 Development partners

Where is the coordinating lead institution for disaster risk reduction located?

In the Prime Minister's/President's Office	No
In a central planning and/or coordinating unit	No
In a civil protection department	No
In an environmental planning ministry	Yes

In the Ministry of Finance	No

Other (Please specify)

Description:

Samoa's Disaster Advisory Committee and its sub-committees, development partners, Samoa-based regional and international organisations, overseas missions, private sector, and NGOs constitute Samoa's National Platform for Disaster Risk Management which is a multidisciplinary and multi-stakeholder forum for the DRM and climate change community (NDRMP 2007).

The Disaster Advisory Committee has established a number of sub-committees to coordinate the planning, development and implementation of specific issues pertaining to disaster risk reduction, preparedness, response and recovery.

The sub-committees formally established to date include:
DRR
DRR Sub-committee
Preparedness Sub-committees
Contingency Planning, Awareness, and Education
Emergency Telecommunication and Early Warning System
Response Sub-committees
First response and initial assessment
Welfare and internal displaced people (IDP)
Utilities and social services
Livelihoods
Recovery Sub-committees
Recovery Preparedness and Planning
Early Recovery and Recovery Needs Assessment
Housing and Settlement
Utilities and Social Services
Livelihoods

Context & Constraints:

Samoa's National Platform for DRM is comprised of 53 members, representing a broad cross-section of government ministries and agencies, private sector, development partners, academia, and civil society organisations. The structure had been in existence for some time and appears to work well.

A constraint may be that the NGO sector is under-represented, being represented by one person. This is the head of the Samoa Umbrella for Non Government Organisations (SUNGO) and this model was chosen for obvious logistical reasons. However the quality of information filtering down to NGOs is largely dependent on the quality of their representative, and impact of receiving information second-hand will always be reduced. It may be prudent for the secretariat and/or chair of the DAC to proactively brief NGOs directly from time to time, in order to ensure their on-going interest and participation. There may also be opportunities for greater NGO representation on the DAC sub-committees.

The National Climate Change Country Team continues to co-exist alongside the National

DRM Platform and it may be necessary to establish a mechanism for greater collaboration between the two structures given the overlapping nature of the hazard issues being dealt with, and the need for coordinated joint programming.

The model of the DAC with its many sub-committees is a new introduction since the review of the National Disaster Management Plan in late 2011 and while the model appears good on paper, the workability of the system remains to be tested.

Related Attachments:

- National Disaster Management Plan 2011 - 2015 (2011) [PDF - 576.15 KB]

Section 4: Priority for action 2

Identify, assess and monitor disaster risks and enhance early warning

Priority for action 2: Core indicator 1

National and local risk assessments based on hazard data and vulnerability information are available and include risk assessments for key sectors.

Level of Progress achieved: 4

Substantial achievement attained but with recognized limitations in key aspects, such as financial resources and/ or operational capacities

Key Questions and Means of Verification

Is there a national multi-hazard risk assessment with a common methodology available to inform planning and development decisions? Yes

Multi-hazard risk assessment	Yes
• National Disaster Management Plan 2011 - 2015 (2011) [PDF - 576.15 KB]	
% of schools and hospitals assessed	0
Schools not safe from disasters (specify absolute number)	0
Gender disaggregated vulnerability and capacity assessments	No
Agreed national standards for multi hazard risk assessments	No
Risk assessment held by a central repository (lead institution)	Yes
Common format for risk assessment	No
Risk assessment format customised by user	No
Is future/probable risk assessed?	Yes
Please list the sectors that have already used disaster risk assessment as a precondition for sectoral development	-- not complete --

planning and programming.

Description:

In preparing the National DM Plan, a qualitative multi-hazard risk assessment was carried out based on the Australian New Zealand Risk Management Standard 4360, whereby a Maximum Credible Event (MCE) was assessed for each hazard. Hazard risks were categorized as ‘extreme’, ‘high’, ‘medium’, or ‘low’ – taking into consideration a combination of the likelihood of occurrence and the potential magnitude of the consequences. The NDMP lists the following hazard risks as being ‘extreme’: Cyclone, Volcanic Eruption, Tsunami, Urban Fire (Apia), Public health crisis, Environmental crisis – invasive species. Floods and Forest Fires have a ‘high’ hazard risk rating.

More comprehensive hazard analyses have been completed for tsunami and earthquakes together (whole coastline), cyclones, flash flooding of the Vaisigano catchment above the main urban settlement of Apia, Forest fire assessment, threat of pandemic, alien invasive species and biosecurity and volcanic eruptions.

“A Preliminary Study into the Tsunami Hazard faced by Southwest Pacific Nations” has been completed by Geoscience Australia. Geoscience Australia has also completed “A Probabilistic Tsunami Hazard Assessment of the Southwest Pacific Nations”. Both studies include Samoa. Through NZAID, GNS Science recently conducted a Tsunami Source Modelling Report for Samoa.

The CIM plans completed for all districts contain local assessments of flooding and coastal erosion, and provide maps of Coastal Erosion Hazard Zones and Coastal Flooding Hazard Zones. They also list and map physical and community infrastructure that is vulnerable to flooding and/or coastal erosion and propose a number of adaptation options.

The Tourism Sector has conducted an assessment of hazard risk as it impacts on tourists and tourism infrastructure, such as the many beach fales. The Tourism Sector Development Plan 2009 – 2013 includes a screening of risks, including natural hazard as well as risks associated with tourism and related commercial development.

The Community Sector Plan (2010 – 2015) has ‘climate resilience and community preparedness’ as one of its five strategies and proposes to facilitate Village Action Plans on Disaster Management and Risk Reduction. However, the sector plan does not include an assessment of hazards, or impacts on vulnerable groups.

The agriculture sector is widely regarded as a high risk sector mainly because of its vulnerability to natural disasters, and market uncertainties. The Agriculture Sector Plan (2011 -2015) includes an agricultural risk matrix. It also lists climate change as a cross-cutting theme and proposes a number of actions to mitigate the effects of hazards on crops and in-shore fishing.

The Ministry of Health has put in place a Ministry of Health and National Health Service Emergency Continuity Response Plan to articulate response mechanisms in the event of natural disasters, such as cyclones, tsunami, earthquakes, etc. The health sector plan also includes some reference to natural and health disasters.

Context & Constraints:

Capacity to undertake local risk assessments is limited in Samoa. However, capacity for conducting hazard assessments is likely to increase with the setting up of a dedicated unit in the newly expanded DMO dealing with Risk Reduction. The Community Disaster and Climate Risk Management Programme coming on stream will also boost capacity for local-level hazard and vulnerability assessments.

The need for specialised trainings on multi-hazard risk assessments has been identified as well as the need for standardised methodologies.

A number of risk assessments have been done at various times in the past, normally by technical consultants. These reports need to be collated and reviewed to determine how their findings and recommendations can best feed into on-going risk reduction initiatives.

Related Attachments:

- Inundation Modelling and Evacuation Mapping Report for Samoa (2012) [PDF - 2.89 MB]
- Integrated Flood Management, Apia, Samoa (2007) [DOC - 262.50 KB]
- SOPAC Member Countries National Capacity Assessments: Tsunami Warning and Mitigation Systems (2008) [PDF - 914.83 KB]

Priority for action 2: Core indicator 2

Systems are in place to monitor, archive and disseminate data on key hazards and vulnerabilities

Level of Progress achieved: 2

Some progress, but without systematic policy and/ or institutional commitment

Key Questions and Means of Verification

Are disaster losses and hazards systematically reported, monitored and analyzed? Yes

Disaster loss databases exist and are regularly updated	Yes
Reports generated and used in planning by finance, planning and sectoral line ministries (from the disaster databases/ information systems)	Yes
Hazards are consistently monitored across localities and territorial boundaries	Yes

Description:

Systems are in place to measure weather, seismological activity, ground and surface water quality, public health status and invasive species.

For example: an earthquake and tsunami monitoring system has been installed at the Meteorology Office with a backup system at the NEOC (USG support), a sea level station is located in Apia, and the Water Resources Division of MNRE has test boreholes for monitoring ground water resources including seawater intrusion of underground water sources. Samoa has its own weather monitoring and forecasting capabilities.

The Ministry of Health in collaboration with the WHO monitors all public health related hazards at the village level and also when there are cases reported to the hospital for medical check-ups and treatment. The Ministry of Natural Resources and Environment (MNRE) is working with the Health Sector through the National Health Services and the Ministry of Health to strengthen monitoring and to link it to the impacts of climate change using the Climate Early Warning System (CLEWS) being developed by the Meteorology Office. The same system is being implemented in the agriculture sector. The Meteorology Office is also working on developing sector specific weather and climate forecasting briefing notes for water resources and surface flooding and drought, forest fire, forestry, coastal and the tourism sector.

Context & Constraints:

A key concern relates to the absence of an active monitoring and evaluation system for measuring the impact of awareness raising and capacity building trainings to date.

There is a need to collect all data and reporting that is derived from hazard monitoring and to consolidate and store it in a central location.

A centralised system of information management under the NEOC is currently being implemented.

Priority for action 2: Core indicator 3

Early warning systems are in place for all major hazards, with outreach to communities.

Level of Progress achieved: 3

Institutional commitment attained, but achievements are neither comprehensive nor substantial

Key Questions and Means of Verification

Do risk prone communities receive timely and understandable warnings of impending hazard events? Yes

Early warnings acted on effectively	Yes

Local level preparedness	Yes
Communication systems and protocols used and applied	Yes
Active involvement of media in early warning dissemination	Yes

Description:

Early warning systems are in place, but the relative strengths of the respective system components differ, i.e. risk knowledge, monitoring and warning services, dissemination and communication, and response capabilities.

Risk knowledge: no official national assessment has been undertaken to measure levels of public awareness and preparedness. However, community early warning awareness programmes have been taking place under various initiatives for some time now, starting with television and radio awareness slots for earthquake/tsunami, fire, cyclone and flooding in 2008, national tsunami drills, and village extension work done through SIAM and 'the Village Programme' run by the DMO. While there is no hard evidence available, it is thought that the level of awareness created by these campaigns resulted in a better response to the 2009 tsunami, saving many lives in the process.

Risk knowledge continues to receive sustained attention using the Tsunami Capacity Assessment in 2008 and the experiences from the Samoan Tsunami in 2009 as catalysts. A number of tsunami awareness materials are available and are being disseminated. A tidal calendar indicating the timing and likelihood of king tides has also been produced.

Monitoring and warning services: Samoa has a well-resourced 24/7 Weather Service Office (WSO) within the Meteorology Division which conducts its own weather forecasting and is the official source of cyclone and flood warnings for Samoa. Seismological activity is monitored by the Geology and Geophysics section of the Met Division, and SOPs are in place to aid decision making. Information on adverse weather and possible tsunamis originating from further afield is also sourced from partner regional organisations such as Fiji Met Service, Australian Bureau of Meteorology, New Zealand National Institute of Water and Atmospheric Research, US National Ocean and Atmospheric Administration, and Pacific Tsunami Warning Centre.

The National Weather Section of MNRE's Meteorology Division receives PTWC messages via alarmed EMWIN, facsimile and e-mail. The Principal Disaster Management Officer receives these messages via RANET (Radio and Internet for the Communication of Hydro-Meteorological
Information for Rural Development) and e-mail.

The Meteorology Office is working on developing sector specific weather and climate forecasting briefing notes referred to as Climate Early Warning System (CLEWS).

Dissemination: Watch and Warning SMS's are sent to pre-selected representatives in the villages which includes village mayors, church ministers, school principals, hotels/motels/beach resorts representatives as well as the key personnel of the member agencies of the DAC and all members of the NDC. This list is updated monthly. Sirens,

Church and school bells (tsunami is the only hazard these bells are used for), national radio, TV and word of mouth are then used to inform the population. Current sirens are located at the Fire Services and on the airport roof. Plans are to place new sirens along the southern coast of Samoa in particular the villages that were affected during the tsunami of September 2009 including all the new Fire Stations that are being constructed in rural areas of the two main islands. Sirens are used for other hazards also but will be sounded continuously for tsunami. Marine warnings are issued by the Ports Authority via Marine Band Radio Channel as well as door knocking of vessels in harbour. A new Automated Live Emergency Response Telecommunications System (ALERT!) is currently being investigated. ALERT! is a comprehensive and integrated communication system designed to provide warning information via phone call, SMS and Cell Broadcast as well as triggering the Sirens and Broadcasts over Radio, Computer and TV channels – all linked to one central operating system.

Response capabilities: As no national survey of community preparedness has taken place it is difficult to gauge the level of response capability. National tsunami evacuation drills have taken place in the past and these drills continue to build the public's response capabilities. DMO, in partnership with New Zealand's Ministry of Civil Emergency and Defence (MCDEM) is currently working with villagers to produce tsunami evacuation maps, messages and routes. Tsunami evacuation route signage has already been erected.

Context & Constraints:

The primary method for disseminating early warning messages to the public for tsunami is through use of bulk SMS. However, the system has a number of weaknesses, one of which is delays due to network congestion. The authorities in Samoa are currently investigating the use of an alternative method called 'Cell Broadcast'. Cell Broadcast has a number of advantages over bulk SMS, namely: Immunity to network congestion; Speed of delivery; Ability to provide warnings by location; Messages come only from trusted sources; Multiple channels available for language options or specific groups. A drawback, however, is that while virtually all GSM phones have the capability to receive Cell Broadcast, they do need to have the service activated on the cell phones.

The current early warning system is not multi-hazard as it is used to disseminate tsunami warnings only. It may be more cost-effective and efficient to develop one comprehensive EWS for multiple hazards.

The SOPs currently in use require review and updating to include new developments such as the new tsunami inundation maps and colour zones, the new seismic monitoring network and the changes in status of the DMO.

There is also a need for the development of a 'threshold table' to aid decision making w.r.t. to determining the degree to which felt earthquakes are tsunamigenic. Current procedures need to be written down and properly documented and backup officials need to be identified and trained so that they know what to do in the event that the designated officials are off-island.

The role of NGOs in relation to tsunami warning, dissemination, preparedness, awareness, emergency response and recovery needs to be more clearly defined. The mechanism for doing so is the compilation of disaster management plans for each NGO.

Related Attachments:

- Collaborative Tools for Emergency Response in a National Disaster (2012) [DOCX - 3.69 MB]

Priority for action 2: Core indicator 4

National and local risk assessments take account of regional / trans boundary risks, with a view to regional cooperation on risk reduction.

Level of Progress achieved: 4

Substantial achievement attained but with recognized limitations in key aspects, such as financial resources and/ or operational capacities

Key Questions and Means of Verification

Does your country participate in regional or sub-regional actions to reduce disaster risk? Yes

Establishing and maintaining regional hazard monitoring	Yes
Regional or sub-regional risk assessment	No
Regional or sub-regional early warning	No
Establishing and implementing protocols for transboundary information sharing	Yes
Establishing and resourcing regional and sub-regional strategies and frameworks	Yes

Description:

Samoa is involved in a number of international forums and partnerships. Samoa became a member of UNESCO's Intergovernmental Oceanographic Commission(IOC) in 1978. The IOC is the United Nations body for ocean science, ocean observatories, ocean data and information exchange, and ocean services such as Tsunami warning systems. Samoa actively participates in the Southwest
Pacific Tsunami Working Group of the ICGPTWS, currently holding the position of Chair.

Samoa participates and contributes to the Regional Disaster Risk Reduction and Disaster Management Framework for Action 2005-2015 and a number of other regional frameworks, declarations and policies including: The Pacific Regional Framework on Climate Change, The Pacific Island Regional Ocean Policy, The Regional Action Plan on Sustainable Water Management, Declaration of the Pacific Health Summit for Sustainable Risk Management, The Pacific Regional Action Plan on HIV/AIDS and the Pacific Regional Framework on

Agriculture.

Samoa has seismic and volcanic research links with bodies such as the University of Colorado, Massey University, University of the South Pacific and Canterbury University. Two Samoan students are currently doing PhDs and Masters research on volcanism and paleotsunamis respectively.

United Nations and regional organisations that are based in Samoa are included on the DAC. Samoa has MoUs with both Australia (for the South Pacific Sea Level Climate Monitoring Project (SPSLCMP)/ATWS) and China (for seismic monitoring cooperation). Seismic data is also shared with the US Geological Survey for feeding into PTWS warnings.

Samoa participates in the Pacific Platform for Disaster Risk Management which provides a mechanism for exchange and sharing of experiences within the Pacific, in relation to policy and operational aspects of disaster risk reduction, disaster management and the ever important link to climate change adaptation. It comprises annual meetings of Regional Disaster Managers and also of the Pacific Disaster Risk Management Partnership Network; and biennial meetings for Pacific CEOs of Finance and Planning and of Disaster Management. A similar regional platform for climate change exists, in which Samoa also is an active member.

Other areas of cooperation on trans-boundary risk include public health, maritime, biosecurity and terrorism, for which regional strategies and monitoring mechanisms are in place.

Samoa actively participates in the World Health Organisation's Regional Committee for the Western Pacific Region which coordinates a number of public health related regional strategies.

Context & Constraints:

The main challenge here for country DRM officials is keeping track of the many regional and sub-regional strategies that are in place as well as the identity of the focal points at the regional level. Existing regional information systems – such as Pacific Disaster Net – could be used to house and disseminate this kind of information.

Another challenge is the delay sometimes experienced in communication of fast on-set hazards warnings from regional to national levels. For example, the warning from PTWC for a possible tsunami following a 7.9 earthquake along the Tonga Trench in May 2006, was issued for Samoa nine minutes after the tsunami was expected to arrive.

Section 5: Priority for action 3

Use knowledge, innovation and education to build a culture of safety and resilience at all levels

Priority for action 3: Core indicator 1

Relevant information on disasters is available and accessible at all levels, to all stakeholders (through networks, development of information sharing systems etc)

Level of Progress achieved: 3

Institutional commitment attained, but achievements are neither comprehensive nor substantial

Key Questions and Means of Verification

Is there a national disaster information system publicly available? No

Information is proactively disseminated	Yes
Established mechanisms for access / dissemination (internet, public information broadcasts - radio, TV,)	Yes
Information is provided with proactive guidance to manage disaster risk	Yes

Description:

The DMO is working on developing and populating a centralised hazard information database to be housed at the NEOC. Currently, information is held by different agencies depending on the nature of the hazard, e.g. health hazard data with Ministry of Health, agriculture hazard data with Ministry of Agriculture, seismological data with Met Division, etc. The UN Pacific Humanitarian Cluster has its own dataset.

Members of the Disaster Advisory Committee can access information from other agencies through their membership on the committee and the DAC sub-committees constitute an additional mechanism for information sharing. Each agency has a DRM focal point and the DMO sends out hazard and training information emails to them from time to time, including reports generated by risk assessments and other DRM programs and projects undertaken in Samoa.

Discussions are taking place with SPC SOPAC regarding the establishment of a centralised DRM web portal for Samoa linked to the DMO website as well as the Pacific Disaster Net regional DRM portal. A similar regional portal, with country links, is being developed for climate change by SPREP.

Context & Constraints:

It has been acknowledged that information sharing mechanisms are in need of strengthening, particularly with respect to documents archiving and dissemination. Work is underway in this regard, with the NEOC being seen as the central repository. This work will need to include an investigation into the feasibility of designing a common approach, and/or format, for all DRM reporting and datasets.

With the increase in staffing at the DMO, it may now be possible to establish and maintain additional networks for relevant information sharing to all levels, through for example, the production of a regular email and print newsletter.

An on-going challenge however is the lack of information flow from DRM focal points within their respective organisations. There is also a concern that agencies often send different people to DRM workshops and trainings, with little continuity in individual capacity building.

Priority for action 3: Core indicator 2

School curricula , education material and relevant trainings include disaster risk reduction and recovery concepts and practices.

Level of Progress achieved: 3

Institutional commitment attained, but achievements are neither comprehensive nor substantial

Key Questions and Means of Verification

Is DRR included in the national educational curriculum? Yes

Primary school curriculum	Yes
Secondary school curriculum	Yes
University curriculum	No
Professional DRR education programmes	No

Description:

A school curriculum review was completed in 2010 with a view to establishing the level of inclusion of DRM content. It was found that where disaster risk education does feature in the curriculum, most prominently in Health and Physical Studies and Social Studies, it is mostly treated as a sub?topic and rarely constitutes the main motivation for a lesson.

Decisions about the balance or nature of the school curriculum are left to the discretion of the school and its teachers. However, the teachers often take a lead or are involved in developing guides; therefore, one way of influencing the balance of the curriculum would be

to give a higher profile for disaster risk education within these teaching resources. With this in mind, the DMO, with SPC SOPAC support, developed a comprehensive Disaster Risk Modules Teacher's Resource Kit in 2009 and completed in early 2010. The guide is e-based (CD-ROM) and is supported with cross-linkages to subject areas, outcomes and unit standards, etc. The Teachers Guide contains modules on Disaster Preparedness, Tropical Cyclones, Earthquakes, Floods, Home Safety, Forest Fires, and 'In the Aftermath' and relates to 'language arts', mathematics, sciences, social studies, and fine arts. It also contains a Samoan translation of DRM terminology. Climate Change is being explored in some detail as an organizing theme for lesson plans, etc. as evidenced by it choice as the topic for a recent 'science fair' in Apia.

Other professional trainings take place on an ad hoc basis, often linked to regional training initiatives, or availability of the dedicated project funds.

SFESA leads a training programme in pre hospital medical treatment and trauma treatment.

The Asia Foundation (TAF) with the Office of Development Assistance (OFDA), have run training courses on Introduction to Disaster Management, Initial Damage Assessment, Emergency Operations Centre and Exercise Management. In collaboration with the Australian Federal Police's Pacific Police Development Programme, support was also provided for disaster management training to the Samoan Police Force and other key response personnel.

The Samoa Hotels Association did a DRM training needs analysis of all its approximately 89 members. Two tailored training modules were developed and trainings completed in May 2011 and July 2012.

Context & Constraints:

There are no mandatory requirements within the National Curriculum documents for schools to teach disaster risk education. As a result the relevance of disaster risk education in classroom contexts is open to interpretation by schools and teachers.

The school curriculum could include more topics with disaster risk education as a principal focus.

Teacher will benefit from additional training and practical advice on the delivery of disaster risk education.

The impact of the Teachers Resource Kit requires evaluation to establish the level of use. Anecdotal feedback suggests that a constraining factor is the absence of computers available for teaching at many schools, as the Resource Kit is computer based. The Teachers Resources Kit may also benefit from a module on Disaster Risk Reduction/Mitigation, as well as drought and climate change.

Every effort should be made to bring a greater strategic focus to DRM training and capacity building. Trainings are currently offered in an ad hoc manner and are often partner agenda driven. There may be a need for a comprehensive capacity and training needs assessment to be conducted across all agencies and at all levels, and for the results to feed into a comprehensive national DRM training strategy and medium-term programme. Much like the DRM NAP, such a strategically focused training plan will assist in enabling donors to align their activities with the pre-identified training needs. Attention should also be given to

establishing nationally, or regionally, recognized modules so that in-service training can contribute credits towards a higher diploma or degree. This will also allow for improved monitoring of an individual's performance, and ensure that trainings are cumulative and strategically thought-through. The Samoa Public Service Commission is key role-player in this regard, as it conducts a in-service training needs analysis on a yearly basis. Ministries are required to develop 'workforce plans' and identify actions for building capacity. MNRE has developed such a 'workforce plan' which lists the kinds of qualifications required of DRM officials. A challenge in this regard is that DRM is such a broad field requiring a mix of qualifications in fields such as engineering, environmental science, IT and communication, lifesaving, emergency services, economics, GIS/Geography and other science related subjects.

The DMO has it in its agenda to do a comprehensive training needs analysis to identify the training needs of member agencies of the Disaster Advisory Committee, something that can receive dedicated attention following the DMOs appointment of additional staff.

The Samoan government has a facility for granting bursaries for tertiary education and this facility could be targeted for increased support to DRM tertiary education.

Priority for action 3: Core indicator 3

Research methods and tools for multi-risk assessments and cost benefit analysis are developed and strenghtened.

Level of Progress achieved: 3

Institutional commitment attained, but achievements are neither comprehensive nor substantial

Key Questions and Means of Verification

Is DRR included in the national scientific applied-research agenda/budget? No

Research programmes and projects	No
Research outputs, products or studies are applied / used by public and private institutions	No
Studies on the economic costs and benefits of DRR	Yes

Description:

The 'Comprehensive Hazards and Risk Management' (CHARM) method for conducting multi-risk assessments was trialled and promoted in the early 2000's as supported by SPC SOPAC. It is no longer being actively applied following a decline in support for the approach on the part of regional support agencies.

The DRM Teachers Resource Kit is a product proudly developed in Samoa, and there is interest from other Pacific Island Countries to replicate the resource. The more recent Toolkit to facilitate Community-based DRM planning is another good example of a DRM resource being developed locally.

Cost benefit analysis is not routinely used, but it is noteworthy that the Coastal Infrastructure Management Plans (for all villages) made use of this approach to determine the most cost-effective infrastructure solutions in light of coastal erosion and flooding. Cost benefit analysis was also employed in the Vaisigano catchment flood study for Apia.

Context & Constraints:

The National University of Samoa is a national educational and scientific resource that should be playing a more active role in supporting DRM initiatives through research and in the development of research approaches and resources. Linkages between the DRM community and the NUS are at present weak and require strengthening.

According to the Samoa DRM National Action Plan – CHARM is to be adapted for Samoa, and the adapted version will be integrated into the Development Consent process as a standardised methodology for conducting multi-hazard risk assessments. Increased use of cost benefit analysis is also promoted by the NAP.

GIS capability may also require strengthening, as well as the sharing of GIS data between agencies.

Priority for action 3: Core indicator 4

Countrywide public awareness strategy exists to stimulate a culture of disaster resilience, with outreach to urban and rural communities.

Level of Progress achieved: 4

Substantial achievement attained but with recognized limitations in key aspects, such as financial resources and/ or operational capacities

Key Questions and Means of Verification

Do public education campaigns for risk-prone communities and local authorities include disaster risk? Yes

Public education campaigns for enhanced awareness of risk.	Yes
Training of local government	Yes
Disaster management (preparedness and emergency response)	Yes
Preventative risk management (risk and	Yes

vulnerability)

Guidance for risk reduction	Yes
Availability of information on DRR practices at the community level	Yes

Description:

Each year the Disaster Management Office prepares an annual programme of national public awareness activities. Each year the focus is placed on a different component of DRM.

A ‘Community Disaster Awareness Strategy’ was developed some years back and still forms an important guiding document for all agencies involved in public awareness.

The Samoan Red Cross is a key partner when it comes to creating awareness at the village level. Awareness raising at the village level has also been a central part of the DRM ‘Village Programme’ which is on-goi

Context & Constraints:

Community Awareness for preparedness is dependent on funding which is not always available.

As village programs are very expensive, DMO focuses on using the media as a means of reaching the widest possible audience in the quickest time.

Language is also another difficult and challenging area as most DRM terms are scientific and have to be carefully translated to ensure the public (all age groups) can understand. The information also needs to be available in English for non-Samoan speaking population such as tourists, and expatriates.

Section 6: Priority for action 4

Reduce the underlying risk factors

Priority for action 4: Core indicator 1

Disaster risk reduction is an integral objective of environment related policies and plans, including for land use natural resource management and adaptation to climate change.

Level of Progress achieved: 4

Substantial achievement attained but with recognized limitations in key aspects, such as financial resources and/ or operational capacities

Key Questions and Means of Verification

Is there a mechanism in place to protect and restore regulatory ecosystem services? (associated with wet lands, mangroves, forests etc) Yes

Protected areas legislation	Yes
Payment for ecosystem services (PES)	No
Integrated planning (for example coastal zone management)	Yes
Environmental impacts assessments (EIAs)	Yes
Climate change adaptation projects and programmes	Yes

Description:

There are a number of environment related policies and plans governing land use, natural resource management and adaptation to climate change in Samoa. While disaster risk reduction in not normally an 'integral objective' – there is an underlying understanding of the linkages between environmental management and quality of life. There is also a growing appreciation for the fragility and vulnerability of island ecosystems and for the need to regulate human activities.

The primary means of regulating development in Samoa is through land use planning under the Planning and Urban Management Act (2004). The PUMA Act promotes the sustainable use, development and management of natural and physical resources and introduced a system of screening for development proposals known as the 'development consent process'. All physical developments in Samoa need to apply for a development consent, and they are only given the 'go ahead' if they fulfil the requirements of the screening criteria. One of the 19 criteria provides for consideration of natural hazards such as flooding,

earthquake, cyclone, subsidence, slip, drainage and erosion. Environmental Impact Assessment Regulations were introduced in 2007.

Codes of Environmental practice (COEP) were developed in 2006 to define methods and/or procedures to be followed by consultants, designers and contractors for the avoidance or mitigation of adverse environmental effects that may arise out of infrastructure development projects or maintenance work. The COEP covers road planning, design, and construction; Land acquisition and compensation; Road construction erosion control; Slope stability; Quarry development and operations; Gravel extraction, Coastal protection, Drainage; and Earthworks, amongst others. The COEP is authorized under the Planning and Urban Management Act (2004) and their use is specified in the Terms of Reference for the design of works.

Natural resource management policies and plans are framed within overarching environmental legislation, such as the Land, Surveys and Environment Act (1989), the Forestry Management Act (2011) and the Fisheries Act (1988), National Parks and Reserves (1974), Plants Act (1984), Water Act (1965), Waste Management Act (2010), Survey Act 2010, Water Resources Management Act (2008), and the Marine Pollution Prevention Act (2008). A new Sanitation Policy came into effect in 2010, and a Code of Environmental Practice for Wastewater Treatment Systems was passed in 2012.

In general, disaster risk reduction is an integral component of Adaptation to Climate Change policies and plans. This area has received a lot of attention since the development of the National Adaptation Programme of Action (NAPA) in 2005 and the National Policy on Combating Climate Change in 2005. Other important environmental initiatives are the ‘state of the environment’ reporting, the development of the National Biodiversity Strategy (NBSAP), and the Sustainable Land Management Programme under which a National Action Plan to Combat Desertification is to be developed. A number of projects are on-going such as: Pacific Adaptation to Climate Change (PACC), Integration of Climate Change into Agriculture and Health Sectors, Samoa Community-Centred Sustainable Development, Community Based Adaptation, Integration of Climate Change Risks and Resilience into Forestry Management in Samoa, Pacific Programme for Climate Resilience, Coping with Climate Change in the Pacific Island Region, Global Climate Change Alliance Pacific Small Island States, etc.

The SLM project aims, amongst others, to review Samoa’s National Land Use Policy and develop a SLM plan for the Vaitelu River Catchment. It also has a strong focus on forest fires and droughts in rural areas. The SLM project is promoting a ‘ridge to reef’ approach to environmental management.

The PAC Project has selected some villages with CIM plans to serve as pilot demonstration sites. It is assisting with CIM plan implementation through its Climate Resilient Integrated Coastal Management approach. It is also looking at supporting communities interested in setting up village by-laws for water resource and coastal management.

Context & Constraints:

Despite the plethora of policies and plans (and projects) concerning environmental management, the achievement of the intended outcomes remains an on-going challenge. And the need for strong environmental management is becoming more pressing in light of population growth and increased human development activity.

One of the challenges is the limited understanding and public support for the development consent process. Related to this is non-compliance which takes place in the context of weak enforcement of existing laws and regulations. Capacity amongst PUMA staff is also a constraint as not all officers have the necessary academic backgrounds. In this light the development of guidelines to assist staff may be appropriate.

While the coastline and coastal areas are well 'planned' in term of the CIM plans, there is nothing similar for non-coastal areas or for non-coastal hazards such as flooding or landslides.

Priority for action 4: Core indicator 2

Social development policies and plans are being implemented to reduce the vulnerability of populations most at risk.

Level of Progress achieved: 3

Institutional commitment attained, but achievements are neither comprehensive nor substantial

Key Questions and Means of Verification

Do social safety nets exist to increase the resilience of risk prone households and communities? No

Crop and property insurance	Yes
Temporary employment guarantee schemes	No
Conditional and unconditional cash transfers	No
Micro finance (savings, loans, etc.)	Yes
Micro insurance	No

Description:

Samoa has made great strides with respect to social policies and plans in recent times, and there is increasing awareness of the need to take a more nuanced view of vulnerability, and to better target social programmes to those most in need of support.

The main advances have come at the policy level, with the development of a 'National Policy for Women of Samoa 2010 – 2015', a 'National Policy for Children of Samoa 2010-2015' and a 'National Policy for Persons with Disabilities 2011 -2016'. These policies find expression through a 'Community Sector Plan' developed in 2010. An 'implementation framework' for the sector plan is currently under development. The Sector Plan is intended 'to support better outcomes, strategy development and policy making aimed at improving the

social, environmental and economic wellbeing of villages and communities, including the most vulnerable groups in Samoan society'. The Sector Plan has five broad objectives: one of which is 'strengthening social protection and poverty alleviation programs for communities', and another one which is: 'minimising the impacts of climate change and ensuring community preparedness in the context of disaster risk reduction, disaster management and strong community resilience'.

The Ministry of Women, Community & Social Development is the ministry charged with overseeing the well-being and development of Samoa's communities. It does this through promoting social and economic activities at the community level, including skills training and the development of new livelihood opportunities. It is also active in supporting community management of the 'independent water schemes' in villages that are not connected to the main water supply. Its programmes further include public awareness raising of various social issues. Through its work with the 'women's committees' at village level, it is able to support women's needs and also identify vulnerable households requiring dedicated social support. Support may be provided through its food security programme, or through linking vulnerable households with appropriate NGOs or other avenues of support, such as the water and sanitation programmes. The MWCSD recognizes the value of monitoring and evaluation and has established this as a priority for the sector.

As in most Pacific Island Countries, one of the strengths and attractions of the traditional village system is its ability to lend strength and durability to traditional social safety nets that look after the vulnerable and those in need.

Cash transfers are available through the National Provident Fund for contributing members to assist them in rebuilding after a disaster. A number of 'disaster relief' loan schemes are available from commercial banks and the State Owned Housing Corporation at discounted interest rates. Credits can also be arranged with wholesale companies and hardware stores in Samoa.

Context & Constraints:

While the gains made in developing a more coherent strategic framework for social development issues are laudable, a lot of work remains to be done in translating the policies into meaningful application on the ground, particularly for vulnerable groups. There is currently no official definition of vulnerable groups, nor is there a programme in place for mapping their location. Social security programmes are generally absent, apart from a government funded old age pension, which is a very small contribution. There are no programmes targeted at destitute households, nor any established means of categorizing family welfare on the basis of income or hardship.

A more refined categorization of vulnerable groups (apart from the general division of women, men, children and elderly) may be required to ensure that those most at risk within these broad categories are supported. The spatial mapping of vulnerable individuals and/or households is a prerequisite to ensure that they are adequately provided for during disasters. Current donor funded programmes for water and sanitation are exploring the development of 'vulnerability criteria' so as to better target their support (water tank, septic tanks) towards those households most in need. Existing 'village profiles' would be enhanced by adding to them details and locations (maps) of vulnerable households. It is anticipated that the CDCRM project will take further the work of identifying and physically mapping vulnerable households, which are to also include those containing pregnant women.

Priority for action 4: Core indicator 3

Economic and productive sectorial policies and plans have been implemented to reduce the vulnerability of economic activities

Level of Progress achieved: 3

Institutional commitment attained, but achievements are neither comprehensive nor substantial

Key Questions and Means of Verification

Are the costs and benefits of DRR incorporated into the planning of public investment? Yes

National and sectoral public investment systems incorporating DRR.	Yes
Please provide specific examples: e.g. public infrastructure, transport and communication, economic and productive assets	Coastal Infrastructure
Investments in retrofitting infrastructures including schools and hospitals	Yes

Description:

Samoa's most important economic sectors include agriculture, forestry, fisheries and tourism. Planning in these sectors do take various risks into account and attempt to mitigate the risks through actions identified in sectoral plans. For example, agriculture focuses on the management of invasive pests through biosecurity mechanisms and also promotes sustainable agriculture to reduce the negative impact of conventional agriculture on the environment. The issue of forest fire is receiving attention through the NAPA 4 Implementation Plan which aims to strengthen the capacity of Samoa's forest fire managers and GIS planners to reduce the impact of climate change on native forests during periods of drought and long dry spells. The revised Forest Management Act (2011) emphasises risk management and empowers the Commissioner to issue fire bans. The Tourism Sector Development Plan (2009 – 2013) contains a screening of risk issues as they affect this sector and the sector is currently focussing on addressing risk issues.

In addition, all ministries and agencies are required under the Disaster and Emergencies Act to complete Disaster Response Plans, and the rate of compliance is good.

The Coastal Infrastructure Management Plans in existence for all villages focus specifically on climate-proofing infrastructure in light of coastal erosion and coastal flooding.

Schools and hospitals that are considered to pose a risk due to building age/condition and/or located in hazard zones are being rebuilt and relocated. The national hospital and the two district hospitals in Savaii are currently in the process of being relocated further inland. All the

schools in the coastal areas of villages affected during the 2009 tsunami have been relocated and rebuilt to a high structural building standard.

Context & Constraints:

A mechanism for systematically monitoring the vast number of economic and productive sectoral plans and policies aimed at reducing risk is absent. Such a monitoring system should be incorporated into the Monitoring and Information Management system being designed and implemented by the DMO. Monitoring should also focus on the degree to which sectoral plans and policies aimed at reducing risk are being effectively implemented.

Monitoring should also establish to what degree sectoral plans and policies aimed at reducing risk are adequately resourced. It may be necessary to review the budget guidelines to ensure that DRM considerations are prioritised.

The design of economic and sectoral policies and plans to reduce risk requires a sound understanding of risk management concepts by national and sectoral planners, and there may be a need to make more training available in this regard.

Priority for action 4: Core indicator 4

Planning and management of human settlements incorporate disaster risk reduction elements, including enforcement of building codes.

Level of Progress achieved: 2

Some progress, but without systematic policy and/ or institutional commitment

Key Questions and Means of Verification

Is there investment to reduce the risk of vulnerable urban settlements? Yes

Investment in drainage infrastructure in flood prone areas	Yes
Slope stabilisation in landslide prone areas	No
Training of masons on safe construction technology	Yes
Provision of safe land and housing for low income households and communities	Yes
Risk sensitive regulation in land zoning and private real estate development	No
Regulated provision of land titling	Yes

Description:

Samoa has building regulations and a National Building Code that was developed in 1992 and adopted under the Ministry of Works Act in 2002. The Building Code, which is currently under review, is overseen by a 'Building Committee' and the Director General of Works. The Act makes provision for the designation of Planning and Urban Management Schemes. Standards for roads, road reserves, drains, bridges and seawalls now fall under the Land Transport Authority Act 2007.

The Planning and Urban Management Agency (PUMA) has a key role in land use planning. Some of its key functions are to prepare plans and policies for land-use planning and development and assist in the planning process for all levels of community; regulate and assess any development in the urban and rural areas of Samoa; and strengthen the co-ordination of provision of urban infrastructure.

Currently PUMA is working on a Spatial Plan for Apia and MWIT is working on a ' Flood Drainage Plan'.

A wastewater treatment plant was built in 2009.

The Land Transport Authority (LTA) has drainage contractors to maintain and upgrade drainage systems to help mitigate flooding in the CBD and other parts of the Urban Area (see maps attached). Some works are funded by LTA itself, while others are funded under the Water Sector whereby LTA is the main implementing agent for the Drainage Sub-Sector Committee that targets flood mitigation in Samoa.

In order to reduce growing population pressure on Apia, safe land is currently being developed by the Samoa Land Corporation for low income households at Nuu, Falelauniu and Vaitele.

River bank protection is on-going in Apia urban area (Gasgase stream, Sinamoga stream, etc.) and a drainage and sanitation project is underway at Savalalo and Mulinuu. LTA is currently working on a 'Mulivai Stream Deepening' project which is an important project in terms of flood mitigation

The Coastal Infrastructure Management Strategy (CIM Strategy) is another important piece in the statutory architecture governing the planning of human settlements. The CIM Strategy was first prepared for Samoa in 2001 as part of the first Infrastructure Asset Management Programme (IAMP). The CIM Strategy strives to promote better coastal infrastructure management at a national, district and local level, on issues relating to coastal hazards, protection of the environment and promotion of sustainable coastal development all in the context of improving resilience to natural hazards. CIM Plans have been developed for all of Samoa's coastal districts.

The CIM Plans lay out a series of solutions for a range of issues, including: road and drainage networks, power supply and distribution, water supply, and emergency plans. Emphasis is also given to vulnerable groups through solutions that are specifically aimed at identifies vulnerable groups in the district / villages.

Context & Constraints:

The National Building Code review will need to ensure that climate change concerns are adequately reflected. The original code only considered the fire and flooding hazards and the review will also need to include earthquake, tsunami's and other hazards.

Ensuring compliance with the building code remains a challenge as enforcement capacity is limited.

Most land in Samoa is owned under customary title with the result that it is difficult to find suitable land for new human settlement development projects.

Priority for action 4: Core indicator 5

Disaster risk reduction measures are integrated into post disaster recovery and rehabilitation processes

Level of Progress achieved: 2

Some progress, but without systematic policy and/ or institutional commitment

Key Questions and Means of Verification

Do post-disaster programmes explicitly incorporate and budget for DRR for resilient recovery? Yes

% of recovery and reconstruction funds assigned to DRR	0
DRR capacities of local authorities for response and recovery strengthened	No
Risk assessment undertaken in pre- and post-disaster recovery and reconstruction planning	Yes
Measures taken to address gender based issues in recovery	Yes

Description:

Disaster risk reduction measures were integrated into the rehabilitation and reconstruction programme following the Samoa Tsunami in 2009. Tsunami affected villages were relocated to safe zones further inland. Modern infrastructure was installed and houses were built to a high building standard. Planning regulations were applied in laying out the new townships and schools and health facilities were climate-proofed and relocated in safe zones. New access roads were built which, amongst others, serve as evacuation routes.

Context & Constraints:

While cost is sometimes mentioned as a constraint in building back better, this does not appear to be a major factor, as donors and partners are usually forthcoming in providing financial assistance for recovery and reconstruction programmes. The Tsunami Recovery Operation cost ST51,4 million. ST41.7 million was received through donations. The Government of Samoa covered the gap of ST9,7 million through ADB and World Bank loans.

To increase understanding and capacity in this area, it may be necessary to provide training for physical and social planners on practical applications of DRR in recovery planning.

Priority for action 4: Core indicator 6

Procedures are in place to assess the disaster risk impacts of major development projects, especially infrastructure.

Level of Progress achieved: 1

Minor progress with few signs of forward action in plans or policy

Key Questions and Means of Verification

Are the impacts of disaster risk that are created by major development projects assessed? Yes

Are cost/benefits of disaster risk taken into account in the design and operation of major development projects? Yes

Impacts of disaster risk taken account in Environment Impact Assessment (EIA)	No
By national and sub-national authorities and institutions	Yes
By international development actors	Yes

Description:

The main procedure for assessing the social, environmental and economic impact of larger development projects in Samoa is the environmental assessment (EA) which falls under the environmental impact statement regulations.

The EA process is primarily a tool for assessing the potential (normally negative) impact of developments on the biophysical and social environments. While the susceptibility of the development to hazard damage, or the potential of the development to increase hazard risk is not explicitly a feature of the EA process, hazard information should nevertheless be picked up during the screening process.

The EA process is also required to consider all reasonable alternative actions, particularly those that might enhance environmental quality or avoid or reduce some or all of the adverse environmental benefits, costs, and risks. The identification of mitigation measures is therefore an integral part of the process.

Following the previous cycle HFA review, it was decided to include the Samoa Bankers Association as a member of the DAC. This was done so as to get its support for the inclusion of hazard screening as part of the criteria for big development loan approvals.

Context & Constraints:

Hazard risk information is not explicitly stated as a criterion in the EA process, which means that all risk elements associated with the development may not always be systematically evaluated. This shortcoming could easily be remedied by amending the Environmental Impact Statement regulations to include the assessment of the natural or technical hazard risk associated with a development. The EA process lends itself well to DRR in that it includes a focus on mitigation and accumulated risk. Ideally the Disaster Management Office should officially be part of the process of screening development applications. The same applies to the building permit process, as there is a need to ensure that the design of buildings and materials used to build are informed by risk assessments.

The EA process comes into operation at the level of the project. There may be a need to put in place a related procedure to screen major development proposals at the strategic or policy level. Many developed countries use the mechanism of Strategic Environmental Assessment (SEA) to evaluate environmental, social and economic impacts at this broader level. SEA's however do not normally include a focus on hazards, but the model could be amended to cater for this.

There is concern that major development projects are often politically driven, in that decisions on kinds of projects and their location is often decided by politicians, and that the EIA and development consent process is sometimes over-ridden.

Section 7: Priority for action 5

Strengthen disaster preparedness for effective response at all levels

Priority for action 5: Core indicator 1

Strong policy, technical and institutional capacities and mechanisms for disaster risk management, with a disaster risk reduction perspective are in place.

Level of Progress achieved: 4

Substantial achievement attained but with recognized limitations in key aspects, such as financial resources and/ or operational capacities

Key Questions and Means of Verification

Are there national programmes or policies for disaster preparedness, contingency planning and response? Yes

DRR incorporated in these programmes and policies	Yes
The institutional mechanisms exist for the rapid mobilisation of resources in a disaster, utilising civil society and the private sector; in addition to public sector support.	Yes

Are there national programmes or policies to make schools and health facilities safe in emergencies? Yes

Policies and programmes for school and hospital safety	Yes
Training and mock drills in school and hospitals for emergency preparedness	Yes

Are future disaster risks anticipated through scenario development and aligned preparedness planning? Yes

Potential risk scenarios are developed taking into account climate change projections	Yes
Preparedness plans are regularly updated based on future risk scenarios	Yes

Description:

Catalysed by the 2009 tsunami disaster, Samoa has invested in strengthening its policy, technical and institutional capacities for disaster risk management. The National Disaster Management Plan which has been reviewed and updated, has introduced the establishment of specialized 'sub-committees' under the Disaster Advisory Committee. It also updates response and recovery arrangements in light of the lessons learned from the tsunami. A 5-year DRM National Action Plan has also been developed which clearly articulates Samoa's priority needs with respect to the further strengthening of DRM going forward. The NAP is widely seen as the 'implementation plan' of the NDMP, and serves to improve the strategic direction of the DRM sector.

Technical capacity has been strengthened through the establishment of new premises for the National Emergency Operations Centre (NEOC) with equipment being provided with the assistance of Government of Samoa, New Zealand-based companies and the Government of Germany, who also assisted the DMO with the procurement of new computers. The recent upgrade in status of the DMO from a 'section' to a 'division' brings with it an opportunity to significantly increase staff numbers, allowing for strengthened capacity in both DRR and DM, and community-based planning. The DMO division will also be charged with some public works mitigation responsibilities, such as coastal protection in areas where there are no roads, stream bank and rivers maintenance and drainage.

The Samoa Fire and Emergency Service Agency (SFESA) in partnership with the DMO, Police, Red Cross and Digicel, has strengthened the emergency communication system making use of the mobile telephone transmission towers. Coverage is now nationwide and, apart from voice, the system is capable of transferring digital data. Samoa has large forestry areas and SFESA is charged with risk mitigation and response to forest fires. The new system has application in establishing live video monitoring sites.

In recognition of the huge demands placed on emergency personnel during a disaster response, SFESA has also been active in recruiting a cadre of emergency response volunteers to boost response capacity when needed. Volunteers are undergoing training and the initiative includes training in surf-lifesaving for water safety. SFES is in the process of building an additional three fire stations and have recently drafted a Forest Fire Mitigation Strategy. It is also building a training facility for search and rescue and fire fighting with the hope of marketing this as the Pacific hub for SARs and fire fighting training in the future.

The focus on risk reduction has been strengthened with particular attention being placed on tsunami hazard mapping, public awareness and preparedness (signage and mapping/development of evacuation routes, DRM plans); forest fire mitigation measures and mitigating the risks linked to shortages of water.

Context & Constraints:

The Disaster Management Office is in urgent need of relocation to a better positioned and more secure location. It also requires an increase in office space and resourcing in terms of vehicles, computer software (GIS, database management, etc.), satellite communications (television, phones), back up power, etc. A site for its relocation next to the NEOC is yet to be identified and it is anticipated that these needs will begin to be addressed following the DMO's recent upgrade to a 'division'.

Trainings for emergency services continue to take place on a regular basis, with a recent

week long training exercise focusing on logistics planning and implementation. A comprehensive training programme for all response agencies has yet to be developed based on a training needs analysis of all response agencies. However there are areas which have been identified in the National DRM NAP which the DMO is focusing on using the available resources. The DMO in its efforts to ensure the sustainability of skills and knowledge and the on-going delivery of these training programs are also requesting through the various international and regional training programmes the training of local trainers.

Priority for action 5: Core indicator 2

Disaster preparedness plans and contingency plans are in place at all administrative levels, and regular training drills and rehearsals are held to test and develop disaster response programmes.

Level of Progress achieved: 3

Institutional commitment attained, but achievements are neither comprehensive nor substantial

Key Questions and Means of Verification

Are the contingency plans, procedures and resources in place to deal with a major disaster? Yes

Plans and programmes are developed with gender sensitivities	Yes
Risk management/contingency plans for continued basic service delivery	Yes
Operations and communications centre	Yes
Search and rescue teams	Yes
Stockpiles of relief supplies	Yes
Shelters	Yes
Secure medical facilities	Yes
Dedicated provision for disabled and elderly in relief, shelter and emergency medical facilities	No
Businesses are a proactive partner in planning and delivery of response	Yes

Description:

The core response agencies as listed in the National Disaster Management Plan, all have Agency Business Continuity and Disaster Response Plans in place and many of the additional non-core members have similar plans. Some agencies are more proactive in testing and updating their plans than others. The DMO keeps an inventory of Agency Response Plans and presents them to the Disaster Advisory Committee for approval. Once approved they become recognized as forming part of the National Disaster Management Plan arrangements. One significant milestone is the National Emergency Telecommunication Plan which is viewed as a national response plan to address DRM arrangements and action pertaining to telecommunication breakdown.

A number of village level DRM plans are in existence although complete coverage has not yet been achieved.

The National Tsunami Plan specifies agency roles and includes SOPs for 24/7 Meteorology Division for warning dissemination.

National drills, coordinated by the DMO are held at least once a year. This includes testing of early warning systems and public evacuation. Much work has taken place with respect to strengthening preparedness for tsunami at the community level. Tsunami wave inundation modelling and zoning has been completed for the whole coast of Samoa and village tsunami mapping has been completed for 8 villages. Village tsunami mapping involves identifying landmarks to mark the tsunami hazard zones, safe zones, evacuation routes and assembly points. Village tsunami mapping will continue to be rolled out under the auspices of the CDCRM Project. Signage has also gone up around the islands and public awareness workshops are on-going. A siren alerting system is currently under procurement as well as an improved method for broadcasting warnings across multiple platforms using a new system referred to as Automated Live Emergency Response Telecommunications System (ALERT!). Work is also proceeding with regard to the construction of evacuation routes in villages where no existing road network exists.

The programme to build understanding and awareness at the community-level is set to receive a boost with the new community based DRM programmes currently coming on stream, notably the Community Disaster and Climate Risk Management project and Enhancing resilience of coastal communities of Samoa to climate change project.

Context & Constraints:

Time, human resources and funding are the main constraints. It is anticipated that the roll out of the CDCRM programme will improve preparedness and contingency planning at village level. The increase in DMO staff will help in continuing the preparedness and contingency planning programme at the national level which includes all government agencies, private sector and NGOs. The DMO plans to develop a contingency planning toolkit for response agencies, private sector (all the businesses) and the NGOs and work with the Chamber of Commerce, and SUNGO to deliver these programmes and ensure these become their regular programs.

The DMO is also planning to discuss with the Ministry of Education, Sports and Culture how to improve preparedness and contingency planning for all schools by developing a toolkit similar to that developed for the village based DRM planning.

Coordination of planning and implementation of preparedness and contingency planning programmes including reporting are all still in need of on-going strengthening.

Priority for action 5: Core indicator 3

Financial reserves and contingency mechanisms are in place to support effective response and recovery when required.

Level of Progress achieved: 3

Institutional commitment attained, but achievements are neither comprehensive nor substantial

Key Questions and Means of Verification

Are financial arrangements in place to deal with major disaster? Yes

National contingency and calamity funds	Yes
The reduction of future risk is considered in the use of calamity funds	No
Insurance and reinsurance facilities	No
Catastrophe bonds and other capital market mechanisms	No

Description:

Each year the Samoan Government ring fences 3% of its executive budget for ‘unforseen expenses’.
Section 30 of the Public Finance Management Act (2001) authorises the Minister of Finance, in the event that a national disaster is declared, to approve expenditure from this source for response and recovery purposes. Agencies are expected to make use of their own funds, or credit facilities, to support immediate response activities. Accounts will then be paid at a later date by funds allocated for response and recovery by the Minister, based on DMO and DAC submissions.

The DAC and its sub-comittees is the primary contingency mechanism to coordinate and plan response and recovery operations.

There are no contingency funds at village level, but some emergency supplies are prepositioned in containers in Apia and in some outlying villages.

The Ministry of Agriculture and Forestry promotes food security projects in villages (Talomua program), which include the planting of contingency crops for use during drought.

The Tsunami Recovery Operation cost ST51,4 million. ST41.7 million was received through donations. The Government of Samoa covered the gap of ST9,7 million through ADB and

World Bank loans.

A World Bank project entitled Pacific Catastrophe Risk Assessment and Financing Initiative (PICRAFI) is currently investigating disaster insurance options for Pacific Island Countries, including Samoa.

Context & Constraints:

Stakeholders mentioned the high cost of insurance premiums as being a deterrent. It was also suggested that interest rates should be subsidized for home loans used to rebuild homes after disasters.

There is a need to engage with insurance providers to investigate the issue of property and crops insurance. In addition, villages should be engaged on the issue of establishing 'village contingency funds' to reduce their dependence on government.

Priority for action 5: Core indicator 4

Procedures are in place to exchange relevant information during hazard events and disasters, and to undertake post-event reviews

Level of Progress achieved: 3

Institutional commitment attained, but achievements are neither comprehensive nor substantial

Key Questions and Means of Verification

Has an agreed method and procedure been adopted to assess damage, loss and needs when disasters occur? Yes

Damage and loss assessment methodologies and capacities available	Yes
Post-disaster need assessment methodologies	Yes
Post-disaster needs assessment methodologies include guidance on gender aspects	No
Identified and trained human resources	Yes

Description:

Procedures are in place. The primary mechanism for exchanging information is the Disaster Advisory Committee (and its sub-committees). Training has taken place and members are familiar with the procedures for conducting initial damage response and each key response agency has its own response plan. The National Disaster Management Plan spells out the need and procedures for post-event briefings.

The recently upgraded Emergency Communications Network provides a robust means of radio communication for use by response agencies that has country-wide coverage. It has the advantage of allowing multiple users to talk at the same time, whilst using a dedicated frequency that does not suffer from interference.

The NEOC is busy designing and implementing an Information and Data Management System which is used to record hazard event information, and can be accessed by all relevant agencies.

Context & Constraints:

Data collection is still an issue as some agencies are reluctant to provide data and information due to ‘ownership issues’. The Disaster Management Office needs to continue to engage these agencies and establish a mechanism to facilitate data and information exchange and use.

The NEOC Information Management and Reporting System needs strengthening through training, dedicated personnel support, and ongoing importation of data sets and documents. Consideration should be given to the development of a common format for data sets to facilitate interoperability and ease of use.

Related Attachments:

- Tsunami Samoa 29 September 2009. An account of the tsunami disaster, the response, its aftermath, acknowledgement and the trek to recovery. (2010) [PDF - 1.25 MB]
- Post Tsunami (Samoa September 2009 - June 2011) (2011) [PDF - 6.62 MB]

Section 8: Drivers of Progress

a) Multi-hazard integrated approach to disaster risk reduction and development

Levels of Reliance:

Partial/ some reliance: Full acknowledgement of the issue; strategy/ framework for action developed to address it; application still not fully implemented across policy and practice; complete buy in not achieved from key stakeholders.

Do studies/ reports/ atlases on multi-hazard analyses exist in the country/ for the sub region?: Yes

If yes, are these being applied to development planning/ informing policy?: Yes

Description (Please provide evidence of where, how and who):

The concept of an integrated multi-hazard approach is emphasized in Samoa's National Disaster Management Plan and therefore is a clear intended focus of government's approach to disaster risk management. However, experience to date is that hazard analyses, where they exist, tend to remain hazard specific, with little attention to the linkages between factors giving rise to vulnerability. Accumulated risk is also not explicitly dealt with. The Environmental Impact Assessment process in Samoa provides a good platform upon which multi-hazard risk assessments can be based. The EIA process is fairly comprehensive and gives attention to the issue of accumulated risks, albeit specific to environmental and social impact.

b) Gender perspectives on risk reduction and recovery adopted and institutionalized

Levels of Reliance:

No/ little reliance: no acknowledgement of the issue in policy or practice; or, there is some acknowledgement but nothing/ little done to address it

Is gender disaggregated data available and being applied to decision-making for risk reduction and recovery activities?: No

Do gender concerns inform policy and programme conceptualisation and implementation in a meaningful and appropriate way?: No

Description (Please provide evidence of where, how and who):

Gender does not currently feature strongly as an organizing principle for DRM activities in Samoa. Going forward it will be important for Samoa to begin to incorporate a greater gender focus in DRM policy, hazard and vulnerability analysis and risk reduction activities. The National Census represents a potentially useful mechanism to gather gender disaggregated data on the population and opportunities should be sought to influence the design of the next census so that information relevant to DRM is captured.

Gender issues are however gaining a stronger overall policy focus as epitomised by the 'National Policy for Women of Samoa 2010 – 2015' and promoted by the Ministry of Women, Community and Social Development.

c) Capacities for risk reduction and recovery identified and strengthened

Levels of Reliance:

Partial/ some reliance: Full acknowledgement of the issue; strategy/ framework for action developed to address it; application still not fully implemented across policy and practice; complete buy in not achieved from key stakeholders.

Do responsible designated agencies, institutions and offices at the local level have capacities for the enforcement of risk reduction regulations?: No

Are local institutions, village committees, communities, volunteers or urban resident welfare associations properly trained for response?: No

Description (Please provide evidence of where, how and who):

Samoa receives a lot of assistance from regional organizations with regard to capacity building in the field of DRM with SOPAC being its key regional partner. Other organizations that engage in capacity building initiatives include UNESCO, FAO, WHO, TAF/OFDA, etc. Capacity building, by its nature, is a long term and on-going activity. No evaluation of capacity building initiatives to date has been carried out but anecdotal evidence suggests that knowledge and capability amongst relevant agencies is increasing at the national level. Many capacity building initiatives have been ad hoc and a constraint in monitoring the efficacy of these initiatives is the absence of a DRM capacity building plan or framework. Such a framework would assist in establishing a baseline from which progress could be measured.

Being a small island country much of the capacity building and training initiatives have targeted agencies at the national level. Going forward it will be important to begin to target DRM trainings at the Community level. Trainings at this level should be outcome driven in the

sense that they result in tangible products, such as community DRM plans.

d) Human security and social equity approaches integrated into disaster risk reduction and recovery activities

Levels of Reliance:

Partial/ some reliance: Full acknowledgement of the issue; strategy/ framework for action developed to address it; application still not fully implemented across policy and practice; complete buy in not achieved from key stakeholders.

Do programmes take account of socio-environmental risks to the most vulnerable and marginalised groups?: No

Are appropriate social protection measures / safety nets that safeguard against their specific socioeconomic and political vulnerabilities being adequately implemented?: No

Description (Please provide evidence of where, how and who):

Samoa has a relatively strong social security system based on both formal government programs and informal cultural norms. In this sense the society has a strong sense of ‘caring’ for the less fortunate. However the linkages between human security and disaster risk reduction have been inadequately explored to date. Some good analytical work has been done on poverty and vulnerable groups and this should be used as a foundation to begin to exploring the linkages. An example is the UNISDR’s “Disasters and social vulnerabilities in the Asia-Pacific. Issues challenges opportunities”.

e) Engagement and partnerships with non-governmental actors; civil society, private sector, amongst others, have been fostered at all levels

Levels of Reliance:

Partial/ some reliance: Full acknowledgement of the issue; strategy/ framework for action developed to address it; application still not fully implemented across policy and practice; complete buy in not achieved from key stakeholders.

Are there identified means and sources to convey local and community experience or traditional knowledge in disaster risk reduction?: No

Description (Please provide evidence of where, how and who):

The National Disaster Management Plan emphasizes the importance of a ‘whole-of-country’ approach to DRM and this is being achieved through the broad based membership of the Disaster Advisory Committee which has 53 members. Of note is the strong participation of development partners on the DAC. Many of these development partners have offices in Apia and, as a result, tend to more often provide tailored support for DMO activities. The DAC is also noteworthy for its strong representation from the private sector. While NGOs are only represented by a sector representative on the DAC, government is proactive in partnershipping with NGOs in carrying out village-level activities. The private sector is a key partner in providing materials and consumables for relief and reconstruction operations.

Contextual Drivers of Progress

Levels of Reliance:

Significant and ongoing reliance: significant ongoing efforts to actualize commitments with coherent strategy in place; identified and engaged stakeholders.

Description (Please provide evidence of where, how and who):

Climate change is an important driver of DRM in Samoa. Climate change is a ‘hot’ topic and there is a lot of support for climate change related projects. As the DRM and climate change communities in Samoa engage in joint programming, this means that DRM is able to ‘piggyback’ on climate change implementation, with the result that climate change helps to advance the DRM agenda (and vice versa).

Section 9: Future Outlook

Future Outlook Area 1

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.

Overall Challenges:

• Lack of systematic monitoring of economic and productive sectoral plans and policies aimed at reducing risk
• Understanding of risk management concepts by national and sectoral planners
• Effective implementation of development regulations that are relevant to Disaster Risk Reduction, e.g. Environmental Impact Assessments, Development Consent process, land use planning, etc.
• Hazard risk information is not explicitly stated as a criterion in development regulations (EIA, DC, National Building Code)
• Planning for DRR for non-coastal areas or for non-coastal hazards such as flooding or landslides (CIM plans exist for coastal areas)
• An effective system for collating and sharing hazard data
• Recommendations from existing risk assessments are not systematically integrated into national and sector planning processes
• Limited attention to, or programmes for, vulnerable groups

Future Outlook Statement:

The DRM National Action Plan, the National Disaster Management Plan and the Community Sector Plan are being effectively implemented. Supporting project initiatives, such as the GiZ 'Coping with Climate Change in the Pacific Island Region' and the EU 'Global Climate Change Alliance – Pacific Small Island States' projects seek to further strengthen 'mainstreaming' of climate change and DRM at all levels of planning.

Future Outlook Area 2

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.

Overall Challenges:

• Institutional capacity to effectively manage the many large DRM and CCA projects coming on stream.
• Getting communities to take ownership.
• Institutional capacity for effectively using GIS based risk management tools
• Inter-agency coordination
• Understanding of DRM issues, particularly the newer DRR focus, amongst government agencies and community-level structures
• Rigorous monitoring and evaluation programme to measure the impact of community

based DRM programmes
• Support from MWCSD in Community level DRM programming
• Capacities of NGOs to support community level DRM programming
• Institutional capacity for conducting multi-hazard risk assessments
• Information flow from DRM focal points within their respective organisations
• Weak linkages to potential sources of technical support, e.g. University of Samoa
• Current location of the Disaster Management Office and levels of office resourcing
• Planning and implementation of preparedness and contingency programmes including reporting
• Mechanism to facilitate data and information exchange and use

Future Outlook Statement:

Increased capacity for effective disaster risk reduction planning and implementation through training and capacity building of relevant institutions such as the ‘village councils’, village DRM committees, DAC sub-committees, agency focal points as well as the successful implementation of the Community DRM Planning Tool and the Community Disaster and Climate Risk Programme.

Future Outlook Area 3

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.

Overall Challenges:

• Capacity of physical and social planners on practical applications of DRR in recovery planning.
• Cost of 'building back better’
• Capacity for conducting cost-benefit analysis
• Absence of disaster insurance mechanisms
• Knowledge of risk reduction approaches amongst line ministries
• Coordination

Future Outlook Statement:

National and community level programmes for emergency preparedness, response and recovery are strengthened including improved coordination between different levels of government.

Future Outlook Area 4

The United Nations General Assembly Resolution 66/199, requested the development of a post-2015 framework for disaster risk reduction. A first outline will be developed for the next Global Platform in 2013, and a draft should be finalized towards the end of 2014 to be ready for consideration and adoption at the World Conference on Disaster Reduction in 2015

Please identify what you would consider to be the single most important element of the post-2015 Framework on Disaster Risk Reduction (2015-2025).:

To ensure that the post-2015 framework focuses less on planning and policy and more strongly on community-level implementation. Samoa is not in favour of a single post-2015 framework for both disaster risk reduction and climate change, preferring to see harmonisation at the programming level.

Section 10: Stakeholders

Organizations, departments, and institutions that have contributed to the report

Organization	Type	Focal Point
Attorney General's Office	Gov	Sioa Sioa
Land Transport Authority	Gov	Tuisega Lui
Land Transport Authority	Gov	Rusetaneti Taaloga
Ministry of Agriculture & Fisheries	Gov	Faletoi Sunai
Ministry of Commerce, Industry and Labour	Gov	Si'ili'ili Aumua Isaia Lameko
Ministry of Commerce, Industry and Labour (Occupational Health and Safety)	Gov	Tuialii Sonny Tuilagi
Ministry of Communication & Information Technology (Policy & Planning)	Gov	Leuelu Setu
Ministry of Communication & Information Technology (Policy & Planning)	Gov	Leuelu Setu
Ministry of Finance	Gov	Oscar Malielegaoi
Ministry of Health	Gov	Gaualofa Matalavea Saaga
Ministry of Health	Gov	Victoria Faasili
Ministry of Natural Resources & Environment (Water Resources Division)	Gov	Suluimalo Amataga Penaia
Ministry of Natural Resources and Environment (Disaster Management Office)	Gov	VaitoaToclupe
Ministry of Natural Resources and Environment (Disaster Management	Gov	Toai Bartley

Office)		
Ministry of Natural Resources and Environment (Disaster Management Office)	Gov	James Mauai
Ministry of Natural Resources and Environment (Meteorology Division – Geoscience)	Gov	Lameko Talia
Ministry of Police & Prison	Gov	Tagaolo Iosefatu Wright
Ministry of Police & Prison	Gov	Lemamea Sua Tiumalu
Ministry of Prime Minister & Cabinet	Gov	MueluMeutoga
Ministry of Women, Community & Social Development	Gov	Toelupe Elisara
Ministry of Women, Community & Social Development	Gov	Leituala Kuiniselani
Ministry of Women, Community & Social Development (Division for Internal Affairs)	Gov	Tupa'i S. Posese
Ministry of Women, Community & Social Development (Division for Women and Children)	Gov	Vaiali Iosua
National Health Services (Emergency and Outpatient Services)	Gov	Dr AmitaCatterjee
Office of The Regulator	Gov	Eteuati Eteneti
Samoa Fire & Emergency Services Authority	Gov	Tipaula Laupue
Samoa National Health Service	Gov	Ana Akapo
Samoa National Health Service	Gov	Leutogi Teo
Samoa National Health Service	Gov	June Scanlan Lui
Samoa National Health Service	Gov	Leota Vaitoelau

Samoa Quality Broadcasting	Gov	Tilomai Poloie
SPREP (Biodiveristy)	Regl Inter-gov	Tepa Suaesi
SPREP (Biodiversity)	Regl Inter-gov	Easter Chu Shing-Galuvao
SPREP (Pacific Futures Program – Climate Change)	Regl Inter-gov	Neta Pelesikoti
SPREP (Pacific Futures Program – PACC Project)	Regl Inter-gov	Taito Nakalevu
Petroleum Products Supplies	Private	Tutoatasi Setu
Samoa Airport Authority	Private	Ane Salanoa
Samoa Hotel Association	Private	Florina Samia
Samoa Ports Authority	Private	Ielome Mulumulu
Samoa Shipping Corporation	Private	Mataia T. Maafi
National University of Samoa	Acad & Research	Henry Simi
National University of Samoa	Acad & Research	Mandria Sua
Adventist Development and Relief Agency	NGO	Fuatino Ah Wai
Adventist Development and Relief Agency	NGO	Virginia Pycroft
Samoa Red Cross	NGO	Isara Isara
Samoa Red Cross Society	NGO	Francisco Fido
Samoa Umbrella for NGOs (SUNGO)	NGO	Raymond C. Voigt
Samoa Umbrella for NGOs (SUNGO)	NGO	Roina Faatauvaa-Vavatau
Samoa Umbrella for NGOs (SUNGO)	NGO	Roina Faatauvaa-Vavatau
AusAID	UN & Intl	Frances Sutherland

Australian Red Cross	UN & Intl	Dawn Sua
New Zealand High Commission	UN & Intl	Christine Saaga
UNISDR	UN & Intl	AkapusiTuifagalele
United States of America Embassy	UN & Intl	Feagai Matatia-Maisa
World Health Organisation	UN & Intl	Steven Mcartney