Micronesia, Fed States of

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

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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:

National disaster risk policy and National Action Plan combining disaster risk management and climate change adaptation developed involving all States and all stakeholder inputs with adequate resourcing and active implementation of priority disaster risk management activities identified and improved coordination and collaboration between agencies.

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:

Increased capacity for effective disaster risk reduction planning through training and capacity building of relevant institutions at all administrative levels, the alignment of disaster risk management and climate change institutions, as well as the development of appropriate tools and systems for disaster risk management, and improved use of existing technical and educational agencies, such as the College of Micronesia-FSM.

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:

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

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: 3

Institutional commitment attained, but achievements are neither comprehensive nor substantial

Key Questions and Means of Verification

Is disaster risk taken into account in public investment and planning decisions? No

National development plan	No
Sector strategies and plans	Yes • FSM Environment Sector 5 Year Plan 2010 - 2015 (2008) [PDF - 3.94 MB] • FSM Agriculture Policy 2012 - 2016 (2012) [PDF - 1.44 MB]
Climate change policy and strategy	Yes
• FSM Nation Wide Climate Change Policy (2009) [PDF - 3.18 MB]	
Poverty reduction strategy papers	No
CCA/ UNDAF (Common Country Assessment/ UN Development Assistance Framework)	No
Civil defence policy, strategy and contingency planning	Yes

Have legislative and/or regulatory provisions been made for managing disaster risk? No

Description:

YAP: 3; CHUUK: 3; POHNPEI: 4; KOSRAE: 3

The Multi-State Multi-Hazard Mitigation Plan for the Federated States of Micronesia, prepared in 2005 in compliance with FEMA regulations, is the main statutory item dealing specifically with the issue of disaster risk reduction. This is a comprehensive plan with a high level of detail and contains national and state level mitigation plans for all hazards.

In 2009 a National Climate Change Policy was put in place which, amongst other things, focuses on adaptation at the national, state and community levels to reduce FSM's vulnerability to climate change adverse impacts. This is to be achieved through “requiring all development activities in FSM to take into account projected climatic changes in the design and implementation” and “to integrate climate change into other polices, strategies and (sector) action plans including disaster preparedness and mitigation”. A number of sector plans are under review at present and the new agricultural policy states that: “The competing demands on the environment and differentiated impacts of climate change must be assessed and taken into consideration when formulating strategies to address the development challenges the productive sector faces”.

Disaster risk reduction and planning are amongst the functions that are within the autonomy of the States, as accorded by the FSM Constitution and all States have Disaster Management Plans. The issue of disaster mitigation is referred to in most of the State DM plans, with actions identified in the Multi-State Multi-Hazard Mitigation Plan. Kosrae State Law No. 10-2
(2011) takes climate change and its adaptation into consideration for future development activities.

Capacity levels vary by state, with Yap State having the highest capacity and Kosrae the lowest. The respective priority accorded to DRM in the States corresponds roughly to their respective hazard profiles (Yap and Chuuk being more exposed to typhoons). Capacity at state level is determined largely by the existence of State Disaster Coordination Officers and the nature of their background, training and experience (Pohnpei does not have one at present). All four States have recently built new buildings to serve as Emergency Operations Centres (EOCs) under an EU funded regional programme administered by SPC SOPAC. A new building to serve as a National EOC is currently under construction.

Context & Constraints:

A number of constraints exist to the effective implementation of DRM arrangements in FSM. These include:
• Absence of a DRM National Policy dealing with all hazards and risk reduction
• Absence of a National Action Plan for DRM (in progress)
• Little implementation of the mitigation measures contained in the Multi-State Multi-Hazard Mitigation Plan at national and state levels
• The need for greater cooperation between national and state levels in terms of coordination of SOPs
• The need for a greater level of DRR mainstreaming into sector plans
• Limited human, resource and functional capacity at state level due in part to government austerity programmes , e.g. early retirement of skilled officials

Related Attachments:

- FSM Strategic Development Plan (2004 - 2023) (2004) [PDF - 3.17 MB]
- Millennium Development Goals & Status Report 2010 The Federated States of Micronesia (2010) [PDF - 2.91 MB]
- Multi-State Multi-Hazard Mitigation Plan for the Federated States of Micronesia (2005) [PDF - 23.77 MB]

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: 2

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

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	1	
Decentralised / sub-national budget		

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

Description:

YAP: 2; CHUUK: 3; POHNPEI: 2; KOSRAE: 2

The proportion of the executive budget allocated to the Division of Emergency Management is 1%.

Direct financial resources from government sources are limited to staffing costs and travel only. Operational costs, in the form of project activities, are received through funding from a number of international donors which are normally channeled through regional organisations such as SPC, SPREP, AudAid, USAID, etc.

The OEEM receives an Annual Emergency Management Performance Grant of about 50,000 USD from Compact funding. This is divided between National and States for operational purposes.

Current and anticipated CCA and DRM projects include: ACP-EU EDF 9 B Envelope (E1.4 million to strengthen the early warning system network through the supply of communication equipment and renovate the Emergency Operation Centres in each State, and capacity building and training); ACP-EU EDF 10 (EUR1.35 million activities to be decided); EU Global Climate Change Alliance (EUR11.4 million for nine PICs for CCA mainstreaming and adaptation activities); PACCCAP (CC Adaption in the food security sector); AusAID/IOM (AUD3 million for Climate Change Adaptation in Education (CADRE)); USAID (Disaster Mitigation, Relief and Reconstruction Program), GIZ (Coping with Climate Change in the Pacific Island Region),
South Pacific Sea Level & Climate Monitoring Project (SPSLCMP). In addition FSM is eligible for up to USD10 million from the Climate Change Adaptation Fund set up under the Kyoto Protocol.

There are also programmes of support in many of the sectors that deal with DRR, e.g. Hydrological Monitoring Project (SPC SOPAC), Pacific Integrated Water Resources and Wastewater Management (IWRM) Demonstration Project (SPC SOPAC), GEF Sustainable Land Management Project, Public Health and Biosecurity Surveillance (SPC), AusAid support to consolidate the enviro-legal framework in FSM, Micronesian Challenge activities, etc.

Context & Constraints:

Constraints with regard to the implementation of DRR activities at all levels relate to the following:
• Government funding for OEEM Emergency Management and state DCOs is normally only enough to cover salary and travel costs – there is no operational budget apart from the Emergency Management Performance Grant which does not stretch very far
• External funding is normally project driven and terminates after a few years
• External funding does not always align with existing action plans and country priorities and is not well coordinated
• Limited national and state human capacity to implement the growing number of externally funded projects
• The need to share external project funds equally between the four states sometimes serves to diminish the amount available for meaningful investments
• High staff turnover leads to loss of capacity
• States do not always consider DRR a priority
• Competition between national and state for scarce DRM resources

Related Attachments:

- 2011 JEMCO Resolutions (2011) [PDF - 342.53 KB]

Related links:

- Website of Office of Statistics, Budget and Economic Management, Overseas Development Assistance, and Compact Management

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? No

Legislation (Is there a specific legislation for local governments with a mandate for DRR?)	Yes
Regular budget allocations for DRR to local government	Yes
Estimated % of local budget allocation assigned to DRR	0

Description:

YAP: 4; CHUUK: 2; POHNPEI: 3; KOSRAE: 4

Community participation in developmental activities, including DRR, is fairly strong in FSM. A number of organisations and associations have active programmes as this level, such as church groups, women's groups, youth groups, farmer groups, etc. In addition a number of NGOs run projects at community level, such as IOM, Micronesian Red Cross, Pohnpei Conservation Society, Chuuk Conservation Society, Yap Community Action Programme, Kosrae Conservation & Safety Organisation, Island Food Community of Pohnpei, College of Micronesia, etc. The Micronesian Conservation Trust runs a small grant programme whereby financial support is offered for conservation and climate change adaptation activities at community level.

Traditional structures are considered a strength at the Community Level although more needs to be done to involve traditional leaders in DRM.

Context & Constraints:

Remoteness of Outer Island and Lagoon Communities is a constraint and these communities generally do not benefit from developmental activities and projects. As a result knowledge and awareness of issues such as climate change and disaster risk reduction is low, this despite them often being the most vulnerable to hazards.

There is little activity going on with regards to direct community mobilization for DRM, for example no one is facilitating the development of Community or Village level DRM plans or structures. Municipalities, where they exist, do not have DRM arrangements in place.

In 2010 a national government multi-agency initiative took place whereby a number of outer islands were visited and communities were engaged in Vulnerability and Adaptation Assessment Planning using participatory techniques. A summary of the results of these consultations has recently been released as part of the Second National Communication to the UNFCCC.

Priority for action 1: Core indicator 4

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

Level of Progress achieved: 2

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

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? No

Civil society members (specify absolute number)	0
National finanace and planning institutions (specify absolute number)	0
Sectoral organisations (specify absolute number)	0
Private sector (specify absolute number)	0
Science and academic institutions (specify absolute number)	0
Women's organisations participating in national platform (specify absolute number)	0

Other (please specify)	

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:

YAP: 2; CHUUK: 2; POHNPEI: 3; KOSRAE: 3

Three structures are of relevance at the national level. These are the Presidents Council on Environmental Management and Sustainable Development, or ‘SD Council’ , the FSM Climate Change Country Team, and the FSM National Disaster Task Force. These are essentially government structures that have been established to facilitate coordination across sectors. The CCCT and the DTF has provision for representation from civil society and for State representation. The SD Council has the highest level representation consisting of Department Heads and chaired by the Vice-President. The National Disaster Task Force also enjoys relatively high level government representation and, like the CCCT, is chaired by the Director of the Office for Environment and Emergency Management (OEEM). The TOR for both structures make provision for the cooption of State and non-governmental representatives on an ad hoc basis.

A DRM ‘Network’ exists amongst the Government of FSM and some of its main DRR partners. This is coordinated by IOM and currently consists of USAID, UN, Pohnpei State Government, US Embassy, Embassy of Japan, AusAID, USDA, Micronesia Red Cross Society, Island Research and Education Initiative (IREI), Micronesia Conservation Trust, Conservation Society of Pohnpei, Island Food Community of Pohnpei and Gear Up.

Context & Constraints:

None of the above structures, with the exception of the DRM ‘Network’, is particularly active and they were established more to fulfill the requirements of international conventions (in the case of the ‘SD Council’ and the NCCCT), than out of a recognized national need. Civil society representation remains weak on these structures as does State representation (apart from the NCCT). State representation is constrained by the cost and logistics of travel. This constraint could however be overcome with greater use of available technology, such as video conferencing.

A broad-based multi-agency structure for DRR does not exist at present in FSM. It is hoped that such a structure can be put in place through the upcoming JNAP DRM CCA planning process, although experience to date suggests that the active and effective functioning of these kinds of structures is not easily achieved in the Pacific.

Related Attachments:

- ToR Climate Change Country Team [DOC - 26.00 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: 3

Institutional commitment attained, but achievements are neither comprehensive nor substantial

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
• Multi-State Multi-Hazard Mitigation Plan for the Federated States of Micronesia (2005) [PDF - 23.77 MB]	
% 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)	No
Common format for risk assessment	No
Risk assessment format customised by user	No
Is future/probable risk assessed?	No
Please list the sectors that have already used disaster risk assessment as a precondition for sectoral development	-- not complete --

planning and programming.

Description:

YAP: 2; CHUUK: 3; POHNPEI: 3; KOSRAE: 2

The Multi-State Multi-Hazard Disaster Mitigation Plan contains the most comprehensive multi-hazard assessment for FSM at both national and state level. Hazards assessed included coastal erosion, rising sea level, storm surge, and tsunami; dam failure; drought; earthquake; epidemic; flood; rain-induced landslide; tropical cyclone; wildfire; and man-made hazards (hazardous materials incident and terrorism). Hazard profiles were produced together with a critical facility inventory, vulnerability and exposure of critical infrastructure to the different kinds of hazards, including commercial and residential buildings, as well as replacement costs. A similar infrastructure assessment and mapping has recently been done by SOPAC under the Pacific Catastrophe Risk Assessment and Financing Initiative (PICRAFI).

A number of other studies and assessments have been conducted in the different states (e.g. Chuuk has assessed risk associated with landslides, drought, public health, food security) and various hazard related maps are available, mostly done by the US Geological Survey. Currently, the National Oceanic and Atmospheric Administration (NOAA) undertakes typhoon hazard and risk assessments for FSM. These however, are usually response oriented rather than for the purposes of planning. United States Geological Survey (USGS) upon request may be able to carry out hazard mapping and inundation modeling for the region. SOPAC is collating hazard and risk information for most Pacific Island Countries including the FSM States, Chuuk and Pohnpei. An assessment of national capacity for tsunami warnings and mitigation was conducted by the Australian Bureau for Meteorology in 2010 and IOM has conducted contingency planning assessments of many of the outer islands.

Biosecurity and public health risks are constantly under surveillance and conservation agencies assess environmental risks related to inappropriate land use. The vulnerability of taro patches to sea water inundation is currently receiving a lot of attention, with the assistance of the College of Micronesia-FSM. Research studies are performed from time to time by visiting masters and doctoral students.

Progress and challenges with regard to the implementation of FSM's National Sustainable Development Strategy was assessed through a comprehensive study conducted in 2006. In 2005, the Asian Development Bank (ADB) carried out a climate proofing study in Pohnpei and Kosrae in relation to infrastructure development. SOPAC has collated all bathymetric data for Pohnpei. This includes data from the SOPAC swath mapping exercise and LiDAR data flown over Kolonia and Nan Madol.

Context & Constraints:

A key constraint is that the information generated through the risk assessments is rarely used to inform planning. Part of the problem is that the information is distributed in pockets across different agencies and few people seem to be aware of what is available. High turnover amongst staff also results in officials not always being aware of what is available or where to find it.

Technical skills and resources needed to conduct in-depth hazard assessments are limited in FSM. There is also limited experience and technical know-how concerning the integration of

assessment results into sector development planning.

Other constraints include: i) The spatial scale of assessments is often too small. Pilots are rarely replicated nationally, ii) An absence of enabling policy and legislation, iii) limited financial resources to conduct assessments, iv) limited capacity for GIS mapping and analysis amongst government agencies and poor use of GIS capacity that is available (e.g. at the College of Micronesia-FSM)

Related Attachments:

- Federated States of Micronesia NATIONAL ASSESSMENT REPORT Support to the Formulation of National Sustainable Development Strategy in the Pacific Small Island Developing States (2006) [DOC - 1.02 MB]
- SOPAC Member Countries National Capacity Assessments: Tsunami Warning and Mitigation Systems (2009) [PDF - 886.06 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: 3

Institutional commitment attained, but achievements are neither comprehensive nor substantial

Key Questions and Means of Verification

Are disaster losses and hazards systematically reported, monitored and analyzed? No

Disaster loss databases exist and are regularly updated	No
Reports generated and used in planning by finance, planning and sectoral line ministries (from the disaster databases/ information systems)	No
Hazards are consistently monitored across localities and territorial boundaries	No

Description:

YAP: 2; CHUUK: 2; POHNPEI: 3; KOSRAE: 3

Some systems are in place. These include a monitoring system for water quality which is carried out by the Environmental Protection Agency (EPA) in each State (in Kosrae it is called the Kosrae Island Resource Management Authority). These agencies receive technical and financial support from the US EPA. The current status of water sources is prominently displayed in public places. This includes both drinking water and sea water quality.

Monitoring systems are in place in the field of weather and climate monitoring, biosecurity and public health. There are sea level measuring gauges at Pohpei and Yap and an Australian SEAFRAME site in Pohnpei. The SEAFRAME site captures high quality, accurate data on sea level, temperature (water and air), barometric pressure and wind speed and direction. Associated CGPS (Continuous GPS) stations have also been established to account for tectonic movement. The PACC project has recently installed a tide gauge, rainfall and solar radiation monitoring equipment in Kosrae.

Non Communicable Diseases are currently of major concern in FSM and are being monitored by the Department of Health and Social Services. Monitoring of coral reefs and water quality associated with sediment run-off caused by erosion due to land-based activities is taking place (Pohnpei Conservation Society).

Through the Pacific HYCOS Project (2007 – 2010) hydrological monitoring equipment was installed in pilot basins and aquifers and on the ground capacity building took place.

Context & Constraints:

While systems are in place with respect to the monitoring of critical risks, such as water quality, weather patterns, sea level, etc., challenges exist with respect to interpretation, archiving and dissemination.

Interpretation: This relates to the data being collected from the SEAFRAME and other tide gauges and weather monitoring stations, as well as the hydrological data from the monitoring of rivers and aquifers. Most of this data feeds directly into regional databases for analysis by US or regional technical organisations. There is a limited research skill base in FSM to support analysis of hazards and preparedness at a technical level in country.

Archiving: hazard data is rarely archived in a systematic manner and it is also spread between agencies

Dissemination: The results of water quality testing is disseminated to the public at large on the four main islands, but no testing takes place on the outer islands. Apart from this little active dissemination of hazard monitoring data takes place. Data derived from on-going monitoring – primarily by US and regional agencies – is disseminated when necessary through Early Warning Updates and Warnings.

With regard to the newly installed hydrological monitoring equipment, meaningful analysis is constrained by limitations in the quality and length of the data record.

There are currently no active researchers or research organisations looking at seismology or

tsunami science in FSM. An assessment of national capacity for tsunami warnings and mitigation conducted by the Australian Bureau for Meteorology in 2010 recommended that FSM explore opportunities through international and regional organisations to build capacity and/or provide expertise in addressing tsunami risk and vulnerability issues.

Related links:

- Pohnpei Environmental Protection Agency

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. There are ad hoc awareness programmes run from time to time, but it is rare that national coverage is achieved. Communities on the outer islands, often most at risk, do mostly not form part of these programmes as a result of their isolation. Agencies active in this area of awareness raising include: State Disaster Coordinators, IOM, Red Cross and the Women's Advisory Council. In 2010 a multi-agency task force visited a number of the outer islands to conduct Vulnerability and Adaptation

Assessments, which would have had the secondary benefit of increasing risk knowledge at the local level. There are no local level programs to educate and prepare communities for tsunami. It has to be assumed that local risk knowledge will be derived from direct past experience of hazards, such as typhoons, rain-induced landslides, drought and king tides.

Monitoring and warning services: all States in FSM have well-functioning 24/7 Weather Service Offices (WSO) which are the primary conduits for regionally generated weather related forecasts, alerts and warnings. These offices are part of the US Weather Service under the US National Oceanographic and Atmospheric Administration (NOAA), this support coming under the Compact Agreement. Warnings for adverse weather come from the National Weather Service and tsunami warnings originate from the Pacific Tsunami Warning Centre in Hawaii. The warnings supplied by the NWS include floods, strong winds, heat waves, typhoons, king tides and tsunamis. Flood warnings infer warnings for potential secondary impacts such as landslides and dam bursts. Heat waves infer warnings for high wild fire risk. NOAA also provides seasonal and long term forecasts, often associated with El Nino and La Nina cycles, for typhoon activity and drought risk.
The monitoring component and warning component is likely to be the strongest element of the EWS.

Dissemination: State Disaster Coordination Officers are responsible for the dissemination of early warnings, once information has been received from the Weather Service Offices. In the major population centres, the following methods have been employed to disseminate warnings for fast on-set hazards:
• Pohnpei: Police/Fire sirens and Public Address System (PA). The local media on FM and AM frequencies
• Yap: Police cars with PA/siren systems and State-owened FM and AM radio station.
• Chuuk: Police cars with PA/siren systems and State-owened FM and AM radio station.
• Kosrae: Police cars with PA/siren systems and State-owened FM and AM radio station.
These methods are outlined in each State's response plan and are used in an all-hazard warnings context.

The WSO's issue marine forecast and warning to mariners and coastal zone users.

Most of the 50 Outer Islands and Atolls of the FSM are equipped with HF radios.

The early warning radio communication network is currently being upgraded as part of the ACP-EU EDF 9 B envelope programme which has recently completed the construction of new EOC buildings in each State. Government is currently reviewing its equipment needs for early
warning communications.

Response capabilities: As no national survey of community preparedness has taken place it is difficult to gauge the level of response capability. For tsunami, there is no signage being deployed and no established evacuation routes. Kosrae have tested their tsunami response plan through an exercise involving the community. Lead time was recorded at approximately 2-3 hours for the community to evacuate the main population areas. However growing attention is being paid to building community awareness and response capacity through the increasing number of climate change adaptation projects currently underway. This includes building response capability for the two most serious threats for the outer islands, water shortages, and food security.

Context & Constraints:

Some of challenges with regard to early warning systems relate to difficulties of communication with the more isolated outer islands, the lack of tsunami specific hazard plans, the lack of written SOPs for issuing coastal and marine tsunami warnings.

Some recommendations from the National Assessment for Tsunami Warning (2010) included i) that the potential use of the 'Chatty Beetle' or the RICS as a backup to EMWIN and FSMTC circuits to receive emergency warnings at the three critical WSO portals and at the Kosrae DCO, ii) Establishment of a 24/7 early warning communications link to the remote Outer Islands from the DCO's. 'Chatty Bettle' (or RICS) earth stations at each of the Outer Island community centres, controlling systems from each State's DCO, iii) Maintenance and upgrade the main islands VHF two-way radio network, and iv) repair/upgrade and maintain the AM broadcast stations in all States.

The role of NGOs in relation to tsunami warning, dissemination, preparedness, awareness, emergency response and recovery needs to be more clearly defined.

There is a need to develop community education and awareness programs about tsunami, targeting 'at risk' communities including the Outer Islands and coastal communities.

Related Attachments:

- SOPAC Member Countries National Capacity Assessments: Tsunami Warning and Mitigation Systems FEDERATED STATES OF MICRONESIA (2009) [PDF - 886.06 KB]

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: 2

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

Key Questions and Means of Verification

Does your country participate in regional or sub-regional actions to reduce disaster risk? -- not complete --

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	No

Description:

YAP: 3; CHUUK: 2; POHNPEI: 2; KOSRAE: n/a

FSM has strong linkages with international agencies and donors to assist in DRM, including technical assistance and emergency response. These include IOM, USAID, FEMA, SOPAC, SPREP, PIF, JMASEC, PTWC, CTBTO, IFRC, UNDP, International missions and aid agencies and various US agencies.

The Department of Health and Social Services works closely with the WHO to monitor H1N1 (Influenza), SARS and Dengue Fever. The Departments of Agriculture and Health monitor incoming cargo (air and sea) for items that may constitute transboundary risks. The Department of Agriculture works with FAO on regional agricultural risks. The Office of Environmental and Emergency Management works closely with regional organizations such as SPREP on climate change risks.

There are sea level measuring gauges at Pohpei and Yap and an Australian SEAFRAME site in Pohnpei. The SEAFRAME site captures high quality, accurate data on sea level, temperature (water and air), barometric pressure and wind speed and direction. Associated CGPS (Continuous GPS) stations have also been established to account for tectonic movement. The PACC project has recently installed a tide gauge, rainfall and solar radiation monitoring equipment in Kosrae. The data from these monitoring sites feeds into regional databases maintained by regional and/or US agencies.

There is strong cooperation with the US government concerning aviation security and terrorism, with inter-island flights being subjected to stringent on-board security checks.

Regional cooperation on risk reduction is facilitated through mechanisms such as the Pacific Platform for DRM which involves, inter alia, an annual meeting of NDMO Managers across the region. FSM also regularly participates in exercises with the US Joint Task Force for Homeland Defense.

Context & Constraints:

FSM relies heavily on regional technical agencies for transboundary hazard information and logistical assistance to boost its operational capacity during transboundary emergencies. Its level of participation is fairly low, in that it provides the sites for monitoring equipment, but does not itself participate actively in equipment maintenance, data collection or analysis, due to limited on-island scientific capacity and systems.

Related Attachments:

- Micronesia Challenge 5 Year Progress Report (2010) [PDF - 317.35 KB]

Related links:

- JOINT FAO/WHO FOOD STANDARDS PROGRAMME
- SPREP FSM
- National Weather Service. Pacific Regional Headquarters
- FSM Participates in CDC Risk Communication Workshop for Pandemic Influenza

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	No
Established mechanisms for access / dissemination (internet, public information broadcasts - radio, TV,)	Yes
Information is provided with proactive guidance to manage disaster risk	No

Description:

YAP: 3; CHUUK: 2; POHNPEI: 3; KOSRAE: 3

While a fair amount of information on disasters and hazard risk exists for the four States in FSM (see assessments and monitoring above), there are few networks, portals or information sharing mechanisms and as a result this information is not easily accessible to state government and civil society stakeholders.

National government benefits from its participation in the DRM Network that has been established with its main DRM partners. The network is coordinated by IOM and currently consists of USAID, UN, Pohnpei State Government, US Embassy, Embassy of Japan, AusAID, USDA, Micronesia Red Cross Society, Island Research and Education Initiative (IREI), Micronesia Conservation Trust, Conservation Society of Pohnpei, Island Food Community of Pohnpei and Gear Up.

Context & Constraints:

Mechanisms for wide-spread dissemination of disaster information are limited. Normally a key mechanism for the sharing of disaster information would be a central website maintained by the national DMO, but OEEM does not yet have one in place.

It is recommended that OEEM establish and actively maintain its own website, with links to regional platforms such as Pacific Disaster Net.

Reports and studies concerning disasters are normally in the domain of relevant public sector officials only and are not available for general consumption. Attention should be directed at strengthening the coordination and dissemination of the outcomes of cross-agency drills and exercises, as well as actual emergency responses.

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: 2

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

Key Questions and Means of Verification

Is DRR included in the national educational curriculum? No

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

Description:

YAP: 2; CHUUK:3; POHNPEI: 2; KOSRAE: 1

DRM or Climate Change does not yet feature strongly in the school curriculum in FSM. To address this situation, IOM is currently involved in the development of curriculum materials in partnership with a government curriculum development task team, and is about to embark on a new three year initiative to train teachers on DRM and CCA, this being a central component of an AusAID funded A$3million initiative entitled Climate Change Adaptation & Disaster Risk Management in Education (CADRE) to be shared between FSM and the RMI. The IOM initiative began with a 6 month pilot in Pohnpei funded by USAID and implemented in partnership with local NGO Gear Up and relevant national and state government departments. The pilot targeted 20 schools, as well as surrounding communities.

The pilot included a number of education activities including: lesson plans (using the 5E model), instructional posters, motivational posters and coloring book.

IOM has also produced a number of comic books dealing with the themes of CCA and DRM, translated into local languages and using Micronesian characters.

Training opportunities for government officials abound and are normally hosted off-shore by regional or US training providers. FEMA and NOAA continue to offer regular trainings for DRM and weather officials.

WFO Guam runs training programs for officials involved in tsunami warning and response. TAF/OFDA provides training to agencies with a role to play in DRM from time to time.

Context & Constraints:

Consideration needs to be given to conducting a training needs analysis and developing a national training framework. A training database would also be beneficial. This is an identified need in-country.

Training of emergency management staff regarding short lead time events like tsunami is required.

Remote island communities require training to be ‘primary responders’ (for example, island leaders) to disasters before help arrives. This should include maintenance and use of communications equipment.

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: 2

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

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	No

Description:

YAP: 3; CHUUK: 1; POHNPEI: 3; KOSRAE: 2

Multi-risk assessments and cost benefit analyses are rarely done in FSM. This limits the scope for developing relevant research methods and tools. An exception perhaps is the 'vulnerability and adaptation assessment' methodology, which was piloted during the 2010 inter-agency research missions to the outer islands. However the outcomes of the research were not written up in a systematic way, nor was the research methodology used subjected to thorough evaluation.

The Climate Change Tool Kit developed by the Micronesian Conservation Trust and The Nature Conservancy offers a standardized methodology for addressing vulnerability and adaptation participatory assessment research and planning and has been used with some success.

IOM has developed a standardized template for collection of data relevant for contingency planning (logistical).

The risk assessments that do take place tend to focus on specific sectoral risks, and are often project driven, e.g. food and water security on the outer islands is currently a big concern that is receiving much attention, e.g. through the PACCAP project. Other areas of concern where risk assessments have taken place include agro-forestry, mangrove management, coastal erosion, coral bleaching and in-shore sedimentation. The 'ridge to reef' approach to environmental management and research is perhaps a novel approach to risk research that has arisen in recent years and is promoted by many conservation groups.

Context & Constraints:

Multi-risk assessments and cost benefit analysis are not considered a priority by most government agencies who tend to focus their energies on their core functions. Risk is not routinely integrated into planning and decision making processes.

Related Attachments:

- Adapting to a Changing Climate. Micronesian Conservation Trust [PDF - 16.08 MB]

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: 2

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

Key Questions and Means of Verification

Do public education campaigns for risk-prone communities and local authorities include disaster risk? No

Public education campaigns for enhanced awareness of risk.	No
Training of local government	No
Disaster management (preparedness and emergency response)	Yes
Preventative risk management (risk and vulnerability)	No
Guidance for risk reduction	Yes
Availability of information on DRR practices at the community level	Yes

Description:

YAP: 3; CHUUK: 3; POHNPEI: 2; KOSRAE: 1

There is no coordinated country wide public awareness strategy on DRM and CC. States are responsible for conducting their own public awareness programmes, but these tend to be sectorally implemented and ad hoc depending on the resources available at any one time. Government funding allocations do not normally allow for the costs of public awareness campaigns, so these are opportunistically funded from project funds, whenever externally funded projects arise.

No official National assessment has been undertaken to measure levels of public awareness and preparedness, but IOM has developed a questionnaire which it will be administering through its volunteers countrywide as part of the CADRE Education programme.

FSM participated in the ISDR-promoted International Day for Disaster Reduction in 2011 for the first time. The event, which was well publicized and attended, was coordinated by the partner agencies forming the DRM Network, and financially supported by IOM and SPC. Booths were set up for each partner agency to display their public awareness materials,

schools were invited, and more than 160 school children participated in a screening of a disaster preparedness video and demonstration. The Department of Public Safety staged a demonstration of their emergency response activities. The day provided much exposure for DRM and CCA, albeit focused on Pohnpei. Building on the positive impact, the acknowledgement of International Day for Disaster Reduction is likely to become an annual event in FSM.

IOM is active in public awareness for DRM and initiatives to date include: Hazard specific comic books, Instructional posters, Motivational posters, Stickers, Telecards (600,000 telecards with hazard information were distributed to the four states), and a Radio program on Paradise Radio.

IOM also led an inter-agency survey on tsunami awareness following the recent events in Japan. The survey collected information from almost 300 respondents and the results indicated a low level of tsunami awareness amongst the public.

Apart from working directly with schools, the new A$3 million 3 year CADRE programme will also have a strong public education focus as well as disseminating information on key hazards and vulnerabilities to 50 schools and communities across the FSM and RMI.

Context & Constraints:

Community Awareness for preparedness is dependent on funding which is not always available. Where funding is available it is normally project life cycle dependent. Projects tend to operate in isolation which leads to coordination problems. There is no national plan for public awareness/communication concerning DRR and CCA issues.

Access to remote outer islands is logistically difficult and costly.

A cost effective way of strengthening public awareness programmes for DRM would be to enter into partnerships with church and community-based organisations who are already involved in education for development.

Related Attachments:

- International Disaster Reduction Day. “Making communities Resilient: My community is getting ready.” (2011) [DOC - 72.50 KB]

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: 3

Institutional commitment attained, but achievements are neither comprehensive nor substantial

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
• Pacific Adaptation Strategy Assistance Program [PDF - 700.38 KB]	

Description:

YAP: 4; CHUUK: 2; POHNPEI: 3; KOSRAE: 4

A number of systems are in place to regulate development and promote sound environmental management in FSM. Foremost amongst these are the Environmental Protection Agencies that operate at State level and that administer a number of Environmental Regulations, including EIA Regulations, Water Quality Regulations, Solid Waste Regulations and Sewerage Disposal Regulations, to name a few of the those directly relevant to risk reduction. The EPAs are relatively well staffed (Pohnpei has 22 staff) and are supported primarily under the Environment Sector Grants under the Compact of Free Association, with additional supports from US Rural Development. The EPAs fall under EPA Boards whose primary function is to monitor development projects proposed through the Agency's development project permitting process. The board also has the authority to cease

development projects not complying with Permit Conditions.

Membership of the Micronesian Challenge and the presence of a number of international, national, and state conservation NGOs in FSM adds impetus to conservation initiatives in the country with a number of protected areas having been established. These include Epinup Community Mangrove Forest and Marine Protected Area in Chuuk, Yela Forest Reserve in Kosrae, Nimpal Conservation Area in Yap and Ant Atoll Biosphere Reserve in Pohnpei.

At National level there is the 5 year Environmental Sector Plan which contains a breakdown of priority actions for each State, and guides the allocation of the Environmental Sector Grant from the Compact funding. FSM has a National Biodiversity Strategic Action Plan (NBSAP) with each State having its own BSAP. Environmental monitoring is strengthened through national reporting to the Convention on Biological Diversity, with the fourth national report having recently been completed.

Under the US Forest Service, State-Wide Assessments and Resource Strategies (SWARS) were carried out for each state in 2010. SWARS are a tool for islands to identify their highest priorities for forest resource management and seek implementation of their strategies, with on-island partners and with assistance from the United States Department of Agriculture (USDA) Forest Service (FS). They include a focus on cross-cutting issues such as food security, watersheds, production and sustainable harvesting and coastal stabilization.

Korae State in the only state to have a Land Use Plan. Originally adopted in 1993, it was revised and updated in 2003. The plan identifies ‘Areas of Special Concern’ and proposes a number of Management Strategies to cover Forests (Mangroves, Freshwater Wetlands, Upland, and Watershed Components), the Shoreline and Reef (Ocean Waters and Trochus Sanctuary Components), Waste Management, the Utwe-Walung Marine Park, and Cultural and Historic Site Preservation.

FSM also undertook a GEF funded Sustainable Land Management Project from 2008 – 2011. The project objectives were: “to enhance and develop the individual, institutional, and systemic capacity for Sustainable Land Management (SLM), to mainstream SLM considerations into national development strategies and policies, to improve the quality of project design and implementation in the development arena, to develop a National Action Plan for SLM, as well as a medium term investment plan, while ensuring that all relevant stakeholder views are reflected and integrated into the process.”

With respect to Climate Change, there has been a marked increase in related activities in recent years, as documented in the Second National Communication to the UNFCCC recently completed. Current initiatives include the Pacific Australia Climate Change Science and Adaptation Programme (focusing on food security), the Global Climate Change Alliance: Pacific Small Island States, and the GIZ
Coping with Climate Change in the Pacific Island Region Project. The latter includes activities directed at: Incorporating CC into insurance and financial institutions lending processes; Training Program “on-the-job” for the infrastructure sector public servants to Incorporate CC into state development policies/action plans to align them with national policies; Centralising GIS; Yap: Documentation of traditional and local marine and agroforestry knowledge and management practices; Promoting mangroves and climate resilience in Chuuk; Expansion of coastal fisheries community based ecosystem approach to other states; and Coastal rehabilitation support to Kosrae State.

Context & Constraints:

Despite the plethora of environmental policies, legislation and plans, environmental regulators as well the presence of several conservation NGOs, unsustainable development practices continue in FSM. While EIAs do take place, projects are often approved despite having negative environmental impacts. The imperative for economic growth continues to override the imperative for environmental protection. This is particularly evident in the large number of dredging operations taking place for aggregate as well as the rebuilding of airstrips which contribute to erosion.

It appears that the mindset is slow in changing with decision makers often being taking a narrow project view, rather than evaluating projects as part of the bigger picture of accumulated risk. Lending criteria from the Asian Development Bank and USDA Rural Development do still not include screening criteria for climate change risks.

A Land Use and Zoning Master Plan (including building code) was developed for Pohnpei State in 1996, but was never implemented.

Additional constraints include: limited financial resources and inadequate staffing prevent the strong enforcement of environmental regulations. Many of the policies lack the required legislation to facilitate enforcement and/or, where legislation does exist, technical and legal capacity of officials to enforce environmental regulations is limited. Being a small island community, personal relations and an unwillingness to seek confrontation, may also play a role.

Disaster risk reduction is not explicitly incorporated into older environmental policies. Newer policies such as the SLM policy do draw out the linkages with DRR, or in the case of the Energy Policy, with climate change.

Related Attachments:

- Newsletter: Pacific Adaptation to Climate Change Kosrae State, Federated States of Micronesia (2012) [PDF - 360.39 KB]
- Federated States of Micronesia State-Wide Assessment and Resource Strategy 2010 – 2015 + (2010) [PDF - 10.09 MB]
- Pohnpei State Land Use and Zoning Master Plan (1996) [PDF - 286.26 KB]
- The Kosrae Land Use Plan (2003) [DOC - 35.50 KB]

Related links:

- Chuuk State Environmental Protection Act
- Yap State Environmental Protection Agency
- POHNPEI OFFICE OF ENVIRONMENT AND PROTECTION AGENCY

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: 2

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

Key Questions and Means of Verification

Do social safety nets exist to increase the resilience of risk prone households and communities? Yes

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

Description:

YAP: 3; CHUUK: 2; POHNPEI: 4; KOSRAE: 2

Significant social trends in FSM relate to i) the high and growing levels of households living in poverty (amongst the highest in the Pacific region), ii) the growing inequality in income distribution (the poorest fifth receive just 3.6% of the total income, while the richest fifth receive 55.5%), and iii) a population structure increasingly over represented by children (the median age is 19 years).

Social security policies and plans are in place with grants being paid to the elderly, the disabled and surviving spouses and children. There is a National Policy on Disability (2009), and a National Youth Policy 2004-2010. Approximately 1 in 10 people in FSM suffer from some form of disability and available programs and services for disabled persons are currently very limited. An NGO called the Disabled People's Organisation is actively involved in advocacy concerning the well-being of disabled people.

Extended family networks continue to constitute the main safety net for destitute households, also in times of disaster. 11 percent of the population receives cash remittances valued at $7.7 million annually (Census, 2010). There is much variability with regard to the distribution of households receiving remittances with Pohnpei receiving a greatest share of the total remittance (38.9 percent), and Yap the lowest (3.1 percent).

It is noticeable that some outer island communities rely heavily on remittances for their

economic survival, whilst others are more actively involved in productive activities, such as agriculture and fishing. It follows that those relying solely on remittances will be less impacted by the hazards associated with climate change, e.g. sea level rise, coral bleaching, changing currents and fish patterns, and damage to crops. Their risk relates more to economic risk in the sense that the value and consistency of remittances stands to be impacted by global economic forces.

Pohnpei Island Food Community is working with local communities on food security programs using churches, youth, women and schools as channels. Aramas Kapw program (Micronesia Bound) is a youth program targeting youth at risk. Gender issues are also beginning to receive more attention with the establishment of a National Commission on the Status of Women in 2010. Up until recently the official age at which a girl could legally get married was 13 years.

Context & Constraints:

While poverty levels are high in FSM, there is are as yet no special provisions for vulnerable groups in DRR and CCA policy and planning. Community Based Organisations and church groups are normally those most active in addressing the needs of vulnerable groups and their inputs are needed to inform DRR and CCA policy development in this regard.

Special provisions for vulnerable groups also need to be explicitly incorporated into agency and state DRM plans, including early warning and evacuation systems.

Mapping of households with people with special needs is required following consensus on the definitions of ‘vulnerable groups’ to be used for DRM purposes.

There are indications that changes in FSM society, together with increasing government financial austerity, is leading to an increase in people “experiencing hardship”. This situation requires on-going monitoring with targeted anti-poverty policies to strengthen existing safety nets.

In the longer term, the issue of landlessness and nomadism as a result of low-lying communities losing land to sea level rise, is likely to become a social issue of concern.

Related Attachments:

- FEDERATED STATES OF MICRONESIA Analysis of the 2005 Household Income And Expenditure Survey (2008) [PDF - 623.08 KB]
- Household Income and Expenditure Survey Analysis Report (2005) [PDF - 2.85 MB]

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: 2

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

Key Questions and Means of Verification

Are the costs and benefits of DRR incorporated into the planning of public investment? No

National and sectoral public investment systems incorporating DRR.	No
Please provide specific examples: e.g. public infrastructure, transport and communication, economic and productive assets	
Investments in retrofitting infrastructures including schools and hospitals	No

Description:

YAP: 3; CHUUK: 1; POHNPEI: 2; KOSRAE: 2

Several sectoral plans and policies are currently under review following the passing of the National Climate Change Policy which seeks, amongst others, to integrate CCA adaptation activities into sectoral operations and plans. Two revised sector policies that now contain CCA considerations include the Agriculture Policy and the National Energy Policy.

FSM's main source of revenue, apart from Compact funding, is fisheries licenses. The industry receives a lot of attention as a result of the location of the Western and Central Pacific Fisheries Commission in Pohnpei, with programmes for vessel monitoring, and various conservation and fisheries management programmes in place.

There is generally high awareness of FSM's economic dependence on its high quality natural environment (terrestrial and marine) and environmental safeguards are relatively well-established.

The energy sector is beginning to explore the increased use of renewable technologies and invasive alien species are being monitored and eradicated.

Context & Constraints:

Dredging of aggregate to feed the growing demand of infrastructure development continues to take place intensively, potentially undermining coastal storm defenses.

Related Attachments:

- FSM Agriculture Policy 2012 - 2016 (2012) [PDF - 1.44 MB]
- FSM Energy Policy Summary (2010) [PDF - 941.22 KB]

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? No

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	No
Risk sensitive regulation in land zoning and private real estate development	No
Regulated provision of land titling	Yes

Description:

YAP: 4; CHUUK: 1; POHNPEI: 1; KOSRAE: 2

Although capacities vary by state, in general human settlements are poorly managed in FSM. Land use planning is not rigorously applied and building codes, where they exist, are not

actively enforced. A permitting process is however in place to regulate development applications, although this does not include issues such as proximity to the coastline, or building standards. The building permitting process also seems to be unevenly applied, with some residential structures continuing to be built in landslide prone areas.

Yap State is however leading the way as it has drafted a State building code as well as land zoning plans to guide the work of construction projects. Yap State is also currently working on three relocation and resettlement plans in preparation of climate change induced migration.

Context & Constraints:

The absence of land use zoning and building codes in most States has, in some cases, seen inappropriate and unsafe developments being placed next to each other. Examples include fuel depots alongside resorts, or next to vulnerable coastlines and the airports of three States are located in close proximity to the coastline. In some areas, fire hydrants and power lines have become inaccessible as a result of unplanned, urban sprawl.

Apart from in Yap State, little attention has been paid to the issue of resettlement contingency planning for atoll island communities that may require relocation as a result of climate change. Relocation of communities due to climatic disasters is not unprecedented in FSM - Sapwohn Village on Sokehs was established after Pingilap, an outer island of Pohnpei, was devastated by a typhoon in 1905.

Related Attachments:

- The Kosrae Land Use Plan (2003) [DOC - 35.50 KB]
- Pohnpei State Land Use and Zoning Master Plan (1996) [PDF - 286.26 KB]

Priority for action 4: Core indicator 5

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

Level of Progress achieved: 3

Institutional commitment attained, but achievements are neither comprehensive nor substantial

Key Questions and Means of Verification

Do post-disaster programmes explicitly incorporate and budget for DRR for resilient recovery? No

% 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	No
Measures taken to address gender based issues in recovery	No

Description:

YAP: 3; CHUUK: 2; POHNPEI: 4; KOSRAE: 2

Under the Compact Agreement, USAID provides financial assistance to FSM for post-disaster recovery and rehabilitation operations. It is a requirement under the USAID programme that any new houses built as part of the recovery and rehabilitation, be built according to stringent cyclone standards and that rebuilding of infrastructure is similarly climate-proofed. IOM has established strong capacity in contingency planning for recovery and reconstruction and has adapted the standard housing design required by USAID to a design that is more suited to local conditions.

Context & Constraints:

Systems for systematic multi-agency coordinated post-disaster damage assessments appear to be weakly developed in FSM. Without this baseline information it is difficult to develop appropriate recovery and rehabilitation programmes that are designed to reduce the risks going forward, by preventing the same conditions of vulnerability to repeat themselves. Building back better also requires a solid platform of consultation with the affected communities, to better understand their livelihood systems and how their resilience can best be strengthened.

Related Attachments:

- FEDERATED STATES OF MICRONESIA: Preliminary Damage Assessment (PDA) High Tide Event, December 7-12, 2008 (2008) [PDF - 138.63 KB]

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: 3

Institutional commitment attained, but achievements are neither comprehensive nor substantial

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? No

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:

YAP: 3; CHUUK: 2; POHNPEI: 3; KOSRAE: 3

The FSM Infrastructure Policy and Implementation Committee (IPIC) developed design criteria in 2006 to be used by engineers designing projects funded under the Compact Infrastructure Sector Grant. The design criteria address increased wind speed, seismic vulnerability, flooding from both rainfall and tidal surges.

Major infrastructure projects are also subject to EIA processes. The IWRM programme is introducing a more robust process in evaluating risk elements of water sector infrastructure projects.

Context & Constraints:

Hazard risk information is not explicitly stated as a criterion in the EIA process, which means that all risk elements associated with a development may not always be systematically evaluated. This shortcoming could easily be remedied by amending the Environmental Impact Assessment regulations to include the assessment of the natural or technical hazard risk associated with a development. The EIA process lends itself well to DRR in that it includes a focus on mitigation and accumulated risk.

The EIA 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.

Related Attachments:

- FSM Infrastructure Master Plan FY2004-FY2023 (2004) [PDF - 8.71 MB]
- Federated States of Micronesia IWRM Outlook Summary and NWTF Report (2012) [PDF - 4.14 MB]

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: 3

Institutional commitment attained, but achievements are neither comprehensive nor substantial

Key Questions and Means of Verification

Are there national programmes or policies for disaster preparedness, contingency planning and response? -- not complete --

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	No

Description:

YAP: 3; CHUUK: 1; POHNPEI: 3; KOSRAE: 2

Policy, technical and institutional arrangements for DRM in FSM comprise the NEOC SOP Manual (2005) at the national level, State Disaster Management Plans in each state, the Office for Environment and Emergency Management at national level with four dedicated DRM staff, and EOCs at the state level each with a Disaster Coordinator. Coordination during national disasters is done by a National Disaster Task Force, comprising cabinet ministers, who are in effect Heads of sectoral ministries and agencies. Disaster risk reduction is covered in the comprehensive Multi-State Multi-Hazard Disaster Mitigation Plan (2005). The system above is complemented by USAID, working through the in-country presence of the International Office for Migration (IOM), and to a lesser extent, the FSM Red Cross.

Context & Constraints:

Challenges include limited resources to implement policies, limited awareness and ownership of policies amongst stakeholders, limited technical capacity amongst staff, limited public understanding regarding the importance of being prepared and a lack of political will to invest in disaster preparation and risk reduction.

Reliance on international support during disasters serves to remove the incentive for government to invest in, and strengthen, its DRM arrangements and programming.

Related Attachments:

- NEOC SOP Manual (2005) [PDF - 8.98 MB]

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: 2

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

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	No
Risk management/contingency plans for	Yes

continued basic service delivery

Operations and communications centre	Yes
Search and rescue teams	Yes
Stockpiles of relief supplies	Yes
Shelters	Yes
Secure medical facilities	No
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:

YAP: 2; CHUUK: 2; POHNPEI: 4; KOSRAE: 2

Disaster Preparedness Plans are in place in each State, although in many cases they are dated.
With support from IOM a number of schools in Pohnpei have developed Preparedness plans. The number of schools developing Preparedness plans is set to increase as the CADRE programme rolls out to all the states. Utility companies, ports and airport authorities have contingency plans in place. IOM has contingency plans to enable rapid response to disasters on the main and outer islands.

Drills do take place from time to time. The airport authority is most active in undertaking emergency drills as required by the Federal Aviation Administration (FAA) to maintain accreditation. These drills often involve all emergency services including health. IOM facilitated an Operational Blueprint Tabletop Exercise in October 2010 which brought together FSM National and State Representatives, US Embassy as well as all USG players from USAID, FEMA, JTF-HD, DOD, and the United Nations and Official Missions. The scenario used was a catastrophic typhoon affecting all four states. The tabletop exercises provided participants with an opportunity to plan and coordinate response efforts, assess disaster assistance capabilities, and gain a better understanding of the Operational Blueprint, particularly the steps required to request USG resources in response to a disaster.

With USAID/OFDA funding, IOM has prepositioned emergency relief supplies in three historically vulnerable locations in FSM. Commodities include communications equipment, water purification technologies, water storage solutions, tarpaulins, health kits, medical supplies for field hospitals, and generators. IOM also has established service agreements with local and regional logistics, medical, and construction agencies to provide emergency assistance if a disaster occurs. In addition, IOM has coordinated with U.N. agencies, Red Cross societies, and local civil society organizations to optimize humanitarian relief efforts and, as a result, has developed mechanisms for the rapid delivery of emergency relief and

reconstruction supplies to islands throughout the region. The Asia Foundation's (TAF) Pacific Islands Disaster Risk Management Program, in collaboration with USAID, recently embarked on a new three year disaster management training cycle, that will include FSM.

In Yap, the United States (US) Forestry Service installed an Incident Command System 400 which is regularly tested.

All Chuukese schools were involved in Pacific Wave 2008 tsunami exercise.

The Health Department undertakes routine exercises to test their emergency response to health related issues such as dengue fever outbreaks. The Pohnpei Health Department tests its plans every two years which includes the relocation of patients and services to alternate sites during emergency situations.

Context & Constraints:

State Disaster Preparedness Plans are dated and require reviewing and updating. There is no preparedness plan at the national level, apart from NEOC SOPs. Municipalities do not have Disaster Preparedness Plans. There are also no hazard specific preparedness plans in place at both national and state levels. The above reflects, in part, a lack of capacity to engage in hazard planning amongst key agencies.

Training and drills need to take place more regularly, especially for tsunami, but this requires funding constraints to be overcome. Disaster Management plans also require mechanisms to test and update them on a more regular basis. Outcomes of drills are not always properly analyzed and greater attention is needed on strengthening systems based on weaknesses identified during drills.

Emergency shelter management and evacuation systems require strengthening as part of strengthening community level preparedness.

Related Attachments:

- Yap State Disaster Preparedness Plan (1992) [PDF - 7.57 MB]
- Pohnpei Disaster Preparedness Plan (2002) [PDF - 4.52 MB]
- Kosrae State Disaster Management Plan [PDF - 2.50 MB]
- Chuuk Disaster Management Plan (2000) [PDF - 3.34 MB]
- Micronesia Red Cross Profile (2002) [PDF - 48.33 KB]
- FSM Disaster Digest VOL 1. 4TH QUARTER, 2010 (2010) [PDF - 330.74 KB]

Related links:

- IOM Micronesia Web-Site

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:

YAP: 2; CHUUK: 3; POHNPEI: 3; KOSRAE: 1

Under the Compact funding agreement FSM has a Disaster Assistance Emergency Fund (DAEF) of $200,000 which can be accessed once a national state of emergency has been declared by the President. The US Ambassador to FSM has the authority to release an additional $50,000 on request. Any additional response allocation from the USG will first require the declaration of a US Presidential Disaster Declaration for the FSM by the US President. However, prior to this, it is expected that FSM will investigate financial support options through UN agencies such as UNOCHA.

In Pohnpei, the EPA ring fences $50,000 annually for emergency response, and the Department of Public Safety has a budget of $5000 for search and rescue.

IOM and Red Cross have access to emergency response funds and, particularly in the case of IOM, have strong contingency systems in place. For IOM this includes the deployment of a cadre of volunteers in all four states, that have been trained in first aid and other DM trainings. Micronesia Red Cross has a similar system of trained volunteers in place.

Context & Constraints:

State governments generally do not have financial reserves in place for rapid response needs, and procedures for accessing the national fund are unclear.

The pressure on government to institute financial austerity in public spending, in light of progressive decreases in the Compact funding, limits opportunities for increased government spending on DRM, including the putting aside of funding reserves for emergencies. The incentive to do so is further reduced by the knowledge that support is always likely to be forthcoming from international partners.

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: 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

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
• FEDERATED STATES OF MICRONEISA: Preliminary Damage Assessment (PDA) High Tide Event, December 7-12, 2008 (2008) [PDF - 138.63 KB]	
Post-disaster need assessment methodologies	No
Post-disaster needs assessment methodologies include guidance on gender aspects	No
Identified and trained human resources	Yes

Description:

YAP: 4; CHUUK: 3; POHNPEI: 4; KOSRAE: 4

At national level the National Disaster Task Force is the primary mechanism to facilitate exchange of relevant information during hazard events and disasters. The NDTF is an inter-

agency structure comprising all key government agencies. The structure is duplicated at the state level in each of the four states, in the form of State Disaster Committees. Some states have standardized damage assessment templates attached as annexes to their Disaster Preparedness plans, whilst others do not. The need to undertake post-event reviews is contained in most state DM Plans.

Depending on the circumstances, the FSM government may request technical assistance from USAID and FEMA to conduct damage assessments, as happened following the high tide events of December 2008.

Context & Constraints:

There is a need for regular exercises and trainings to clarify roles and responsibilities for information collection and sharing during and post disasters in all states.

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?: No

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

The concept of an integrated multi-hazard approach is emphasized in the Multi-State Multi-Hazard Disaster Mitigation Plan and therefore is a clear intended focus of governments 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 focus on multi-hazards has the undesired effect of reducing the inclination to develop additional hazard specific preparedness plans, as it is felt that one multi-hazard plan is sufficient. However, in practice, different types of hazards have very different characteristics requiring different kinds of responses and risk reduction measures. This is especially true of slow and fast onset hazards.

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 of DRM activities in FSM. Going forward it will be important for FSM 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.

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):

FSM receives a lot of assistance from regional organizations with regard to capacity building in the field of DRM with FEMA being its key regional training partner. Other organizations that engage in capacity building initiatives include NOAA, IOM, FAO, WHO, ESCAP, JTF-HD, PCC, BOMa 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 State and Community levels. Trainings at these levels should be outcome driven in the sense that they result in tangible products, such as community DRM plans.

Related Attachments:

- UNHCR eCentre / OCHA Pacific Emergency and Disaster Management Workshop Pohnpei, FSM, 30 May - 3 June, 2011 (2011) [PDF - 1.34 MB]

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

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

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?: Yes

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

As a Micronesian society, FSM has a relatively strong social security system based on informal cultural norms. In this sense the society has a strong sense of ‘caring’ for the less fortunate, although these values are rapidly dissolving in the face of modernization influences. 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 exploring the linkages. These studies tend to be done by outside ‘experts’ and there is a need to build on-island capacity in this regard. Cooperation between OEEM and the College of Micronesia could be utilized to facilitate more research on this topic, as could partnerships with UN Joint Presence Organisations such as UNFPA and UNICEF.

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):

FSM is heavily reliant on support from regional and locally-based partner organisations in its capacity for implementing DRM. IOM continues to be the most important locally based partner in this regard and has over recent years built up a strong presence, with offices in Pohnpei, Yap and Chuuk and cadre of trained volunteers and prepositioned supplies. IOM is particularly strong with respect to contingency planning and preparedness and now beginning to also move into the risk reduction and climate change adaptation sphere. Conservation agencies are also well represented throughout FSM and play an important role alongside government in regulating development activities. While the relationships between government and NGOs is generally productive – with both parties recognizing the need to work together – relationships are rarely formalized, and civil society continues to be under-represented in government inter-agency decision making bodies such as the National DM Task Force, the Climate Change Country Team and the Sustainable Development Council.

Related Attachments:

- USAID FSM RMI Factsheet #2 (2011) [PDF - 50.40 KB]

Contextual Drivers of Progress

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.

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

Climate change is a driver of DRM in FSM. 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 FSM begin to 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). It is anticipated that the development of a 'joint' DRM and CCA National Action Plan enable greater reliance on this driver.

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:

Planning department and sector agencies do not see disaster risk reduction as a priority, or do not understand the linkages.

Absence of DRR policy, national legislation, or action plan.

Absence of a multi-stakeholder forum that includes strong representation from civil society.

Weak coordination and dissemination of DRM information.

Future Outlook Statement:

A National DRM Policy is developed to complement the National CC Policy and DRM is being effectively implemented through the development of supporting legislation, improved coordination and the integration of disaster risk reduction into sectoral, agency and state development plans.

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:

Limited technical capacity in DRM planning.

Weak capacity at sub-national levels (staffing, resources) – State and Community levels.

Limited use of available technical agencies.

Difficulty of accessing remote communities on outer islands

Future Outlook Statement:

Increased capacity for effective disaster risk reduction planning through training and capacity building of relevant institutions such as the National DM Task Force, OEEM staff, and State level players, as well as development of appropriate tools and systems for DRR, and improved use of existing technical and educational institutions, such as College of Micronesia.

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:

Limited national capacity for conducting post-disaster damage assessments and analysis and integration of lessons learned.

Strong reliance on international partners.

Logistical constraints.

Future Outlook Statement:

State and community level programmes and capacities 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.

Overall Challenges:

The integration of climate change adaptation into the post-2015 DRM framework.

Section 10: Stakeholders

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

Organization	Type	Focal Point
Disaster Coordination Office	Gov	Frank Cholymay
Environmental Protection Agency	Gov	Brad Mori, GIS/Climate Change Specialist
Environmental Protection Agency	Gov	Clayton Santos, Water Quality Specialist
Kosrae Disaster Coordination Office	Gov	Nena William, Disaster Coordinating Officer
Kosrae KIRMA	Gov	Robert Jackson, Director
Kosrae KIRMA	Gov	Blair Charley, GIS Specialist
National Department of Education	Gov	Mario Abello
National Department of Education	Gov	Wens Billen
National Department of Health and Social Affairs	Gov	Moses Patrick, Environment Health Program Manager
National Department of Resources and Development	Gov	Marion Henry, Secretary
National Department of Resources and Development	Gov	Alissa Takesy, Assistant Secretary, Division of Resource Management and Development
National Department of Resources and Development	Gov	Peterico Hirero
National Office for Environment and Emergency Management	Gov	Cindy Ehmes, Assistant Director for Division of Environment and Sustainable Development

National Office for Environment and Emergency Management	Gov	Andrew Yatilman, Director
National Office of Environment and Emergency Management	Gov	Limanman Elanzo, Pacific Adaptation Strategy Assistance Program Coordinator
National Office of Environment and Emergency Management	Gov	Tony Neth, Public Assistance Officer
National Office of Environment and Emergency Management	Gov	Patti Pedrus, Sustainable Development Planner
National Office of Statistics, Budget and Economic Management	Gov	Gillian Doone, Assistant Director for Division of Overseas Development Assistance
Pohnpei Department of Public Safety	Gov	Patrick Carl, Disaster Coordinating Officer
Pohnpei Department of Public Safety	Gov	Lucas Carlos, Director
Pohnpei Environmental Protection Agency	Gov	Henry Susaia, Climate Change Specialist
Pohnpei Port Authority	Gov	Luciano Abraham
Pohnpei Port Authority	Gov	Ron Reyes
Weather Service Office	Gov	Wallace Jacob, Meteorology Specialist
Yap Department of Resources and Development	Gov	John Solith, Deputy Director
Yap Office of Planning and Budget	Gov	Kensley Ikosia, Director
JICA	Regl Inter-gov	Iwasaki Kaoru
FSM Petroleum Corporation	Private	Jared Morris, President/CEO
FSM Petroleum Corporation	Private	Olivier Wortel, Communications Officer

Chuuk Conservation Society	NGO	Wisney Nakayama, Director
Kosrae CSO	NGO	Andy George, Director
Micronesia Conservation Trust	NGO	Lisa Andon, Deputy Director
Pohnpei Island Food Community	NGO	Emihner Johnson, Director
Integrated Water Resource Management	UN & Intl	Patterson Shed, National Coordinator
International Organisation for Migration	UN & Intl	Rosalinda Yatilman, Intern Student
International Organisation for Migration	UN & Intl	Universe Yamase, Intern Student
International Organisation for Migration	UN & Intl	Ashley Carl, Chief of Mission
JICA	UN & Intl	Aldis Steezia
JICA	UN & Intl	Sagami Yautoshi, Project Formulator
UN Joint Presence	UN & Intl	Okean Ehmes, Country Development Manager
US Department of Agriculture	UN & Intl	Gibson Santos