

## **INFORMATION ON DISASTER/RISK REDUCTION IN TONGA**

### **1. Political Commitment and Institutional Aspects.**

#### **1.1 National Policy, Strategy and Legislation addressing disaster risk reduction.**

Tonga does not have a legislation yet but are working on it. We are hoping to get that by next year.

The national policy is provided in the National Disaster Management Plan (NDMP)

approved by Cabinet in April 1999. In section 1:4 the Government:

- Recognise the problem associated with disaster as part of total Government responsibility and to make the best possible arrangements to deal with them given available resources.
- Recognise the disaster management phase of mitigation, preparedness, response and recovery as essential components for effective national development planning.
- Encourage traditional self-help concept within the community through education and awareness programme.

#### **1.2 National body for multi-sectoral coordination and collaboration in disaster risk reduction.**

- The NDMP also provided for a National Disaster management Committee comprising of the Deputy Prime Minister and Minister of Works and Disaster Relief Activities Hon. James C. Cocker as Chairman. Members includes, Chief Secretary and Secretary to Cabinet, Director of Works, Director for Foreign Affairs, Secretary for Finance, Director of Health, Director of Agriculture and Forestry, General manager of Tonga Water Board, Commander of Police, Secretary for Environment, Secretary of Lands Survey and Natural Resources, Director of Planning, President of Tonga Non Government Organisation (TANGO), Secretary of Tonga Red Cross with the Deputy Director of the National Disaster management Office as Secretary. Others may be coopted when necessary.

Each agency play their role in accordance with provision of the NDMP which is basically means part of their core functions that is relevant to emergency operations. Police and Defence for example may assist with evacuation, security,

search and rescue operations etc. While Public Works do infrastructure assessments and provide heavy equipments.

**1.3 Sectoral Plans or Initiatives that incorporates risk reduction concept into respective development area.**

Strategic result Area (SRA) no.8 in Tonga's Strategic Development Plan Seven (SDP7) is: "Sustainable utilization and management of natural resources and the environment"

of which one of the policy guidelines under SRA8 is "to have Emergency Plans to minimize the effects of natural and manmade disasters."

Emergency Plans would be the responsibility of the line Ministry, i.e., Ministry of Works, Disaster Division.

Also one of the projects under SRA5: Maintaining and improving infrastructure" is the "Cyclone Emergency Recovery & Managements Program (CERMP)" funded by the World Bank. This is part of the Public Sector Development Program (PSDP) of the SDP7.

**1.4 Is disaster risk reduction incorporated into your national plan for the implementation of UN Millennium Goals...**

The Tonga national Assessment Report (NAR) was the Government of Tonga's Report to the WSSD in Johannesburg 2001. This report was compiled by the DOE and outlined the issues, activities, needs and constraints that Tonga faced regarding sustainable development from 1992-2002.

Natural and Environmental Disasters is a major issue discussed in the NAR (Chapter 12;attached). It has been recognized in Tonga that cyclones and earthquakes are the two major classes of disasters that can occur. Associated events that may accompany these 2 classes of disasters also have occurred in Tonga, for example drought, flooding of low-lying areas, sea spray, etc.

The NAR also outlines Activities and Progress that have been carried out to address natural and environmental disasters.

The Climate Change issue is also discussed in the NAR (Chapter 9), note that national foreshore protection programmes either funded bilaterally or by the Government have been carried out to combat accelerated coastal erosion and seawater inundation. These present a threat to people's property and land. Efforts including building of protection foreshores both in hard structures (eg. Nuku'alofa foreshore) and soft structures (eg. Kanokupolu foreshore) are ongoing.

The Millennium Development Goals sets out 8 Goals. Goals 7 is ensuring environmental sustainability. Goal 8 is developing of Global Partnerships for development which outlined that one of the objectives that MDG which is related to the current National Strategic Development Plan 7 is the health risk of settlements in low lying areas. Although disaster risk reduction is not directly addressed or mentioned, these common objectives can be seen as an adaptation procedure or future sea level rise and climate change associated events that can prove as future disasters.

**1.5 Does your country have Building Codes of practice?**

Yes, there is a Building Code but is not a legal documented yet till the Act is enforced which is now in process.

**1.6 Annual Budget is for salary of personnel in the National Disaster management Office (NDMO) only. With regards to risk reduction initiatives, it is project based through the NDMO.**

At present, there is a World Bank funded project that focus on strengthening the risk management capability in country. Consultants were engaged last month and Inception Workshops are being planned for the third week of this month (April, 2004).

**1.7 Are the private sector, Civil society, NGO's academia and media participating in disaster risk reduction efforts?**

Yes. These groups do participate in disaster risk reduction efforts but their involvement varies in degree and on the stages of the event. The NGO's for example is represented in the NDMC by their president. As such, they are involved in policy and planning but the degree of involvement is much greater in the response stage of the disaster particularly in providing emergency relief items and to a lesser extent on the rehabilitation stage. The media on the other hand involves right through from the preparedness, public awareness before a disaster right to the post disaster stage. The academia and the civil society are more involved in the awareness activities through public education and awareness programme where their opinion is sought relating to best practices.

## **2. Risk Identification.**

### **2.1 Hazard Mapping/Assessment.**

**No activity of this nature has been carried out.**

### **2.2 Vulnerability and Capacity assessments.**

**Has your country carried out vulnerability and capacity assessments?**

Tonga is party to the Framework Convention and Climate Change (UNFCCC) and is currently implementing its obligations for the UNFCCC Convention through developing of its First National Communication. The DoE is the coordinating agency for this Climate Change project. One of the enabling activities of this project was a Vulnerability and Adaptation Assessment. This looked at different sectors including Agriculture, Marine, Coastal Zone, Water Resources and Health. The Climate Change project has a Technical Working Group (TWG) that consists of national consultants who are employed in the above sectors. This is the working group that compiles the relevant vulnerability and adaptation information concerning their respected areas.

The Intergovernmental Panel of Climate Change (IPCC) guidelines and methods were used to carry out these vulnerability and adaptation assessment.

Currently the DoE is preparing a proposal to the Global Environment Facility (GEF) to fund a National Capacity Self Assessment project to be carried out in Tonga. If the proposal is approved by GEF, funds of up to USD \$2000,000 will be given to each country to assess their capacity in carrying out her international environmental obligations. This assessment will allow the different relevant stakeholders that have relation to environment to assess their individual institution's capacity and whether it is adequate to carry out their responsibilities.

### **2.3 Mechanism for risk monitoring and Risk Mapping.**

### **2.4 Environment Department.**

**Is there a systematic socio-economic and environmental impact and loss analysis in your country after each major disaster?**

**No, the Department does not carry out any of these analysis after each major disaster.**

## 2.5 Are there early warning systems in place?

**Tropical Cyclone** – Tonga depends on the Regional Meteorological Office in Nadi, Fiji for its weather bulletins. Information are relayed from Fiji to the Tonga Meteorological Office who in turn will inform the Tonga Broadcasting Commission for dissemination to the public. New Zealand and Hawaii are back up options to Fiji.

Cyclone Alert is issued when a cyclone is close to the island group and where Gale force winds are expected within 24 hrs – 48 hrs. Information are issued every six hours.

Cyclone warning is issued when threats are imminent and that storm (48>62 knots and cyclone force winds 63 knots or higher) is expected within 24 hours.

- According to the Plan, Cyclone warning are issued every 3 hrs and hourly when the threats increased. But in practice this has never been achieved. Six hourly bulletins are the normal practice.

- **Community Alert System.**

This system uses colour codes as a mechanism for alerting the Community which eliminates the problem of community members not understanding the technical jargon used in warning messages.

**Blue Alert** – linked to Gale force wind warning (34 – 47 knots)

- Gale may start within the next 24 hours.

**Yellow Alert** - linked to storm force wind warning (48 – 63 knots).

- Storm force winds is expected within 24 hours
- School may close
- Safety Shelters will open.

**Red Alert** - linked to Cyclone force winds (64knots and above)

- Highest state of alert and readiness
- Offices, stores, etc should be closed.
- Cyclone impact is imminent.

Termination of community alerts will be issued by the Meteorological Office in consultation with the Core Command/Central Control Group (the body in charge during emergency situation)

### **3. Knowledge Management.**

**3.1** Information relating to disaster risk reduction is officially managed by the National Disaster Management Office (NDMO). The information are disseminated through public education and awareness programme which can be in the form of community workshops, TV/Radio discussions, public speech (upon request by specific groups like schools, peace corps, youth, etc) and brochures and leaflets (on local vernacular) and posters. Information imported are collected from various overseas sources like SOPAC, Emergency Management Australia, overseas conference and workshops. Training materials used locally are also developed and funded by overseas donors and conducted by local instructors eg. US-OFDA courses (IDA & TFI).

The main users of these information are the public, students.

**3.2** N.A

**3.3 Educational Programmes related to disaster risk reduction in public schools?**

Secondary school students (form4-5) always have projects on natural disasters but we are not familiar with the subject or training materials used at school. We do not have the technical experts to teach the students on the nature of natural disaster but we share whatever we have in our possession in terms of books, which is not much.

**3.4 Training Programme Available?**

We have training materials that is available locally. These materials were developed by US-OFDA. It is known as Introduction to Disaster Management (IDM). The target audience are Government Officials at middle management /operational level and the community. My office (NDMO) is responsible for co-ordinating and delivering this training programme. We have done six training sessions but only at district level (from 1999-2001). It will be useful to take it to village and island level but fund is needed. I personally believe that this course is quite useful but to what extent does it help to change practices at local or national level cannot be determined because we need to follow-up this course on an annual basis but it is impossible for funding reasons.

There are also regional training programme of the Regional Office at SOPAC.

3.5 There are traditional practices that are still useful in disaster risk reduction like crops diversifications, tying down of roofs, some food preservation methods. However, due to changes in lifestyle and technologies, this knowledge is quickly eroding.

### **3.6 National Public Awareness programmes or campaign on disaster risk reduction.**

We have an Awareness Week starting from the second Tuesday of October every year, which is the International Disaster Day. We use to run singing competition, drama competition, a one-day seminar, a daily TV/Radio panel discussion, poster/logo competition and Float competition. However, this requires a lot of money, therefore the range of activities cannot be carried out annually.

A public awareness campaign is carried out during the cyclone season (November – April) but this is limited to TV/Radio programme. The British High Commission is our major sponsor in this campaign.

The main players in these programme may include, but not restricted to the followings:

- Government agencies.
- NGO's and the Communities, Youth Groups.
- Media.

There is no specific target. All sectors are invited to participate.

As for evaluation, none has been done to determine the outcome of the programme.

## **4. Risk Management Applications/Instruments.**

### **4.1 Are there any good examples of linking management and risk reduction practices in your country?**

Coastal reforestation is the most commonly used environmental management scheme that the Department have used to reduce the risks of natural disasters. The Department when it was previously under the Ministry of Lands, Survey and Natural Resources as the Environmental Planning and assessment Conservation Section (EPACS) planted ironwood trees (*Casuarina equisetifolia*) or Toa along the Nuku'alofa foreshore. These ironwood trees can be observed when driving down the Taufu'ahau road to the end of Patangata and also along the Sopa drive. The ironwood trees were chosen because of its strong characteristics of structure and acts as a wind resistant barriers and protect the food crop vegetation is planted near the coasts.

The Climate Change projects also have plans to implement a similar enabling activity of reforestation of coastal plants along the coastal areas.

When the Tonga Environmental Planning and Management Strengthening Project (TEMPP) were still ongoing with the Department (when it was still EPACS), mangroves were replanted in Fanga'uta Lagoon and also Kanokupolu. Coastal; reforestation also under this was carried out in Ha'apai.

4.2 N.A

4.3 The foreshore project in the capital of Nuku'alofa (overseas funded –Japan) This project was identified after Cyclone Isaac (1982) to minimise effect of storm surge and soil erosion to low lying area along the coast of the capital.

## **5. Preparedness and Contingency Planning.**

5.1 We have a National Disaster Management Plan in place and it covers both national and community levels. It stipulates the roles of Government and other agencies who are involved in disaster management as well as the role and responsibility of the community during emergency situations.

According to the NDMP, it should be reviewed/updated annually and tested through simulation exercises.

The Chairman of the National Disaster Management Committee is responsible for activating the Plan.

The Plan has been used during the last two cyclones and I believe it was a success compared to operations in previous years.

There is a lot to be done to make this Plan more effective eg: define the Emergency role or Government; give the Plan a legal teeth through enacting of a legislation; review the operational structure, the commitments of stakeholders and ensuring the Plan is well understood by all concerned etc.



5.2 There is no emergency fund for response at this point but we need to establish one.

When hazard strikes, each agency use their own Recurrent vote in response operations and hope it could be reimbursed later and sometimes they do and in most cases they don't. Response operations are often delayed by absence of funds particularly when private sector is involved.

We have storage facilities for non-perishable items like tents, construction materials but not for food items like flour, rice, sugar. The Tonga Defence Services just build a warehouse which could be utilised for this purpose under Australia aid.

5.3 The National Disaster Management Office is responsible for coordination of disaster response preparedness but it does not have the resources & finance.

The NDMO looks after the existing stock of relief items like tents and tarpaulins. It is also in the process of trying to stock up emergency food items by negotiating with suppliers to reserve these items prior to cyclone season only.

This preparedness measure does extent to other events such as earthquake, Tsunami, etc.

6. The Cyclone Emergency and Risk Management Project (CERMP) funded by a World Bank Loan.

This project emanates in response to cyclone WAKA which striked Tonga on the 30<sup>th</sup> – 31<sup>st</sup> of December 2001.

The objective of the project was to alleviate sufferings in the Social sectors by replacing destroyed dwelling houses with Low Cost Cyclone-resistant housings (cost = T\$18,000/unit).

A total of 470 houses were built in the islands of Niuatoputapu, Niuafu'ou and the Vava'u group. It also allocates/provided funds for Retrofitting Community Halls and small businesses affected by the cyclone. The other objective of the project is to strengthen the emergency and risk management capacity of the country by improving emergency/risk management processes through institutional strengthening and human resources development, implement the Building Codes, and establishing a central land information system for all purposes.

## **7. Tonga's Priorities to be addressed at World Conference.**

- Identify ways or design a framework that could solicit political commitments to disaster and risk reduction at national level. No doubt that a lot of resources have been committed at international and regional level to foster efforts in this direction. However, at the end of the day, damages and sufferings occurred at community level and the success or otherwise of the global efforts hinges on the implementation of disaster and risk reduction efforts.

Political commitments can be reflected in the budget statement of relevant agencies, institutional framework in place eg. Enabling legislation; include disaster/risk reduction in school curriculum; etc.

Obviously there are competing priorities on one hand and limited resources on the other among the developing countries. With these scenario in mind, there is no question that all available resources within these countries will be committed to the most pressing need of the day but not to something that will happen in the next year or five years or none at all.

I therefore think that resolving this dilemma of competing priorities amidst Limited resources is of utmost important to the success of the international efforts to promote disaster and risk reduction in developing countries like Tonga.

Streamlining roles and responsibilities of Government's agencies relating to disaster and risk reduction through a holistic whole of government approach is one way of doing this.