

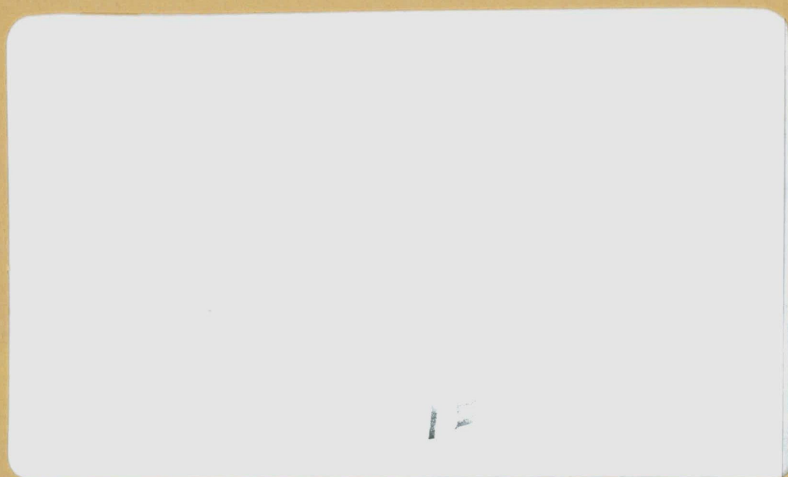
PIDP

Pacific Islands Development Program

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AND
THE STATE OF PREPAREDNESS
IN THE PACIFIC REGION

This paper was prepared by the
Pacific Islands Development Program for the
Disaster Preparedness Strategies Seminar,
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DISASTER PREPAREDNESS AND THE STATE OF PREPAREDNESS IN THE PACIFIC REGION

Disaster preparedness is the term that is usually applied to the efforts of a country or society to organize its resources to respond to a disaster. However, the state of the art, aided by new technology and increased research, has rapidly developed to a point where the old definition is no longer accurate. In order to understand the many opportunities for reducing disaster losses before a disaster strikes, it is important to define the new terminology.

Pre-disaster planning is the term that is used to describe the comprehensive range of efforts that can be made to reduce the destruction and disruption of a disaster before it occurs. The term is intended to denote action and accurately describes the most important part of the activity--planning. This is distinctly different from post-disaster activities which involve operations. The failure to understand this distinction and treat the process as a planning exercise will severely constrain the development of workable measures.

Pre-disaster planning consists of three types of activities: disaster prevention, disaster mitigation, and disaster preparedness. Disaster prevention focuses on the hazard that causes the disaster and tries to eliminate or drastically reduce its direct effects. The best example of disaster prevention is the construction of dams or levies to prevent flooding. As a general rule, prevention is expensive and the results are often far less than hoped.

Disaster mitigation focuses on measures that can be taken to minimize the destruction and disruptive effects of a hazard and thus lessen the magnitude of a disaster. Mitigation efforts offer by far the best and most cost effective method for dealing with disasters. With good planning, most

mitigation measures can be integrated with normal development activities at very little, and sometimes at no additional cost. Some examples are: strengthening buildings so that they are hurricane or earthquake resistant; the planting of crops that are less affected by disasters; changing crop cycles so that crops mature and are harvested before the peak of a hurricane or rainstorm season; adoption of land use controls to restrict development in high risk areas; development of diversified economies so that losses in one sector can be absorbed by others; and many others.

The underlying assumption of disaster preparedness is that disasters are no time to be trying to decide what to do. Preparedness focuses on developing plans to respond to a disaster once it threatens or has occurred. At its simplest, preparedness is an estimation of emergency needs and the identification of resources to meet those needs. A more sophisticated definition is that preparedness is the development of plans to structure the entire post-disaster response, to ensure that emergency aid is managed so that each activity lays the foundation for the next and to plan the response so that each sector contributes in some way to the others. The first objective of preparedness is to get the absolute maximum benefit out of relief and to swiftly complete the transition from emergency assistance to rehabilitation and reconstruction. The second is to insure that disaster assistance makes the greatest possible contribution to ongoing development. Finally, preparedness should guide reconstruction so that it reduces vulnerability and mitigates a recurrence of the disaster.

There has been much more experience in preparedness than in other pre-disaster planning activities. The best known are the development of warning and evacuation plans; stockpiling of supplies; developing emergency plans for hospitals; improving infrastructure to support or facilitate

emergency services; establishing emergency command, control and communications systems; training in search and rescue and first aid. Other measures less known but equally important include developing disaster assessment plans; establishing relief and reconstruction standards and policies, developing stand-by plans for economic assistance to victims; developing crop salvage and marketing plans for small farmers; adopting legislation defining emergency powers; and establishing prior inter-governmental and/or multilateral agreements for disaster assistance to support the planned response.

The Status of Disaster Preparedness in the South Pacific

Pacific Island societies have been involved in mitigation efforts and other types of pre-disaster planning activities since well before European contact. Although some people from island countries and from outside the region are unaware of it, the designs of traditional housing were fairly well adapted to withstand earthquakes and high winds. In some areas, roofs of houses when lifted from their posts, served as reasonably effective hurricane shelters.

In many areas of the Pacific, there are crops such as mountain yams, arrowroot and certain kinds of shell fish that are considered "disaster" or "famine foods." In some areas, crops such as breadfruit, pandanus and sago are processed or preserved for times of food shortage until new gardens came into production.

In areas of Micronesia, Polynesia, and Melanesia, there were trading and kinship networks that were the traditional equivalent to both hazard insurance and disaster relief schemes. Families and larger kin groups paid tribute to chiefs or maintained trading and marriage ties with people at

lower altitudes or on distant islands. In times of food shortage resulting from frost, hurricane damage, or drought, people moved to unstricken areas where they had relatives or trading partners.

Since European contact, the nature of Pacific societies and their response to natural disasters has gradually changed. Populations have become more concentrated as urban centers have developed, and European building materials and styles have come into use. New food crops have been introduced and people have come to rely on cash and cash crops for both imported trade goods and food.

European and North American powers created political entities (countries and territories) that included people who had little to do with each other before European contact. Introduced means of transportation and communication have greatly increased contact between government centers and outlying areas.

In some areas, Europeans became involved in disaster assistance shortly after contact. After colonial administrations were established, this involvement increased. Following political self-government or independence in most countries, the national governments took up where colonial governments left off and the level of disaster assistance to island communities actually increased through the involvement of bilateral and multilateral assistance agencies, as well as private voluntary organizations. As a result of assistance from national governments and outside agencies, some of the indigenous coping mechanisms mentioned above have been abandoned. Moreover, urbanization, the shift from "traditional" to "transition" housing, and the reliance of communities on both cash crops for their livelihood have resulted in an increase in the cost of natural disasters and in the vulnerability of communities.

In recent years, the majority of disaster related government activity has been in emergency management planning, relief, and rehabilitation. Pre-disaster planning on a national level began in most Pacific countries and territories in the mid-1970s. This was stimulated by regional meetings in 1976 and 1979. The form and the extent of pre-disaster planning in the countries and territories of the Pacific has varied widely. However, several of the formal disaster plans that exist bear a strong resemblance to one another and to plans in Australia, France, New Zealand, the United Kingdom, and the United States.

Although there was no formal disaster plan in Papua New Guinea, the Australian administration created a civil defense organization there in 1964. However, only brief mention is given of emergency powers in the constitution and in Papua New Guinea's statutes. The emergency services legislation introduced into Parliament in 1981, which elaborates the powers and responsibilities of government departments, will have to be modified now that the Papua New Guinea Defense Force has taken responsibility for emergency services.

American Samoa, Cook Islands, Fiji, French Polynesia, Guam, FSM, New Caledonia, Niue, Papua New Guinea, Tonga, Solomon Islands, and Tuvalu have formal disaster plans. These range in complexity from a short outline of responsibilities and communications procedures at the national level to very explicit instructions for people at the national, divisional, or State and district levels. These more elaborate plans include the specification of what tasks are to be performed by whom under what conditions. In at least two countries the disaster plans include village-level organization.

The degree to which people are knowledgeable about the procedures spelled out in existing disaster plans varies considerably. In one country

covered in PIDP's eleven country survey of disaster experience and disaster preparedness, only one copy of the disaster plan could be located and most government officials queried about the plan were fairly certain that a plan existed, but had not seen it.

The disaster plans that exist in the region vary in terms of the degree to which responsibilities for disaster mitigation, preparedness warning systems, emergency coordination, damage assessment, medical assistance, shelter, food relief and rehabilitation are controlled by a single central department or agency. In most countries, the formal or de facto national disaster plans specify that provincial governments or divisional administrative units will or should have a disaster plan.

Each government in the region has designated a department or an inter-departmental body as being primarily responsible for disaster planning and/or disaster coordination. In Fiji, an Emergency Services Committee (EMSEC) is composed of senior civil servants from all relevant departments. The Department of Home Affairs has had administrative responsibility for EMSEC, although this may be changing. Papua New Guinea, as indicated above, recently made the Papua New Guinea Defence Force responsible for emergency services. In Tuvalu, the Secretary to Government has played a primary role in disaster planning and is designated as coordinator of emergency services. In American Samoa, the Department of Public Safety has responsibility for emergency management. In Western Samoa, the police commissioner and the secretary to government provide disaster coordination. The Kingdom of Tonga recently revised its disaster management organization and now has a National Office for Disaster Relief and Reconstruction. In other countries and territories, there are arrangements similar to those mentioned here.

The degree to which Emergency Service Committees or specialized disaster management units have been directly involved in the management of specific emergency situations has varied considerably. In some disasters these units or committees have had extensive control over communications, logistics, emergency medical services, evacuation operations, and the provision of temporary shelter and relief food. In other cases, government departments (e.g., communications, public works, government supply) and private voluntary organizations (e.g., Red Cross, St. Vincent de Paul) have operated relatively independently of the national emergency services or civil defense organization. In some instances, this autonomy of operational ministries or government departments has occurred despite what the national disaster plans state about the role of the national coordinating units. In at least one recent case the structure of the emergency management organization was found unworkable in a disaster situation and a new structure was established during the disaster.

As already noted, some countries and territories have a decentralized emergency management system: provincial, state, or local authorities or departments have primary responsibility for emergency management and relief operations. In some decentralized systems national disaster management plans state that provinces or states will develop disaster plans and these have not been completed. Moreover, some state and provincial governments lack personnel trained in emergency management and disaster preparedness, and the resources needed to develop disaster plans.

Communications within Pacific countries and territories and between the islands and the countries on the Pacific rim have improved markedly in recent years. This general increase in communications capability and the introduction of communication systems specifically for emergency management

has greatly enhanced the disaster preparedness of the region: warnings from the increasingly sophisticated storm and tsunami warning networks are more easily communicated to the countries and territories of the Pacific; requests for foreign disaster assistance can also be made more easily than in the past. However, despite the improvements in communications, several countries have experienced communications failures in the face of disasters. Moreover, for these improved communication facilities to significantly reduce the impact of disasters as well as improve the response of disaster management personnel, emergency procedures will have to be further refined.

Some countries have adopted or developed techniques and procedures for assessing disaster damage. In some cases, a single assessment is done to establish both immediate relief and long term rehabilitation needs. In others, assessments are normally conducted by one organization (sometimes with the assistance of overseas defense force support) for relief and by another organization for rehabilitation planning. Also in some countries, rehabilitation, especially in agriculture, is monitored to insure that relief food is supplied where it is needed and not supplied where it is unnecessary. In many area, however, damage assessments have been unsatisfactory to local authorities and have resulted in widespread dissatisfaction among disaster victims.

Throughout the region, responsibilities for various aspects of pre-disaster planning, preparedness, emergency management, relief, and rehabilitation involve many government departments. The efforts of these departments are generally limited to emergency situations and rehabilitation efforts. Relatively little pre-disaster planning is incorporated into the normal activities of the departments of agriculture,

fisheries, post and telegraphs, transportation, education, health, and economic development. Disasters are viewed as interruptions in the normal business of government and the costs of disasters are not factored into the budget planning of such departments. This is probably a reflection of the observation: that not everyone believes preparedness or mitigation efforts do any good.

As already indicated, traditional housing in the Pacific was fairly well adapted to withstand earthquake and wind damage. However, the growing use of imported housing materials and styles have probably increased the risk of property damage and personal harm. Most of the Western style housing in the region is what can be called "transitional housing." Transitional houses are structures built with so-called "modern materials" but without "modern" construction techniques. Governments are aware that the use of imported building materials have increased the funds required to restore the type of housing that existed before disasters. However, little has been done to introduce building methods that would actually reduce the impact of disasters.

Building codes exist in some countries and territories. By and large, the specifications contained in these codes are imported from Australia, New Zealand, the United States, or France and are only applied in urban areas. In some countries, such codes are only actually used by contractors in designing government buildings and not for structures built by individuals or commercial enterprises.

Agriculture departments in some countries and territories have geared their development programs such that disaster-resistant crops are encouraged. However, little has been done to establish an agricultural development strategies which would reduce the impact of natural disasters

on cash and subsistence crops, and enable countries to handle their own relief needs.

In most Pacific Island countries and territories, road, sea, and air transport systems have been improved significantly in recent years. This has enabled governments to become more effective in evacuation, relief and rehabilitation. However, in some areas, transportation planning has neither been geared to reduce the impact of disasters on transportation systems nor to facilitate more effective response to disasters.

Public health and medical services in the region have improved as a result of national initiatives and assistance from overseas. These improvements have made the countries and territories better equipped to provide medical assistance in times of disaster. However, little effort has been made to plan specifically for disasters. Moreover, increasing urban populations and the development of centralized water and sanitation systems have increased the risk of epidemics associated with some types of disasters.

Because some countries and territories in the region rely heavily on overseas assistance for relief, it has been difficult for governments to plan relief strategies before disasters strike. Governments do not know what resources they will have available until disaster assistance is offered. Moreover, foreign food supplies are often utilized for disaster because they are given by foreign relief agencies. Local food in unaffected areas cannot usually be used because funds to purchase such food are unavailable or ways of transporting it have not been developed. As a result, any possible "benefit" to the national or territorial economy resulting from a disaster is lost.

Disaster rehabilitation in the Pacific region has focused primarily on

housing and agriculture. Housing reconstruction programs have been developed in Fiji, Cook Islands, Tuvalu, Solomon Islands, American Samoa, and other areas over the past three decades. Housing designs used in some programs have been criticized both for their lack of appropriateness and because they are not as disaster resistant as they could be. Much of the housing reconstruction in the region has been financed externally and some of the restrictions on reconstruction programs have strained local human and financial resources. Moreover, in order to keep the cost per unit down rehabilitation houses have been less adequate than they could be. Reconstruction housing programs have also created the expectations among people in some countries that free or heavily subsidized houses will be built by government following every disaster. As a result, disaster victims have often taken little initiative to help themselves.

Agricultural rehabilitation efforts have been somewhat less visible than housing programs. Agriculture departments around the region have generally focused on replanting the crops that were destroyed or introduced garden vegetables and other fast growing crops. Planting materials and seeds have often been provided free and there appears to have been little effort to redirect agricultural development to make the agricultural sector less vulnerable to disaster damage.

Conclusion

Although pre-disaster planning on a national level only began to gain momentum in the mid-1970s, governments of the region have made some progress. It has, however, been restricted primarily to the general area of disaster preparedness and more specifically, to emergency management. While these efforts have increased the ability of governments to mobilize resources in emergency situations, they have not substantially reduced the

impact of disasters on property, crops, and development efforts.

Regional and international disaster assistance has been largely restricted to funds and goods in-kind for disaster relief and rehabilitation. UNDRO, the U.S. Federal Emergency Management Agency, the Australian the UK governments and other bi-lateral assistance agencies have supported some emergency training and emergency planning. Technical assistance and research aimed at increasing tsunami and storm warning systems, assessing risks, and disaster preparedness has also been supported by France, various U.S. government agencies including USAID, the World Meteorological Organization, and other governments and agencies. There has, however, been little attention given to disaster mitigation and other pre-disaster planning activities which could effectively reduce losses from natural hazards.

THE EAST-WEST CENTER is an educational institution established in Hawaii in 1960 by the United States Congress. The Center's mandate is "to promote better relations and understanding among the nations of Asia, the Pacific, and the United States through cooperative study, training, and research.

Each year nearly 2,000 graduate students, scholars, professionals in business and government, and visiting specialists engage in research with the Center's international staff on major issues and problems facing the Asian and Pacific region. Since 1960, more than 30,000 men and women from the region have participated in the Center's cooperative programs.

The Center's research and educational activities are conducted in five institutes—Communication, Culture Learning, Environment and Policy, Population, and Resource Systems—and in its Pacific Islands Development Program, Open Grants, and Centerwide Programs.

Although principal funding continues to come from the U.S. Congress, more than 20 Asian and Pacific governments, as well as private agencies and corporations, have provided contributions for program support. The East-West Center is a public, nonprofit corporation with an international board of governors.

PACIFIC ISLANDS DEVELOPMENT PROGRAM

The purpose of the Pacific Islands Development Program (PIDP) is to help meet the special development needs of the Pacific Islands region through cooperative research, education, and training. PIDP also serves as the Secretariat for the 1980 Pacific Islands Conference, a heads of government meeting involving leaders from throughout the Pacific region, and for the Pacific Islands Conference Standing Committee, which was established to ensure follow-up on development problems discussed at the Conference.

PIDP's research, education, and training activities are developed as a direct response to requests from the Standing Committee. PIDP's projects are planned in close cooperation with the Committee to ensure that the focus and the organization of each project address the needs identified by the heads of government on the Committee, a process which is unique within the East-West Center and in other research and educational organizations serving the Pacific.

A major objective of the program has been to provide quality in-depth analytical studies on specific priority issues as identified by the Pacific Island leaders and people. The aim is to provide leaders with detailed information and alternative strategies on policy issues. Each Island country will make its own decision based on national goals and objectives. Since 1980, PIDP has been given the task of research in six project areas: energy, disaster preparedness, aquaculture, government and administrative systems, roles of multinational corporations, and business ventures development and management.