



## Second Meeting of the SOPAC Division Noumea, New Caledonia, 3-9 November 2012 (SOPAC-2)

AGENDA ITEM	TITLE
3.	SOPAC DIVISION HIGHLIGHTS AND EMERGING ISSUES
3.3	Disaster Reduction Programme 2011/2012 Report
3.3.1	Summary Report of DRP activities

### PURPOSE

This paper provides an outline of the achievements of the Disaster Reduction Programme (DRP) of the SOPAC Division over the period November 2011 – August 2012.

While the bulk of the work completed during the reporting period (November 2011 – August 2012) addressed the planned activities of the SOPAC DRP, there were also a number of unplanned activities which the Programme responded to in the interests of supporting further institutional strengthening and capacity building within the Pacific islands region. Those activities that were unplanned are marked with an asterisk (\*).

### BACKGROUND

The focus of the SOPAC annual Work Plan is defined under the SOPAC Division Strategic Plan 2011 – 2015 and within this context the DRP exists to provide PICTs with technical and policy advice and support to strengthen disaster risk management practices. The DRP carries out this responsibility in coordination and collaboration with other technical Programme areas within the Division, other Divisions of SPC and also with a range of regional and international development partners and donors.

The DRP is comprised of six (6) technical teams each with a 'Team Leader' who reports to the Deputy Director DRP. It also includes a Programme Management/Administration unit. The technical teams are:

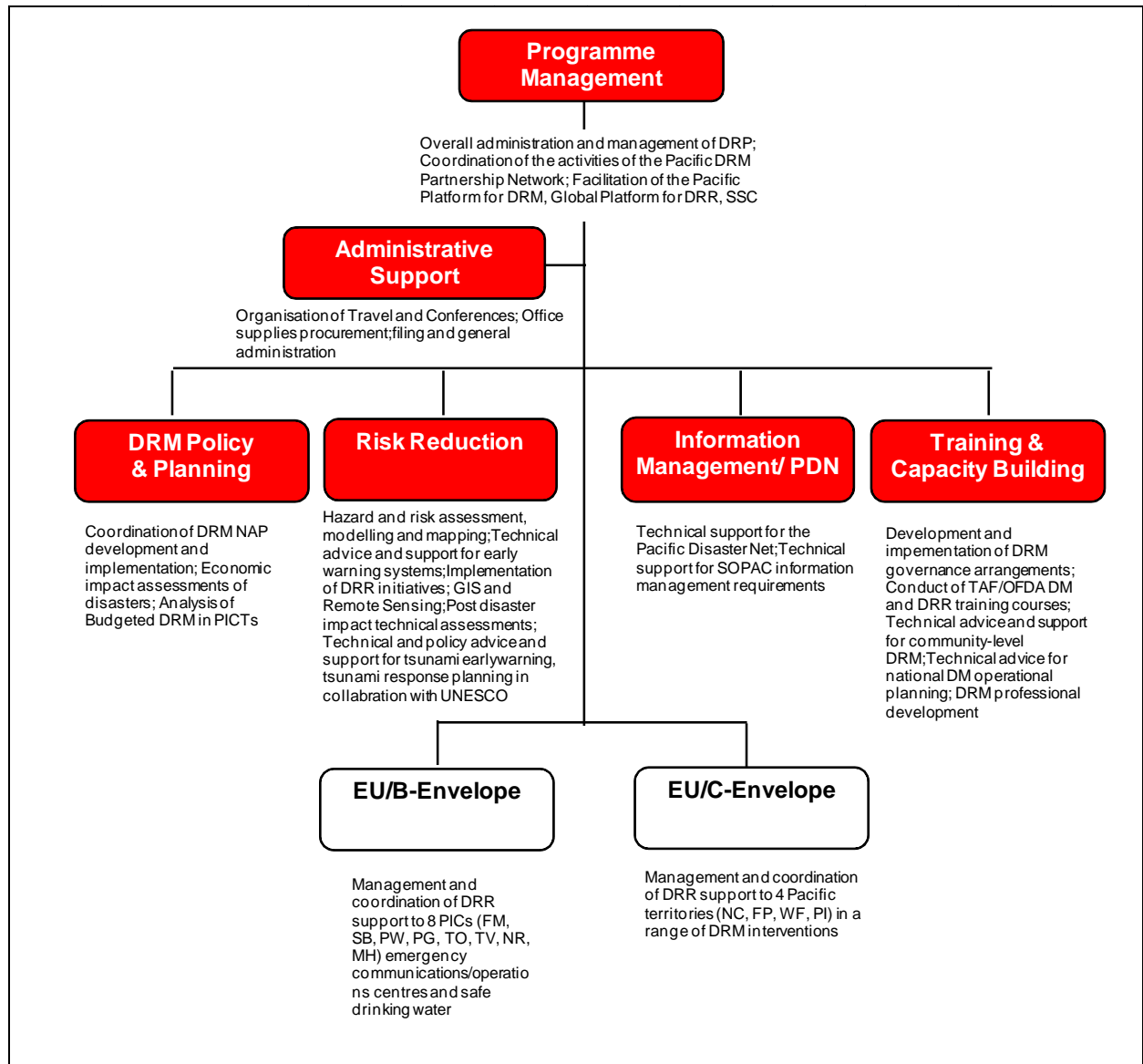
### Some Key Highlights for 2011/2012

- DRM Investment Profiles developed for Pacific island countries
- Pacific Catastrophe Risk Assessment & Financing Initiative – developing practical applications for the risk databases to benefit PICTs
- From science to policy/planning: the case of French Polynesia
- Tsunami preparedness and response in Tonga
- Strengthened emergency operations coordination – Federated States of Micronesia
- Improving post disaster assessment through the use of computerised systems – The online Initial Damage Assessment reporting form for Fiji
- Institutionalising DRM training at tertiary level – the example of the Solomon Islands

\*Details provided in the full narrative report provided in paper SOPAC-2/3.3.2 (English only)

- DRM Policy & Planning
- Risk Reduction
- Training & Capacity Building
- Information Management/Pacific Disaster Net
- EU EDF 9 B Envelope Project
- EU EDF 9 C Envelope Project

The current structure of the DRP is shown below.



The elements shaded in 'Red' represent the core functional teams. The two EU projects (B Envelope and C Envelope) will phase out in July and December 2013, respectively.

As at 31<sup>st</sup> August 2012 there was a total of 23 staff in DRP inclusive of EU projects and other staff.

## WORK PLAN IMPLEMENTATION – By Functional Team

### DRM POLICY & PLANNING and PROGRAMME MANAGEMENT

#### Resources for Disaster Risk Management (DRM) in Pacific Island Countries (PICs)

##### *EDF 10 ACP-EU Natural Disaster Facility (NDF)*

Preparatory work towards the EDF 10 ACP-EU Natural Disaster Facility continued during the reporting period and following the approval of an Identification Fiche by the European Union in early 2012, an Action Fiche and Technical Administrative Provisions (TAPs) document was prepared and submitted to the ACP Secretariat and the European Commission for consideration in June 2012.

The NDF will provide Pacific ACP States (14 independent Pacific island countries plus Timor Leste) at national and regional level a total of €20 million over 5 years from 2013 for investments in Disaster Risk Management and Climate Change Adaptation.

SOPAC Division has been informed that the Action Fiche and TAPs had been approved in Brussels and further work is underway to complete additional documentation to enable the commencement of the assistance to the region in early 2013.

An integral part of the preparatory efforts have also been taking place at national level within most of the target Pacific ACP States. Commencing in June 2012 SOPAC working closely with the UNISDR have been conducting country missions to facilitate national progress reviews of the Hyogo Framework for Action and the Pacific DRR and DM Framework for Action. The progress review process is, amongst other things, being used to develop initial drafts of Country Implementation Plans (CIPs) for the NDF. These draft CIPs will be revisited and finalised with the relevant national authorities during the inception phase of the NDF in 2013.

##### *World Bank Global Facility for Disaster Reduction & Recovery (GFDRR)*

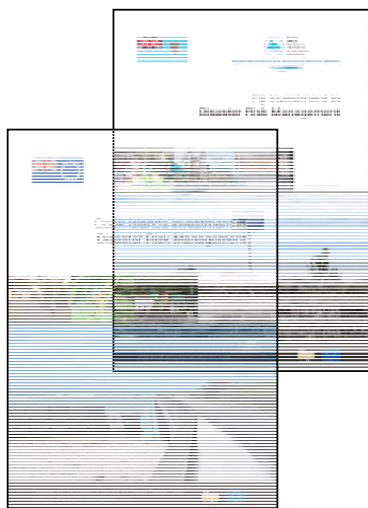
SPC/SOPAC provided counterpart support to the World Bank's Global Facility for Disaster Reduction and Recovery to establish 'Windows' of funding for DRM and Climate Change Adaptation (CCA) to the region. The GFDRR will provide approximately €11.6 million for DRM and CCA. A 1<sup>st</sup> Call for Proposals in relation to Window 1 and Window 2 of the GFDRR programme was issued on 21 December 2011 and a few Pacific island countries and regional organisations responded by the closing date of 3 February 2012.

The current status of the proposals submitted from the Pacific are as follows:

	Organisation	Project	Coverage	Amount (USD)	Current Status
1	World Bank EAP	Community Resilience to Climate and Disaster Risk Project	Solomon Islands	2,998,000	At Stage 1; proposal includes external partners (NGOs)
2	World Bank EAP	Increasing Resilience and Preparedness against Volcanic Risks and Weather Extremes	Vanuatu	2,970,000	At stage 2; proposal includes external partners (NGOs)
3	Vanuatu NDMO	DRM Strengthening Project	Vanuatu	935,000	Proposal subsequently integrated into a

					GEF/EU/GFDRR grant on 'Increasing Resilience to Climate Change and Natural Hazards in Vanuatu'. See No. 2 above
4	Act for Peace	Community-focussed Integrated DRR Project	Fiji, Solomon Islands, Tonga, Vanuatu	1,000,000	Declined – discussion initiated to include parts of proposal in government led DRM programs
5	World Vision	Strengthening National/Local Disaster Management Offices, Sectoral Ministries and Communities on DRR and CCA in the Pacific	PNG, Solomon Islands, Vanuatu	885,740	Declined
6	Tonga JNAP Secretariat	Tonga Meteorological Service DRR Project	Tonga	1,000,000	Declined
7	PNG National Disaster Centre	Comprehensive Multi-Hazard Risk Assessment	PNG	800,000	Declined
8	Spanish Red Cross (in association with Cruz Vermelha de Timor Leste)	Integrated Community-Based Risk Reduction	Timor Leste	1,000,000	Declined - discussion initiated with GoTL and external partners on DRM program for TL
9	Save The Children	Support to DRM in the Education Sector	Solomon Islands	1,000,000	Declined
10	WHO	Strengthening DRR through Community Mobilisation via the District Health System	Timor Leste	833,700	Declined - discussion initiated with GoTL and external partners on DRM program for TL
11	Save The Children	DRR for primary School Children in Timor Leste	Timor Leste	704,000	Declined - discussion initiated with GoTL and external partners on DRM program for TL
12	UNDP	Pacific-Caribbean South-South Cooperation for SIDS	Pacific, Caribbean	550,000	Declined
13	SPC/SOPAC	Operational Wave Forecasting for Early Warning Systems	Fiji	747,637	Progressed to a Stage 2 application
	<b>Total</b>			<b>\$15,424,077</b>	

## Improving the understanding of PIC investments in DRM



### *DRM Investment Profiles for PICs*

As part of the ongoing effort to improve advocacy for improved DRM within PICs, the SOPAC Division continues to produce DRM investment profiles for interested Pacific island countries. These are developed using support available through the EDF9 ACP-EU Natural Disaster Facility.

Profiles have been completed for Vanuatu, Cook Islands, Fiji and the Marshall Islands with a final draft in place for Papua New Guinea. Work has commenced on developing profiles as well for Niue and Tuvalu.

These profiles present a high-level desk-based assessment of the potential economic costs of a disaster and to identify the level of investment in DRM. This will be used to draw attention to the benefits of investing in Disaster Risk Reduction (DRR) versus the cost of a disaster.

## Examining opportunities to enhance risk financing and insurance for Pacific island countries

### *Pacific Disaster Risk Financing and Insurance (PDRFI) Programme*

Building on the Pacific Catastrophe Risk Assessment and Financing Initiative, the World Bank in collaboration with the SPC SOPAC Division and with funding support from the Government of Japan and the World Bank's Global Facility for Disaster Reduction and Recovery, is leading an initiative entitled *Pacific Disaster Risk Financing and Insurance (PDRFI) Program*. The PDRFI aims to assist Pacific Island Countries (PICs) in strengthening their financial resilience against natural and climate-related disasters. The programme helps PICs to strengthen disaster risk management, institutional capacity, and access to a broader range of financial instruments and markets. It complements ongoing disaster risk reduction and climate change adaptation activities, focusing particularly on adverse natural events that cannot be fully mitigated through disaster risk reduction operations.

The PDRFI programme provides the PICs with advisory services and financial instruments for developing and implementing national disaster risk financing and insurance strategies. It assists the PICs in the improvement of their macroeconomic planning against natural disasters and the design and implementation of national disaster risk financing strategies, as part of their national disaster risk management and climate change adaptation agendas. It also promotes the development of market-based catastrophe risk insurance to be offered by the private insurance and reinsurance industry.

The World Bank and SOPAC Division convened a workshop in Nadi, Fiji, from 3<sup>rd</sup> to 4<sup>th</sup> May 2012 to launch the pilot for the PDRFI. The purpose of the two-year PDRFI pilot is to:

- test the credibility of Pacific catastrophe risk models on reinsurance/capital markets;
- assess the risk appetite of international reinsurers for Pacific catastrophe risks;
- ascertain the viability of Pacific catastrophe risk insurance; and
- help countries develop their national disaster risk financing strategies.

In attendance were representatives of the PDRFI pilot countries Republic of Marshall Islands, Samoa, Solomon Islands, Tonga and Vanuatu as well as representatives from the Government of Japan, World Bank, SOPAC Division, AIR Worldwide and the Caribbean Catastrophe Risk

Insurance Facility. The workshop endorsed the objectives of the pilot and agreed to work collaboratively to ensure its successful completion.

Following the workshop the World Bank and SOPAC Division undertook missions to all pilot countries for the remainder of May with the objective being to obtain confirmation of interest from the ministers of Finance, legal due diligence and legal opinion from the Attorney General offices and to brief senior government officials on the programme itself.

To facilitate the pilot the Government of Japan is providing US\$5.4 million to cover the costs of premium payments by the target countries. Funding support is also being provided to the SOPAC Division to facilitate its counterpart role.

## **Improving the understanding of disaster impacts on Pacific island countries**

*Training of Trainers on Damage and Loss Assessments, Post Disaster Needs Assessment and Human Recovery Needs Assessment, 13<sup>th</sup> – 17<sup>th</sup> February 2012, Vienna, Austria*

Four (4) representatives of the SPC SOPAC Division attended a 5-day Training of Trainers programme in Post Disaster Needs Assessment and Human Recovery Needs Assessment in Vienna, Austria, in February 2012. The training, supported by the World Bank GFDRR was intended to build the capacity of GFDRR partner organisations and regional institutions in conducting post disaster needs assessment and in providing training in post disaster assessment for their member countries. During the training, participants were introduced to the methodology for:

1. assessing damages and losses;
2. determining the needs for recovery and reconstruction; and
3. ensuring the improved resilience of communities and countries following recovery.

The training also familiarised participants with the role and relevance of partnerships between UN, EU, World Bank and donor agencies in supporting disaster-prone countries to reduce the risk of future disasters.

The learning from this training will be used to inform the design of a post-disaster damage, loss and needs assessment framework and course for the Pacific region. It is intended that once the course has been designed and funding attained a group of experts across the Pacific will be trained who can then conduct post disaster assessments in the region and train their country counterparts.

### *Economic Assessment of Disasters in the Pacific*

Pursuant to the post disaster needs assessment training of trainers programme in Vienna, Austria, in February 2012; and ongoing discussions with the World Bank and GFDRR, DRP has developed a proposal for funding the development of a Pacific regional pool of experts to undertake damage and loss needs assessment in the event of a major disaster in the region. The proposal which seeks approximately US\$650,000 funding support from the World Bank GFDRR helps the systematic and standardised documentation of the economic impact of disasters over time through which the impact of disasters over time can be more accurately monitored. The proposed activity will inform DRM and development planning and provide baseline data to assess the value of increased investments in DRR.

The proposal has progressed to the second stage of consideration within the World Bank and GFDRR and an outcome is anticipated in the first quarter of 2013.

## **Integrating DRM and Climate Change to strengthen coordination and facilitate improved service delivery to PICs**

### *Integrated regional strategy for DRM and Climate Change by 2015*

In October 2011 the SOPAC Division Meeting and SPC CRGA endorsed the implementation of a 'Roadmap' or process, to develop an integrated regional strategy for DRM and Climate Change by 2015. The shared aim of DRM, Climate Change Adaptation and Mitigation (CCA&M) is to reduce the vulnerability of societies to hazards by improving the ability to better anticipate, resist, prepare for, respond to and recover from their impacts. An integrated approach, that reduces the risks from multiple hazards or phenomenon, whether climate-related or geophysical and of sudden or slow onset, is more effective in reducing vulnerability and improving resilience to the multiple risks posed to sustainable national development in the Pacific region.

In relation to the 'Roadmap', DRP has organised and/or helped to facilitate or contribute to a series of consultations over the first 6 months of 2012 which yielded results pertinent to the formulation of the integrated regional strategy. These are:

- Launch of the World Bank's Policy & Practice Note for Climate and Disaster Resilient Development in the Pacific Islands Region, 4<sup>th</sup> – 5<sup>th</sup> June 2012, Suva, Fiji
- Regional Workshop on the National Progress Reviews for the Hyogo Framework (HFA) and Pacific DRR and DM Framework for Action (RFA) for the 2011 – 2013 period, 7<sup>th</sup> – 8<sup>th</sup> June 2012, Suva, Fiji
- Heads of Fisheries Meeting, 5<sup>th</sup> – 8<sup>th</sup> June 2012
- National Progress Reviews for the HFA and RFA in all 14 Pacific island countries, June – August 2012
- Development of a regional Education framework for Climate Change Adaptation and DRM

On 5<sup>th</sup> June 2012 SPC and SPREP signed a Letter of Agreement specifically in relation to the 'Roadmap'. The agencies agreed to contribute resources to facilitate the 'Roadmap' and in so doing facilitate the appointment of and resourcing for a Steering Committee to oversee the process; coordinate and facilitate joint meetings of the Pacific Platform for DRM and Pacific Climate Change Round Table in 2013 and 2015 to support finalisation of the integrated regional strategy; jointly recruit and appoint a *Roadmap Coordinator* to be the technical advisor and coordinator of the Roadmap process and that the incumbent be situated at the SOPAC Division and; contribute resources to support the Roadmap Coordinator in the exercise of assigned responsibilities.

SOPAC is in the process of recruiting an Advisor to manage the 'Roadmap' requirements over the period 2012 – 2015. The position has been advertised and a selection is anticipated by the end of October 2012.

## **Strengthening national, regional and global partnerships for Disaster Risk Management in the Pacific**



### *South-South Cooperation – Pacific and Caribbean SIDS*

The SOPAC Division has supported a programme of South-South Cooperation with Caribbean Small Island Developing States (SIDS) led and managed by UNDP Pacific Centre since 2009. The programme helps to strengthen the sharing of knowledge, skills and experience in DRM and

Climate Change with the Caribbean. During the reporting period a series of activities were undertaken as follows:

- 6<sup>th</sup> Caribbean Conference on Comprehensive Disaster Management, December 2011 – SOPAC Division was represented by Samantha Cook, Disaster Economist, who presented work being undertaken in the Pacific in relation to the Pacific Catastrophe Risk Assessment and Financing Initiative and also on country DRM investment profiles. Other participants from the Pacific were Hon. Mark Brown, Minister for Finance, Cook Islands; Charles Carlson, Director EMCI, Cook Islands; Antonneth Arnambat and Karen Bernard, UNDP Pacific Centre.
- Visit to Kiribati, May 2012 – This involved a joint visit by Caribbean participants, UNDP and SOPAC Division staff. The purpose of the visit was to provide Caribbean participants with a first-hand understanding of innovative water resources and sanitation practices used in an atoll setting. The Caribbean was represented by Dr Lorna Innis of the Coastal Zone Management Unit in Barbados and Dr David Farrell of the Caribbean Institute of Meteorology and Hydrology.
- In December 2011, a visit was undertaken by the technical advisor from Fiji Meteorological Service (which coordinates Pacific regional training) to offices of the Caribbean Institute of Meteorology and Hydrology (CIMH), to view facilities and assess training opportunities to address gaps identified in the Pacific region, with the goal of building capacity for climate risk management.
- From August 2011 to May 2012 four meteorology technicians from Samoa, Vanuatu, Solomon Islands and Papua New Guinea undertook a 9-month mid-level training at CIMH in Barbados. It is the first time that Pacific students have studied at CIMH. The training will improve the capacity of the target countries, especially remote locations, to provide quality data inputs for weather forecasting and climate projections, and will provide WMO certification enabling countries to meet quality management standards for the aviation industry. It is anticipated that the students will be able to support the replication of the training nationally and regionally in the Pacific; and the Vanuatu trainee has already developed a strategy for this for consideration by his department.
- Based on a collaboration between Caribbean and Pacific researchers, a checklist on how to ensure gender equality in disaster risk management in SIDS has been prepared and will be officially launched at the 4<sup>th</sup> Session of the Pacific Platform for DRM in September 2012.
- Research has been undertaken on case studies on the gendered dimensions of climate change adaptation in Pacific and Caribbean SIDS, to highlight gender differences and lessons learned. The publication of the research is to be completed in 2012.



#### *International Recovery Platform Forum, Kobe, Japan, 19<sup>th</sup> – 21<sup>st</sup> January 2012\**

Samantha Cook of SOPAC attended the International Recovery Platform Forum held in Kobe, Japan in January 2012 to share information in relation to the SPC SOPAC Division's role in assisting Pacific island countries in recovery from disaster events.

The International Recovery Platform is mandated to address gaps in recovery, and the International Recovery Forum 2012 aimed to explore mechanisms for regional cooperation in promoting resilient recovery. A follow-up workshop for the Pacific conducted by the International



Recovery Platform and UNISDR was held in Suva, Fiji, from 4<sup>th</sup> for 6<sup>th</sup> September 2012 for participants from Fiji and Samoa.

*First Implementation of Small Island Development States Mauritius Strategy (ISLANDS project of the Indian Ocean Commission – IOC) Regional Technical Workshop, Mauritius, 24<sup>th</sup> – 26<sup>th</sup> January 2012\**

Samantha Cook attended the regional workshop in Mauritius in response to an invitation to the SOPAC Division from the IOC.

The objective of the workshop was to contribute to an increased level of social, economic and environmental development and deeper regional integration in the Eastern and Southern Africa-Indian Ocean (ESA-IO) region through the sustainable development of SIDS. The attendance of the SOPAC Division increased cooperation at a regional level contributing to regional integration, sharing of experiences and transferring expertise, setting and promoting best practices, defining strategies and action plans.

The specific purpose of the attendance was to share the Pacific regional experience to date in relation to the Pacific Catastrophe Risk Assessment and Financing Initiative.

*Support to the FAO Case Studies\**

In February 2012, the SOPAC Division agreed to support the development of a case study led by SPC's Fisheries, Aquaculture & Marine Ecosystems (FAME) Division and the UN Food and Agriculture Organisation. The case study assesses the vulnerability of the fisheries and aquaculture sector in Pacific island countries and territories to climate change by examining: (1) the potential impacts of projected changes to the atmosphere and ocean on oceanic, coastal and freshwater fish habitats and stocks, and aquaculture; (2) the sensitivity and adaptive capacity of these resources and the economies and communities that depend on them to such changes; (3) the adaptation strategies and policies required to minimise the threats from climate change and maximise opportunities; (4) the gaps in knowledge remaining to be filled to improve understanding of the sector's vulnerability; and (5) the recommended investments needed to launch priority adaptations and regularly assess their success.

The contribution by the SOPAC Division was on the integration of Climate Change Adaptation and DRM with a focus on the emerging trends in CCA and DRM governance in the Pacific. The case study document has been finalised and will be published before the end of 2012.

*Report: Platforms for Enhancing Private Sector-Humanitarian Collaboration\**

In November 2011, the SOPAC Division contributed to the development of a report by the Humanitarian Futures Programme (HFP), at King's College London on the added value of platforms, networks, brokering organisations and ad hoc alliances, in supporting more effective private sector engagement in humanitarian action. The Pacific Platform for Disaster Risk Management was identified as a successful model from which the study could learn. The research explored the added value of 'Platforms' to promote private sector engagement in humanitarian action. Previous research by the Kings College had showed that both humanitarian and private sector stakeholders felt there was a lack of understanding about mechanisms to promote the private sector's involvement in humanitarian action, and to help break down existing barriers that stand in the way of effective partnerships.

The final report was produced in April 2012. SOPAC will include the report in the reservoir of literature required to inform the ongoing development of the integrated regional strategy for DRM and Climate Change which is due for finalisation by 2015.

## *Pacific Platform for Disaster Risk Management, 17<sup>th</sup> – 21<sup>st</sup> September 2012*

The SOPAC Division has been working closely with a range of regional and international development partners and donors to conduct the 4<sup>th</sup> Session of the Pacific Platform for DRM which will be held in Noumea, New Caledonia, from 17<sup>th</sup> to 21<sup>st</sup> September 2012.

In 2012, the Platform will combine with the Pacific Regional Water & Sanitation Consultations with the following objectives:

- Facilitate improved learning and the sharing of experiences among PICTs and partners in DRM through discussions on a range of topics including; early warning, training and capacity building; community-based DRM; rethinking DRM arrangements in the Pacific and the implementation status of the Hyogo Framework for Action and the Pacific DRR and DM Framework for Action.
- Enable interaction between the disaster and water/sanitation communities in the Pacific to identify and discuss common issues and strategies at a regional level.
- Provide opportunity for participants to contribute to a renewed regional framework to guide the sustainable management of water resources in the Pacific and the formulation of the integrated regional strategy for DRM and Climate Change 2015 including the Post-2015 Global Framework for Disaster Risk Reduction.

There are approximately 200 participants registered for the Platform/RWSC in 2012.

### **Improved understanding of national and regional progress in Disaster Risk Management**

#### *2011 – 2012 National Progress Reviews of the Hyogo Framework and Pacific DRR & DM Framework for Action*

Through collaboration with the UNISDR and SPREP, the SOPAC Division has supported the conduct of national progress reviews of the Hyogo Framework for Action (HFA) and Pacific DRR and DM Framework for Action in all Pacific island countries for the period 2011 – 2013. The reviews were conducted between June and August 2012.

DRM progress in each country is self-assessed at a national level against 22 indicators for the HFA and a report will be uploaded into an on-line portal once endorsed by the relevant national authorities. The review process combines a literature review, individual consultations and a multi-stakeholder workshop.

The results of the progress review will provide inputs into the following:

1. The development of joint DRM and Climate Change National Action Plans (where applicable).
2. The development of draft Country Implementation Plans specifically to articulate country DRM priorities in connection with individual national allocations under the EDF10 ACP-EU Natural Disaster Facility.
3. The development of an integrated regional strategy for DRM and Climate Change by 2015.
4. A country and Pacific regional perspective in relation to the development of a post-2015 framework for disaster risk reduction consistent with the United Nations General Assembly Resolution 66/199.

In addition to the national reviews, the SOPAC Division is also developing a regional progress report for DRM which is targeted for completion by October 2012.

Funding support for the reviews has been provided through a range of sources such as the UNISDR, EDF 9 ACP-EU Natural Disaster Facility and AusAID National Action Planning (NAP) Facility.

## **Mainstreaming of disaster risk into national development planning and decision-making frameworks**

### *DRM and Joint DRM/Climate Change National Action Plans (JNAP)*

The progress to date of national exercises to facilitate the mainstreaming of disaster risk into national development planning and decision-making frameworks in Pacific island countries covered thus far by the SOPAC Division in collaboration with partner organisations is listed in [Annex 2](#).

The overall summary of direct donor support for NAP/JNAP development and implementation through the SOPAC Division is provided in the table below:

<b>Facility</b>	<b>Status</b>
ACP/EU Natural Disaster Facility	Contribution Agreement signed with the ACP and EU in May 2009.
	4 technical positions filled with appointments up to December 2013
	Total budget over 4 years is €1,868,000
	Facility implementation to be completed by 31 <sup>st</sup> December 2013
AusAID NAP Facility	Total budget over 3+ years from 2008 is A\$2,265,000 and the full amount has been provided to SPC SOPAC Division
	Facility implementation to be completed by 31 <sup>st</sup> December 2012

## **Strengthened Institutional DRM Capacity**

### *Electronic Initial Damage Assessment (IDA) form and training for NDMO and Divisional offices in Fiji*

DRP, in collaboration with the Fiji National Disaster Management Office (NDMO) and the Fiji Lands Information System office, successfully developed an online IDA that will enable district disaster coordinators to enter data gathered by field assessors and reports generated at divisional and national Emergency Operation Centres. This is part of the Disaster Information Management System (DIMS) supported by the AUSAID through the National Action Plan Facility.

The online system is aimed at enhancing the timely transfer of basic damage information to inform primarily the humanitarian effort but will also assist disaster recovery efforts.

Training for the online IDA system has been held in the Central, Western and Northern Divisions for Provincial Administrators, District Officers, Assistant District Officers and Clerical Officers.

### *Development of the National and selected Local Tsunami Response Plan – Fiji*

Support was provided to Fiji during the reporting period for *tsunami* response strengthening. Technical advice assisted in the development of a National Tsunami Response Plan which has been endorsed by the National Disaster Management Council. This included the provision of mapping support to demarcate safe zones.

Support to Fiji in this area also covered the design and development of *tsunami* warning signage and siren system for Suva and Lami. Through an agreement with the Fiji Ministry of Provincial Development a total of F\$44,000 has been provided to procure the signage and siren system for Lami, as well as signage for Suva. SOPAC has collaborated closely with a number of partner organisations in these efforts such as the Suva City Council, University of the South Pacific, Lami Town Council and Ministry of Provincial Development.



### *Kiribati DRM Governance Arrangements*

A draft of the Kiribati DRM governance arrangements has been submitted to the Office of the President in 2012; however, given recent interest by Kiribati to integrate its strategic approaches to DRM and Climate Change, further discussions are required to revisit the draft arrangements. The initiative will be pursued with GIZ in 2013 given its interests to collaborate with the SOPAC Division in this area.

### *Marshall Islands DRM Governance Arrangements*

Draft DRM governance arrangements were developed for Marshall Islands in 2011 and will need to be revisited in connection with the ongoing development of the Joint National Action Plan for Climate Change Adaptation and DRM. The JNAP, also developed in 2011, is awaiting finalisation by the Government.

### *Nauru – Strengthening of the NDRMO and Airport Control Tower*

In connection with an agreement with the Commissioner of Police in late 2011, support has been provided in 2012 to the National Disaster Risk Management Office through the purchase of office equipment targeted at enhancing emergency/disaster coordination capacity. The agreement with the Police is part of a package of support to Nauru in relation to the development of a Joint DRM and Climate Change Adaptation National Action Plan.

Under the same assistance, computer equipment including internet connections and software has been provided to the Airport Control Tower under the Ministry of Transport and Telecommunications to enhance its early warning role.

The total value of support provided to Nauru was A\$44,300. This was funded under the AusAID National Action Plan Facility managed by the SOPAC Division.

### *Papua New Guinea – Review of the 1984 Disaster Act*

A DRM mainstreaming programme supported by the SOPAC Division and UNDP was endorsed by the National Disaster Committee in May 2010. An initiative under the programme is the review of the 1984 Disaster Act. The review commenced in late 2010 and continued over the

course of 2011. In early 2012 a draft set of new DRM governance arrangements was completed and this has been submitted to the National Disaster Centre for consideration and further consultation with national stakeholders. Feedback from the National Disaster Centre on the approved arrangements is awaited.

### *Papua New Guinea – Communications Equipment for the Police*

Under the DRM mainstreaming programme supported by the SOPAC Division and UNDP, an agreement was established with the Police in Papua New Guinea for the provision of communications equipment for ten (10) outposts in Morobe Province. The equipment has been purchased in 2012 and is awaiting deployment to Morobe. The equipment is to facilitate the work of the Police in their role as 'first responders' for emergency/disaster events. The total value of the equipment is PGK204,264.

### *Solomon Islands – Mass Casualty Exercise with the National Referral Hospital in preparation for the Pacific Festival of Arts\**

In June 2012 following a request from the NDMO technical advice and support was provided to the Solomon Islands for the conduct of a mass casualty exercise involving the National Referral Hospital. The exercise scenario involved the collapse of a stage at the Festival of Arts and the evacuation of injured performers. The exercise was intended to strengthen emergency response coordination in the event of an incident at the festival and also in terms of general response preparedness for emergencies and disasters.

### *Equipment for NDMO, Provincial Disaster Centres and Climate Change Division – Ministry of Climate Change, Environment and Disaster Management (MECDM) in the Solomon Islands*

In connection with an agreement with MECDM in November 2011, a range of equipment has been purchased to address the needs of the NDMO, provincial Disaster Centres and the Climate Change Division. This assistance has been provided in connection with a 2-phase approach to the development of a Joint DRM and Climate Change Adaptation National Action Plan for the Solomon Islands. The total value of the assistance provided was A\$80,000.

### *Exchange Visit to the State Coordination Centre in Melbourne, Australia – Solomon Islands, Vanuatu and Nauru NDMOs*

In line with agreements developed with the Solomon Islands, Nauru and Vanuatu in late 2011 and early 2012, an exchange visit was organised for the NDMO Directors and Operations Managers (Solomon Islands and Vanuatu only) to the State Coordination Centre in Melbourne, in February 2012. The purpose of the visit was to provide a first-hand appreciation to the target countries in terms of operational systems in use in Victoria at state, regional and local levels.



The three-day visit involved discussions at the State Control Centre in Melbourne on the operational systems used in inter-agency preparedness and response to emergencies and disasters as well as a field trip to local and regional coordination centres.

This activity helped participating countries to learn from the experiences that a metropolitan country like

Australia (and more specifically the State of Victoria) faces in terms of emergency and disaster preparedness and response. The activity gave the participants insight into various methodologies and tools and has encouraged the NDMOs to improve their own operational systems.

There was particular interest in the Australasian Inter-service Incident Management System (AIIMS) and to examine possibilities of additional support from the Victorian agencies to adapt AIIMS for the countries that participated in the visit.

The visit also provided the opportunity for discussions with the Australasian Fire and Emergency Services Authorities Council, Country Fire Authority and State Emergency Service on possible twinning arrangements that could be established to support DRM capacity building for Pacific island countries.

### *Tsunami Early Warning Siren System for Nuku'alofa, Tonga*

The SOPAC Division undertook a mission to Tonga in March 2012 to discuss a range of DRM priorities. During the course of the mission a special request was submitted for funding support to enable the establishment of a tsunami siren system for Nuku'alofa. The request was supported in the context of ongoing assistance to Tonga in relation to the implementation of its Joint Climate Change and DRM National Action Plan.

As at July 2012 the Government has finalised the selection of a provider for the siren system. The SOPAC Division is providing F\$35,000 for the system based on specifications provided by the Tonga Met. Service.

### *Refurbishment of the National Emergency Operations Centre – Vanuatu*

Support was provided to the NDMO for the refurbishment of the National Emergency Operations Centre in connection with Vanuatu's DRM priorities articulated in an agreement signed with SOPAC in December 2011. The refurbishment included new partitioning, furniture and equipment and the total amount provided was A\$55,000.

This support will significantly enhance the NDMOs management of post emergency/disaster response at a national level and also with disaster coordination agents at a provincial level.

### *Establishment of the National Advisory Board for Climate Change and DRM in Vanuatu\**

In March 2012, the SOPAC Division provided technical advice and support to the Government of Vanuatu in its efforts to establish a National Advisory Board (NAB) for Climate Change and Disaster Risk Management. The initiative is being spearheaded by the Vanuatu Meteorological and Geohazards Department working in close consultation and collaboration with the NDMO and other national agencies and partner organisations. The NAB is intended to be the apex body dealing with DRM and Climate Change and its establishment will require the review of existing DRM institutional arrangements. The National DRM Council currently carries the overall mandate for DRM.

### **Improving the communication of DRM from the DRP, SPC SOPAC Division**

The DRP facilitates the development and circulation of the *Snapshots* newsletter. The newsletter is issued on a monthly basis and provides countries and partner organisations with an account of the DRP's work plan implementation. Seven (7) issues have been produced from November 2011 through to August 2012.

In addition to the issuance of these newsletters, DRP provides visibility to its work programme and to the general progress on DRM in the Pacific through the SOPAC Division website and the Pacific Disaster Net web portal.

## RISK REDUCTION

### Increased capacity in-country for informed decision making in the management of vulnerability and risks

#### *Pacific Catastrophe Risk Assessment and Financing Initiative (PCRAFI) – Phase 3*

The Pacific Catastrophe Risk Assessment and Financing Initiative (PCRAFI) has provided Pacific Island Countries (PICs) with disaster risk modelling and disaster risk assessment tools. These have been developed with the financial and technical assistance of a number of partner agencies such as the World Bank, ADB, AIR Worldwide, NZ Institute of Geological and Nuclear Sciences and Pacific Disaster Center working with DRP over a 2-year period from 2010.

The tools include the following:

- Regional historical hazard and loss database for major disasters.
- Regional probabilistic hazard models for major hazards: earthquakes (both ground shaking and *tsunami*) and tropical cyclones (wind, storm surge and excess rainfall).
- Regional and national geo-referenced exposure database containing components for buildings and infrastructure, agriculture and population.
- Information on major cash crops and population.
- Country-specific catastrophe risk models and country risk profiles which includes maps showing the geographic distribution of hazards, assets at risk, and potential losses that can be used to prioritise DRM interventions.

Phase 3 of the PCRAFI aims to provide further technical assistance to the PICs to refine these disaster risk assessment tools and develop applications to support DRM and Climate Change Adaptation interventions.

- **Application 1. Pacific Disaster Risk Financing and Insurance.** The programme provides the ministries of Finance and Planning with tailor-made advisory services to help improve their macro-economic planning against natural disasters and develop a national disaster risk financing strategy as part of their broader disaster risk management and climate change adaptation agenda. It also helps the PICs develop an integrated disaster risk financing strategy, relying on an optimal combination of reserves, contingent credit, insurance, and donor grants. The Government of Japan is funding the programme over the next two years under a pilot programme which will benefit 5 PIC – Vanuatu, Solomon Islands, Marshall Islands, Samoa and Tonga.
- **Application 2. Rapid post-disaster damage estimation.** The Pacific Risk Information System (PacRIS) provides disaster managers and first responders with tools and information to quickly gain an overview following a disaster on areas and population affected and the likely severity of the event in terms of potential fatalities, injuries and building, infrastructure and crop damage. Support for this is being provided by GFDRR through the World Bank.
- **Application 3. Mainstreaming risk information into urban and infrastructure planning.** PacRIS ensures that disaster risk and climate change information and considerations form an integral part of the urban and infrastructure planning process.

The Pacific Risk Information System is the largest collection of geospatial risk information for the Pacific. It contains detailed, country-specific information on assets, population, hazards, and risks; a comprehensive regional historical hazard catalogue (115,000 earthquake and 2,500

tropical cyclone events) and historical loss database for major disasters, as well as country-specific hazard models that simulate earthquakes (both ground shaking and *tsunami*) and tropical cyclones (wind, storm surge, and excess rainfall) and contains risk maps showing the geographic distribution of potential losses for each country as well as other visualisation products of the risk assessments, which can be accessed through an open-source web-based platform [paris.sopac.org](http://paris.sopac.org).

DRP is progressing preparations with the World Bank and the ADB for Phase 3 of PCRAFI and a formal agreement is expected to be signed before the end of 2012. Funding support anticipated from the World Bank to be provided to the SOPAC Division for Application 1 is approximately US\$300,000. Funding for Application 2 is anticipated at approximately US\$900,000. Funding from the ADB for Application 3 is estimated at US\$650,000 over the period 2012 - 2014.

### *34<sup>th</sup> International Geological Congress, Brisbane Australia, August 6 – 10 August 2012*

SOPAC provided support to facilitate the participation of 13 Pacific Island participants at the 34th Session of the International Geological Congress in Brisbane, Australia, in the period August 6 – 10 2012. Over 6000 delegates from 14 countries were present.

The Pacific Islands delegation with Dr Gary Greene from the Circum Pacific Council shared exhibition space to promote 'Pacific Islands Geosciences'. Prior to the IGC, Geoscience Australia working with SPC and other organisations trained 40 representatives from 13 ASEAN and Pacific Island Countries to use a range of Open Source hazard and risk modelling tools to develop hazard maps and impact scenarios for a range of natural hazards including earthquakes, *tsunami*, volcanoes and tropical cyclones. Participants expressed that there is a need for additional training in this area.

There were two presentations from the Pacific during the main conference on the theme: *Geohazards: Earth monitoring for improved forecasting of natural hazards*. The session covered uses of real-time environmental monitoring to help forecast natural hazard phenomena such as the monitoring of earthquakes and ground deformation using real-time seismographic and geodetic networks and their use in forecasting *tsunami* and volcanic eruptions. The presenters from the Pacific were as follows:

- Lameko Talia (Samoa) presented on the Samoa Seismic Network highlighting the support provided by the Government of China in extending the number of realtime stations in the country.
- Eslie Garaebiti (Vanuatu) presented on the progress made by Vanuatu in developing their national seismic monitoring capability for regional earthquake and *tsunami* warning using the example of the New Caledonia-Vanuatu regional seismic network. Eslie also noted their contributions to the Melanesian Volcanological Network with their support to Solomon Islands in establishing real-time seismic monitoring on Savo.



### *GIS4DRM*

The use of tools such as Geographical Information Systems (GIS) and Remote Sensing (RS) to support disaster risk management initiatives is relatively limited in Pacific Island Countries. Through the past year, national agencies involved in the PCRAFI data collection and consultations have shown an interest in using the data to support their own initiatives and progress through ongoing support.



Ongoing technical support to countries include:

- Introduction to GIS for DRM: This introductory training is aimed at developing GIS applications to support the existing work of the agencies involved. A training session with Ministry of Provincial Development and the Fiji National University was held in May 2012. An advanced training session is planned for Fiji and Papua New Guinea later in the year.
- Atlas: requests for high resolution imagery usually happen soon after the event. Using the image catalogue at the SOPAC Division and the available data collected under the PCRAFI, atlases are being developed for a number of areas. It is intended that these will be made available online for partners and national agencies to download and use.
- Strengthening Disaster Information Management Systems: a number of countries have developed and are maintaining information management systems to support disaster/emergency management efforts. The SOPAC Division continues to provide technical support as and when required.

## **Improving the understanding of *tsunami* risk in the South West Pacific**

### *Tsunami modelling and mapping in Tonga*

Geoscience Australia and the SOPAC Division through its Ocean and Islands and Disaster Reduction programmes, with AusAID support, are aiming to improve *tsunami* response planning in Tonga. *Tsunami* inundation models are being developed using a range of scenarios i.e. earthquakes that produce damaging *tsunami* that could potentially impact Nuku'alofa, Tonga. The hazard maps produced will be used to inform *tsunami* evacuation plans for Nuku'alofa and its surrounds; including the early warning system being developed. A workshop is planned in October 2012 to discuss with the National Disaster Council in Tonga scenarios to evacuate the city. This workshop will also discuss potential evacuation sites and routes for the community. A final workshop with a wider group of stakeholders is planned for early 2013.

## **Support to Strengthening Early Warning Systems in the Pacific**

### *UNESCO Programme*

DRP has since 2011 collaborated closely with UNESCO/IOC on strengthening early warning capacity in the Pacific islands region. In 2011 and 2012 the collaboration addressed the development of draft *Tsunami* Warning Plans and Standard Operating Procedures in Vanuatu, Fiji, Tonga and Samoa. In July 2012, UNESCO and other partners collaborated with DRP in supporting the participation of country representatives to the 14<sup>th</sup> Session of the Regional Association V (SW Pacific) Tropical Cyclone Committee (TCC) in Apia, Samoa, from 16<sup>th</sup> to 20<sup>th</sup> July.

### *Emergency Managers Weather Information Systems – Upgrade*

DRP, working in collaboration with the United States National Oceanic and Atmospheric Administration (NOAA) and SPREP, provided support to Pacific island countries from November 2011 for the upgrade of Emergency Managers Weather Information Systems (EMWIN).

The EMWIN were deployed in the late 1990s through early 2003 with National Disaster Management Offices and Meteorological offices through assistance from the NOAA and an EU-funded Tropical Cyclone Warning System Upgrade Project for the Pacific Islands. The NOAA in mid-2011 announced that given a change in the satellite system used for EMWIN all existing EMWIN users needed to have new equipment (receiver, PC and software) installed to be able to receive the EMWIN direct broadcast after the changeover date of 14<sup>th</sup> December 2011.

In the arrangement with NOAA, the SPC SOPAC Division agreed to provide funding support to two technical specialists to address the required equipment upgrades. The NOAA provided funding for the equipment. The status of upgrade exercises in the Member countries covered is as per the table below:

Country	Status
Cook Islands	Complete
Fiji	Complete
Nauru	Awaiting confirmation of dates from National DRM Office
Papua New Guinea	To complete between 20 September and 9 October 2012
Solomon Islands	Complete
Tuvalu	To complete between 15 and 27 October 2012
Vanuatu	Complete

During the upgrade exercise the specialists also completed the upgrade of the EMWIN unit housed in SOPAC.

## Strengthening flood risk management in Fiji

### *Nadi Integrated Flood Management Project*

The Nadi Integrated Flood Management Project aims to demonstrate the effectiveness of integrated flood management for the Pacific using the Nadi catchment as a case study. The project was designed to complement and enhance the work of the GEF-funded IWRM Demonstration Project in the Nadi catchment and builds on synergies such as the Pacific HYCOS Project, EU-funded IWRM national planning programme and the AusAID NAP Facility.

The three components of the project are:

1. Institutional Strengthening of Flood Forecasting and Warning Systems
2. Flood Risk Assessment and Identification of Mitigation Measures and Dissemination
3. Institutional Strengthening for Integrated Flood Management

In April 2012, a LIDAR (light detection and ranging) survey was undertaken by contracted UK-based Network Mapping Limited of the lower Nadi catchment to provide elevation data of the area which is essential for 2D flood modelling and mapping.



A field survey of buildings not previously assessed as part of PCRAFI was undertaken in February 2012. This building dataset for Nadi will be used in the flood risk assessment component of the work. In April 2012, a second assessment for flood impacts was carried out in Nadi with Land and Water Resources Unit of the Department of Agriculture, Hydrology Unit of the Water Authority of Fiji and the District Office Nadi. A consultant from the New Zealand National Institute of Water and Atmospheric Research was also involved in the assessment to determine peak flood flows. The information collected is important for the flood risk assessment work to be undertaken as part of the project.

It is intended that the methodology used in the Integrated Flood Management Project could be replicated for other catchments in the Pacific.

The project is funded in a large part by the World Bank GFDRR at an overall value of approximately US\$830,000 over the period 2011 – 2013.

**Capacity Development Opportunities for Risk Reduction Team Staff**

- In 2011, from 17 to 28 October, Joy Papao attended the 7th International Training Course on GIS for Disaster Risk Management in Bangkok, Thailand\*. The course highlighted disaster risk assessment and disaster management applications including rapid mapping in a post-disaster event.
- Pacific Risk Management ‘Ohana (PRiMO) Partners Meeting 2012 was held in Honolulu, 13–15 March\*. Susan Vocea represented SPC SOPAC Division and participated as a panellist on the Information Discovery, Access, and Sharing for Disaster Risk Management in the Pacific session.
- Amrit Raj and Susan Vocea both attended the 2012 Understanding Risk Forum in South Africa from 2 to 6 July 2012\*. The Forum provided an opportunity for knowledge exchange and sharing best practice in disaster risk assessment. Several training sessions were organised for participants.

**INFORMATION MANAGEMENT/PACIFIC DISASTER NET**

***Strengthening information management to support DRM***

*Pacific Disaster Net Content*

The Pacific Disaster Net web information portal was launched in 2008 and is developing into the leading DRM information resource for the Pacific region. The feedback and acknowledgement given the PDN in the global and regional arena confirms its standing amongst other key web information portals.

More than 520 websites are regularly researched for new information by the PDN Team. The table below highlights the growth over a 12-month period between August 2011 and August 2012.

Content	August 2011	August 2012
Documents	7000+	9300+
Events	1264	1287
Contacts	620	690
Calendar entries	500	650
Videos	27	73

The PDN is available on line and offline as the ‘Local Edition’ (on DVD) with frequently updated versions for meetings, trainings and on request and as ‘Mobile Edition’ for handheld devices (such as smartphones).

Another highlight for the PDN this year was a number of hands-on introductions which were facilitated by the PDN team to familiarise user groups with the portal navigation. These included the new DRM course at the University of the South Pacific (USP) as well as regional partners and stakeholders during their meetings.

Two mailing lists cover more than 1500 contacts and stakeholders for DRM in the Pacific region and globally and they support the distribution of frequent updates such as the weekly PDN newsletter, a monthly DRM calendar with training, meeting and conference updates and occasional vacancy announcements or other news.

To improve the user friendliness and address volume issues as well as technology updates the PDN is preparing for a redesign. Comprehensive consultations with users, PDN partners and stakeholders resulted in a new system architecture which follows the identified user needs. Next steps include the recruitment of consultants to develop the new Pacific Disaster Net system.

PDN Partners contribute to its development and maintenance amongst other donors such as AusAID and the European Union.

### *PDN Strategic Plan*

With funding support from the UNISDR, DRP working with the support of a range of PDN partner organisations (IFRC, UNDP Pacific Centre, UNOCHA and UNISDR) has developed a Strategic Plan for the PDN. The primary aim of the plan is to provide guidance over a 3-year period, 2012 – 2014 in terms of the future development of the web information portal and consequently to facilitate the sourcing of donor support for new or emerging initiatives in a more focussed way.

Subsequent to the development of the strategic plan, DRP has facilitated further discussions with PDN partners on resourcing to address priority actions and an agreed approach is anticipated within the coming months of 2012. In line with the agreed resourcing approach/strategy partners will collaborate to secure the requisite funding support. Under the proposed budget for the SOPAC Division in 2013 a provision has been made to address a range of priorities under the PDN Strategic Plan.



### *DesInventar – Disaster Loss Database*

A major function of the PDN is to examine means by which Pacific island countries and territories can be provided with relevant information to inform their efforts at reducing disaster risk. Following a series of discussions with the UNISDR over the course of 2011 an attempt has now been made to add a further dimension to the reservoir of information on disaster available to the region by developing a Pacific regional disaster loss database.

With support from the UNISDR a project has been established to develop a Pacific regional Disaster Loss Database using the DesInventar methodology. The initiative will strengthen capacities in the Pacific in terms of providing information on disaster losses to support national planning and investment decisions which currently do not necessarily take into account disaster risks. Disasters and their impacts represent major losses for governments and communities.

The project will provide improved access to regional disaster data for the Pacific and enabling national and regional institutions to monitor, analyse and disseminate information on key hazards and vulnerabilities. Subsets of the regional data can be archived and extended at national level, in future projects. It will cover all Pacific island countries and territories.

The project components are described below:

1. Generation of a regional disaster loss database:
  - a. Appropriation of the DesInventar methodology for developing national databases and development of a Pacific version of the information system<sup>1</sup>, guidelines and training materials.
  - b. Familiarisation of relevant DRP staff with the methodology and tools for building national disaster databases; hands-on training on establishing and utilising the

---

<sup>1</sup> DesInventar is a multi-lingual software already existing in Spanish, English, Farsi, Sinhalese, Thai and other languages.

database with migration, collection, storage, and dissemination of disaster loss data; building an institutional framework that will ensure the maintenance and regular updating of the database and making it available to stakeholders to analyse risks in their specific areas of operation and inform the design of risk reduction interventions.

- c. Data collection, migration and acquisition.
  - d. Data validation and cleaning.
  - e. Establish links with other online systems.
  - f. Institutionalisation of disaster loss data – UNISDR and DRP will continue to support the collection and analysis of disaster data on a continuous basis and its integration into planning and decision-making processes.
2. Development of analysis capacity in the SOPAC Division.
  3. Regional disaster impact report prepared jointly by UNISDR and the SOPAC Division (DRP) to feed into relevant regional and global initiatives for progress reporting on disaster risk reduction, e.g. the biennial Global Assessment Report for Disaster Reduction.

The project, if successful, will contribute directly to the process that is underway in terms of the formulation of an integrated regional strategy for Disaster Risk Management and Climate Change by 2015; and by extension the post-Hyogo framework process.

As of August 2012 the project documentation has been finalised between DRP and UNISDR (signed in June 2012) and the recruitment process for a Regional Desinventar Officer to be based in the SOPAC Division Disaster Reduction Programme has been completed.

The project duration is targeted at 9 months and has an overall value of US\$92,974.

This regional initiative is intended to be continued eventually at the national level in the future and will support as well as draw from existing systems such as the DesInventar database in the Solomon Islands and Vanuatu.

### *DRR Project Portal*

The SOPAC Division is the Pacific focal point for the Asia Pacific DRR Projects Portal which was established in 2010.

The initiative has established a system that enables stakeholders involved in DRR initiatives at a regional level to provide coherent support in implementing the efforts of the national governments and addressing more effectively the challenges at the regional level.

The portal helps regional policy makers to identify progress and gaps for further interventions in DRR and improves information sharing on past, ongoing and planned DRR initiatives. It facilitates better coordination and programme planning by regional stakeholders, enhances use of resources, reduces duplication, shares lessons learned and identifies gaps in DRR efforts at a regional level. Thus it contributes to:

- improved regional planning and programming on DRR;
- highlight areas of cooperation among regional and sub-regional organisations;
- add to the periodic progress reviews and reporting processes at regional and sub-regional level; and
- assist donors and decision-makers to channel resources and efforts that can meet their own policy and programmatic imperatives.

The Pacific launch of the portal was undertaken during the Pacific Platform for DRM meeting in August 2010 in Suva, Fiji. It is available on line (<http://drrprojects.net>). As at August 2012 the portal has 1007 project records covering the Asia and Pacific regions.

A new stock take and update of Pacific regional project information from partners and stakeholders in the portal is currently underway with support from DRP.

### *Cook Islands DRR Projects Portal*

In line with the ongoing development of the Asia Pacific DRR Projects Portal, collaboration between DRP and the Asian Disaster Preparedness Center (ADPC) has seen the expansion of the concept at a national level in the Pacific in the Cook Islands.

Under an agreement between SPC SOPAC Division and ADPC, in February 2012, at a value of US\$50,705, work is underway to support the Cook Islands with the establishment of its DRR Projects Portal. Part of this assistance includes the recruitment of a Disaster Information Officer to be responsible for developing and populating the portal, a manual for its operation and for knowledge transfer to ensure the sustainability of the initiative.



As at the end of August 2012, the Disaster Information Officer has been recruited and 43 projects for DRM and Climate Change have been identified for entry into the portal. A workshop facilitated by ADPC in Bangkok in July 2012 focused on experience sharing of the national pilot projects and discussed links with other information systems as well as future information requirements on the regional and national level.

The project will end on December 2012.

### *Climate Change Information Systems*

DRP, through the support of the PDN team, has been providing technical advice to SPREP on the development of the Pacific Climate Change Portal.

In addition, in collaboration with GIZ, support is also being provided for national level efforts at establishing Climate Change information systems in Fiji, Tonga and Vanuatu.

### *PDN Introduction for Regional Red Cross Disaster Managers*

Through collaboration with the International Federation of Red Cross & Red Crescent Societies an awareness session for the Pacific Disaster Net was undertaken during the IFRC Pacific Regional Disaster Management Meeting in May 2012. The purpose of the session was to:

- provide a Pacific Disaster Net (PDN) hands on introduction;
- understand the role and purpose of PDN;
- understand how to access the portal and its content;
- be able to retrieve and share information; and
- be able to use the extended functionalities like the Local Edition (Offline version on DVD).

There were 24 participants from the Red Cross national societies attending the meeting.

## TRAINING & CAPACITY BUILDING

The Training and Capacity Building (TCB) unit was established to provide support, advice and technical assistance in the areas of Human Resources and Institutional strengthening for DRM. The TCB unit brings together existing personnel under the Pacific Disaster Risk Management Program (PDRMP) which is supported by The Asia Foundation/USAID Office of US Foreign Disaster Assistance with other DRP personnel.

### Increased Human Resources DRM Capacity

#### *Pacific Disaster Risk Management Program (PDRMP)*

During this reporting period *Emergency Operations Centre (EOC)* training has been a key focus, with eight courses held in the region: Federated States of Micronesia (3), Fiji (2), Nauru (1), Palau (1) and Vanuatu (1). In all countries (excluding Fiji) the training has complemented recent construction or renovation of national or state EOC facilities.

A new training course, *Introduction to Disaster Risk Reduction (DRR)* was launched in Samoa in July. This course has been developed for the Pacific region and is designed to provide an introduction to the fundamental concepts of risk reduction, including how risk is identified and how appropriate reduction or management measures are selected, financed and implemented. Following the successful launch this course will be customised for delivery in seven more countries over the next 12 months (Cook Islands, Federated States of Micronesia, Fiji, Marshall Islands, Solomon Islands, Tonga and Vanuatu).

Basic training, through the *Introduction to Disaster Management (IDM)* course have been provided six times during this reporting period in the Federated States of Micronesia (1), Fiji (2), Nauru (1), Solomon Islands (1) and Vanuatu (1).

In Fiji the cadre of national trainers has been expanded through a *Training for Instructors* course held in July 2012. Eighteen potential trainers attended the course to develop their training and facilitation techniques. These trainers will further support the institutionalisation of DRM training for Fiji within the Public Service Commission and implementation of disaster management training under the National Disaster Management Office (NDMO).



The table below highlights the courses conducted and the number of participants for each per country during the reporting period.

Participants	Introduction to Disaster Management (IDM)	Initial Damage Assessment (IDA)	Emergency Operations Centre (EOC)	Exercise Management (ExMan)	Training for Instructors (TFI)	DRM Workshop (included aspects of EOC, IDA, ExMan)	Introduction to Disaster Risk Reduction (DRR)
Cook Islands						22	
Federated States of Micronesia	22	43	59	21			
Fiji	46	23	48		18		
Nauru	22		21				
Niue							
Marshall Islands							
Palau		24	23				
Samoa							19
Solomon Islands	69	69					
Tonga							
Vanuatu	18	14	15				
<b>Total</b>	<b>177</b>	<b>173</b>	<b>166</b>	<b>21</b>	<b>18</b>	<b>22</b>	<b>19</b>

### *Development of graduate courses in DRM*

Technical assistance has been provided to the Fiji National University (FNU) and the University of the South Pacific (USP) for the development and delivery of accredited graduate-level courses in Disaster Risk Management. At the University of the South Pacific this has included the delivery of guest lectures during the face-to-face workshop for students enrolled in the EV424 *Disaster Risk Management* course.

For the Fiji National University (FNU), the first of four courses that will form a Graduate Certificate in Disaster Risk Management has been completed. The first cohort of students began their studies in August 2012. Lecturers from the Fiji National University are part of this first cohort and will take on the teaching responsibility with technical back-up support from SPC (SOPAC Division) personnel from Semester 1, 2013. Development of the second course in this programme is currently underway and will be completed by end-2012.

### *PDRMP Training for Police in Federated States of Micronesia*

In collaboration with the Australian Federal Police (AFP) Pacific Police Development Programme, support has been provided for disaster management training to Police and other key response personnel in the Federated States of Micronesia. This is a continuation of a programme that began in Samoa in 2010. Collaboration with the AFP has extended the reach of the suite of DRM training to a wider range of national stakeholders and is facilitating a more consistent understanding of DRM concepts and processes across the region.



### *Extension of DRM training for nursing students in the Solomon Islands*

Building on the successful partnership between the Solomon Islands College of Higher Education (SICHE), Solomon Islands NDMO and PDRMP, a four-day version of the Introduction to Disaster Management and Initial Damage Assessment courses was developed for delivery to nursing schools in the Solomon Islands. The combined course was delivered to students at SICHE in April 2012 and again to students training at the Atoifi Hospital in August 2012 and Munda Hospital in September 2012. In 2012, 117 nursing students have completed this training. Significant to note the latter two courses were delivered by national trainers from the Solomon Islands trained through the PDRMP.

## **EU EDF 9 B ENVELOPE PROJECT**

The aim of the project is to build resilience in selected communities to mitigate against hazards focusing on disaster management and providing access to safe drinking water. The eight participating countries are: Federated States of Micronesia, Marshall Islands, Nauru, Palau, Papua New Guinea, Solomon Islands, Tonga and Tuvalu. A time extension and budget increase was approved in 2011 with the project now scheduled to close in June 2013 with a budget of €9.7 million.

### **Improved access to safe and clean drinking water**

#### *Marshall Islands*

The focus in the Marshall Islands is to improve access to safe drinking water. Installation of 350 rainwater catchments for Majuro and 250 rainwater catchments for Ebeye has been completed including 173 tanks in the outer islands. The supply and installation of a further 580 water tanks for households on Majuro commenced in August 2012 and is scheduled to be completed in March 2013. Further support to the Environmental Protection Agency (EPA) was provided with more water quality monitoring equipment. All activities in the Marshall Islands will be completed by March 2013.



#### *Nauru*

The intervention in Nauru is in addressing water security. The project has completed the construction of 45 community rainwater catchment shelters over community tanks which will ensure they provide a longer service to the community in addition to desalinated supply. Six large concrete tanks at the Nauru Utilities Authority complex have been repaired, increasing storage capacity. Construction of a steel frame building housing the six tanks was completed in June 2012 that will provide a more secure environment reducing the risk of possible contamination. Installation of guttering to 150 households is currently in progress and due to be completed in the last quarter of 2012.



## *Tonga*

The objective of the project in Tonga is to improve access to safe drinking water. Construction of 23 new pump sheds and extending the electrification grid at the Mataki'eua well field has been completed. To reduce risk of contamination of the water lens twenty six (26) new electric pumps were installed replacing diesel operated pumps. Water is being extracted from the water lens more efficiently and new water meters are providing valuable data on extraction rates for better management of the water resource.

The Ministry of Health has identified 10 villages on Tongatapu that are considered a priority for improvement of their village water supply. The villages include Kolongo, Talafo'ou, Fatuma, Holonga, Vaini/Pakilau, Ha'ateiho, Ha'alalo, Kala'au, Fahefa and Fatai. New water pump sheds have been constructed at all villages and six new submersible pumps are being installed including one standby generator. The mufflers discharging exhaust fumes from diesel operated pumps has been extended to reduce risk of contamination of the water lens.

Supply and installation of 105 (10,000 litre) rainwater catchments in Eua (33 tanks), Ha'apai (39 tanks) and Vava'u (33 tanks) have been completed. A contract was signed with Tonga Community Development Trust in July 2012 to undertake awareness in the outer islands on promoting good water management practices. The training and awareness programme is expected to be completed by December 2012.

The project is currently working with the Ministry of Lands, Environment, Climate Change and Natural Resources to drill six boreholes on Tongatapu to monitor water quality. Drilling work commenced in June with three boreholes completed and remaining work to be completed in September 2012. A new vehicle was also provided to the Ministry to assist in their fieldwork. The data collected from the boreholes will provide valuable information on monitoring salinity and quality.

## *Tuvalu*

Installation of 310 rainwater catchments with 10,000 litre capacity has been completed targeting households in Funafuti. With some balances remaining a further 25 rainwater catchments are currently being installed which is expected to be completed by December 2012. With the majority of houses on Funafuti dependent on rainwater the rainwater tanks will provide increased storage to support the household during periods of dry weather.

Raising awareness of the importance of water and promoting good management and conservative practices is important due to the dependency on rain water. The project is working closely with the Government and Non-State Actors in Tuvalu to educate communities, households and Government officials on how to maintain clean water catchments and monitoring water quality. A workshop was held in Funafuti in May 2012 with participants from Government, communities and Non-State Actors promoting good water management practices. A follow-up training will be held in the latter half of 2012 to ensure skills are applied particularly in water quality monitoring.

## **More robust emergency communications and overall national disaster response coordination**

### *Federated States of Micronesia*

The focus in FSM is to strengthen the early warning system network and renovate the Emergency



Operation Centres in each State. Renovation of Emergency Operation Centres in Yap, Kosrae, Chuuk and Pohnpei States has been completed. Construction of a national Emergency Operation Centre in Palikir commenced in January 2012 and is scheduled to be completed in November 2012. Early warning communication network will be strengthened with the supply of HF and VHF radios in the outer islands in all States with installation to commence in the last quarter of 2012. The project has installed six Rural Internet Connectivity units in certain States and more training will be provided in disaster management.

*Palau*

Construction of the new Emergency Operation Centre in Palau has been completed and a new vehicle was also provided to the National Disaster Management Office. Further training support will be provided to the NDMO including other key stakeholders.

*Papua New Guinea*

The overall aim is to improve early warning communication through strengthening the seismic and weather monitoring networks including strengthening communication between the national and provincial disaster management offices.

Strengthening of the seismic network will include establishing ten new (10) seismic stations at Alotau, Kavieng, Kimbe/Hoskin, Kuta/Buka, Misima, Lae/Mt. Lunaman, Port Moresby, Tabubil and Mt. Hagen. The seismic stations will transmit real time seismic data through Telecom’s network to the main hub at the Port Moresby Geophysical Observatory. The seismic stations will also be installed at Telekom sites in the Provinces. Installation of the seismic stations is due to commence in September 2012.

Support has been provided to the National Disaster Centre in enhancing their capacity to provide early warning communication. Provincial disaster managers have been provided with a phone with twelve months unlimited calls through an arrangement with a mobile phone company. Supply and installation of 148 VHF/HF radios will commence in the last quarter of 2012 targeting Provincial Disaster Committees in each province. Some equipment as listed in the table below have also been provided to NDC to support their field visits to the Provinces

NDC Support	Equipment
Provide appropriate equipment to NDC to support field missions and improve communication network.	The following items have been supplied: <ul style="list-style-type: none"> <li>- Install new phone network at NDC Office</li> <li>- Supply life jackets, tents, sleeping bags, cooler, first aid kit, back packs, torch, hand flares and orange canisters</li> <li>- Supply GPS unit and binoculars</li> <li>- Office equipment: Trimmer, Binding Machine, Desk Lamps, Inkjet Printers, HP Designjet Plotter, PA System, Overhead Projector, Computer Flat Screens and Desktops, Laptop Bags, Flash Drives, Printer/Scanner/Copier, Electronic Whiteboard, Desk Top Speakers, Laptops, Camera, and appropriate Software</li> <li>- One 50" Plasma TV screen for NDC</li> <li>- One 3KVA diesel generator</li> </ul>

The National Weather Service (NWS) has taken delivery of five (5) Automatic Weather Stations (AWS) and twenty (20) data logging rain gauges. NWS has completed installation of AWS’s at Por Island (Siasi Island Group), Misima Weather Office, Tambul and Aiyura (Highlands Provinces). The installation at Buka (Bougainville) will be undertaken in the third quarter of 2012.

Data logging rain gauges are being installed when NWS staff undertake scheduled visits to Provinces.

### *Solomon Islands*

The country focus is to strengthen disaster management through infrastructure development. A new Emergency Operation Centre has been built at Lata (Temotu Province) and in Kirakira (Makira Ulawa Province). The building at Lata has been completed and Kirakira is due to be completed in October 2012. Construction of an EOC at Gizo (Western Province) is due to commence in September 2012. Some support for training will be provided to the disaster management office and other key stakeholders.

In addition to the core deliverables of the project, support has also been provided to other teams within the DRP, and the SOPAC Division as follows:

### *Niue – Emergency Operations Centre Design & Review of Building Code*

Under a package of support provided in connection with the development of a Joint DRM and Climate Change Adaptation National Action Plan, technical assistance was provided to Niue by the B Envelope Project Engineer, John Tagilima, for the design of a purpose-built National Emergency Operations Centre. The basis of the design drew significantly from the designs used by the EU EDF B Envelope Project.

In addition, the project is also providing technical advice and support to Niue for the review of its National Building Code and supporting legislation. A mission was undertaken to Niue in the second quarter of 2012 to discuss the terms of reference for the review. An advertisement of the TOR is to be published in September 2012.

## **EU EDF 9 C ENVELOPE PROJECT**

This mechanism provides Pacific overseas countries and territories (OCTs) €5.665 million over 4 years to support national actions to reduce vulnerability to natural disasters and water-borne diseases. The EDF 9 C Envelope also seeks to facilitate OCT access to regional learning schemes and initiatives in the areas of disaster risk management and water and sanitation. The four participating countries are: French Polynesia, New Caledonia, Pitcairn Islands and Wallis and Futuna. This project is based on the premise that, by mitigating risk, disaster loss – in terms of human life, infrastructure damage and economic impact – will be reduced or avoided. Each territory works towards this objective based on its own set of priorities and particular environment, some opting for a focus on sanitary risk (New Caledonia, Pitcairn Islands), others natural disaster risk (French Polynesia, Wallis and Futuna). Strong emphasis is placed on the use of science to inform decision-making: support is provided in generating data, quantifying and monitoring risk, to inform decision-making in a range of sectors: disaster preparedness and response, coastal development planning, water resource management, sanitation, environmental protection, and economic development.

### **Territorial Component**

Following the signature of seven agreements in 2011, implementation is underway in all four territories.

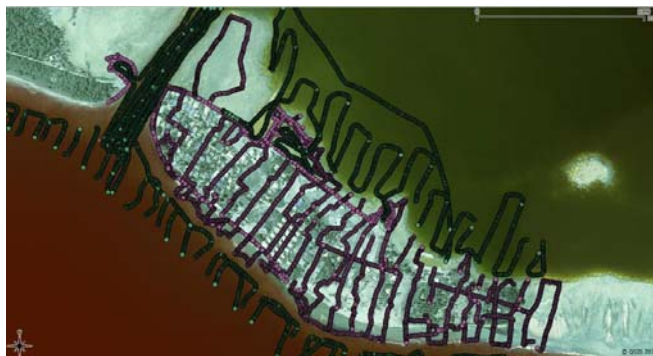
## French Polynesia (FP)

French Polynesia seeks to reduce natural disaster risk in two vulnerable zones: the Marquesas archipelago highly exposed to *tsunami*, and the Tuamotu archipelago facing severe and recurrent cyclonic swells. The FP allocation totals €1,085,000 or 21.5 % of the project budget.

### *Tuamotu Archipelago – Reducing the risk of storm surge*

Under the framework of FP's national disaster risk prevention policy, this activity seeks to provide an accurate definition of the inundation hazard from tropical cyclone waves in select areas of the Tuamotu archipelago. Results will feed into revised land use and disaster plans, with a view to enhance people's safety and protect coastal infrastructure (applications also extend to the pearl culture and tourism industry, environmental protection and maritime security).

Following extensive bathymetric, oceanographic and topographic data collection in 5 atolls (Rangiroa, Manihi, Kauehi, Arutua and Apataki), SOPAC's efforts in 2012 focused on processing and analysing the data to enable the development of cyclone wave models and inundation maps. This work led to the testing of new tools (such as Xbeach which investigates wave transformation over fringing reefs); these will now become standard procedures for future



modelling at SPC and should benefit similar upcoming projects. As of end 2012, several reports, bathymetric maps and emerging models (1D and 2D) will be available, awaiting refinement in 2013.

As part of this project, the SOPAC Division will undertake an economic analysis of inundation mitigation options in coastal areas (particularly as they relate to housing). The Terms of Reference have been agreed to and a literature review is

underway. Subject to the arrival of a new economist, the field collection component will be conducted in October 2012, with preliminary results to be presented to French Polynesia shortly thereafter.

### *Marquesas Archipelago – Strengthening the tsunami alert system*

The Marquesas archipelago is remote and highly exposed to *tsunami*. With 10 deficient sirens, this activity seeks to strengthen the *tsunami* alert system through the repair of faulty sirens and the capacity building of local technicians to diagnose malfunctions and make minor repairs, reducing the dependence on costly, Papeete-based resources.

A private French Polynesia-based supplier, ASSYSTEM was selected in 2011 to conduct the repair of all tsunami sirens and build the capacity of local technicians in system maintenance, malfunction diagnosis and basic repairs. With two visits to the five concerned sites (Hiva Oa, Ua Pou, Ua Huka, Nuku Hiva, and Fatu Hiva), ASSYSTEM was able to test the entire *tsunami* siren park, repair all faulty sirens and train six municipal technicians, increasing local autonomy in the maintenance and repair of sirens. This activity is complete.

## **New Caledonia (NC)**

New Caledonia seeks to mitigate public health risk arising from contaminated drinking water, inadequate sanitation, and increasing climate, population and industrial pressures on water resources. The NC allocation amounts to €1,550,000 or 30.6% of the total project budget.

### *Reducing public health risk in New Caledonia through water safety planning (national reach)*

Faced with periodic epidemic outbreaks due contaminated drinking water, New Caledonia seeks to increase access to safe drinking water by assisting municipalities in the development of water safety plans and the subsequent implementation of key corrective measures. The premise of water safety planning is that by identifying entry points for the contamination of drinking water and systematically addressing these deficiencies, water-borne diseases and epidemics should be reduced significantly.

In 2011 and 2012, nine municipalities (La Foa, Farino, Sarraméa, Moindou, Touho, Hienghène, Poum, Ouvéa and Bourail) received technical and financial support to improve the quality of their drinking water. Funding for these improvements is shared between the town's budget (25%) and EDF 9 C funds (75%). Improvements are based on the identified needs of each municipality and include a wide range of measures: regular monitoring of water quality (with data recorded and analysed), monitoring the performance of the water supply system (and remedial action to reduce wastage), development of awareness materials on water usage and safety, addition of new water storage and treatment facilities and protection of these structures (with fences, locks), improvements to rainwater harvesting, cleaning of water reservoirs, new regulations prohibiting access to water catchment areas, introduction of new water treatment techniques (chlorination, diverter, first flush), training of technicians and volunteers to assess water quality and infrastructure maintenance needs, review of payment options for drinking water and installation of individual water meters to prevent wastage. Improvements in all nine municipalities were completed by end of July 2012. Left-over funds will be used to benefit water quality improvements in one additional municipality: Ouegoa.

In September 2012, five new water safety plans will be initiated for the following municipalities: Voh, Koné, Pouembout, Canala and Lifou. New Caledonia sanitary agents will train and accompany municipal teams in identifying contamination entry points and remedial action. These actions, collectively, should contribute to improved drinking water quality in New Caledonia.

### *Enhancing New Caledonia's capacity to manage wastewater collaboratively (national reach)*



This activity falls under New Caledonia's efforts to address significant sanitation gaps threatening the country's fresh water resources, its UNESCO world heritage lagoon and the public health of its people. Before launching into infrastructure improvements, New Caledonia is seeking to reform the governance of its sanitation and wastewater arrangements. Through a multi-year, multi-stakeholder approach, the country is working on defining this new structure based on a diagnosis of the sanitation situation in the country and the development of options for the new sanitation agency.

By end of 2011, the feasibility study for the establishment of a multi-stakeholder national sanitation agency was completed. It offers several scenarios for the new sanitation agency,

including options for its legal status, institutional and technical mandate, and funding mechanisms. In parallel, a study tour to metropolitan France was organised for mayors to learn about collective and individual solutions to sanitation and meet institutional, technical, administrative and financial stakeholders involved in solving sanitation issues in metropolitan France. In early 2012, the proposal to create the new sanitation agency OPANC was tabled at Congress and subsequently approved.

*Reducing public health risk through integrated water resource management in the Voh-Koné-Pouembout (VKP) area, Northern Province, New Caledonia*

The VKP zone is facing rapid industrial development with the establishment of a large nickel mining project. The population rate is growing rapidly as the industrial pole attracts new workers and their families, who in turn require a range of services (e.g. fresh food, schools, homes, electricity). This situation puts pressure on limited water resources, increasing the risk of water scarcity and contamination. To meet these challenges, VKP water stakeholders have come together to manage water resources collaboratively under a Water Management Committee following an integrated water resource management approach. EDF 9C funding is used to co-finance a range of initiatives to enhance the knowledge of water resources, of its usage and the risks it faces, improve the protection of water environments, improve water management and governance, and encourage learning and experience sharing.

In 2012, progress was made on all the above components:

- To enhance knowledge of ground and surface water, a number of studies are underway or completed, such as the feasibility study for the setup of anti-salt dams, the study of the Koné river to assess the hydrological sustainability of the water table, the modeling of the Pouembout water table, the investigation presenting data gathered from a network of piezometers installed on the Voh river, and the hydro-geological study of the Koné River water table.
- To provide VKP water stakeholders with a more accurate assessment of water needs, several initiatives are under implementation, including installing individual water meters for the Koné communities and public buildings, the study of the needs and particular usage of water for agricultural purposes in Pouembout, the training of farmers in cultural practices, corn irrigation and the use of probes.
- In terms of environmental protection of water resources, water safety plans will be developed with the support of the New Caledonia sanitary agency DASS; this concerns the three municipalities of Voh, Koné and Pouembout. Preliminary discussions and preparations are currently taking place.
- To enhance water resource management and governance, progress was made on several fronts: a review is underway of the guiding strategy for access to drinking water in the VKP zone (which will include results of the water consumption analysis); new regulations to grant authorisations for domestic water use have been introduced; discussions are taking place with private specialised agencies to devise IT solutions for matching water needs and availability; a first draft proposal is available seeking to formalise the establishment of the VKP Water Management Committee.
- The water management committee has been active in raising the awareness of communities in reducing water usage, particularly in schools, through press articles and with the general public through the delivery of water bills.

The multi-faceted work conducted by the VKP water management committee should contribute to reducing the pressure on water resources and ensuring its safety and availability for a growing population.

## Pitcairn Islands

Pitcairn Island is increasingly facing long, severe periods of drought and variability in rainfall patterns. For a remote island, highly dependent on rainfall, this situation can have a dramatic impact on water available for domestic consumption and agricultural production. This activity seeks to strengthen water security for the 50-strong population on the island. Priorities include the systematic assessment and monitoring of water resources and weather patterns, feeding this data into drought mitigation measures such as improved water collection, storage, and distribution. The Pitcairn Island allocation totals €300,000 or 6% of total project budget



Starting in mid-2010, SOPAC has been providing Pitcairn with monthly analysis of water and rainfall data collected on the island. This analysis, in the long term, should allow for enhanced anticipation of dry periods and related water consumption and storage needs. New water and weather monitoring equipment was procured this year such as rain gauges and temperature thermometers.

In June/July 2012, SOPAC undertook a 10-day field visit to Pitcairn Island. The objective was to conduct training in water quality testing and monitoring, map all existing water facilities using GIS technology, and design actual water improvements on Pitcairn. The visit resulted in the identification of rainwater harvesting and spring flow collection improvements, including sites for new tanks, equipment to be procured and delivery mechanisms. These activities should contribute to improving Pitcairn Island's water security.

## Wallis and Futuna

Wallis and Futuna seeks to enhance its capacity to prepare for and respond to disasters, particularly *tsunami*. To do so requires a more accurate assessment of the inundation hazard from *tsunami*. This component is led by regional applied research agencies NIWA and IRD and will provide Wallis and Futuna with critical information (such as inundation maps and *tsunami* scenarios) for more focused and effective disaster-related planning. The bulk of the €387,000 funding (7.6% of total project budget) is used by the territory to enhance disaster preparedness through the acquisition of complementary disaster response equipment, the updating of disaster response plans, improved coordination of disaster response, and increased public awareness.


The *tsunami* modelling component is complete with bathymetric maps available for Uvea and Futuna-Alofi, models developed for several trans-Pacific and regional *tsunami* scenarios and the identification of inundation impact. A French expert has been identified to review disaster response plans; and he will assist Wallis and Futuna during October-December 2012. His role will also be to assess the current disaster response arrangements in place and make a series of recommendations. Information materials have been developed to raise awareness of communities in preparing for and responding to *tsunami* alerts. To enhance communication during disaster response, a study was conducted to assess current radio communication coverage throughout the two islands. The results have led to the identification of new telecommunication equipment (including radio transmitters) to be procured. Recruitment is underway to provide support to all villages in developing their emergency response plans, including the identification of emergency shelters. These combined efforts will enable Wallis and Futuna to enhance its preparedness to disasters and particularly *tsunami*.



## Regional Component

In addition to national actions, the EDF 9 C Envelope seeks to promote regional exchanges between OCTs and their Pacific neighbours in the areas of disaster management and water and sanitation. The budget for the regional component amounts to €263,000 (5.2% of the overall budget).

Considerable activity took place on the regional front:

- In a Pacific first, OCTs took part in a 3-day study visit to Fiji in November 2011. Fourteen OCT representatives toured different areas of the main island, Viti Levu, to learn about local activities to improve water, sanitation and disaster preparedness. One of several locations, the OCT delegation toured was downtown Nadi, to see the effects of the 2009 floods and visited sites that are part of a Global Environment Facility demonstration project, which aims to use integrated water resources management to reduce the impact of flooding. Vinesh Kumar, Nadi GEF project manager, said he believed the exchange benefited all parties: *“We hope that by highlighting the holistic approach we are using to lessen the impacts of flooding, our OCT friends will take home some new ideas on how to deal with their local issues. We also see this as the start of a close relationship where we can also learn from some of the activities in the OCTs.”*
- 
- As host to the 2012 Pacific Disaster Risk Management (DRM) Platform and Regional Water and Sanitation Consultations to be held in September 2012, New Caledonia is set to play an active role in promoting its approach to disaster risk and water resource management. With a large delegation representing all four OCTs, the meeting will allow for ‘French’ models to be presented alongside Anglophone approaches, and for mutual learning and exchanges to take place.
  - Following the establishment of a regional project fund worth €170,000, eight initiatives were selected to strengthen regional learning and integration in water resource and disaster risk management. Such exchanges include: a study tour to Australia for New Caledonia public health officers to gain knowledge in asbestos risk management, the development of a standard *tsunami* risk signage policy for Pacific OCTs, a regional workshop on water governance to identify Pacific-specific good practice and lessons learned, exchanges between French Polynesia and Hawai’i on the inclusion of natural disaster risk in coastal development planning regulations, and a regional workshop on water safety planning to encourage cooperation between OCTs and PICs in this area. All initiatives are currently under implementation.
  - Another objective under the regional component is to make available to francophone Pacific territories the SOPAC Division’s repository of information for DRM, Pacific Disaster Net ([www.pacificdisaster.net](http://www.pacificdisaster.net)). The web portal, currently only in English, will be modified with the addition of a French interface and the inclusion of OCT resources. The translation will begin in 2013 once the redesign of the PDN interface is complete. Since 2011, the PDN manager has established contact with key OCT stakeholders, providing a solid basis for future cooperation. Following the presentation of the web portal and its capabilities, OCT-based French disaster managers have expressed interest in also using PDN as host to the emergent FRANZ website.
  - Given the time-bound nature of the project, the EDF 9 C Envelope is working to strengthen ties between the SOPAC Division and OCTs beyond 2013. As part of the development of the New Caledonia Joint Country Strategy in 2011-2012, SOPAC Division

services were identified and secured to service New Caledonia needs over the long-term. This tool is a useful conduit for cementing institutional ties between the Division and OCTs. In the same vein, the project facilitated a meeting between the SOPAC Water and Sanitation Programme and OCT water stakeholders in November 2011. This first 'get-together' allowed OCTs to grasp the range of services provided by the SOPAC Division in this area. SOPAC support to OCTs post-project is a critical issue which needs further attention.

To consolidate territorial advances in disaster and sanitary risk management and the regional integration of OCTs in this area, the SOPAC Division applied for a 12-month extension which was granted by the European Commission early 2012. The EDF 9 C Envelope is now scheduled to close in November 2013.