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PACIFIC DISASTER PREPAREDNESS PROJECT

1. Procedures and Guidelines for Disaster Preparedness and Response

by Air Vice-Marshal W. CARTER



PACIFIC ISLANDS DEVELOPMENT PROGRAM



EAST-WEST CENTER • HONOLULU, HAWAII, USA

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Pacific Islands Development Program
Disaster Preparedness Project

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Preface

This is the first of a series of manuals being developed by the Pacific Islands Development Program as part of its Disaster Preparedness Project, mandated by the Standing Committee of the Pacific Islands Conference. This manual, like the others in the series, is intended primarily for use by government officials from Pacific Island governments.

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A number of individuals provided assistance in the development of the manual. They include Mr. John Campbell, Mr. Soane Hurrell, and Mr. John Sablau of PIDP; Dr. Debra Kirch, formerly with PIDP; Major Sio Maiasa of the Papua New Guinea Defence Force; The Honorable S. Langi Kavaliku, Secretary General of the Pacific Islands Conference; and Mr. Elison Johnson, Government of the Federated States of Micronesia.

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Michael P. Hamnett
Disaster Preparedness and
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Editor

PART I

INTRODUCTION

SECTION 1

PURPOSE OF THE HANDBOOK

1. This handbook has been produced by the Pacific Islands Development Program. Its purpose is to help the countries and territories of the Pacific region to plan, develop, and maintain effective counter-disaster programs.¹

2. The Pacific Islands Development Program is well aware that national counter-disaster plans and other mitigation and preparedness measures have been developed throughout the region. The use of this handbook is therefore intended to be selective; governments in the region may choose what is appropriate for their needs.

3. The contributors to the handbook suggest that it can be used for the following purposes:

- To serve as a general counter-disaster reference for government officials, planning consultants, and staffs of non-governmental organizations;
- To be a briefing guide for key officials;
- To develop and maintain disaster mitigation and preparedness plans; and
- To formulate training and public awareness programs.

4. The contents of the handbook are directed primarily toward problems caused by natural hazards such as hurricanes, floods,

¹ Definitions of the terms used in this handbook may be found in Section 6 of Part V (Useful Planning Guides).

earthquakes, volcanic eruptions, and tsunamis. Most of the guidelines and procedures also apply to civil incidents such as air crashes and major accidents, and they may have some general application to wartime civil defense. The problems of civil unrest have not been specifically addressed, mainly because these are covered in most countries by separate arrangements.

SECTION 2

RATIONALE

5. As most readers of this handbook will know, formal counter-disaster plans are usually prepared to anticipate the impact of disasters, to identify what will have to be done when disaster strikes, and to organize people and resources to meet the needs of disaster situations.

6. In order to develop effective formal counter-disaster plans, many aspects must be considered. Counter-disaster plans themselves will obviously differ according to the needs and resources of each country and territory. For the Pacific region, a possible format for counter-disaster plans might include the following:

- **A summary of authorization** by the cabinet or through legislation
- **A list of references** containing key documents that may have to be consulted
- **A distribution list**
- **An introduction** outlining the national policy and other relevant information on the use of the plan
- **An outline of the disaster threat** summarizing what disaster threats exist and to which the plan applies
- **A statement of aims** of the plan itself and the situations in which it should apply

- **A description of the organization** of the counter-disaster organizational structure at the national and other levels of government, including a list of key officials and their responsibilities
- **A statement of the roles and responsibilities** of organizations and agencies to be involved in tasks in various disaster situations
- **An outline of arrangements for coordination and control** of national and international resources
- **A description of emergency operations centers (EOCs)** noting where they are, what they contain, and when they should be made operational
- **An outline of steps involved in implementing the plan**
- **A plan for making disaster impact assessments** including a description of the people to be involved, the information to be gathered, and how and when it is to be reported
- **A description of the communications system** including the identification of equipment and instructions on who is to use it and when
- **A description of what emergency relief measures are to be taken**, under what circumstances, and by whom
- **A statement about how and when the transition will be made from the emergency phase to the recovery phase**
- **A description of arrangements for post-disaster review**
- **A statement of necessary support measures** including public awareness and educational programs and arrangements for training and for updating plans
- **Annexures**, which may include organizational charts, legislation outlining responsibilities, and names and phone numbers of key individuals

7. Obviously, to develop a written counter-disaster plan including all the elements outlined here is one of the final steps in disaster planning. A good deal of thinking, research, and discussion must take place before needs can be adequately assessed, re-

sources allocated, and commitments made. This handbook has been organized to help counter-disaster planners identify the steps that will be necessary to make plans rather than to simply identify the elements of a written plan.

8. Three major parts of this handbook cover the considerations likely to apply to three “levels” of government:

- National-level governments (Part II);
- Intermediate-level governments (provinces, states, divisions, or districts – Part III); and
- Community- or village-level governments (Part IV).

Within each of these parts, the considerations or steps necessary to prepare plans follow a sequence that may be taken by a disaster planner in deciding on the structure and contents of a disaster plan.

9. As already indicated, Part II of the handbook deals with counter-disaster arrangements at the national level. For most nations in the Pacific region, as elsewhere, the focal point for national counter-disaster matters is at the national level. This level provides appropriate direction, assistance, advice, and support to other levels of government. In parallel, it constitutes the basis on which, within mutually agreed parameters, non-government organizations may be involved. If counter-disaster arrangements are to be successful, the general approach from a national level should be one of promoting and contributing to mutual interdependence and compatibility of effort across the total national scene. Generally, it is only through this kind of integrated national effort that disaster, especially in its severe forms, can be dealt with effectively, thus ensuring that its effects on the nation and its people will be alleviated to the greatest extent possible.

10. Within the Pacific region, counter-disaster policies at the national level should, where feasible, be compatible with those of neighboring countries. As has been proved many times, prompt help to a stricken country from its near neighbors constitutes a most valuable asset in relief and rehabilitation.

11. On the wider scene, it is a necessary part of national counter-disaster activity to ensure that adequate liaison exists with those countries and international agencies that consistently offer and provide disaster assistance in its many different forms.

- 12.** Part II begins with a section on National Disaster Policy. It emphasizes the importance of establishing a clear policy at the national level for dealing with disaster. It is, of course, possible that a national government might decide to have no specific policy on disaster. Experience has shown, however, that unless a national government clearly defines what it will and will not do in response to disaster, the remainder of the planning process becomes very difficult.
- 13.** Part II A also contains some of the considerations that normally apply to the selection of national policy and, in addition, outlines the form such policy might take.
- 14.** Part II B, Implementation of the National Policy, is devoted to steps that might be taken to move from a national disaster policy to a disaster plan. It also outlines other measures that governments may take to reduce the impact of disasters and to ensure a disaster plan is effective.
- 15.** Part III of the handbook provides more specific suggestions to provincial, state, divisional, or district officials on disaster planning at their (intermediate) level of responsibility. It identifies extensions of and variations on aspects of counter-disaster planning covered in Part II. It emphasizes that aspects of national counter-disaster planning are interrelated with those at other levels of government. Furthermore, it stresses that national-government and intermediate- and community-level officials need a working knowledge of disaster mitigation, preparedness, and response activities at all levels of government. This is especially important if compatibility and coordination are to be achieved.
- 16.** The material in Part III of the handbook has been written so that it is likely to be relevant to most situations in intermediate levels of government. Where considered appropriate, repetition from Part II has been used, but this has been kept to a minimum.
- 17.** Counter-disaster planning at the community or village level of government, discussed in Part IV, is a key component of the total national effort for coping with disasters. Experience has shown that human and material resources in villages and communities are vital to an effective national response to disasters. Moreover, most Pacific countries and territories consist of scattered islands and remote rural communities; therefore, it is necessary to plan a national counter-disaster strategy based on an

understanding of community- or village-level disaster response capabilities.

18. An essential theme of this handbook is the importance of and necessity for developing a system of compatibility among all levels of government. Although coordination and compatibility are desirable for all government activities, they are essential in the face of a major disaster. The handbook has therefore been designed to facilitate coordinated disaster planning among the various levels of government.

19. Part V of this handbook contains guidelines for the following counter-disaster measures:

- Planning
- Organization
- Training
- Operations
- Communications

20. Although the disasters themselves, and the circumstances created by them, may vary extensively, the measures to deal with them usually can be formulated by following certain guidelines. It is therefore the purpose of Part V to set out, in clear and simple form, some of the guidelines that have been found internationally effective in the Pacific and other parts of the world.

21. Part VI of this handbook contains useful planning documents. These include examples of emergency or counter-disaster legislation and examples of existing structures of counter-disaster organizations from the Pacific region.

22. As with the rest of the handbook, the information is intended for selective use and adaptation, as necessary, to particular circumstances and requirements. Thus, it is presented in broad outline.

PART II
THE NATIONAL LEVEL

A. National Disaster Policy

SECTION 1

THE DISASTER THREAT

1. Experience in the Pacific and other parts of the world has shown that before developing a national disaster plan or deciding on specific operational arrangements it is necessary to establish a national disaster policy. Such a policy should specifically include a clear statement on what the government will and will not do in response to a disaster threat or an actual disaster, and who within government has responsibility for determining, implementing, and changing policy. It is also clear from experience that it is advisable to back national policy with legislation or an equally binding cabinet decision.

2. In determining counter-disaster arrangements at the national level, it is usually advisable to start by considering the disaster threat since this will largely dictate what measures are needed. It is important, therefore, to achieve a clear and critical analysis of the threat; otherwise, the resultant counter-measures may be inappropriate or inadequate.²

VULNERABILITY ANALYSIS

3. Analyzing the threat from natural disasters includes a vulnerability analysis. This involves identifying the areas in a country that may be affected by each disaster threat (cyclone or typhoon, volcanic eruption, earthquake, tsunami, or flood), identifying the

² See also Part V (Useful Planning Guides), Section 1, which deals with counter-disaster planning.

types of impact from each disaster threat, and estimating the chances of that impact happening. While a vulnerability analysis may take considerable effort, much of the information needed for such an analysis is available from local sources. Such analyses are extremely useful for planning the implementation of counter-disaster measures.

Table I shows the disaster threats that affect most Pacific countries. It also contains an outline of the impact that each type of threat poses to agriculture, housing, public utilities, and people. The counter-disaster needs of a country can be determined with this chart and information from the sources identified below.

In order to do a vulnerability analysis, national governments should determine how frequently each geographical area can expect to be affected. Clearly, some disasters (e.g., volcanic eruptions or, in some countries, cyclones) occur so infrequently that it is difficult to determine with any accuracy the probability of a disaster striking. However, in many areas the frequency (e.g., once in two, five, or ten years) with which a disaster will strike is easily established.

SOURCES OF INFORMATION

4. The following sources of information are normally of use when analyzing the threats posed by each type of disaster:

- National records
- Data and advice from specialist departments (such as meteorological service, geophysical observatories, mines, and surveys)
- Publications resulting from surveys and studies, both national and international
- Past experience of disasters as recorded or noted by organizations and individuals
- Any available analyses of risks and vulnerability
- Local knowledge

From these sources, it should be possible to construct a comprehensive assessment of the nature, degree, and pattern of the likely threats to different areas of a country and perhaps to determine the general priority that should be given to each threat.

However, before the effects of the threat can be fully assessed, certain subsidiary factors should also be considered.

SUBSIDIARY FACTORS

5. These factors may include the following:

- Terrain characteristics
- Geographical distribution of people and property
- Agricultural and crop patterns in a given area
- The type of housing in which people are living
- The specific vulnerability of roads, communication systems, and essential service centers such as hospitals
- Experience of officials and communities in dealing with disaster
- Any major environmental changes that have occurred recently such as the building of a dam or the silting of a river

Consideration of such factors may indicate whether the normally expected effects of the threat are likely to be modified or exacerbated.

EFFECTS OF THE THREAT

6. While the causes of disaster may be varied, the major effects tend to be

- Loss of life;
- Injury;
- Damage to and destruction of property;
- Damage to subsistence and cash crops;
- Disruption of life-style;
- Loss of livelihood;
- Disruption of services;
- Damage to national infrastructure and/or disruption of governmental systems;
- National economic loss; and
- Social and psychological after-effects.

TABLE 1 Disaster Threat Matrix

<i>Types of Threats</i>	<i>Areas Threatened</i>	<i>Damage Threatened</i>	<i>Consequences</i>	<i>Preventive Measures</i>
Hurricanes	Most island nations in the region that lie within the hurricane zone, particularly the Cook Islands, Fiji, Tonga, Guam, Commonwealth of Northern Marianas, and the western islands of the Federated States of Micronesia are affected by an average of 2 or more storms a year. Other neighboring islands suffer high winds and storm damage.	<ol style="list-style-type: none"> 1. Agriculture Products <ol style="list-style-type: none"> a. Cash crops: coconuts, sugar, canes, cocoa, coffee, rice b. Subsistence crops: bananas, taros, corn, yams, breadfruits, sweet potatoes, vegetables, etc. 2. Forestry Products <ol style="list-style-type: none"> a. Timber 3. Animal Husbandry <ol style="list-style-type: none"> a. Cattle, pigs, poultry, etc. 4. Services (related to income generation) <ol style="list-style-type: none"> a. Transport: land, sea, air b. Utilities: electricity, water c. Retail business: shops 5. Buildings <ol style="list-style-type: none"> a. Dwelling houses b. Offices 	<p>Drop in production</p> <p>Economic loss</p> <p>Food shortage</p> <p>Economic loss</p> <p>Shortage of meat and dairy products</p> <p>Disruption of electricity, water, sewerage, etc.</p> <p>Structural damage or complete destruction, especially of multi-story buildings</p>	<ol style="list-style-type: none"> 1. Carry out vulnerability analysis. Cultivate gardens, etc., in safe locations. Diversify agriculture and develop disaster-resistant crops. 2. Put animals in holding yards, pens, etc. 3. Back up stocks, standby generators, alternative means of getting water. 4. Build disaster-resistant houses for both urban and rural areas. 5. Develop sound and effective disaster preparedness plan. 6. Locate population in less vulnerable areas. Develop adequate warning systems and evacuation plans. Advise vulnerable populations on precautions. Develop emergency medical response plans.

		<ul style="list-style-type: none"> c. Factories d. Schools e. Hospitals f. Churches, etc. <p>6. Population in vulnerable areas</p>	Death and physical harm	<ul style="list-style-type: none"> 7. Arrange for international assistance: relief food, medical supplies, communications, transport, etc. 8. Develop community preparedness programs.
Earthquake	<p>Most islands and territories lie within the seismic region of the Pacific basin: Cook Islands, Kiribati, Papua New Guinea, Solomon Islands, Tuvalu, Tonga, Vanuatu, and Western Samoa. Tremors and earthquakes are frequent, especially along Tonga trench and throughout Melanesia. Strong earthquakes in these areas are sometimes accompanied by tsunamis.</p>	<ul style="list-style-type: none"> 1. Agriculture <ul style="list-style-type: none"> a. Cash crops: landslides may occur in places where gardens and farms are located on steep hillsides. Tsunamis may cause damage on the low islands and coastal areas. Landslides may block streams/ rivers creating dams that may burst and cause further damage. b. Subsistence crops: (same as above) 2. Local communities, vulnerable populations 3. Services <ul style="list-style-type: none"> a. Utility lines: electricity, water, sewerage 	<p>Economic loss</p> <p>Food shortage</p> <p>Possible death and physical harm</p> <p>Loss of communication</p>	<ul style="list-style-type: none"> 1. Encourage land use patterns that will reduce the risk of landslides. 2. Build seawalls where possible for coastal areas. Where possible, locate gardens and plantations safe distances from vulnerable coastal areas and river valleys where slides may occur. 3. Plan for alternative means of getting water to the communities. 4. Have standby generators for use when electricity is disrupted. 5. Apply both traditional and modern methods to build disaster-resistant houses. Strengthen

TABLE 1 (continued)

<i>Types of Threats</i>	<i>Areas Threatened</i>	<i>Damage Threatened</i>	<i>Consequences</i>	<i>Preventive Measures</i>
		<ul style="list-style-type: none"> b. Electricity c. Sewerage d. Dams may be damaged e. Medical services <p>4. Buildings: structural damage and possible destruction, especially of multi-story buildings</p> <ul style="list-style-type: none"> a. Dwellings b. Offices c. Schools d. Churches e. Hospitals f. Factories 	<p>Loss of power Health hazard Water/electricity disruption</p> <p>Shortage of shelters. Structural or possible destructions may necessitate closure of any of these buildings.</p>	<p>existing buildings, etc.</p> <p>6. Have contingency plans for hospitals should need arise for extra facilities and manpower.</p> <p>7. Develop adequate warning systems and evacuation plans; advise vulnerable populations on precautions, etc.</p>
Tsunamis	Some countries and territories in the region have experienced tsunamis. Although tsunamis are not frequent, a potential threat to some areas or most countries still exists.	<p>1. Agriculture</p> <ul style="list-style-type: none"> a. Cash crops: salt damage b. Subsistence crops: salt damage to low islands and coastal areas <p>2. Animal husbandry</p>	<p>Economic loss</p> <p>Food shortage</p> <p>Shortage of wheat</p>	<p>1. Plant both cash and subsistence crops farther from the coast; where possible, build walls.</p> <p>2. Situate villages in areas away from tsunami threat.</p>

		<p>Again vulnerable places as mentioned above</p> <ol style="list-style-type: none"> 3. Services <ol style="list-style-type: none"> a. Sea ports b. Retail shops c. Utilities, water, electricity d. Medical facilities 4. Buildings <ol style="list-style-type: none"> a. Dwelling houses b. Schools c. Hospitals d. Offices, etc. e. Factories 	<p>and dairy products.</p> <p>Economic loss.</p> <p>Disruptions of power, communications, water, etc.</p> <p>Loss of properties, injuries, and possible deaths.</p>	<ol style="list-style-type: none"> 3. Water may be contaminated. Plan on alternative source. 4. Make developments in areas least likely to be affected.
<p>Volcanic Eruptions</p>	<p>Many high islands in the area have active or potentially active volcanoes. Eruptions in PNG, W. Samoa, Commonwealth of the Northern Marianas, and Vanuatu have done considerable damage and have even resulted in relocation of entire communities.</p>	<ol style="list-style-type: none"> 1. Agriculture <ol style="list-style-type: none"> a. Cash crops b. Subsistence crops 2. Forestry 3. Animal husbandry <ol style="list-style-type: none"> a. Cattle b. Pigs c. Poultry, etc. 4. Local population 	<p>Economic loss</p> <p>Food shortage</p> <p>Economic loss</p> <p>Shortage of meat and dairy products</p> <p>Injuries, death</p> <p>Relocation</p>	<ol style="list-style-type: none"> 1. Most that could be done in case of volcanic eruptions would be to have contingency plans for evacuating the population in the affected area before the actual eruptions. 2. Relocate communities to safe sites to avoid need for evacuation.

		<ol style="list-style-type: none"> 3. Local populations 4. Services <ol style="list-style-type: none"> a. Electricity b. Water c. Sewerage d. Utility lines 5. Buildings <ol style="list-style-type: none"> a. Dwellings b. Offices c. Schools d. Hospitals e. Factories f. Churches 	<p>Physical injuries, sometimes death</p> <p>Power outages Shortage of drinking water Health hazard Loss of communications, power, etc.</p> <p>Structural and foundation damage, possible destruction, etc.</p>	<ol style="list-style-type: none"> 3. Have public awareness program. 4. Develop local flood warning systems. 5. Advise vulnerable populations in precautions. 6. Develop adequate evacuation plans.
Drought	<p>Some island countries and territories are made up of low islands with irregular rainfall and are thus subject to drought. Countries like Fiji, Kiribati, and Niue experience drought from time to time; Tuvalu can have many periods of severe drought any time of the year, lasting several months.</p>	<ol style="list-style-type: none"> 1. Agriculture <ol style="list-style-type: none"> a. Cash crops b. Subsistence crops 2. Forestry <ol style="list-style-type: none"> a. Timber 3. Animal husbandry <ol style="list-style-type: none"> a. Cattle b. Pigs c. Poultry 	<p>Economic loss Food shortage, famine</p> <p>Economic loss</p> <p>Shortage of meat and dairy products</p>	<ol style="list-style-type: none"> 1. Diversity agriculture system less vulnerable to drought. 2. Develop water systems that can provide adequate supply in dry periods.

TABLE 1 (continued)

<i>Types of Threats</i>	<i>Areas Threatened</i>	<i>Damage Threatened</i>	<i>Consequences</i>	<i>Preventive Measures</i>
		4. Local populations a. Schools b. Hospitals	Health: suffer malnutrition, famine, etc.	
Frost	Frost occurs in the five Highlands Provinces of Papua New Guinea: Eastern Highlands, Western Highlands, Simbu, Enga, and Southern Highlands. Frost affects crops cultivated on the valley bottoms and adjacent slopes above 21,000 feet.	1. Agriculture a. Cash crops b. Subsistence crops Corn Sweet potatoes Sugar cane Vegetables 2. Local populations 3. Schools	Low production rate Food shortage Health problems, e.g., malnutrition May close, children not attending due to food shortage, etc.	1. Encourage land use patterns, e.g., cultivate gardens below 21,000 feet. Teach individuals methods of cover cropping. Research and develop frost-resistant crops. 2. From records of weather patterns, develop an early warning capability to give early warning to communities to take crop protective measures, etc.
Landslides	Some island countries in the region have suffered loss to life and crops. Some countries are not affected. Heavy rains, hurricanes, earthquakes, deforestation through gardening and road building are agents of landslides.	1. Agriculture a. Cash crops b. Subsistence crops 2. Buildings 3. Services 4. Animals 5. Forestry products	Low production rate Food shortage Structural or possible destruction Disruptions Low supply due to losses, etc. Low production rate	1. Encourage land use patterns that will reduce the risk of landslides. 2. Have public awareness programs, etc.

Some very general estimate of these effects, in the national sense, may be possible from the total threat information that is available. Table 1 provides a disaster threat matrix relevant to the general Pacific area.

NEEDS PRODUCED BY THE THREAT

7. Examination of the threat in this way will indicate what counter-disaster policies need to be adopted nationally and, in turn, what organizational and other measures will be required. In this connection, a useful guide is provided by the tasks that usually arise from disaster situations. Such tasks may include

- Provision and dissemination of warning;
- Rescue;
- Survey, assessment, and reporting of disaster effects;
- Treatment and care of disaster victims;
- Clearance of debris and rehabilitation of roads, airfields, ports and other public access areas;
- Provision of emergency food and water supplies;
- Provision of shelter;
- Evacuation of individuals, groups, or communities;
- Provision of health and sanitation measures;
- Restoration of essential services such as communications, water supply, and electricity supply;
- Coordination and control of counter-disaster measures;
- Rehabilitation of crops and other aspects of subsistence and livelihood;
- Emergency building programs; and
- Measures for long-term recovery.

SECTION 2

SELECTION OF NATIONAL POLICY

RANGE OF POSSIBILITIES

8. Usually a range of possibilities is open to nations when deciding how best to deal with the problems of disaster. They include the following:

- **Prevention measures** — such measures actually prevent disasters from occurring. They may include the seeding of cloud formations to produce rain, thereby preventing a drought situation.
- **Mitigation measures** — such measures, if effective, can moderate or lessen the effects of disaster. They may include the construction of levee banks to control floods, land-use regulation, programs aimed at reducing housing vulnerability, and the planting of disaster-resistant crops.
- **Preparedness measures** — such measures are essentially designed to deal with disaster when it occurs. They aim to minimize the loss of life, disruption, and damage. They are also intended to facilitate effective rescue, relief, and rehabilitation. Preparedness measures may include the formulation of counter-disaster plans, the development of effective communication and warning systems, and the training of counter-disaster officials.
- **Long-term national development planning** — because disasters and long-term national development are interrelated, national development planning needs to take into account the possible effects that a disaster may have on the

various programs and projects involved. In turn, however, such programs and projects may affect the nation's ability to cope with disaster; while some of them may reduce risk and vulnerability, others can actually increase it.

CHOICE OF THE NATIONAL POLICY

9. A choice then needs to be made from the range of possible prevention, mitigation, preparedness, and long-range development planning possibilities or options. For example, many nations cannot afford prevention measures. The choice then constitutes the nation's basic policy for dealing with its disaster problem: that is, the general outlook or approach the nation takes toward disaster in the context of national policies.

10. The policy may, of course, have to be changed or modified in accordance with developments or altered national circumstances. In any case, the national government must clearly accept responsibility for any limitations in the policy and the end results that may occur; this is especially relevant when a major national loss is involved.

11. It is advisable to include in the national policy certain fundamental tenets, such as ensuring that there can be maximum utilization of existing resources, as well as the development of self-reliance, as far as this is possible, at the community level.

12. A national government may include within its national policy the provision for specific declarations with regard to disaster, for example, a "State of Emergency" or a "National Disaster." This kind of provision is of particular importance if subsidiary level: of government have special constitutional rights or powers that also need to be designated.

13. The national policy should include any special provisions that may apply in the case of territories and freely associated states. In the case of the French and U.S. territories, for example, the French Ministry of the Interior and the U.S. Federal Emergency Management Agency, respectively, have certain statutory responsibilities in times of disaster. Such responsibilities must be considered in the development of national or territorial disaster policy.

14. Where necessary, any or all of the special factors mentioned above can be covered in allocations of responsibility and legislation.³

3. See Sections 3 and 4 below.

SECTION 3

ALLOCATION OF RESPONSIBILITY AT NATIONAL LEVEL

ASSIGNMENT OF RESPONSIBILITY

15. Largely because of the unpredictability of disaster and its crisis nature, it is extremely important that relevant responsibility should be clearly and precisely defined. Such responsibility should cover the complete disaster cycle, that is, the cycle from prevention (if applicable) through mitigation, preparedness, warning, threat, impact, and the emergency phase (including immediate relief measures) to restoration and reconstruction. Figure 1 is a schematic illustration of the disaster cycle.

16. There are several options at the national level, and they depend largely on the constitution and character of the government itself. An example of assignments of responsibility might be

- **Cabinet** -- the cabinet has overall national responsibility for disaster affairs, including definition of national policy and necessary delegation of authority to other appropriate levels of government.
- **Minister-in-charge of national disaster affairs** -- the minister is designated by cabinet and responsible to cabinet for all national disaster affairs, including overall implementation of policy.
- **National disaster council** (or national disaster executive) -- this small executive committee is responsible to the designated minister for the detailed implementation of all aspects of national policy.

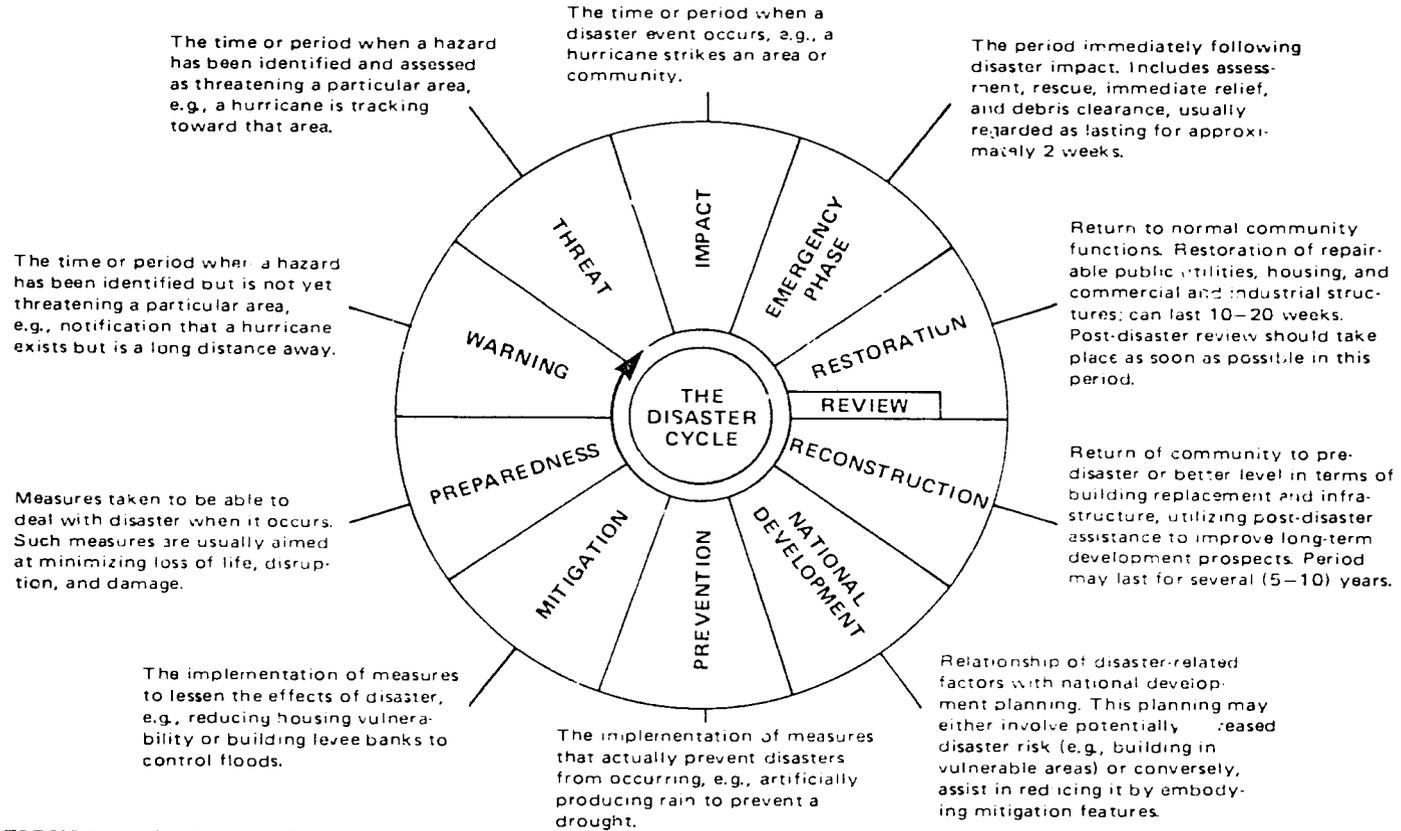


FIGURE 1 The Disaster Cycle

- **Other levels of government** — other levels are as delegated by cabinet; for example, to the governor of a province, or the minister of a state, or other individuals or bodies in accordance with constitutional requirements.

An approach for a territory might be as follows:

- **Governor** — the governor has overall responsibility for disaster affairs including the development of policy and the drafting of appropriate legislation.
- **Department head** — a head of a government department (for example, public safety, national planning) is designated by the governor for the implementation of policy.
- **Inter-departmental committee** — a small committee is composed of representatives from relevant government departments, a legislative liaison officer, and representatives from non-governmental organizations, responsible to the governor for inter-departmental liaison and for reviewing disaster policy.
- **Other levels of government** — other responsibilities are as delegated by the governor to a municipal or village-level official as required.

17. The allocation of these responsibilities must be consistent with the structure of a particular national government. However, a number of general principles should be followed.

- Decision-making responsibility and authority should be clearly defined, widely publicized, and accepted by all relevant bodies. Because disasters often require immediate decisions, there is usually no time to clarify further the authority when a disaster strikes.
- Necessary arrangements for the implementation of disaster policy should be made in advance. A disaster situation usually does not allow time for debating who will do what.
- Decision-making on the implementation of disaster policies and procedures should be kept simple.

It is usual and advisable to define these major responsibilities in legislation and in the national counter-disaster plan.⁴

4. See Part II B, Section 7, for allocation of roles and responsibilities to resource organizations. It is usual and necessary to define these detailed responsibilities in the national counter-disaster plan.

SECTION 4

LEGISLATION

18. The provision of legal backing for national counter-disaster policy and associated measures is a matter of government choice. However, an important point about legislation is that it allocates major responsibilities in legal form. Thus, it is likely to ensure fulfillment of these and other interrelated responsibilities.⁵

19. A typical disaster act would include the following:

- **Definitions** of a disaster, as well as of any other terms that may need clarification under the act.
- **An organizational and decision-making structure** that defines the responsibilities and authority of those involved.
- A description of **administration arrangements** set up for the implementation of policy and conducting disaster response operations.
- An outline of **counter-disaster operations** including the designation of operations centers, provisions for the declaration of a disaster, compulsory powers under a state of disaster, the identification of criminal offenses when a state of disaster is enforced, and how and when a state of disaster is terminated.
- The identification of what **legal immunity from liability** persons acting under the act have and of what **protection of employment rights** they have.

5. As stated in Paragraph 15, these responsibilities should cover the complete disaster cycle, and suitable designation to this effect can be included in the legislation.

- A description of what **compensation the government will pay**, if any, as a result of a disaster or disaster-response operation.
- The **identification or allocation of funds** required for implementation of the act.
- The **identification of any regulations** that will come into force under the act.

20. An alternative to a specific act of legislation is for the national disaster plan to be issued under the official stamp of cabinet authorization. While this is effective, especially as a means of giving direction to all government departments and agencies, it does not provide such comprehensive powers as an act. (See Part VI, Section 1, for examples of existing legislation.)

CASE MATERIAL

21. The desirability of having legislation was illustrated in one Pacific country in 1982, in relation to a developing cyclone situation. Public service employees were advised over the national broadcasting system that they could go home in order to take care of their homes and families. Employees within the private sector did likewise, although the broadcast was not intended to apply to them. Subsequently, private sector employers raised with the government the question of liability for time lost (and thus cost incurred) because their employees had left work as the result of a government statement but without employer authorization. The government subsequently introduced legislation so that the interests of all organizations and persons involved in any such future situations would be safeguarded.

PART II
THE NATIONAL LEVEL

B. Implementation of National Policy

SECTION 5

EVALUATION OF ORGANIZATIONAL ALTERNATIVES

22. Once national policy is defined, it is usually incumbent on the office (e.g., minister-in-charge; governor) designated with primary responsibility for counter-disaster planning to develop the plans and operational arrangements necessary to implement that policy. Experience has shown that it is advisable to begin this process with a reconsideration of the disaster threat in more specific terms in order to establish organizational needs.

23. The process of conducting a vulnerability analysis has already been outlined in Part II A, Section I. However, in order to establish the specific operational needs, it is advisable to reanalyze the vulnerability of a country or territory in geographically specific terms and to identify the organizational needs for implementing the disaster policy in specific areas in relation to specific disaster threats.

24. Once this is completed, the persons charged with the responsibility can better evaluate the organizational alternatives for policy implementation.

BACKGROUND FACTORS

25. Several factors generally affect organizational needs for implementing national disaster policy. They may include the nature and pattern of the threat, the national policy adopted by the government, the operational requirements envisaged, and the resources available. In this regard, it is worth remembering that

changes in government structure (for example, redistribution of responsibilities between government departments) may seriously affect efficient functioning of a counter-disaster organization and necessitate modifications to the latter.

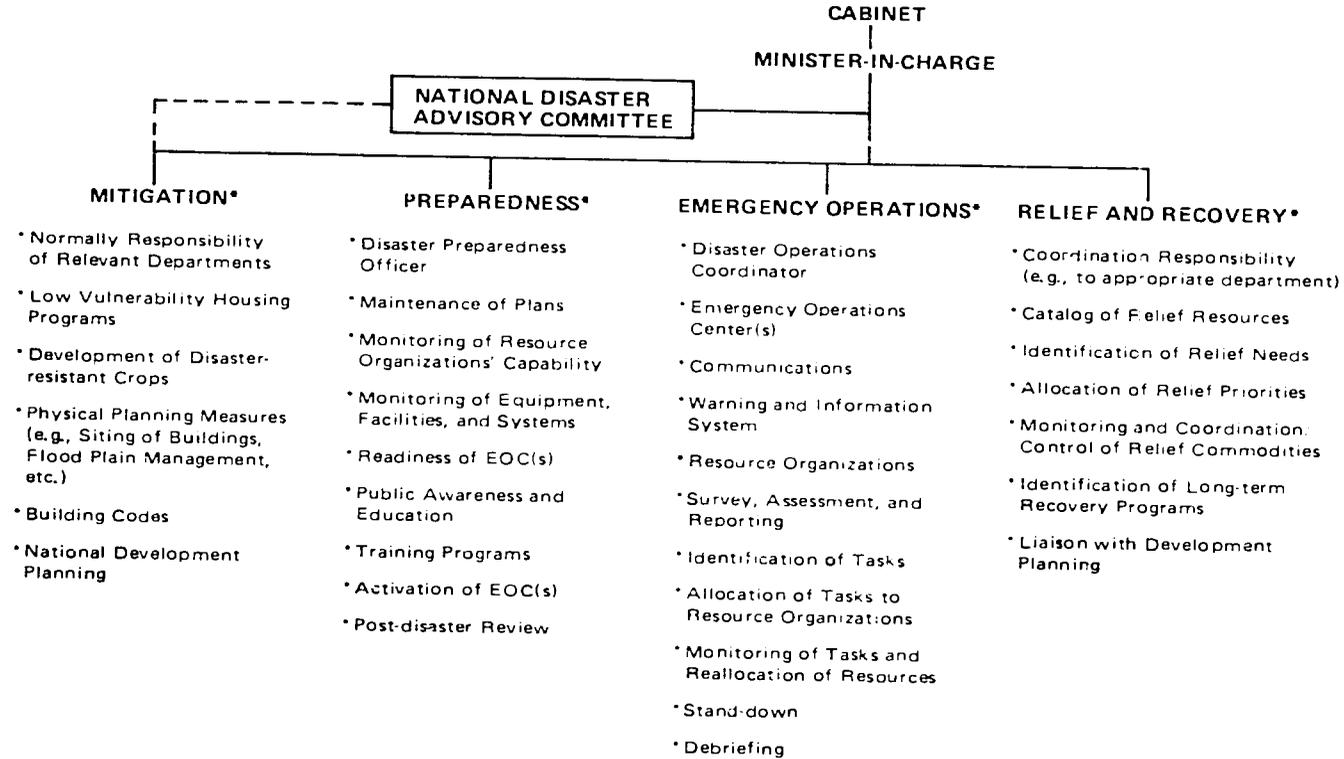
SOME PRINCIPLES OF ORGANIZATION

- 26.** In most countries of the Pacific region, financial and manpower limitations may make it difficult to have a separate, specialist organization or department for counter-disaster purposes. It is more probable that counter-disaster requirements will have to be met by some system of departmental compromise such as attaching a counter-disaster section (or cell) to an appropriate government department and utilizing other government (and non-government) resources in an optimum counter-disaster role.
- 27.** Whatever the circumstances, counter-disaster organization should be kept as uncomplicated and straightforward as possible. There are two reasons for this:
1. Parts of the organization (such as those that deal with crisis operations) will be activated only when required; thus the simpler they are, the more easily can they be activated and the more easily the various functions can be remembered and performed by the relevant personnel.
 2. Many of the personnel involved will be brought into the organization from other departments and roles, and this has obvious disadvantages if duties are complicated.
- 28.** The organization must be capable of coping with the stresses and pressures of disaster events. It is important that its components (for example, communications, facilities, and warning systems) function to highest possible levels of efficiency and be safeguarded from disaster effects. It is also important for government and non-government departments that extend from their normal role into the counter-disaster role to be organized so that they can cope with the additional disruptions, stresses, and pressures involved.⁶

6. See also Section 7 dealing with the allocation of roles to resource organizations.

ROLES TO BE COVERED BY THE COUNTER-DISASTER ORGANIZATION

29. The roles to be covered by the counter-disaster organization need to be carefully defined in line with the national policy. This is usually no problem in the phases from preparedness to immediate relief measures and initial restoration. However, responsibility for mitigation, long-term rehabilitation, and reconstruction would normally pass to other departments. For instance, a low vulnerability housing program likely would be carried out under a Department of Works, Housing Authority, or Ministry of Home Affairs; an agricultural program designed to reduce crop vulnerability would be the responsibility of a Department of Agriculture. Similarly, post-disaster reconstruction measures would become the responsibility of an appropriate ministry or a specialized department or ministry set up for that purpose. In Tonga after Cyclone Isaac in 1982, a special National Office for Disaster Relief and Reconstruction was set up for a specific period. Although such programs would be the responsibility of separate departments, the counter-disaster organization clearly would have an interest in them and would be expected to maintain adequate liaison contact. A possible organizational structure is shown in Figure 2. See also examples of existing organizational structures in Part VI (Useful Planning Documents), Section 2 (Examples of Existing Organizational Structures).



*Subheadings are suggested examples only and do not necessarily constitute total activities in all cases.

FIGURE 2 A Possible Counter-Disaster Organizational Structure

SECTION 6

EVALUATION OF RESOURCES

NATIONAL RESOURCES

30. If the principle of maximum utilization of existing resources is followed, evaluation should be as comprehensive as possible. It may therefore be useful to evaluate resources under the following headings:

Governmental resources

- Police
- Defence force
- Fire brigade or department
- Medical services, including ambulance service
- Posts and telegraphs
- Broadcasting service
- Public works department
- Welfare department
- Civil aviation department
- Agriculture department
- Transport and shipping departments
- Public servants in other departments

Non-governmental resources

- Red Cross
- Church organizations

- Community groups
- Private transport companies
- Wholesale and retail food suppliers
- Airlines
- Amateur radio operators
- Members of the community

INTERNATIONAL RESOURCES

31. Resources from other countries are often available to assist a disaster-affected nation.⁷ Because their availability usually depends on a number of factors that apply at the time of a disaster event, it is not usual to include them in a national resource evaluation but to regard them as being supplemental.

EVALUATION CRITERIA

32. Once a full muster of national resources has been made, the resources should be evaluated for specific counter-disaster needs and by the criteria of capability, availability, and durability. These can be defined as follows:

- **Capability** – the ability of resource organizations to carry out defined counter-disaster tasks.
- **Availability** – whether the resource is immediately available for counter-disaster tasks or whether there is a lead-time (definite or indefinite) before organizations can respond.
- **Durability** – the degree to which organizations and departments can carry out sustained operations and when they need to be relieved by other organizations.

While many resource organizations are crisis-oriented, many others are not. This factor affects their capability to perform in disaster situations and should be taken into account during the evaluation.

The evaluation of the resources that can be provided by either government departments, private organizations, commercial en-

7. These are discussed in Sections 8 and 12 of this Part.

terprises, or international sources can be a delicate matter. Experience has shown that a generalized assessment without discussions between officials charged with counter-disaster planning and the individuals controlling potential resources is of little use. It is necessary to involve resource organizations in the evaluation. It is also necessary to review the capability, availability, and durability of resources in relation to experience in other disaster situations.

33. There may also be a need to reevaluate resources from time to time, especially if changes in circumstances, or other factors, indicate that the previous evaluation no longer remains valid.

34. Once resource organizations have been evaluated in relation to likely disaster-related tasks, provisional allocation of roles and responsibilities can be considered.

SECTION 7

ALLOCATION OF ROLES TO RESOURCE ORGANIZATIONS

SOME GENERAL CONSIDERATIONS

35. For counter-disaster purposes, and especially for formal inclusion in counter-disaster plans, it is most important that the roles and responsibilities allocated to resource organizations should be the agreed result of discussion and negotiation and not arbitrary decision-making by the counter-disaster organization. Otherwise, roles may not be effectively fulfilled, thus leading to serious problems during counter-disaster operations.

36. Options often present themselves in the consideration of allocation of roles; for the overall effectiveness of a counter-disaster response, a particular organization may be better equipped to fulfill one role rather than another. For instance, police forces can usually undertake a coordination role; they normally have the organizational coverage, communications, operations room facilities, and trained personnel required for this role. However, it may be more expedient to utilize the police in their specialist role of protection of life and property, maintenance of law and order, and search and rescue. Final decisions on these kinds of options can be reasonably made only in the light of particular national circumstances and after appropriate discussion.

37. Allocations of roles and responsibilities should cover the full range of disaster-related requirements. They should include responsibilities for prevention (if applicable), mitigation, preparedness, and restoration and reconstruction, not merely crisis-

response measures. For example, the role of a Department of Education in promoting public awareness and education should be stated, as should the responsibility of a Ministry of Agriculture for developing disaster-resistant crop schemes. At the national level especially, all roles and responsibilities should be included in the national counter-disaster plan so that they are collectively available for ready reference.

38. In making allocations at the national level, it is worth bearing in mind the "line" roles of some resource organizations, especially government departments, at other levels of counter-disaster activity. For instance, overall efficiency is likely to be enhanced if the counter-disaster role fulfilled by a department at, say, the provincial level is parallel to the role fulfilled at the national level. However, it is important that there should not be "line" interference with the roles of organizations.⁸ A department or organization at the national level should not try to call automatically on its counterpart resources that are deployed at an intermediate level of government, because such resources are likely to be committed under an intermediate-level plan.

THE VALIDITY OF ROLE CAPABILITY

39. Resource organizations should be able to maintain their capability to undertake allotted responsibilities. For instance, it should not be assumed that government departments can automatically extend their normal roles effectively into a disaster situation; special departmental planning, training, and coordination practice are usually necessary. There are many examples internationally where departments failed dismally in their extended disaster roles because insufficient attention had been given to special requirements and circumstances.

40. Similarly, some form of agreement with non-government organizations is desirable to ensure fulfillment of their roles. Sometimes the capability of non-government organizations can vary because of changes in personnel, for example. It is therefore advisable to have an agreed clause in counter-disaster plans to the effect that non-government organizations can and will fulfill the

⁸ As indicated in Part III (Intermediate Levels of Government), Section 8 (Allocation of Roles to Resource Organizations).

roles allotted in the plan, and that if there is any change in their capability to carry out their commitments, they should inform the responsible counter-disaster authority or official accordingly.

41. Another useful arrangement for helping to maintain the validity of role allocation is for there to be a clause in the national counter-disaster plan under which a designated official (perhaps a disaster operations coordinator) is authorized to check periodically with resource organizations to be sure that they remain competent to carry out their roles. The necessity under the national plan for resource organizations to make their own detailed operational plans also serves as a form of capability check. Generally, any checks of role capability are best done prior to a predictable disaster season (such as the cyclone season), thus serving as a preparedness reminder.

SECTION 8

ARRANGEMENTS FOR COORDINATION AND CONTROL⁹

MINISTER-IN-CHARGE OF NATIONAL DISASTER AFFAIRS

42. As already suggested, overall responsibility for coordination of disaster effort and for control of disaster operations should normally rest with a minister-in-charge, governor, or other appropriate office of national disaster affairs. In exercising this responsibility, such a minister is usually authorized to

- Co-opt government and non-government officials, as necessary;
- Utilize any available counter-disaster personnel and facilities; and
- Delegate appropriate aspects of coordination and control to other organizations and agencies.

INDIVIDUAL DEPARTMENTS, ORGANIZATIONS, AND AGENCIES

43. The departments, organizations, and agencies involved will have their agreed roles stated in the national plan. It is worth emphasizing in the plan itself that it is the responsibility of individual departments, organizations, and agencies to ensure that in fulfilling their roles they coordinate their actions as closely as possible.

9. See also guidelines on Counter-Disaster Planning and Counter-Disaster Organization contained in Sections 1 and 2 of Part V (Useful Planning Guides).

COORDINATION OF INTERNATIONAL SUPPORT¹⁰

44. For coordination of international support, it is important that clear arrangements be established before disaster occurs. Copies of the national counter-disaster plan should be circulated to relevant diplomatic, military, and other representatives who are likely to provide support, and copies of the plan should be made available to near-neighbor countries.

45. During counter-disaster operations, the relevant minister (foreign affairs) or official (disaster control officer or federal programs coordinator) is usually responsible for making such detailed arrangements for ensuring effective coordination of international support.

ORGANIZATIONAL MEASURES

46. The organizational structure must be capable of effective coordination and control, especially during disaster operations.¹¹ It is especially important that the national emergency operations center is capable of meeting this requirement in view of the extent of possible operations

10. See also Section 12 of this Part concerning International Support Arrangements.

11. As emphasized in Part V (Useful Planning Guides), Sections 1 and 2, on Counter-Disaster Planning and Counter-Disaster Organization.

SECTION 9

OPERATIONAL ARRANGEMENTS

47. This section is designed to provide a broad outline of the arrangements required for counter-disaster operations.¹²

EMERGENCY OPERATIONS CENTERS (EOCs)

48. As indicated previously, it is important for national- and intermediate-level governments to establish and maintain emergency operations centers. The main purpose of an emergency operations center is to provide a headquarters from which the implementation of a counter-disaster plan can be directed, controlled, and coordinated by the designated authority.

49. The main requirements for operating an emergency operations center are

- Adequate communications facilities, with message center;
- Arrangements for receiving, collating, and assessing information and for facilitating decision making;
- Display facilities (wall displays, etc.) for showing disaster situation (areas affected, etc.), resources available, tasks being undertaken, tasks needing to be undertaken, etc.;
- Space (with desks, seating, etc.) for operations officials to work; and
- Rest areas.

¹² More detailed information on some of the aspects is contained in Part V, Section 4, on Counter-Disaster Operations.

Additional considerations are storage space, vehicle access and parking arrangements, emergency power supply, arrangements for official visitors to be briefed, and nearby facilities for briefing the media.

50. It is also important that arrangements are maintained for the emergency operations center to be activated on short notice and for designated staff to be alerted accordingly. The building to be used as an emergency operations center must be clearly identified and made ready, as well as periodically checked, to ensure that all is ready to be mobilized. Alternative emergency operations centers should be earmarked to provide for emergency needs. A possible allocation of EOC tasks is shown in Table 2.

COMMUNICATIONS

51. In most countries of the Pacific region, the following networks comprise the main communications that are likely to be available for counter-disaster use:

- Government communications system
- Defence services network (if applicable)
- Police network
- National broadcasting system (especially for conveying information to the public)
- Special networks used for disaster operations purposes by international support organizations (e.g., the defence forces of Australia, New Zealand, or the United States)
- Other useful sources such as commercial networks, church/mission networks, amateur radio operators, and traditional means of communication.

52. A useful feature of good-neighbor assistance in disaster situations has been the readiness and ability of nations to act as emergency transmission links. Two examples are the Fiji Broadcasting Commission radioing warnings in the Tongan language during Cyclone Isaac (1982) when Tonga's own broadcasting system was out of commission due to the effects of the cyclone, and Tonga standing by to assist Niue in a similar role during 1983.

53. Full details of communications, including emergency systems, should be contained in counter-disaster plans.

TABLE 2 Emergency Operations Centers

<i>Desk Assignments</i>	<i>Functions</i>
Administration	Manage: Accounting and clerical procedures Census data and data collection Assessment surveys Record keeping Public relations
Services	Restore services: power, water, communication Maintain law and order (e.g., prevent looting and theft)
Construction	Clear debris Repair damaged infrastructure: roads, foreshore, wharves Build shelters and other necessary temporary structures Reconstruct destroyed government buildings and installations Rebuild private houses
Health	Treat the injured and sick Take necessary measures for preventive medicine and anti-epidemic actions Inspect food and water supplies
Commerce	Monitor commercial enterprises and industrial activities to prevent price hiling and corruption
Logistics	Relief supplies: receive, store, secure, transport, and distribute Coordinate supplies distributed directly by NGOs and other organizations Ensure proper maintenance of vehicles and equipment
Agriculture	Rehabilitate agricultural production Ensure interim crop production

WARNING

54. The effectiveness of a warning system is clearly one of the crucial components of any nation's capability to deal with disaster

situations. The requirements for effectiveness can best be considered under the following categories:

- **Capability to receive international warning** — Examples are cyclone warnings from Tropical Cyclone Warning Centers in Fiji, Australia, and Guam and tsunami warnings from the Tsunami Warning Center in Hawaii.
- **Capability to initiate in-country warning** — This is necessary in cases such as volcanic eruption, flood, landslide, or earthquake (if warning tremors occur).
- **Capability to transmit warning from national and other levels** — This is mostly done by radio broadcast systems, although in some cases additional systems can be used.
- **Capability to transmit warning at community/village level** — This may be done by loudhailer/bullhorn, siren, warning pennant, messenger, or bells.
- **Capability to receive the warning and act upon it** — This means possession of or access to radio receiver, being in hearing/seeing distance of signals, knowing what the various warnings mean, and knowing what to do.

If there are limitations or disruptions to any of these capabilities, the warning is unlikely to be totally effective. Most limitations or disruptions are caused by the disaster events themselves; for example, the inability of a radio broadcast system to function due to cyclone, earthquake, or other damage.

55. In situations where there is no advance warning of disaster (e.g., an earthquake or volcanic eruption not preceded by warning tremors or signs), disaster response necessarily has to be commenced at the immediate post-impact phase; and plans should take into account this kind of possibility.¹³

56. Good-neighbor assistance at national levels can be a valuable and welcome asset.¹⁴

EVACUATION

57. Arrangements for evacuation normally should be outlined in counter-disaster plans; or, if considered necessary, a special (or

13. See Paragraphs 65–66 concerning implementation of plans.

14. As stated in Paragraph 52.

contingency) plan may be produced. In some cases, tradition and local knowledge may initiate evacuation by communities or groups.

58. The main reasons for evacuation are usually the threat or actual occurrence of

- Inundation of living areas by flood or storm surge or tsunami;
- Volcanic eruption;
- Serious damage to or destruction of homes (by cyclone, etc., threat); and
- Fire.

In certain cases, severe drought or epidemic may warrant evacuation measures.

59. Provision of alternative areas and temporary facilities may be in the form of

- Designated shelters/safe havens/safe areas. (These may include strong buildings, high land, etc.; but care should be taken that buildings selected do, in fact, provide safe shelter.);
- Provision of stores and equipment for such shelters, etc.;
- Temporary living accommodation (tentage, etc.);
- Food supplies; and
- Medical and health assistance (depending on circumstances).

60. Some common problems connected with evacuation are

- Unwillingness of communities or groups to move;
- Tendency of evacuated groups to try to move back to own areas too soon;
- Non-availability or shortage of suitable means of transport;
- Ensuring security of homes or property left in evacuated areas (especially in evacuation of urban areas); and
- Difficulty of ensuring orderly movement when disaster circumstances are acute.¹⁵

15. See Part III (Intermediate Levels of Government), Section 10 (Operational Arrangements), Paragraph 39, for considerations affecting the decision to evacuate or not.

SURVEY, ASSESSMENT, AND REPORTING

- 61.** Efficient and accurate survey, assessment, and reporting of disaster effects are important in providing the information necessary to ensure an organized and effective response from counter-disaster authorities. In this regard, the multi-island nature of most Pacific countries and territories tends to add to the difficulties, mainly because of the obvious problem of checking disaster results on small, isolated islands or island groups. Shortage of transport for deploying assessment teams, especially in severe disaster circumstances, may also create problems.
- 62.** Basic requirements for survey and assessment are usually an air survey and assessment teams.
- **Air survey** can usually be carried out by chartered aircraft and/or aircraft provided through international support (Australian, New Zealand, or United States defence force aircraft). However, care needs to be taken by the counter-disaster authority if photographs and/or expert assessors are not available. A non-specialist assessor can make serious errors or miscalculations.
 - **Assessment teams** generally should consist of teams from the community level and/or teams organized at the national or other government level that are sent into the affected area(s). The composition of assessment teams will vary with circumstances and requirements; in many cases, specialists in agriculture, housing, and medical aspects will be necessary. As a general guide, the types of information required will help to determine the composition of such teams.¹⁶
- 63.** Where such arrangements do not already exist, it is worthwhile trying to organize teams at the community level. Under the general guidance of a village leader or village disaster committee (and assisted by appropriate leaders such as church representatives), teams comprising local people, as well as Peace Corps or other volunteers, could make a significant contribution to this important counter-disaster activity. This kind of contribution is a key component of self-reliance and self-help; its organization is clearly a part of general preparedness.

16. See Part V (Useful Planning Guides), Section 4, on Counter-Disaster Operations.

64. Accuracy and consistency should be the guiding principles in post-disaster damage or impact assessment. Some fairly simple guidelines or information formats can usually be devised to achieve these goals.¹⁷

IMPLEMENTATION OF PLANS

65. International experience has shown that in many circumstances, it is beneficial to implement counter-disaster plans in stages. The major advantages of such a system are that

- It is a convenient way of informing people of levels of standby, action, etc.;
- It helps to ensure a graduated response to disaster, where this is appropriate, and it helps to avoid over-mobilization of resources (such as in circumstances where a cyclone warning has been issued but the cyclone has not eventually become a direct threat); and
- It facilitates post-disaster review, thus more easily enabling improved measures to be introduced for the future.

66. A possible system for the implementation of counter-disaster plans could include

Stage 1, Preparedness — This stage consists of measures that are maintained continuously, so that response to any disaster situation, large or small, can be made effectively. It includes maintaining the viability of plans and resources, developing necessary levels of public awareness, and carrying out suitable training. A disaster preparedness official or section can be charged with responsibility for carrying out the necessary action required by this stage. All nations should maintain a state of preparedness for disasters, according to their threats.

Stage 2, Alert — This stage comes into being when some form of warning is issued indicating that the provisions of the national plan or other plans may have to be invoked. The official (or executive committee) designated in the plan will decide what action shall be taken at this stage and will initiate such measures under the plan as he sees fit. In some disaster cir-

17. See Part V (Useful Planning Guides), Section 4, for types of information normally required by the counter-disaster authority during operations.

cumstances where there is no warning (e.g., earthquakes), this stage becomes inapplicable.

Stage 3, Standby — This stage comes into being when it is established that a threat exists to all or part of the country. It requires that initial readiness measures be implemented. The necessary decision is taken by the designated official (or committee), and planned measures will be initiated as appropriate. As with Stage 2, this stage may become inapplicable in no-warning situations.

Stage 4, Operation — This stage comes into being when it appears certain that a disaster event is imminent (such as when a cyclone seems certain to strike) or when such an event (such as an earthquake) has occurred. Counter-disaster response will be determined by the designated official (or committee), and planned measures will be initiated as appropriate.

Stage 5, Recovery — This stage usually occurs when it is decided that post-disaster circumstances no longer require special operational action under the national counter-disaster plan and that any necessary measures can be carried out by normal government or other processes.

67. Operationally, this is essentially a three-stage system (Alert, Standby, and Operation); and if necessary, it can be represented by color coding (such as Stage Blue, Stage Yellow, and Stage Red).

SELECTION OF OPERATIONAL SYSTEM

68. The actual system or network used for carrying out operations is a matter of choice for individual nations. Sometimes choice is limited. For example, if the police force is the only organization that has the necessary operational coverage and communications, it is the logical one through which the decisions made by the minister-in-charge, or his executive, are implemented.

COMPATIBILITY IN OPERATIONAL ARRANGEMENTS

69. From the type and nature of the operational arrangements outlined in this section, one can see that compatibility between the various components at the national and intermediate levels is essential.

SECTION 10

IMMEDIATE RELIEF MEASURES

NATURE OF RELIEF MEASURES

70. Relief measures are usually needed immediately after disaster impact. These measures are normally urgent and often involve the safeguarding of life. Moreover, it is likely that they will have to be carried out under conditions of stress, disruption, and competing demands. It is evident, therefore, that they need to be applied on a carefully planned and coordinated basis, ensuring that where necessary the optimum amount of resources, both government and non-government, can be brought to bear. It should be noted, however, that on some occasions (such as the precautionary evacuation of a community in the face of a developing threat), relief measures may be required before impact occurs.

71. Successful implementation of relief measures will, of course, depend on accurate information, usually from survey and assessment. Difficulties in obtaining this information, especially from isolated communities, may impose delays in the provision of relief.¹⁸ The ability of communities to fend for themselves by utilizing self-help and mutual support, at least temporarily, is therefore an important factor.¹⁹

MAIN REQUIREMENTS

72. The main components in immediate relief measures, not necessarily in order of priority, follow:

18. See Paragraph 61 - 64.

19. See also Paragraph 91.

- Such areas as roads, airfields, and port areas may have to be cleared to facilitate access to disaster-affected areas and implementation of relief measures.
- People in immediate danger may need to be rescued.
- First aid must be administered and other medical and health measures instituted, including sanitation if there is a further threat to health.
- Shelter must be provided to those who require it.
- Food and water must be supplied where needed.
- Victims should be registered so that families may be informed and relief and rehabilitation programs may be controlled.
- Communities or groups may have to be temporarily relocated.

73. It is important for relief measures to be regarded as temporary; there should be a return to the normal systems and processes of government as soon as possible. A firm decision by government to end the emergency phase of operations quickly (preferably within 14 days of impact) often provides a stimulus for return to normal. In any case, relief measures should be designed to enhance recovery and to this end should use local supplies and systems. To impose a massive program of outside aid and to prolong shelter and feeding programs can unduly inhibit the recovery that it is intended to promote. Affected communities and groups should not develop a lasting dependency on outside assistance.

74. In one Pacific country, an outer island was affected by extreme tides, that resulted in sea water filling one of its largest taro patches. This had occurred many times in the past, and the traditional response was to harvest the taro and wash and replant the tops. In this case, an official from the government told the community leader that the government would help and requested food relief from the district office. As a result, the taro was not harvested and no replanting was done. Instead, people waited for the relief food that was provided to everyone on the atoll for six months.

75. A few years later, the taro patches were again inundated with sea water. Instead of harvesting the taro and replanting the tops, the people left the taro to rot and made an immediate request for relief food.

SECTION 11

RECOVERY MEASURES

THE RECOVERY PHASE

76. Recovery is generally regarded as the stage beginning after the decision has been taken to end the emergency phase. The recovery phase covers restoration, as well as both short- and long-term reconstruction, and it may extend into several years.

MAIN ASPECTS

- 77.** The main measures usually included in recovery are
- Continuation of relief and welfare services for disaster victims under normal government and non-government programs;
 - Relhousing including an appropriate building program, if necessary;
 - Restoration of public services and facilities;
 - Emergency food programs (including school feeding programs) that may be required to make good a crop failure resulting from disaster damage; and
 - Major reconstruction projects.

The implementation of many of these measures will need to take into account the existing national development programs.

RECONSTRUCTION AND MITIGATION

78. Reconstruction programs are likely to offer possibilities for improving a nation's overall capability for coping with disaster. For example, it may be possible to reconstruct damaged roads and port facilities so that they are more disaster-resistant in the future or to implement agricultural rehabilitation programs in such a way that crops are less susceptible to damage.

79. After Cyclone Isaac in 1982, the government of Tonga embarked on a carefully coordinated reconstruction program so that international aid could be coordinated and utilized to best effect, and certain disaster mitigation measures in the form of building codes and disaster-resistant crop programs were implemented.

SECTION 12

INTERNATIONAL SUPPORT ARRANGEMENTS

CATEGORIES OF ASSISTANCE

80. International support arrangements may cover a wide range of possibilities. It is therefore advisable to have a prearranged system for dealing with them. Support and assistance can usually be divided into three categories:

- **Direct participation in counter-disaster operations** — for example, the use of aircraft for survey and assessment and emergency transport;
- **Urgent emergency relief** — emergency food and medical supplies, tentage, etc.); and
- **Long-term programs** — for example, various forms of assistance in national reconstruction projects or preparedness and mitigation programs prior to and after a disaster strikes.

RELATIONSHIP WITH AGENCIES

81. The number of international agencies (government and non-government) that have to be dealt with may be very large. Also, many different contact points may be involved; overseas governments will normally deal through diplomatic channels, and non-government organizations will tend to work through their in-country counterparts. Therefore, it is advisable to use one national office or department for focusing and coordinating support activities, if this is possible.

82. Using the diplomatic corps (especially where it can function as a form of committee under the dean of the corps) is a valuable way of centralizing that particular part of assistance activity.

THE CORNUCOPIA SYNDROME

83. Another factor that has to be taken into account is the so-called "cornucopia syndrome," which often applies to severe and widely publicized disasters. This means that aid of all sorts, shapes, and forms is showered onto the victim nation, with little or no regard for its suitability or the amount already received. In one case, a large supply of yellow bikinis was sent to refugees trying to subsist in semi-arctic conditions; in Tonga, after Cyclone Isaac in 1982, supplies of high-heeled shoes were sent to victims who would normally never use them. The cornucopia syndrome is difficult to handle, not least because of its well-meaning nature; and the over-supply of aid can often divert personnel, transport, storage, and other resources that are badly needed elsewhere.

POSSIBLE MEASURES AT NATIONAL LEVEL

84. Despite such potential problems, it is possible to take certain steps that may, in the event of disaster, help to rationalize the international aid input. These might include the following:

- To ensure that an up-to-date inventory exists of emergency stores already held.
- To list, based on previous experience (or the experience in comparable countries), the items most likely to be required (tents, blankets, generators, etc.) and in what quantities. This, compared with the inventory of existing stocks, should give a rough guide as to what might be required initially for any particular disaster occurrence.
- To try to delay a request for aid, or to give a holding reply to aid offers, rather than allow a hurried program to be introduced. This kind of decision or approach is not easy in circumstances where many disruptions and pressures are the order of the day, but the point is worth noting as a counter-disaster guideline so that the best results may be achieved.

- To ensure that requests for assistance are couched in terms and categories that are clearly understandable to donor organizations and that the correct channels and procedures are used.
- To use one national office or department for coordinating international assistance.²⁰
- To ensure that, if necessary, speedy application for assistance can be made to sources such as the following:
 - South Pacific Bureau for Economic Co-operation (SPEC) for assistance from disaster funds;
 - United Nations Disaster Relief Office, Geneva, and other UN agencies (usually through local Regional Representatives of the United Nations Development Programme);
 - United States Agency for International Development, Office of Foreign Disaster Assistance, Washington, D.C., (usually through United States diplomatic channels);
 - Federal Emergency Management Agency, Washington, D.C.;
 - League of International Red Cross Societies, Geneva;
 - World Council of Churches, New York, New York;
 - Neighboring countries (including Australia and New Zealand); and
 - Local diplomatic corps representatives.

20. As stated in Paragraph 81.

SECTION 13

MEDIA INFORMATION

INFORMATION NEEDS

85. Disaster, especially major disaster, is news. Consequently, requests for information by local and international media are inevitable, and it is clearly advisable to have well-organized arrangements to deal with them.

THE INTERNATIONAL MEDIA

86. It is important that the plight of the stricken nation be reported accurately internationally and that there should be no misreporting or misrepresentation of the international assistance effort. Most disaster events will be superseded by other happenings on the world scene in a fairly short time, so to avoid possible misunderstandings and misinterpretations, it is worthwhile giving media representatives appropriate opportunities for briefing and gathering of information as soon as possible after the disaster event. Delays may lead to some media representatives "making their own news," which may not be in the best interests of the affected nation.

THE LOCAL MEDIA

87. Good relations with the local media are equally important, and usually two-way benefits are involved. Not only do the local media benefit from good cooperation from the counter-disaster

authority, but they also can perform valuable services in roles such as warning, evacuation, and public awareness. Sometimes it is in the interests of both parties if the counter-disaster authority can assist with activities such as helping to make media installations disaster-resistant as part of the mitigation activity. In addition, the promotion of regional good-neighbor relations, involving mutual use of media facilities, can be beneficial.²¹

INFORMATION SECTIONS

88. Information sections, adjoining but not part of disaster headquarters or EOCs, are effective ways of meeting media needs while not interfering with disaster operations.

²¹. As stated in Paragraph 52.

SECTION 14

POST-DISASTER REVIEW

GENERAL.

89. Post-disaster review and analysis normally constitute an important part of overall counter-disaster effectiveness, in the sense that the lessons and experience gained from a particular disaster can be utilized to strengthen future mitigation, preparedness, and response. Often, however, the pressures of post-disaster events (especially if recovery is complex and protracted) inhibit or preclude adequate review. It is for this reason that responsibility for review should rest at the national level and also should be clearly stated in the national disaster plan.²²

ASPECTS TO BE COVERED

90. Normally, the review needs to be as comprehensive as possible.²³ Main aspects to be covered in an evaluation of performance and effectiveness could include

- Status of plans and preparedness prior to the disaster;
- Communications;
- Warning, including origin(s), transmission and receipt, processing, dissemination, action taken (by government, community, etc.);
- Activation of the counter-disaster organization;

^{22.} See Part I (Introduction), Section 2 (Rationale), and Part V (Useful Planning Guides), Section 1, on Counter-Disaster Planning.

^{23.} See Part V, Section 4, on Counter-Disaster Operations.

- Emergency operations centers, receipt and handling of information, display and assessment of disaster situation, decision making;
- Survey, assessment, and reporting of the disaster situation;
- Assigning tasks to organizations involved in the disaster operation;
- Operations carried out, including rescue, initial relief, clearance of roads, etc., restoration of services, evacuation;
- Emergency feeding, shelter, and welfare arrangements;
- External support arrangements;
- Functioning of counter-disaster organization, including coordination and control;
- Assessment of public awareness programs;
- Training lessons; and
- Initial recovery indicators.

SECTION 15

PUBLIC AWARENESS AND EDUCATION

COMMUNITY SELF-RELIANCE

91. It is suggested that part of the national policy for dealing with disaster should be the development of self-reliance at the community level.²⁴ The main aim of such self-reliance is to enable the community to fend for itself as much as possible when disaster occurs; obviously, this involves a balance between traditional self-reliance and the obligation of governments to help.

IMPORTANT COMMUNITY NEEDS

92. The community members need to have knowledge of the following:

- What disaster will do (including traditional knowledge);
- The best immediate action to take, personally and by families and other kin groups;
- How best to help other members of the community;
- What the government has planned to do to assist the community;
- How best to participate in the disaster communication and warning process;²⁵ and
- How to improvise shelter and sustenance until assistance arrives.

24. See Paragraph 11.

25. See Paragraph 54.

CHANNELS FOR PROMOTION OF PUBLIC AWARENESS

93. Many channels may be used for promoting public awareness and for helping to educate the community in disaster requirements. Viewed from the national standpoint, they include

- Government programs, which might deal specifically with disaster awareness (especially before a definable disaster season) or other programs into which disaster awareness elements could be inserted (for instance, health and welfare radio broadcast programs might carry occasional information on needs in disaster);
- Educational programs;
- National broadcasting systems;
- Police information channels;
- Church/mission activities;
- Voluntary organizations, such as the Red Cross;
- Print media; and
- Various forms of activity at the community level.

METHODS OF IMPARTING INFORMATION

94. There are also various ways of imparting information. Possibilities are

- Radio talks and short feature broadcasts, with special seasonal emphasis where appropriate;
- Notices, posters, etc., especially where these can be used to convey a message pictorially;
- Utilization of simple verbal and pictorial messages: for instance, in places where they can be readily noted such as in telephone directories and on shopping bags issued by stores;
- Cartoon series or short illustrated stories in the print media;
- Films; and
- Village meetings to discuss preparedness activities with national government officials or trained community members.²⁶

26. See also Part III (Intermediate Levels of Government), Section 14, on Public Awareness and Education, and Part IV (The Community/Village Level), Section 5, on Public Awareness and Education.

VALIDITY OF INFORMATION

95. It is important to check, where possible, the validity of the public awareness programs. This is particularly so in terms of the ability of the programs to gain the attention of the people to whom they are directed. It is also advisable to check periodically to see that the information being imparted in the programs is being meaningfully received by the recipients.

ORGANIZATION OF PROGRAMS

96. The organization of programs is usually best handled by the counter-disaster authority in conjunction with government public information specialists. Assistance in this regard can often be obtained from within the Pacific region from countries that have experience in organizing and promoting this type of program. As a guide, however, the initial organization of a program might concentrate on

- Radio broadcasts (assistance with these can usually be provided by the broadcasting authority that has experience and expertise in the utilization of this medium);
- Publicity in the print media, especially if a pictorial story-type approach is possible;
- Utilization of government-sponsored community schemes; and
- School programs; these have very important long-term dividends and should definitely be utilized.²⁷

SOURCES OF GUIDELINE MATERIAL

97. Possible sources for guideline material are

- United States Office of Foreign Disaster Assistance, through the Regional Development Office, Suva, Fiji;
- Federal Emergency Management Agency, Washington, D.C.;

27. In all countries, children are being prepared for the future. This applies just as much to disaster awareness as to any other aspect of development and progress. The younger generation must be involved as early as possible in their school careers; involvement should be across the widest spectrum of child/youth activity. A useful theme is that "the children of today are the aware and self-reliant community of tomorrow."

- Pacific Islands Development Program, Honolulu, Hawaii USA;
 - United Nations Disaster Relief Office, Geneva, Switzerland;
 - League of International Red Cross Societies, Geneva, Switzerland;
 - Natural Disasters Organization, Department of Defence, Canberra, Australia (Parent organization for the Australian Counter Disaster College);
 - Department of Civil Defence, Wellington, New Zealand;
 - Office of Civil Defense, Government of the Philippines, Manila (which has a wide range of programs relevant to a dispersed island nation);
 - Red Cross of Western Samoa, which has developed a program designed for use in schools.
- 98.** It is emphasized that material taken from outside sources usually needs careful adaptation to local requirements.

SECTION 16

TRAINING PROGRAMS²⁸

TRAINING POLICY

99. Training for counter-disaster requirements is often regarded as a complicated and expensive undertaking that requires a wide range of specialized facilities and equipment, plus appropriate specialist personnel. This is not necessarily the case. Usually an astute balance between utilizing overseas training opportunities (mostly provided at no cost under various assistance programs) and making maximum use of in-country capability will meet initial requirements and form a satisfactory basis for future development. This is not to say that some specialized training, particularly for key personnel, is unnecessary.²⁹

100. There are three important policy considerations for counter-disaster training:

- Nations should establish their own training needs. To copy slavishly ideas and proposals from other countries and academic sources is unlikely to meet individual national requirements effectively.
- Training must be compatible with and give support to counter-disaster plans.
- Responsibility for training must be clearly defined.

28. Part V (Useful Planning Guides), Section 3, Counter-Disaster Training, gives detailed information on training programs. This section is therefore confined to certain key points that apply at the national level.

29. This point is referred to in Paragraph 103.

IN-COUNTRY CAPABILITY

101. Most countries possess a great deal of training capability within normal government and non-government organizations and agencies. Such capability is often found in

- Government training sections;
- Educational departments and school systems;
- Defence forces;
- Police forces;
- Church and mission organizations; and
- The Red Cross (especially for training in first aid).

In addition, the disaster experience of individuals throughout the nation is a valuable training asset and can be incorporated into formal training programs.

102. In counter-disaster training, the important issue is to be able to make best use of this existing capability through the organization of suitable programs.

OVERSEAS TRAINING ASSISTANCE

103. Opportunities for overseas training assistance, either in overseas establishments or through visiting teams, are listed below. Some of the opportunities offer broad counter-disaster study programs; others are concerned with specialized areas.

- Federal Emergency Management Agency, Emergency Management Institute, Washington, D.C., USA
- Disaster Management Diploma Program, University of Wisconsin-Extension, USA (curriculum being developed)
- Australian Counter Disaster College, Mount Macedon, Victoria, Australia
- Pacific Islands Development Program, including programs undertaken by INTERTECT, the disaster specialist organization, located in Dallas, Texas, USA

ESTABLISHMENT OF A NATIONAL TRAINING PATTERN

104. Once the training policy requirements have been established, it is necessary to formulate a national training pattern. An example of a possible pattern is contained in Part V (Useful Planning Guides), Section 3.

SECTION 17

ADMINISTRATION AND ACCOUNTING

105. The measures necessary to deal with disaster events are likely to make special and urgent demands on a government's administrative and accounting systems.

106. It is advisable to consider the use of the following arrangements:

- If counter-disaster legislation is implemented, it should cover the provision of appropriate funds from national government resources.
- In allocating responsibility for disaster affairs at the national level, the national government should define what delegation(s) of expenditure applies; or, alternatively, how urgent expenditure needs are to be met.³⁰
- A special system for administration and accounting to cover disaster requirements may be advisable; this usually can be implemented through uncomplicated procedures such as creating a limited amount of number-coded or color-coded forms.
- Special arrangements may be needed to account for and administer donor aid from both national and international sources.
- Special arrangements may be required for urgent release or issue of such things as stored goods and equipment.

30. See Part II, Section 3, on Allocation of Responsibility at National Level.

- A special department or section may have to be set up after the disaster to finalize administrative and financial matters, as well as to total the cost of the counter-disaster effort.
- Under mutual arrangements with international aid donors, it may be possible to obtain assistance in offsetting disaster costs.
- It may be advisable to include information on administrative and accounting matters in counter-disaster plans.

SECTION 18

PRODUCTION OF PLANS

PLANNING CONSIDERATIONS

107. Most of the information contained in Sections 1–17 will need to be considered in one form or another before a national counter-disaster plan can be produced.

FORMAT OF NATIONAL PLAN

108. The purpose of the written national counter-disaster plan is to define the measures necessary for dealing with disaster in the country concerned. In addition to outlining action to be taken at the national level during operations, the plan needs to cover other major aspects such as organization, allocation of responsibility, arrangements for coordination and control, and relief measures.³¹ It is important, however, that the formal plan be written clearly and simply.

RESPONSIBILITY FOR PRODUCTION OF PLANS

109. The responsibility for the production or updating of plans must be defined clearly. Where possible, this responsibility should be given to the appropriate counter-disaster department or section, which in turn must be responsible to the designated minister.

31. The format suggested in Part V (Useful Planning Guides), Section I, Paragraph 12, suitably adapted to individual national needs, is likely to meet most requirements in the Pacific region.

It cannot be over-emphasized that the process of planning is a continuous one; otherwise, plans become outdated, disregarded, mislaid, and ultimately useless as the foundation on which national counter-disaster capability is based.

SECTION 19

DEVELOPMENT OF MITIGATION MEASURES

TRADITIONAL MEASURES

II. In the Pacific region as in other areas, some traditional measures for the mitigation of disaster are longstanding; for example, the positioning of living areas to reduce risk of inundation, landslide, and crop damage has been practiced for centuries. In some countries, disaster-resistant crops are planted in case a cyclone or drought occurs. In other areas, traditional houses are built so that wind damage is minimized. And, in some areas, crops are preserved so that if there is a cyclone, there will be adequate food. Some of these measures remain effective in varying degrees now.

CURRENT OPTIONS FOR MITIGATION

III. Some current options for improving and/or increasing mitigation are

- Land use regulations, aimed to ensure that in disaster-prone areas the risks to people, livestock, housing, and other assets are eliminated or reduced as far as possible;
- Building codes, which specify the standards that must be observed in order to decrease vulnerability in housing and public and commercial buildings;
- Agricultural programs, designed to increase crop resistance in disaster conditions; and

- Protection of key disaster-related installations, designed to mitigate the effects of disaster and thus to prevent loss of counter-disaster capability.

MITIGATION WITHIN ASSISTANCE PROGRAMS

112. There may be disaster mitigation opportunities within assistance programs carried out under bilateral or international arrangements. For example, where an assistance program is designed to update a national broadcasting facility, measures could be included that would help to preserve the capability of that facility in time of disaster. The inclusion of such mitigation measures within the basic format of a program may add little to the cost. Similarly, the updating of police facilities (including communications and operations rooms' facilities) could readily include measures of mitigation, again at little or no additional expense.

SECTION 20

IMPLICATIONS OF DISASTER ON NATIONAL DEVELOPMENT PROGRAMS

INTERRELATIONSHIP BETWEEN DISASTER AND NATIONAL DEVELOPMENT PROGRAMS

113. A close relationship exists between disaster and national development programs.³² However, in the Pacific region to date, long-term national development plans (with one or two exceptions) have not taken into account the possible effects of disaster. Disaster can have a direct effect on national plans and programs in terms of delay, disruption, and even enforced change. In turn, such plans and programs may affect a nation's ability to cope with disaster, because while some of them may reduce risk and vulnerability, others can actually increase it. For example, agricultural development projects that are financed by loans that are to be repaid out of the sales of crops from such projects can increase the economic vulnerability of a country if the crops are subject to cyclone damage. The planting of disaster-resistant crops can reduce agricultural vulnerability.

114. The following example of the relationship between natural disasters and development may illustrate some of the issues addressed here:

A Pacific country was struck by a major cyclone that destroyed crops, badly damaged roads and communications equipment, and destroyed many houses. Based on a preliminary assessment of crop damage, the government requested food aid from over-

³² As already stated in Paragraph 8 in this Part.

seas. The decision was made that people in the worst-affected areas would require rations for nine months. This was announced and eventually a food distribution program was started. It included rice, flour, tinned meat, and cooking oil. A month after the relief food program was started, trade store owners from the affected area notified the government that their businesses were suffering badly because people were no longer buying food. They were being provided with food by the government instead. Another crop assessment was made, and it was determined that although the food crop recovery was progressing, people had little money because their cash crops were also destroyed by the storm. The government felt it needed to continue some sort of food relief, but a decision was made to buy fishing equipment and assist in the marketing of fish. This would provide cash that would allow people to buy food from local store owners. Once this was arranged, the announcement was made that the government was going to help the people generate cash through fishing and that rations would gradually be stopped. Had steps not been taken to change the assistance from rations to the support of a fishing scheme, local stores probably would have gone out of business.

OTHER ASPECTS

115. Other aspects of the relationship between disasters and development worth considering are the following:

- The results of disaster should always be examined in the light of the advantages that might be exploited from them; this is known as "the disaster as an advantage" syndrome. The need for reconstruction and the assistance provided for such reconstruction can be utilized not necessarily to replace loss but to achieve significant forward development.
- Disaster-significant items need to be considered in both reconstruction and development programs. For instance, positioning or repositioning of facilities such as bulk oil supplies is important from the viewpoints of both vulnerability and mitigation.
- Prolonged relief programs following disaster may have serious effects on the national economy (see example in Paragraph 114).

SECTION 21

COMPATIBILITY OF MEASURES— NATIONAL TO OTHER LEVELS

116. The main theme of Section I of this Part is the vital importance of mutual inter-dependence and compatibility of effort in coping with a nation's disaster problems. If viewed from the national level, some practical considerations to this end are the following:

- Plans and arrangements at the national level must be realistic in relation to demands placed on other levels of government.
- While national policy must give the necessary direction in the overall national interest, it must also provide maximum support for other levels of government as well as permit appropriate flexibility of action.
- The inter-relationship between national and community levels is of considerable significance in promoting awareness, preparedness, and response capability. If a sense of mutual participation can be developed within this inter-relationship, the overall benefits are likely to be raised to and maintained at optimum level.

117. One final note—it should be the constant concern of counter-disaster officials at the national level to ensure compatibility of effort with other levels of government, wherever this is possible.

PART III
INTERMEDIATE LEVELS OF
GOVERNMENT

SECTION 1

IDENTIFICATION OF MAIN CAPABILITIES AND LIMITATIONS

1. A primary consideration at intermediate levels of government is a critical identification of the main capabilities and limitations that affect counter-disaster arrangements at such levels. Here, much will depend on the following three fundamentals:

- The national policy, especially the degree to which it governs or influences intermediate-level policy and action;
- The dictates of legislation; and
- The national counter-disaster plan and the extent to which it covers intermediate-level activities.

CAPABILITIES AND LIMITATIONS

2. From these three fundamentals, certain practical aspects of capability and limitation ensue. They are

- The degree to which delegation of overall government authority passes to the intermediate level and thus the division of responsibility (national/intermediate) that results;
- The extent to which resources (e.g., transport, equipment, medical supplies, and trained personnel) are concentrated at or controlled from the national level, which in turn has a major bearing on the degree and flexibility of action that can be taken at the intermediate level;

- The total dependence in some cases of intermediate-level authorities on certain national systems (e.g., dependence on the national broadcasting system for the key requirement of communicating with the public may have significant repercussions and perhaps limitations because of possible conflicting needs and priorities between national and intermediate levels, as well as between intermediate levels themselves);
 - The ease (or difficulty) of access to or communication with national and other levels, especially during times of crisis pressure; and
 - The effects of distance and remoteness, especially in relation to remote island areas.
3. It follows that the identification of the main capabilities and limitations along these lines has a considerable bearing on the counter-disaster policy that should apply at the intermediate level of government.

SECTION 2

DEFINITION OF INTERMEDIATE-LEVEL COUNTER-DISASTER POLICY

4. As stressed previously, intermediate-level policies have to be compatible with the national policy. However, they are not necessarily or usually identical. Intermediate-level policies tend to be confined to preparedness, local operations, and immediate relief; other aspects such as mitigation and recovery measures are normally directed from the national level.
5. Intermediate-level policies are also conditioned by dependence on the national level for the initiation of certain important counter-disaster actions; for instance, the provision of aircraft capability for post-disaster survey.
6. This modified definition of intermediate-level policy is important since it helps to clarify areas of responsibility, requirements, and the scope of operational action.

SECTION 3

IDENTIFICATION OF THREAT AREAS AND RISK LEVELS

FOCUS OF THE THREAT

7. In line with the definition of policy, it is obviously important to bring the focus of the threat to intermediate levels of government. This is necessary because not all components of the national threat will apply at the intermediate level; for example a volcano threat, although obviously of national significance, may be limited to only one intermediate-government area or province.

RISK FACTORS

8. In many cases, it is possible to identify priorities of risk, such as the relative likelihood of various disaster threats. This identification, especially when related to seasonal factors, can then help to determine patterns of readiness. These might involve deployment of some counter-disaster facilities and equipment, including their concentration in certain areas.

9. In addition, this type of intermediate-level risk identification can aid in designation of safe areas as well as determine the extent to which (and during what season) buildings for shelter might have to be prepared for an emergency role.

10. Similarly, this narrowing of focus on the threat and the localization of risk assessment may assist in determining degrees of priority and emphasis in public awareness and training programs.

SECTION 4

MAJOR COUNTER-DISASTER MEASURES REQUIRED

ASSESSMENT OF MEASURES

II. The considerations in Sections 2–3 above will help toward assessment of the main counter-disaster measures that need to be taken at intermediate levels. This assessment and relevant decisions will tend to apply particularly to the following measures:

- **Organizational requirements** — structure of counter-disaster organization, whether or not counter-disaster arrangements should be centralized at intermediate levels of government, what particular measures are best suited for coordination and control.
- **Mobility requirements** — (especially if the organization structure is centralized) — transport needs and availability, road access to remote areas, sea access to dispersed islands.
- **Positioning of emergency stores and equipment** — whether mainly centralized or dispersed, maintenance needs.
- **Activation of the counter-disaster organization at the intermediate level** — who activates it and under what circumstances.
- **Any special requirements with regard to receipt, assessment, and dissemination of warning information** — how are warnings received and issued.

POSSIBLE OVERRIDING FACTORS

12. In some cases, certain overriding factors may apply either permanently or temporarily. Examples include the following:

- The possibility of the national-level organization being totally or partially disrupted by disaster and the effect this might have on the ability of the intermediate-level government to function. For example, in a recent cyclone in one Pacific country, communications between the national capital and the rest of the country were put out of commission for three days. As a result, outer island counter-disaster measures had to be managed entirely from the provincial capitals. In a completely centralized national counter-disaster organization, such a breakdown in communications could seriously hamper counter-disaster measures. The country in question allowed for such contingencies when it recently revised its national disaster plan, which included provisions for autonomous provincial control over the disaster response.
- The likelihood that priority of support and resources from the national level might have to be directed toward other intermediate levels.
- Geographical factors such as the terrain and accessibility of vulnerable areas.
- Major political considerations.

SECTION 5

ALLOCATION OF RESPONSIBILITY AT INTERMEDIATE-GOVERNMENT LEVELS

13. For the national level, the allocation of responsibility at intermediate levels needs to be carefully and clearly defined. The overall structure of government, as it applies nation-wide, will naturally tend to determine the national-government/intermediate-government relationship. Also, the pattern chosen for allocating counter-disaster responsibility at the national level must strongly influence what is decided for intermediate levels.³³

14. Experience from other parts of the world has shown that at the provincial level, for example, a governor-plus-committee system is effective, but obviously various options are available. The pattern for allocation of responsibility should

- Fit closely with the structure at the national level;
- Be compact and simple, consistent with the requirements it needs to fulfill; and
- Be capable of satisfactorily coordinating and utilizing non-government as well as government resources.

33. See Paragraph 25 below.

SECTION 6

INTERMEDIATE-LEVEL COUNTER-DISASTER ORGANIZATION

SOME POSSIBLE PROBLEMS AND REQUIREMENTS

15. The counter disaster organization at the intermediate-government level must fit with the overall national organization and, indeed, be virtually an interlocking part of it.

16. The intermediate-level organization should also be structured to take into account the scale and location of the different disaster events with which it might have to be involved. For example, a disaster might

- Be nation-wide;
- Cover the intermediate-level government area with which the organization is concerned or be confined to a small part of the same area; or
- Be in another intermediate-level government area.

This scale and location of disaster events will necessitate different degrees and perhaps types of action. For instance, different roles and varying degrees of mobility may be involved. It is therefore important that the organization is designed to meet the probable range of eventualities.

17. It is also advisable to consider the organization's ability to absorb and utilize resources sent in from the national or other government sources. Such an eventuality may overload the organization and in extreme circumstances be counter-productive unless appropriate plans and arrangements have been made.

USE OF EMERGENCY TASK FORCES

18. In some countries, the formation and use of emergency task forces at the intermediate-government level have been found effective. The composition of these task forces can vary, but essentially such forces need to be capable of quick deployment and of carrying out short-term emergency tasks such as rescue, first aid, and construction of temporary shelter.

SECTION 7

EVALUATION OF INTERMEDIATE-LEVEL GOVERNMENT RESOURCES

MAXIMUM UTILIZATION OF EXISTING RESOURCES

19. As at the national level, it is important that when an evaluation is made of resources at an intermediate level of government, the need is considered for their maximum utilization.

RESOURCE CATEGORIES

20. The various resource categories are tabulated in Part II.³⁴ It is suggested that under this heading, the intermediate-level counter-disaster authority should consider carefully the resource constituted by "the prepared community," especially if awareness and associated programs are being utilized at that level. This is important, of course, because the optimum utilization of this resource can usually be best organized from the intermediate level of government.

21. It is worth bearing in mind that certain resources that are within the total national scope may not be available within a particular intermediate-government area. Conversely, such an area may possess a resource (e.g., a special government establishment or a commercial enterprise) unique to the area that provides a local source of equipment and personnel.

22. Limitations in some resources at the intermediate level (such as food supplies and heavy equipment) may affect the numbers

³⁴ Full details are contained in Part II (National Level), Section 6, on Evaluation of Resources.

and types of reinforcement that can be accepted from outside. In other words, it is of no use to bring in outside resources unless they can be utilized; if they are brought in regardless of limitations in local resources, they are likely to be more of a hindrance than a help.

EVALUATION CRITERIA

23. Resources should be evaluated against the criteria of

- **Capability**
- **Availability**
- **Durability³⁵**

³⁵ As already stated in Part II (National Level), Section 6, on Evaluation of Resources.

SECTION 8

ALLOCATION OF ROLES TO RESOURCE ORGANIZATIONS

GENERAL CONSIDERATIONS

24. For ease of reference, some key points concerning the allocation of roles to resource organizations are summarized here.³⁶

- There may be options in the roles that some resource organizations can fulfill.
- It is advisable to have a clause in plans that requires non-government organizations to declare that they are, in fact, capable of carrying out the roles allocated to them, as well as to amend that undertaking if their capabilities change.
- It should not be assumed that government departments can automatically extend their normal roles effectively into a disaster configuration; departmental planning, training, and coordination practice are usually necessary.
- Allocation of roles should cover the full range of the counter-disaster requirements of which they are capable and not be limited to roles within the emergency phase.

COMPATIBILITY OF NATIONAL- AND INTERMEDIATE-LEVEL ROLES

25. In the allocation of roles to government departments, it is important that there be a clear understanding of whether depart-

^{36.} Already contained in Part II, Section 7, on Allocation of Roles to Resource Organizations

ment resources are controlled, for counter-disaster purposes, at the national or intermediate level. For example, if an agricultural project team is working in an intermediate-level area, its use for post-disaster assessment might be significant. It is therefore important for there to be a clear understanding of whether the team is working with national requirements or under the direction of the intermediate government. This allocation of roles must be decided by mutual agreement and clearly defined within counter-disaster plans.

VALIDITY OF ROLE CAPABILITY

26. Care is usually necessary to ensure that resource organizations maintain their capability to undertake allotted roles.³⁷

^{37.} Information on this point, which applies equally to national and intermediate levels, is contained in Part II, Section 7, on Allocation of Roles to Resource Organizations.

SECTION 9

DEFINITION OF LIKELY CATEGORIES OF ASSISTANCE REQUIRED FROM NATIONAL AND OTHER LEVELS

GENERAL FACTORS

27. An analysis of the disaster threat that applies at a particular intermediate-government level can provide general guidance on disaster effects and therefore on the most likely needs. In turn, a general assessment will usually reveal the proportion of such needs that could be provided by outside assistance.

28. Most of this outside assistance is likely to come from national government sources (sometimes utilizing international aid). On occasions, however, assistance may be forthcoming from other intermediate-government areas.

29. While it may be possible to stockpile some required supplies locally and long term, others will have to be requested at the time of a particular disaster. Some arrangement either within the intermediate-level plan, or as an adjunct to it, is therefore advisable to ensure a timely request for and receipt of assistance, in whatever form this may take.

CATEGORIES OF ASSISTANCE

30. Categories of assistance will be determined by specific circumstances but will probably comprise some or all of the following:

- Personnel, for a variety of assistance tasks
- Medical supplies and public health assistance (including sanitation and water purification means)

- Food
- Tents or other forms of temporary shelter
- Transport
- Rehousing and rebuilding materials
- Various forms of machinery/equipment (such as for clearance, for timber-cutting of fallen trees)
- Agricultural commodities (new seeds, etc.)

SECTION 10

OPERATIONAL ARRANGEMENTS

31. At intermediate levels of government, operational arrangements generally will be an interlocking part of the overall national arrangements, and in all cases there will need to be compatibility between the two levels.³⁸

32. Intermediate-level factors that will need special consideration are discussed in the following paragraphs.³⁹

EMERGENCY OPERATIONS CENTERS

33. Intermediate-level emergency operations centers must be compatible with national EOCs in format and roles performed. Usually, however, they can be structured on a more limited scale. Conversion of an existing office or other suitable accommodation will often suffice. However, its availability and the provision of necessary facilities must be planned so that activation can be effected quickly when the need arises.

COORDINATION AND CONTROL

34. Options on the system used for coordination and control can vary. For example, a provincial governor plus an executive committee has been used at the intermediate level in some places. An-

38. As outlined in Part II (National Level), Section 9 (Operational Arrangements), Paragraph 69.

39. Some of these may be unique to particular circumstances, but the more likely possibilities are outlined in Paragraphs 33-43.

other alternative is for a provincial government to appoint a disaster operations coordinator (perhaps the senior police officer) to implement its decisions. In any case, the system of coordination and control must fit suitably with that of the national level.

COMMUNICATIONS

35. Communications are usually determined by and form part of the national network, but it may be possible at intermediate levels of government to use alternative existing local networks (such as those used by churches) for emergency, standby, or other special needs. It may also be useful to include local amateur radio operators, especially if they are organized, although care needs to be taken to ensure that a means exists of keeping availability lists up to date.

WARNING

36. Warnings generally come "downward" through national channels. It should be borne in mind, however, that some warnings may originate at an intermediate level (for instance, aircraft crash, volcanic eruption, or landslide), in which case warning will go "upward" to the national government.

37. Although dissemination of warning information will generally be effected via the national (probably radio broadcast) system, it may be necessary to supplement this method by any available additional means, such as telephone calls to key points and use of local radio networks.

EVACUATION

38. At the intermediate level it should be possible to define fairly accurately the circumstances under which the need for evacuation is likely to arise. Thus, general arrangements for dealing with the problem can be made and appropriate guidelines or checklists included in the intermediate-level plan (or an adjunct to it). The main arrangements required should cover

- Designating shelters, safe havens, and safe areas (such as strong buildings and high land), as well as likely routes to be used;

- Earmarking stores and equipment;
- Locating temporary living accommodations (tentage, etc.);
- Maintaining food and water supplies; and
- Identifying sources of medical and health assistance.⁴⁰

39. The decision whether or not to evacuate is sometimes one that has to be carefully weighed. If the issue is not clear-cut, one major consideration must be that the needs of the people evacuated usually make a heavy demand on resources that are already overstretched, and this situation may persist for a long time. Conversely, if a group is left in its own area, despite initial difficulty and hardship, the problem may be overcome through a combination of self-help and government and non-government assistance.

SURVEY, ASSESSMENT, AND REPORTING⁴¹

40. Although some of the arrangements for carrying out a disaster survey and assessment necessarily have to be organized at the national level (for example, arranging international air survey capability), certain support functions can be organized by the intermediate counter-disaster authority. They might include

- Deployment of assessment teams composed of local resources; these could be of either general or specialist capability (e.g., composite teams to undertake general tasks or police teams dispatched for special tasks using motor boats, river canoes, four-wheel-drive land vehicles);
- Utilization of any local aircraft that might be available from airline, commercial, or private sources; and
- Assurance, through planning measures, that survey and associated assistance from outside (e.g., helicopter teams) will be compatible with operations organized locally.

41. The key requirement in relation to the foregoing and other similar measures is that the information gathered must be as accurate and comprehensive as possible. An accurate information picture at the intermediate level is important for two reasons:

^{40.} Some common problems associated with evacuation are outlined in Part II (National Level), Section 9 (Operational Arrangements), Paragraph 60.

^{41.} General requirements for survey and assessment are contained in Part II, Section 9; these requirements are likely to be similar at an intermediate level of government.

1. So that an accurate national picture may be obtained; and
2. So that priorities for relief and assistance can be correctly established and applied.⁴²

IMPLEMENTATION OF PLANS

42. If stages of implementation (i.e., Preparedness, Alert, Standby, Operation, Recovery) are part of the national plan, they must be paralleled in intermediate-level plans to ensure effective and coordinated responses.

43. As with warning, it should be borne in mind that the initiative for implementing plans may be both "upward" and "downward". Sometimes government at the intermediate level may have to initiate a certain stage of implementation and then subsequently inform the national level that this has been necessary. Activation of an intermediate-level plan, especially in response to a no-warning incident, should not be delayed pending consultation with or authority from the national (or other) level.

^{42.} The types of information normally required during operations are contained in Part V (Useful Planning Guides), Section 4 (Counter-Disaster Operations), Paragraph 31.

SECTION 11

IMMEDIATE RELIEF MEASURES

COMMON CHARACTERISTICS

44. Viewed from all levels of response, the relief requirements that immediately follow disaster impact usually have some common characteristics in that they

- Are urgent;
- Are dependent upon accurate assessment and information;
- Need careful coordination; and
- Are significantly assisted by optimum self-reliance within communities;

MAIN REQUIREMENTS

45. The main requirements tend to be⁴³

- Clearance (of roads, airfields, etc.) to facilitate access to stricken areas and implementation of relief measures;
- Rescue;
- First aid, medical care, and other health and sanitation measures;
- Shelter (temporary housing, etc.);
- Supply of food and water;

⁴³. As stated in Part II, Section 10, on national-level immediate relief measures.

- Health and sanitation measures; and
- Temporary relocation of communities.⁴⁴

46. The ability to perform these tasks at the intermediate-government level will clearly depend on the severity and extent of impact and the immediate availability of resources. It is therefore advisable at all levels of government to have plans to obtain resources from other, including parallel, levels. It is also advisable to be able to deploy and/or concentrate resources to the optimum effect within one's own area of responsibility.

47. It is important to bear in mind that immediate relief measures, as their title implies, are not long term. In this regard, it is particularly desirable not to create an over-dependence by communities on immediate relief measures. Therefore, involvement of victims in self-help (temporary repairs to their own housing, clearance of damaged crop areas, etc.) should be regarded as a necessary part of the relief measures overall.

48. While it is understandable that some organizations may initially react in a reflex manner (for instance, ambulance services or the Red Cross in the first aid role), it is imperative that relief operations should be controlled and coordinated according to the plan and through the appropriate emergency operations center. Otherwise, an efficient and equitable application of relief measures will not be achieved.

44. See notes on evacuation in Paragraphs 38–39.

SECTION 12

RECOVERY MEASURES

49. Recovery is generally regarded as beginning when the decision is made to end the emergency phase.⁴⁵

50. Recovery covers restoration, rehabilitation, and short- and long-term reconstruction. Since activities may range from continuing relief and welfare to long-term reconstruction, it is clear that overall policy and direction normally must be the responsibility of the national government although intermediate levels of government are usually and inextricably involved. Plans and arrangements at both levels must be designed to ensure a smooth and efficient working relationship with overall national activities.

51. In this connection, it needs to be borne in mind that all departments, organizations, and agencies involved have been (during the emergency) and continue to be under a considerably increased workload. Thus clear allocations of priority are advisable wherever these can be achieved. It is probably no exaggeration to state that in this post-emergency period, counter-disaster officials and others face some of their most difficult and crucially important tasks.

⁴⁵. As stated in Part II, Section II, on national-level recovery measures.

SECTION 13

FACTORS AFFECTING IMPLEMENTATION OF AID PROGRAMS

52. Since the negotiation and decision-making considerations relevant to major aid programs are mainly the concern of national governments, it is perhaps understandable that some of the ramifications at the intermediate-government level could be overlooked, or at least not fully appreciated.

EFFECTS AT INTERMEDIATE LEVEL.

53. Effects of foreign disaster assistance at the intermediate level may, in fact, be significant. For example, a major food aid program in a province might make demands in some or all of the following areas:

- Port and airfield facilities;
- Reception, off-loading, and temporary storage;
- Requirement for specialist personnel;
- Transport for distribution of food and medical supplies;
- Documentation (e.g., number of people eligible and scales of issue);
- Effect on local commercial wholesale and retail interests;
- Effect on the indigenous cash crop effort;
- Extra-governmental cost;
- Incompatibility of some food items with local needs;

- Overcalculation of aid input, leading to long-term storage needs;
- Additional staff; and
- Social problems such as inequitable distribution and effects on life-style.

It is advisable to make at least the outline of a contingency plan for this type of commitment.

SECTION 14

PUBLIC AWARENESS AND EDUCATION

GENERAL CONSIDERATIONS

54. Information on the following main areas of national policy that relate to public awareness and education are contained in Part II (National Level), Section 15 (Public Awareness and Education), Paragraphs 91–98:

- Community self-reliance;
- Important community needs;
- Channels for promotion of public awareness;
- Methods of imparting information;
- Validity of information;
- Organization of programs; and
- Sources of guideline material.

All or most of these areas have virtually direct application at the intermediate level.

THE NEED AT INTERMEDIATE LEVEL.

55. The need at the intermediate level is to apply national policy in such a way that there is optimum focus at that level, especially in terms of program coverage. In general, programs should be designed to keep the community as fully informed as possible. They should also involve community members in all appropriate

aspects of counter-disaster activity including mitigation, preparedness, emergency operations, immediate relief, and recovery. As emphasized several times previously, self-reliance within the community and awareness in schools are important themes in developing programs.

SECTION 15

TRAINING

COMPATIBILITY WITH NATIONAL POLICY

56. As with public awareness and education, intermediate-level training should be based on the policy and approach determined at the national level. In this regard, any available assistance from the national level clearly would be valuable in helping to achieve national/intermediate-level compatibility.

INTERMEDIATE-LEVEL PROGRAMS

57. The considerations in Part II, Section 16, on national-level training programs, should be applied when framing intermediate-level training programs. Important provisos are to

- Ensure that the training activity is related to the appropriate level of the counter-disaster plan;
- Identify priorities of training, for instance, the types of training most needed and the organizations and individuals to which the training should be directed;
- Optimize available facilities, equipment, and instructional staff, that is, utilize suitable disaster-experienced people, crisis-oriented organizations (police, Red Cross, etc.), and specialist ability (educational staff, etc.);
- Use a mobile approach where possible and appropriate, by taking the training to the people;⁴⁶

⁴⁶ See Part V, Section 3, on useful planning guides for counter-disaster training.

- Maximize possibilities within schools (e.g., use normal first aid training to develop relationships with possible disaster needs by occasionally setting such training in a disaster scenario); and
- Utilize post-disaster review, whenever possible, for training purposes; it is a very valuable training asset.⁴⁷

⁴⁷ Information on the formulation of counter-disaster plans, including post-disaster review, is contained in Part V, Section 1, on useful planning guides for counter-disaster planning.

SECTION 16

PLANNING MEASURES

RELATIONSHIP WITH NATIONAL PLANS

58. Planning measures at the intermediate level of government must be directly related to national-level plans. If possible, guidelines should be issued from the national level to planning officials at intermediate levels. If this system does not exist, a request could be made from the intermediate level of government.⁴⁸

INTERMEDIATE-LEVEL CONSIDERATIONS

59. At the intermediate level of government, major planning considerations are

- Determining responsibility for producing, reviewing, and updating plans;
- Ensuring that the contents of the plan are designed to meet all requirements at the intermediate level;
- Ensuring also that any necessary special or contingency plans are drawn up;
- Ensuring that the intermediate-level plan is compatible with those at other levels; and
- Utilizing the plan to determine requirements in training and public awareness.

^{48.} Information on the formulation of counter-disaster plans is contained in Part V (Useful Planning Guides), Section I (Counter-Disaster Planning).

SECTION 17

INTERRELATIONSHIP WITH COMMUNITY/VILLAGE LEVEL

60. The importance of a good understanding and working relationship between intermediate-level government and communities/villages can hardly be over-emphasized. Communities and villages constitute the "disaster front." They are the people, the self-reliant community, the victims, the disaster workers, the relief recipients, the nation — all rolled into one.

61. Communities and villages, therefore, have a direct interest and stake in all phases of counter-disaster awareness, mitigation, preparedness, and response. It is important that there should be maximum participation by community members in all appropriate aspects of counter-disaster planning and that local initiative should not be curtailed by over-dependence on the government.

62. Without due recognition of these facts, the planning and associated measures performed by governments (and non-government organizations) cannot be fully effective. Indeed, all those officials and others charged with responsibility in the counter-disaster field need to be continually aware of the truly vital interrelationship that applies throughout all levels of national activity.

PART IV
THE COMMUNITY/VILLAGE LEVEL

SECTION 1

CAPABILITIES AND LIMITATIONS

LOCAL KNOWLEDGE AND EXPERTISE

- 1.** Capabilities and limitations at the local level will obviously vary considerably between different circumstances; and this point must be taken into account in counter-disaster measures generally.
- 2.** On first reflection, it may be felt that little counter-disaster capability exists at the community or village level and that when disaster strikes it is largely a question of government sending in assistance mostly in the form of equipment, supplies, and specialist personnel.
- 3.** This is not necessarily true. All communities and villages have vitally important assets when it comes to dealing with disaster. These include local knowledge and experience plus a local structure capable of mobilizing and utilizing that knowledge and experience. Clearly, these assets need to be organized and utilized to optimum effect.

DETAILED ASSETS

- 4.** Local knowledge and experience may contain, among other things, the following detailed assets:
 - Traditional capability for reading disaster warning signs;
 - Knowledge of both safe and vulnerable areas;
 - Experience and lore concerning disaster impact;

- Survival experience in face of disaster loss;
 - Understanding of the hierarchical local system, which may be essential in disaster circumstances; and
 - Inherent capability to utilize the extended family system, which is often vitally important in withstanding crisis.
- 5. Other assets within communities and villages are**
- Independence, in many cases, of sophisticated “life support systems” that may be vulnerable to disasters;
 - Fairly easy identification of mutual interests;
 - Ability of the leadership to identify itself readily, as well as to mobilize labor and resources;
 - Relative ease of developing and applying self-help measures;
 - Community bond of religious faith; and
 - Well-established reciprocal ties that are employed in various spheres of community activity, such as agriculture, death, and house construction.

SOME LIMITATIONS

- 6. Some limitations at the community or village level include**
- Limited mobility and difficulty of access because of a lack of roads, airstrips, and wharves;
 - Distance and remoteness (especially small island communities); and
 - Limitation of assets (equipment, emergency supplies, medical facilities, etc.).

SECTION 2

ORGANIZATION AND LEADERSHIP

GENERAL CONSIDERATIONS

7. The local government structures in the Pacific region function under a number of different forms and titles such as island councils, village councils, town councils, village committees, local councils, and village governments. Organization for counter-disaster preparedness planning and mitigation clearly has to take into account the individual national systems, traditional patterns, and other similar features. In some remote communities, autocratic leadership considerations may apply.

KEY FACTORS

8. Despite the obvious variations that may have to be taken into account in individual situations, the following points may assist planners in developing and maintaining counter-disaster organizations at the community or village level:

- A clear, culturally agreed, and appropriate leadership and deputy leadership pattern is advisable, especially in order to spread the physical load during the impact and emergency phases of disaster.
- Where possible, there should be an agreed pattern or system of participation to allow sectional resources (churches and similar organizations) to assume sub-responsibilities.
- Organizational responsibilities should be compatible with those being carried out at the next senior government level.

RESPONSIBILITIES FOR COUNTER-DISASTER ACTIVITIES

9. Whether the existing local government organization as it stands is used for counter-disaster purposes, or whether some form of sub-committee of that organization is used, its responsibilities are generally along the following lines:

- To keep the community informed about precautions to be taken, through public meetings and other means, including methods of warning, etc. Special emphasis should be made prior to any clearly defined seasonal threat such as cyclones;
- To allocate responsibilities to persons in the community, as necessary;
- To institute periodic inspections to ensure that precautions are "being undertaken";
- To ensure that equipment required for disaster purposes is available and serviceable;
- To ensure that emergency food supplies are available;
- To nominate special wardens or safety officers; and
- To designate immediate relief tasks (survey duties, provision of food and temporary shelter, assistance in clearance, etc.): these tasks need to be planned beforehand and made compatible with the plans of the next senior level of government.

SECTION 3

EVALUATION OF RESOURCES

GENERAL INFORMATION⁴⁹

- 10.** For ease of reference, this information covers
- The need to make maximum use of existing resources;
 - The advisability of considering resources under various categories; and
 - The necessity to evaluate resources against the criteria of capability, availability, and durability.

COMMUNITY/VILLAGE FACTORS

- 11.** When the factors mentioned in Paragraphs 8–9 are applied at the community/village level, it is desirable to give careful consideration to the following points:
- Full utilization of the assets outlined in Section I of this Part, which (through local planning, organization, and awareness) can give effect to the self-reliant community;⁵⁰
 - Identification of specific tasks that can be undertaken by local resources (e.g., warning, first aid, and clearance tasks);

49. General information on the evaluation of resources, as applicable to national and intermediate levels of government, is contained in Part II (National Level), Section 6 (Evaluation of Resources), and Part III (Intermediate Levels of Government), Section 7 (Evaluation of Intermediate-Level Government Resources).

50. See also Section 6.

- Identification of measures of assistance likely to be needed from more senior levels of government, especially so that local resources may be strengthened prior to predictable threat periods; and
- Plans and arrangements to ensure that the resources that may come from outside can be deployed and utilized without difficulty or delay.

SECTION 4

PREPAREDNESS MEASURES⁵¹

12. Detailed community preparedness measures clearly will be determined by specific local circumstances and particularly by the nature and extent of the threat. However, useful aspects for consideration include the following:

- The development of a first aid capability within the community (probably sponsored through Red Cross, school programs, or primary health care systems) always comprises a valuable local preparedness asset.
- Where seasonal threats are predictable (such as cyclones), the application of clean-up programs is advisable (to reduce hazard caused by debris, etc.).
- If drought is a possibility, water conservation measures should be considered.
- Measures for safeguarding or emergency garnering of crops may be possible.

51. In Section 2 of this Part, which deals with organization and leadership at the community/village level, a general outline is given of counter-disaster responsibilities and associated factors including certain preparedness measures.

SECTION 5

PUBLIC AWARENESS AND EDUCATION

13. Arrangements for promoting and maintaining public awareness and education at the community or village level obviously need to be coordinated with policies and programs emanating from senior government levels. Within this proviso, the information in Paragraphs 14–16 may be found useful.

CHANNELS FOR PROMOTION

14. There are many organizations and programs through which public awareness and education about disaster matters can be promoted. These include

- Local counter-disaster committees, village committees, women's groups, village forums, radio listening groups;
- Government programs (awareness information can be carried by, for example, health or agriculture program radio broadcasts or in materials distributed from the national level);
- Educational programs, including regular school classes;
- Recreational programs;
- Church and mission activities;
- Police; and
- Volunteers (for instance, Peace Corps, V.S.O.).

METHODS OF IMPARTING INFORMATION

15. Possible methods include

- Radio talks or short feature broadcasts;
- Notices and posters, especially where they can be used to convey a message pictorially;
- Films;
- Reference to disaster preparedness within other community programs; and
- Public lectures or meetings.

ORGANIZATION OF PROGRAMS

16. Some suggestions on the organization of programs are contained in earlier sections.⁵² These emphasize the use of government public information specialists. Certainly, in principle, it is advisable that programs at the community or village level should follow the general national pattern, especially so that a commonality of information can be maintained. Usually, at this level it is advantageous if the Ministry of Education has a responsibility for assisting in public awareness and education, in which case local departmental resources can be of considerable assistance. The local counter-disaster authority should normally have coordinating responsibility for public awareness.⁵³

52. See Part II (National Level), Section 15 (Public Awareness and Education), Paragraph 96.

53. As indicated in Section 2 (Organization and Leadership), Paragraph 9 of this Part.

SECTION 6

PROMOTION OF COMMUNITY SELF-RELIANCE

17. Community self-reliance can be affected by a variety of factors, some of which may have complex cultural or social connotations. However, from a practical counter-disaster viewpoint, the following issues may have an important bearing on whether a reasonable level of self-reliance can be promoted:

- Effects of awareness and education programs;
- Perceived level of risk to themselves and families by community members;
- Assistance from governments in promoting responsibility and participation in counter-disaster matters: for instance, provision of equipment and allotment of tasks (such as debris clearance) within the community;
- The degree of dependence on government, either as perceived by the community or as a result of government policies;
- Previous experience with disaster and with government's response that may lead either to a high degree of self-reliance or the reverse;
- Sensible policies for keeping communities informed in relation to specific disaster events: for example, the promotion of community involvement (in addition to normal public awareness and education programs); and
- The degree to which a history and tradition of self-reliance exists within a community.

18. A good deal depends on being able to foster within the community a practical sense of⁵⁴

- Knowing what disaster will do (including traditional knowledge);
- Knowing the best action to take, personally and by families, clans, groups, or whole villages;
- Knowing how best to help other members of the community;
- Knowing how best to participate in the disaster communication and warning process; and
- Knowing how to improvise shelter and sustenance until assistance arrives.

19. Attempts to develop self-reliance, therefore, need to take into account all the aspects mentioned above and, of vital importance, to relate them to specific local circumstances and requirements.

54. As stated in Part II (National Level), Section 15 (Public Awareness and Education), and Part III (Intermediate Levels of Government), Section 14 (Public Awareness and Education).

PART V

USEFUL PLANNING GUIDES

As indicated in the introduction to this handbook, the following guides are being provided as a ready reference to supplement other materials contained in the text:

- Counter-Disaster Planning
- Counter-Disaster Organization
- Counter-Disaster Training
- Counter-Disaster Operations
- Communications
- Definitions Used in the Manual

Some of the material contained in these guides is repeated from the text, but it is intended that this quick reference be used as a check-list for use by counter-disaster planners.

SECTION 1

COUNTER-DISASTER PLANNING

THE PURPOSE OF PLANNING

1. The purpose of planning is to anticipate future situations and requirements and thus to ensure an effective and coordinated counter-disaster response.

THE PROCESS OF PLANNING

2. Some useful factors that can be applied to the process of planning are included in the following paragraphs.

THE DISASTER THREAT⁵⁵

3. A clear and accurate definition of the threat is essential. This can be established from a number of sources including

- National records;
- Advice from specialist departments;
- Publications resulting from surveys and studies;
- Any available analysis of risks and vulnerability;
- Past experience; and
- Local knowledge.

55. See also Part II (National Level), Section 1 (The Disaster Threat).

Once the nature of the threat has been thus established, the effects likely to be suffered by the nation and the community can be defined. These effects usually take the form of

- Loss of life;
- Injury;
- Damage to and destruction of property;
- Damage to subsistence and cash crops;
- Disruption of life-style;
- Loss of livelihood;
- Disruption to services;
- National economic loss; and
- Social and psychological aftereffects

When the full implications of the threat have been established, the plan should be designed to cover all of its possible aspects.

ANALYSIS OF REQUIREMENTS

4. The nature of the threat and the problems stemming from it will determine certain requirements for counter-disaster measures. Such requirements must be analyzed to ascertain how far they can reasonably be met by in-country resources, as well as what additional assistance may be necessary from outside (for example, assistance of aircraft from a neighboring country in order to carry out a post-disaster survey).

EVALUATION OF RESOURCES

5. A major principle must be to make the best possible use of existing resources.

6. For counter-disaster planning purposes, it is useful to consider possible resources under the following headings:

Government-controlled resources

- Police
- Defence force
- Fire brigade or department
- Medical services, including ambulance service

- Posts and telegraphs or telecommunications department
- Broadcasting services
- Public works department
- Civil aviation authorities
- Agriculture department
- Transport and shipping department
- Public servants in other departments

Non-governmental resources

- Red Cross
- Church organizations
- Community groups
- Private transport companies
- Wholesale and retail food suppliers
- Airlines
- Amateur radio operators
- Members of communities

Resources should be assessed for capability, availability, and durability (in relation to the disaster conditions that are likely to apply) as follows:

- **Capability** — the ability of resource organizations to carry out defined counter-disaster tasks.
- **Availability** — whether immediately available for counter-disaster tasks or whether there is a lead time (definite or indefinite) before organizations can respond.
- **Durability** — the degree to which organizations can carry out sustained operations or if they need to be relieved by other organizations.

KEY CONSIDERATIONS AFFECTING COUNTER-DISASTER STRUCTURE

7. At this stage in planning, it is advisable to consider the following key factors that bear on what might be called the counter-disaster structure, such as the type of organization needed and the functions that have to be fulfilled.

- **Coordination and control** – Unless lines of responsibility and authority are clear before an emergency or disaster, effective coordination and control of counter-measures will prove difficult, if not impossible. Care should therefore be taken to establish the type of organizational structure that will ensure coordination and control under the pressures of an emergency situation; at the same time, the structure must be sufficiently straightforward to be operated by available personnel.
- **Stages of preparedness and response** – It is usually advisable to adopt stages for preparedness and response.⁵⁶ In doing this, simplicity is an important factor. The simpler the pattern, the easier it is for people to understand, remember, and act upon under the pressure of disaster events.
- **Allocation of roles and responsibilities** – In allocating roles and responsibilities within a plan, it is very important to do so clearly. Overlapping or duplication of roles causes friction between organizations involved and leads to loss of effectiveness. Gaps between the roles of organizations may mean that important, perhaps vital, measures are not undertaken.

ORGANIZATIONAL NEEDS

8. Organizational needs may vary but should usually include the following:

- **A suitable organizational structure**, with an emergency operations center or centers (EOCs) and with all functional elements and organizations being given definite responsibilities and authority, as appropriate. Provision should also be made for adequate liaison between all key persons and organizations.
- **Suitable arrangements/systems for disaster warning** and activation of organizations.
- **An appropriate system for survey, assessment, and reporting** so that accurate information is available to the counter-

⁵⁶. See Part II (National Level), Section 9 (Operational Arrangements), Paragraphs 65 and 66 for reasons.

disaster authorities and so that correct and timely decisions can be made.

- **Effective communications** to ensure that the flow of information, decisions, and requests for assistance can be maintained under the conditions likely to exist in an emergency. This usually calls for flexibility in the communications system and, where necessary, for the utilization of all communication elements that may be available. Improvised methods may have to be used under some circumstances.
- **Trained/experienced people**, especially in key positions, to ensure that the plan can be implemented effectively. It needs to be remembered that the roles required in dealing with disaster are varied, covering such areas as headquarters duties, communications, rescue, fire fighting, medical duties, and welfare activities.⁵⁷

FORMAT OF PLANS

9. Experience in the Pacific region and other parts of the world has shown that plans must be produced in written form. They normally consist of

- **A general plan;** and
- **Special plans**, which cover specific and expected eventualities. They are sometimes referred to as contingency plans.

10. It is widely recognized that if a counter-disaster plan is too long, too complicated, or not easily understood or communicated, it is worse than no plan at all.

11. Plans must be

- **Written**, or they will not be remembered,
- **Simple**, or they will not be adhered to;
- **Disseminated** to all persons and organizations involved or concerned (otherwise those who need them will not have them);
- **Tested** by exercises and critiques (or they will not be practical); and

⁵⁷. See also Section 3 of this Part, which deals specifically with training.

- **Revised** in the light of results of exercises or use in a disaster itself (or they will not be up to date).
- 12.** The structure and format of plans will differ according to national requirements and other circumstances. For the Pacific region generally, a possible format and sequence might be:
- **Authorization** by cabinet or through legislation
 - **References** to materials that people may need to consult
 - **Distribution Procedures**, including a list of people who must have the plan
 - **Annexures (list of)**
 - **Introduction** to the national policy and other needed information
 - **The disaster threat** outlining what disaster threats exist and to which the plan applies
 - **Aim of plan**
 - **Organization** of counter-disaster structure at the national, intermediate, and community levels of government, including national authority, ministerial authority, and the national disaster executive
 - **Allocation of roles and responsibilities** detailing the main factors applying, main categories of resource organizations available, etc. (normally details appear in annexes)
 - **Arrangements for coordination and control** describing the responsibility and including coordination of international support
 - **Emergency operations center(s)** noting where they are and what they should contain
 - **Implementation of plan** noting when various stages of implementation should take place
 - **Warning arrangements** including details on agencies originating, transmission of warning, warning for specific types of disaster, action to be taken on receipt of warning
 - **Survey, assessment, and reporting**
 - **Communications**
 - **Emergency relief measures**

- **Review** including the arrangements for post-disaster review
- **Support measures** including public awareness and education, training arrangements, arrangements for maintaining viability of plan (updating, etc.)
- **Annexures** including perhaps organizational charts, the legislation outlining responsibilities, names and phone numbers of individuals involved, and other necessary information

It is emphasized that this format is not rigid or mandatory; it can be adapted to particular circumstances as necessary.

SECTION 2

COUNTER-DISASTER ORGANIZATION⁵⁸

FACTORS AFFECTING ORGANIZATIONAL ARRANGEMENTS

13. The size and shape of the counter-disaster organizational structure will be influenced by certain background factors. These could include the following:

- **The threat**, which will vary from country to country and indeed from region to region within a country, and the nature of the threat, its degree (severe, moderate, or slight), and its pattern (frequency, extent, etc.) will bear on the type and size of the organization needed
- **Policies of government**, including the national policy and legislation
- **Operational requirements**, whether for cyclones, floods, fire, search and rescue, etc., and related to the nature of the area concerned and the population distribution and density
- **Resources available**, such as agencies, facilities, personnel, equipment, and supplies

DEFINITION OF RESPONSIBILITY

14. All disaster-related bodies must be given a clear definition of their responsibilities, including function, roles, and relationships with other organizations and agencies. If legislation exists, the organization must conform to its requirements.

^{58.} See also Part II (National Level), Section 5 (Evaluation of Organizational Alternatives).

ESSENTIAL CHARACTERISTIC

15. The essential characteristic of any counter-disaster organization is the capability to intervene rapidly and effectively in any form of disaster, large or small.

ORGANIZATIONAL COMPONENTS

16. Desirable components for a counter-disaster organization are as follows:

- **Direction/control/coordination structure** — an operational chain or basic network through which authority can be delegated and decisions implemented.
- **Facilities** — for operations rooms, communications centers, equipment stores, personnel facilities, etc.
- **Communications** — the direction, control, and coordination structure must have an effective communications network. Sometimes this may mean utilizing the most proficient existing network (for instance, a police network) and supporting this with other networks for back-up or standby emergency purposes. Existing regular broadcasting systems are, of course, invaluable for disseminating information to the public and for transmitting messages in circumstances where this is necessary (for example, loss of the counter-disaster network). Where specialized equipment (such as mobile communications facilities or special vehicles) is needed for counter-disaster purposes, this should be provided. Otherwise, equipment requirements and utilization will be covered under the plan heading of Allocation of Roles and Responsibilities.⁵⁹
- **Trained people** — provision of adequately trained people, especially for key appointments, is necessary to ensure that the organization will function satisfactorily.
- **Warning/alert system** — arrangements are required for warning and alerting the counter-disaster organization so that it can be activated as required for operations. This activation requirement is a specific one. However, it can usually

59. See Section 1 of this Part, Paragraph 12.

be integrated into the overall system for warning of a disaster event (for example, warning of the development and movement of a cyclone).

- **Information gathering and processing system** — to be effective, the counter-disaster organization must include an adequate system for collection, collation, assessment, and distribution of information.
- **Mobility** — a mobile capability is desirable for most counter-disaster organizations, mainly to offset disruption caused by disaster events themselves. It is also worth giving careful consideration to this aspect where difficulty of access or remote island conditions apply.
- **Liaison** — to ensure effective coordination between the various organizations and agencies involved in counter-disaster measures, an established system of liaison is necessary.

SECTION 3

COUNTER-DISASTER TRAINING

GENERAL CONSIDERATIONS

17. Given that adequate training is a prerequisite to effective counter-disaster preparedness and response, the training options selected by individual countries may vary considerably.

18. However, three general considerations worthy of note are

- Nations should work out their own training needs; to copy slavishly ideas/proposals from other countries/academic sources, etc., is unlikely to meet requirements effectively;
- Training must be compatible with counter-disaster plans; and
- Responsibility for training must be clearly defined.

LEVELS OF TRAINING

19. In deciding the levels of training required, it is useful to bear in mind that public awareness is a valuable training base; in addition, there usually exist within any country various forms of crisis- or disaster-oriented training (e.g., police forces, defence forces, fire and ambulance services, and the Red Cross).

20. Useful levels (or adaptations of them) are

- **Policy direction level** — comprising seminars, post-disaster review and similar discussion periods, workshops, exercises, and overseas training courses

- **Operational level** — skills or specialist-role training courses, briefings, exercises, etc.
- **Community level** — public awareness programs, briefing periods, motivation, and “on-the-job” training for voluntary workers under the counter-disaster plan

ORGANIZATION OF TRAINING CAPABILITY

21. If some form of in-country specialist training capability is available (such as a person or persons who have received training in counter-disaster activities), this should obviously be utilized to the optimum extent. Alternatively or additionally, it may be possible to obtain specialist training assistance from overseas sources.

22. If only local resources are available, some considerations are

- **Instructors** — local disaster-experienced officials and the resources of government training sections can be utilized to assist in producing and implementing programs; also appropriate instructional expertise can be used that is available from police, defence force, education, church mission, the Red Cross, and other sources;
- **Facilities** — if special counter-disaster facilities are not available, any reasonable classroom or meeting place will usually suffice. This can normally be provided from within the resources of government, churches, or community centers; and
- **Equipment** — this can usually be kept fairly minimal, but any available visual aids (flip charts, films, etc.) are clearly useful.

23. The use of mobile teams is valuable, especially to spread awareness and readiness information.

POSSIBLE PROGRAM PATTERN

24. Exact program patterns will depend on individual national needs, but a possible pattern is outlined below.

- **National (or regional) seminars** — the occasional use of this kind of seminar is invaluable for training policy and associated purposes, as well as for more general planning and for

organizational development. Such seminars at these levels can be particularly appropriate fairly soon after a major disaster event or following significant changes in government policy that affect counter-disaster arrangements.

- **Disaster preparedness review (or study) periods —**

Aim: to keep key persons continuously informed of progress in national counter-disaster arrangements and to develop proposals for improving these arrangements

Methods: short seminars, post-disaster review and similar discussion groups, training meetings, etc.

Duration: as required, but probably one day

Level: national or regional

Content: information on policy, plans, organization, programs, future proposals, analysis of disaster operations, etc.

Attendance: key persons in government and non-government agencies holding, or likely to hold, positions of responsibility in counter-disaster affairs

- **Disaster operations briefing sessions (or courses) —**

Aim: to brief (or train) selected persons in the requirements of disaster operations

Method: briefing, instruction, discussion

Duration: as required, but probably 2–4 days

Level: regional, sub-regional (with perhaps mobile teams down to the village level)

Content: disaster problems and their effects; current organization; plans and preparedness measures; possible disaster tasks; development of the self-reliant community, etc.

Attendance: persons from government departments, non-government agencies, and the community who have been allotted roles or who could assist in counter-disaster operations

- **Disaster relief and rehabilitation briefing session (or courses) —**

Aim: to train selected persons in aspects of disaster relief and rehabilitation

Method: briefing, instruction, discussion

Duration: as required, but probably 2–4 days

Level: regional, sub-regional (with perhaps mobile teams down to village level)

Content: disaster problems and their effects, current organization, plans and preparedness measures, initial relief needs, emergency feeding and shelter, evacuation, rehabilitation problems and needs, development of the self-reliant community

Attendance: persons from government and non-government agencies, social workers, and members of the community who have been allotted roles or who could assist in various aspects of disaster relief and rehabilitation

- **Community awareness and preparedness briefings —**

Aim: to develop and maintain the optimum level of awareness and preparedness within the community

Content: information to keep the community aware of what disaster will do; what is the best action to take personally and by families, kin groups, or communities; how best to help others in the community; how best to participate in the disaster communication and warning process; what arrangements have been made by government and other authorities to look after the community; how to improvise shelter and subsistence until relief is available; and how best to support the local counter-disaster authority, if required to do so

Method: there are obviously many alternative methods for this type of program. There are also many agencies that can assist in disseminating relevant information; they include those concerned with education, health, church, mission, police, military, Red Cross, Scout Association, and radio. Similarly, ways and means of imparting information can be through school programs, community gatherings, radio talks, notices, posters, and special demonstrations

25. It is again emphasized that exact training program patterns will depend on individual national needs. The suggestions in Paragraph 24 are therefore intended as no more than a basis for consideration.

SECTION 4

COUNTER-DISASTER OPERATIONS

26. It might be said that if the necessary planning, organization, and training have been effectively undertaken, then counter-disaster operations are merely the appropriate implementation of these measures. However, there are several points on operations that may be of use to counter-disaster authorities in the Pacific region, and these are discussed below.

WARNING AND ACTIVATION

27. The first stage in operations normally involves the activation of the counter-disaster organization following receipt of warning (or, in the event of no warning, following the disaster event itself). As already suggested, planned stages of activation might be⁶⁰

- **Alert** — when some form of warning has been received, appropriate action under the national and/or other plans should be taken. This would normally include the alerting of all relevant organizations and personnel so that they are ready to act if called upon.
- **Standby** — this stage would become effective when it is established that the threat definitely exists. All relevant organizations and personnel would be placed on standby so that

60. See Part II (National Level), Section 9 (Operational Arrangements), Paragraphs 65 and 66 and Part V (Useful Planning Guides), Section 1 (Counter-Disaster Planning), Paragraph 7.

they are ready to begin operations/action immediately upon being called.

- **Operation** — this stage would become effective when it appears certain that a disaster event is imminent (for example, a cyclone seems certain to strike) or when such an event has occurred (such as an earthquake). All relevant organizations and personnel would then take action, as required under the appropriate plan or as directed by the designated counter-disaster authority.

28. In situations where there has been no warning, it may not be possible to put into effect the Alert and Standby stages.⁶¹ Thus, action would commence at the Operation stage.

29. Under certain circumstances, only some parts or sections of plans (and thus organization) would need to be utilized. In these cases, it would be up to the designated counter-disaster authority to determine which resources were committed to operations and which remained on Standby (or Alert).

INFORMATION REQUIREMENTS

30. Control of any disaster situation involves a constant process of decision-making. Such decisions need to be based on accurate and up-to-date information, which must be collected, collated, and passed up, down, and across the system of coordination and control by means of effective communications.

31. If counter-disaster operations are to be carried out effectively, the counter-disaster response authority needs to have information on aspects such as

- Casualties;
- Persons rendered homeless;
- Destruction and damage caused (for instance, to houses, other buildings, bridges, ports, and crops);
- State of essential services (such as water supply and electricity);
- Evacuation requirements/recommendations;

⁶¹ As indicated in Part II, Section 9, on national-level operational arrangements.

- Needs for shelter, food, water, medical care, and sanitation measures;
 - Access situation (such as roads, airfields, and ports); and
 - Reinforcement needs (such as personnel, equipment, and supplies).
- 32.** Means of providing information have been referred to generally throughout the handbook under the heading of survey, assessment, and reporting. For the purpose of counter-disaster operations, these could normally be expected to consist of
- Normal day-to-day systems such as police, defence force, and government departments;
 - Prearranged counter-disaster systems such as arrangements for air survey and assessment teams; and
 - Special disaster contingency systems that may be set up by the counter-disaster authority in the light of special needs created by a particular disaster situation.

EVALUATION OF THE DISASTER SITUATION

33. As information is received in emergency operations centers (EOCs), it needs to be collated and displayed so that an accurate and up-to-date evaluation of the disaster situation can be made and maintained. This is essential for decision-making.

DECISION MAKING

34. Each operational decision influences future action, which in turn will require further decisions. Errors of decision therefore tend to be cumulative. The avoidance of such errors lies in an organized approach to each problem, as follows:

- **Definition** — clarify the problem and eliminate irrelevant or unnecessary issues
- **Collation of information** — gather in logical format all information relevant to the problem
- **Examination of information** — extract and/or deduce all factors upon which solution of the problem may depend

- **Development of possible solutions** — based upon all relevant factors
- **Decision** — the solution that is the most appropriate of the possible solutions

35. Once decisions have been made, they must be translated into action. Decisions should be made firmly and adhered to; hesitation or wavering in the decision-making process breeds uncertainty, lack of confidence in the decision-making authority, and subsequently reduced effectiveness of operations.

CATEGORIES OF ACTION

36. If decisions are made with optimum accuracy, the resultant categories of necessary action will be clearly defined in the form of operational tasks. Once these tasks have been assigned to, and accepted by, the relevant resource organization (for example, a road clearance task to a government works department), detailed implementation should be left to that organization.

DEPLOYMENT OF RESOURCES

37. Deployment of resources will normally be in accordance with counter-disaster plans, although occasions may arise (especially in a severe disaster situation) where it becomes necessary for the counter-disaster authority to make major changes to planned deployments.

38. Where resources from international sources are involved, their deployment should be a matter for mutual consultation and decision by the local counter-disaster authority and the relevant international officials.

ACTION REPORTING

39. As operational action progresses and tasks are dealt with, the disaster situation will change. This will necessitate continuous re-evaluation and fresh decisions. The information necessary for this re-evaluation and decision-making will mainly have to be provided to the counter-disaster authority by those resource or-

ganizations that are carrying out on-site action. The relevant reports from resource organizations will need to include information on

- Current situation;
- Forecast developments;
- Whether resource organizations need relief by others; and
- Whether reinforcements are needed.

STAND-DOWN

40. When all operational on-site action has been completed, resource organizations should be officially stood-down by the counter-disaster authority. If the disaster situation has been large and/or complex, the withdrawal of resource organizations will need to be made progressively in order to avoid confusion.

DEBRIEFING

41. As soon as practicable after completion of operations, debriefing must be held. Such debriefing should be part of the review arrangements catered to in the plan.⁶²

^{62.} See Section 1 of this Part, Paragraph 12.

SECTION 5

COMMUNICATIONS

INTRODUCTION

42. Because the development and maintenance of adequate communication systems are so important, both nationally and regionally, some factors that may be of assistance to planners and other officials are outlined in this section.

ESSENTIAL CHARACTERISTICS

43. A counter-disaster communications system should have the following essential characteristics:

- **Rapid contact** — the system must provide means of rapid contact between coordinating authorities and relevant agencies and services, as well as between the various levels of the counter-disaster organization.
- **Reliability** — the system must be reliable in that it should minimize possible disruption by any direct or indirect effects of the disaster event. Protection of broadcast links with the general public is especially important; adequate back-up systems and emergency power supplies should be provided to the greatest extent possible.
- **Flexibility** — the system must be capable of coping with rapidly changing or developing disaster situations.
- **Self-sufficiency** — the system should be self-sustaining and thus capable of maintaining continuous communication services to the organizations and services that depend on it.

DESIRABLE CHARACTERISTICS

44. In addition to the above essential characteristics, the following are desirable:

- **Mobility** — the system should have a mobile component so that, if necessary, it may provide communications wherever the disaster situation may dictate.
- **User compatibility** — the system should be readily operable and maintainable by the personnel available. Without compatibility between the operating requirements of the system and the level of competence of available personnel, communications efficiency may be greatly reduced.

COMMUNICATION RESOURCES

45. The communications system may comprise any or all of the following categories:

- **Personal communication** — messenger, runner, dispatch rider
- **Audio/visual communication** — semaphore, heliograph, warning pennant, siren, public address system, bells
- **Line communication** — established telephone exchange systems, established direct lines, field cable, and other operational direct-line systems
- **Radio Communication** — short- and long-range radio, radar

MAINTENANCE, MANNING, AND TRAINING

46. Since modern communication systems involve complex equipment, the consideration of maintenance requirements assumes a high priority. Similarly, personnel and training aspects assume parallel priorities.

SECTION 6

DEFINITIONS USED IN THE MANUAL

47. For the purpose of this handbook, the following definitions apply:

Disaster— A catastrophic situation in which the day-to-day patterns of life are, in many instances, suddenly disrupted, and people are plunged into helplessness and suffering and, as a result, need protection, food, clothing, shelter, medical and social care, and other necessities of life.

Counter-disaster— The term applied to describe measures and activities that are designed to deal with disaster and its effects, for example, counter-disaster planning and counter-disaster operations.

Control— The overall direction of counter-disaster activities in a designated disaster situation.

Coordination— The bringing together of organizations and elements to ensure effective counter-disaster response.

Disaster cycle— The cycle of counter-disaster activities from prevention through mitigation, preparedness, warning, threat, impact, and the emergency phase (including immediate relief measures) to restoration and reconstruction. (Note: there are various definitions of the disaster cycle).

Disaster mitigation— The term used to describe measures, usually specific programs, that are aimed at moderating or reducing the effects of disaster.

Disaster preparedness — The term used to describe measures designed to ensure an effective disaster response.

Disaster prevention — The term used to describe measures that are designed to prevent natural phenomena from causing or resulting in disaster or other related emergency situations.

National policy — The general outlook or approach that a nation takes toward dealing with disaster within the context of national policies generally.

National disaster — A declaration made by government when the whole country, or a major part of it, is so badly affected by disaster that most of the nation's resources, and possibly assistance from outside, are needed to provide speedy and adequate relief.

Rehabilitation — The restoration of persons or communities to their normal pattern of life following the effects of disaster.

Relief — The act of helping or alleviating the condition of persons who are suffering from the effects of disaster and are unable to help themselves.

Self-reliant community — A community that, through awareness and the development of its own skills and resources, is capable of undertaking self-help and similar measures in order to cope with disaster circumstances.

State of disaster (or state of emergency) — A declaration made by the government when part of the country is so badly affected by disaster that urgent and widespread action is required to provide speedy and adequate relief.

PART VI
USEFUL PLANNING DOCUMENTS

SECTION 1

EXAMPLES OF LEGISLATION

AMERICAN SAMOA

1. The legislation for American Samoa is given below.

OFFICE OF DISASTER ASSISTANCE PLANNING AND COORDINATION

SECTION

- 2500. [Short title]
- 2501. Purposes.
- 2502. Limitations.
- 2503. Definitions.
- 2504. The Governor and disaster emergencies.
- 2505. Office of Territory Disaster Assistance Planning and Coordination.
- 2506. Financing.
- 2507. Intergovernmental arrangements.
- 2508. Disaster prevention.
- 2509. Compensation.
- 2510. Communications.

2500. [Short title]

This shall be known and may be cited as the "Territorial Disaster Assistance Act of 1978". — Added 1978, P.L. 15-105, #1, eff. Nov. 14, 1978.

Codification. Section heading was supplied by editor as section was enacted without a heading.

2501. Purposes

The purposes of this chapter are to:

(1) Reduce vulnerability of people and communities of this territory to damage, injury, and loss of life and property resulting from natural or man-made catastrophes, riots, or hostile military or paramilitary action;

(2) Prepare for prompt and efficient rescue, care, and treatment of persons victimized or threatened by disaster;

(3) Provide a setting conducive to the rapid and orderly start of restoration and rehabilitation of persons and property affected by disaster;

(4) Clarify and strengthen the roles of the Governor, territorial agencies and local governments in prevention of, preparation for, response to, and recovery from disasters;

(5) Authorize and provide for cooperation in disaster prevention, preparedness, response, and recovery;

(6) Authorize and provide for coordination of activities relating to disaster prevention, preparedness, response and recovery between agencies and officers of this territory, and the federal government, other states and possessions of the United States, and foreign governments;

(7) Provide a disaster management system embodying all aspects of predisaster preparedness and postdisaster response;

(8) Assist in prevention of disaster caused or aggravated by inadequate planning for and regulation of public and private facilities and land use;

(9) Supplement, without in any way limiting, authority conferred by previous statutes of this territory and increase the capability of the territory and local agencies to perform disaster assistance services. — Added 1978, P.L. 15-105, #2, eff. Nov. 14, 1978.

2502. Limitations

Nothing in this chapter shall be construed to:

(1) Interfere with the course or conduct of a labor dispute, except that actions otherwise authorized by this chapter or other

laws may be taken when necessary to forestall or mitigate imminent or existing danger to public health or safety;

(2) Interfere with dissemination of news or comment on public affairs; but any communications facility or organization (including but not limited to radio and television stations, wire services, and newspapers) may be required to transmit or print public service messages furnishing information or instructions in connection with a disaster emergency;

(3) Affect the jurisdiction or responsibilities of police forces, fire fighting forces, units of the armed forces of the United States, or of any personnel thereof, when on active duty; but territorial disaster emergency plans shall place reliance upon the forces available for performance of functions related to disaster emergencies;

(4) Limit, modify, or abridge the authority of the Governor to proclaim martial law or exercise any other powers vested in him under the constitution, statutes, or common law of this territory independent of, or in conjunction with, any provisions of this chapter. — Added 1978, P.L. 15-105, #3, eff. Nov. 14, 1978.

2503. Definitions

As used in this chapter:

(1) "Disaster" means occurrence of imminent threat of widespread or severe damage, injury, or loss of life or property resulting from any natural or man-made cause, including but not limited to fire, flood, earthquake, wind, storm, wave action, oil spill, or other water contamination requiring emergency action to avert danger or damage, volcanic activity, epidemic, air contamination, blight, drought, infestation, explosion, riot, or hostile military or paramilitary action;

(2) "Political subdivision" means any district, county, village, or other unit or local government;

(3) "Unorganized militia" means all able-bodied male and female persons between the age of 16 and 50 years. — Added 1978, P.L. 15-105, #4, eff. Nov. 14, 1978.

2504. The Governor and disaster emergencies

(a) The Governor is responsible for meeting the dangers to the territory and people presented by disasters.

(b) Under this chapter, the Governor may issue executive orders, proclamations, and regulations, and amend or rescind them. Executive orders, proclamations, and regulations have the force and effect of law.

(c) There shall be a Disaster Emergency Council consisting of the Director of Public Safety and 6 members appointed by the Governor for 4-year terms to advise him on matters relating to disasters. 3 members of the council are District Governors of the 3 political districts of the territory.

(d) A disaster emergency shall be declared by executive order or proclamation of the Governor if he finds a disaster has occurred or that this occurrence or the threat thereof is imminent. The state of disaster emergency shall continue until the Governor finds that the threat or danger has passed or the disaster has been dealt with to the extent that emergency conditions no longer exist and terminates the state of disaster emergency by executive order or proclamation, but no state of disaster emergency may continue for longer than 30 days unless renewed by the Governor. The Legislature by concurrent resolution may terminate a state of disaster emergency at any time. Thereupon, the Governor shall issue an executive order or proclamation ending the state of disaster emergency. All executive orders or proclamations issued under this subsection shall indicate the nature of the disaster, the area or areas threatened, and the conditions which have brought it about or which make possible termination of the state of disaster emergency. An executive order or proclamation shall be disseminated promptly by means calculated to bring its contents to the attention of the general public and unless the circumstances attendant upon the disaster prevent or impede, promptly filed with the office of the Director of Public Safety, and the office of the Territorial Registrar.

(e) An executive order or proclamation of a state of disaster emergency shall activate the disaster response and recovery aspects of the territory, local, and interjurisdictional disaster emergency plans applicable to the political subdivision or area in question and be authorized for the deployment and use of any forces to which the plan or plans apply and for use of distribution of any supplies, equipment, and materials and facilities assembled, stockpiled, or arranged to be made available pursuant to this chapter or any other provision of law relating to disaster emergencies.

(f) During the continuance of any state of disaster emergency the Governor is commander-in-chief of the organized and unorganized militia and of all other forces available for emergency duty. To the greatest extent practicable, the Governor shall delegate or assign command authority by prior arrangement embodied in appropriate executive orders or regulations, but nothing herein restricts his authority to do so by orders issued at the time of the disaster emergency.

(g) In addition to any other powers conferred upon the Governor by law, he may:

(1) Suspend the provisions of any regulatory statute prescribing the procedures for conduct of territorial business, or the orders, rules, or regulations, of any territorial agency, if strict compliance with the provisions of any statute, order, rule, or regulation would in any way prevent, hinder, or delay necessary action in coping with the emergency;

(2) Utilize all available resources of the territorial government as reasonably necessary to cope with the disaster emergency and of each political subdivision of the territory;

(3) Transfer the direction, personnel, or functions of territorial departments and agencies or units thereof for the purpose of performing or facilitating emergency services;

(4) Subject to any applicable requirements for compensation under §10, commandeer or utilize any private property if he finds this necessary to cope with the disaster emergency;

(5) Direct and compel the evacuation of all or part of the population from any stricken or threatened area within the territory if he deems this action necessary for the preservation of life or other disaster mitigation, response, or recovery;

(6) Prescribe routes, modes of transportation, and destinations in connection with evacuation;

(7) Control ingress and egress to and from a disaster area, the movement of persons within the area, and the occupancy of premises therein;

(8) Suspend or limit the sale, dispensing, or transportation of alcoholic beverages, firearms, explosives, and combustibles;

(9) Make provision for the availability and use of temporary emergency housing. — Added 1978, P.L. 15-105, # 5, eff. Nov. 14, 1978.

2505. Office of Territory Disaster Assistance Planning and Coordination

(a) An office of Disaster Assistance Planning and Coordination is established in the Department of Public Safety. The office is under the supervision and control of the Director of Public Safety who is the Disaster Assistance Coordinator for the territory. The office has a disaster assistance planner appointed by and to serve at the pleasure of the Director of Public Safety. The office shall have other professional, technical, secretarial, and clerical employees as necessary for the performance of its functions.

(b) The office shall prepare and maintain a territorial disaster assistance plan and keep it current, which includes:

(1) Prevention and minimization of injury and damage caused by disaster;

(2) Prompt and effective response to disaster;

(3) Emergency relief;

(4) Identification of areas particularly vulnerable to disasters;

(5) Recommendations for zoning, building, and other land use controls, safety measures for securing mobile homes or other nonpermanent or semipermanent structures, and other preventive and preparedness measures designed to eliminate or reduce disasters or their impact;

(6) Assistance to local officials in designing local emergency action plans;

(7) Authorization and procedures for the erection or other construction of temporary works designed to protect against or mitigate danger, damage, or loss from flood, conflagration, or other disaster;

(8) Identification of federal, territory, and private assistance programs;

(9) Organization of manpower and chains of command;

(10) Coordination of the territorial disaster plan with the disaster plans of the federal government;

(11) Other necessary matters.

(c) The office shall take an integral part in the development and revision of territory-wide disaster plans. To this end it shall employ or otherwise secure the services of professional and technical personnel capable of providing expert assistance. These personnel shall consult with the office on a regularly scheduled basis and shall make examinations of the areas, circumstances

and conditions to which the disaster plans are intended to apply and may suggest or require revisions.

(d) In preparing and revising the territorial disaster plan, the office shall seek the advice and assistance of local government, business, labor, industry, agriculture, civic, and volunteer organizations and community leaders.

(e) The territorial disaster assistance plan or any part thereof may be incorporated in rules of the office or executive orders which have the force and effect of law.

(f) The office shall:

(1) With the assistance of the political subdivisions determine requirements of each village for food, clothing, and other necessities in the event of an emergency or disaster;

(2) Adopt standards and requirements for the territorial disaster assistance plan;

(3) Annually review the territorial disaster assistance plan;

(4) Establish and assist political subdivisions, to operate training programs and programs of public information;

(5) Make surveys of industries, resources, and facilities within the territory both public and private, as are necessary to carry out the purposes of this chapter;

(6) Plan and make arrangements for the availability and use of any private facilities, services, and property and, if necessary and if in fact used, provide for payment for use under terms and conditions agreed upon;

(7) Establish a register of persons with types of training and skills important in emergency prevention, preparedness, response, and recovery;

(8) Establish a register of mobile and construction equipment and temporary housing available for use in a disaster emergency;

(9) Prepare, for issuance by the Governor, executive orders, proclamations, and regulations as necessary or appropriate in coping with disasters;

(10) Cooperate with the federal government and any public or private agency or entity in achieving any purpose of this chapter and in implementing programs for disaster prevention, preparation, response, and recovery;

(11) Do other things necessary, incidental, or appropriate for the implementation of this chapter. — Added 1978, P.L. 15--105, # 6, eff. Nov. 14, 1978.

2506. Financing

(a) It is the intent of the Legislature and declared to be the policy of the territory that funds to meet disaster emergencies shall always be available.

(b) The Disaster Emergency Funding Board is established, composed of the President of the Senate, the Speaker of the House, the chairman of the appropriate financial committee of each house, and 2 persons to be appointed by the Governor from the public at large for 4-year terms.

(c) A disaster contingency fund of not less than \$50,000 is established which shall be appropriated by the Legislature. Monies in this contingency fund shall remain there until expended.

(d) It is the legislative intent that the first recourse shall be to funds regularly appropriated to territorial agencies. If the Governor finds that the demands placed upon these funds in coping with a particular disaster are unreasonably great, he may, with the concurrence of the emergency funding board, make funds available from the disaster contingency fund. If monies available from the fund are insufficient and if the Governor finds that other sources of money to cope with the disaster are not available or insufficient, the Governor, with the concurrence of the disaster emergency funding board, may transfer and expend monies appropriated for other purposes or may borrow from the United States Government or any other public or private source. Action under this subsection shall be only with the concurrence of the emergency funding board.

(e) Nothing contained in this section shall be construed to limit the Governor's authority to apply for, administer, and expend any grants, gifts, or payments or pass-through funds in aid of disaster prevention, preparedness, response or recovery. — Added 1978, P.L. 15-105, # 7, eff. Nov. 14, 1978.

2507. Intergovernmental arrangements

(a) The Governor may enter into a mutual aid compact with any state, or possession of the United States if he finds that joint action with the state or possession is desirable in meeting common intergovernmental problems of emergency disaster planning, prevention, response, and recovery.

(b) If any person holds a license, certificate, or other permit issued by any state or political subdivision thereof evidencing the meeting of qualifications for professional, mechanical, or other skills, the person may render aid involving that skill in this territory to meet an emergency or disaster, and this territory shall give due recognition to the license, certificate, or other permit. — Added 1978, P.L. 15–105, # 8, eff. Nov. 14, 1978.

2508. Disaster prevention

(a) In addition to disaster prevention measures as included in the territorial disaster assistance plan, the Governor shall consider on a continuing basis steps that could be taken to prevent or reduce the harmful consequences of disasters. At his direction, and pursuant to any other authority and competence they have, territorial agencies, including but not limited to those charged with responsibilities in connection with floodplain management, stream encroachment and flow regulation, weather modification, fire prevention and control, air quality, public works, land use and land use planning, and construction standards, shall make studies of disaster prevention-related matters. The Governor, from time to time, shall make recommendations to the Legislature, local governments, and other appropriate public and private entities as may facilitate measures for prevention or reduction of the harmful consequences of disasters.

(b) The Department of Public Works, in conjunction with the office, shall keep land uses and construction of structures and other facilities under continuing study and identify areas which are particularly susceptible to severe land shifting, subsidence, flood, or other catastrophic occurrence. The studies under this subsection shall concentrate on means of reducing or avoiding the dangers caused by this occurrence or the consequences thereof.

(c) If the office believes on the basis of the studies or other competent evidence that an area is susceptible to a disaster of catastrophic proportions without adequate warning, that existing building standards and land use controls in that area are inadequate and could add substantially to the magnitude of the disaster, and that changes in zoning regulations, other land use regulations, or building requirements are essential in order to further

the purposes of this section, it shall specify the essential changes to the Governor. If the Governor upon review of the recommendation finds after public hearing that the changes are essential, he shall inform the Legislature and request legislative action appropriate to mitigate the impact of disaster.

(d) The Governor at the same time that he makes his recommendations under subsection (c), may suspend the standard or control which he finds to be inadequate to protect the public safety and by regulation place a new standard or control in effect. The new standard or control shall remain in effect until rejected by concurrent resolution of both houses of the Legislature or amended by the Governor. During the time it is in effect, the standard or control contained in the Governor's regulation shall be administered and given full effect by all relevant regulatory agencies of the territory and local governments to which it applies. The Governor's action is subject to judicial review in accordance with the Administrative Procedure Act, 3 ASC 1931 et seq., but shall not be subject to temporary stay pending litigation. — Added 1978, P.L. 15-105, # 9, eff. Nov. 11, 1978.

2509. Compensation

(a) Each person within this territory shall conduct himself and keep and manage his affairs and property in ways that will reasonably assist and will not unreasonably detract from the ability of the territory and the public successfully to meet disaster emergencies. This obligation includes appropriate personal service and use or restriction on the use of property in time of disaster emergency. This chapter neither increases nor decreases these obligations but recognizes their existence under the constitution and statutes of this territory and the common law. Compensation for services or for the taking or use of property shall be only to the extent that obligations recognized herein are exceeded in a particular case and then only to the extent that the claimant may not be deemed to have volunteered his services or property without compensation.

(b) No personal services may be compensated by the territory or any subdivision or agency thereof, except under statute or local law or ordinance.

(c) Compensation for property shall be only if the property was commandeered or otherwise used in coping with a disaster emergency and its use or destruction was ordered by the Governor or a member of the disaster emergency forces of this territory.

(d) Any person claiming compensation for the use, damage, loss, or destruction of property under this chapter shall file a claim with the office on forms the office provides. The claims shall be submitted by the office to the Attorney General for handling.

(e) Unless the amount of compensation on account of property damaged, lost, or destroyed is agreed upon between the claimant and the office, the amount of compensation shall be calculated similarly as compensation due for a taking of property under condemnation laws of the territory.

(f) Nothing in this section applies to or authorizes compensation for the destruction or damaging of standing timber or other property in order to provide a firebreak or to the release of waters or the breach of impoundments in order to reduce pressure or other danger from actual or threatened flood. — Added 1978, P.L. 15–105, # 10, eff. Nov. 14, 1978.

2510. *Communications*

The office shall determine what means exist, for rapid and efficient communications in times of disaster emergencies. The office shall consider the desirability of supplementing these communications resources or of integrating them into a comprehensive territorial communications system or network. In studying the character and feasibility of any system or its several parts, the office shall evaluate the possibility of multipurpose use thereof for general territorial and local governmental purposes. The office shall make recommendations to the Governor as appropriate. — Added 1978, P.L. 15–105, #11, eff. Nov. 14, 1978.

COOK ISLANDS

2. The legislation for the Cook Islands is given below.

ANALYSIS

Title	Safety Plans
1. Short Title	10. Obligation to conform to operative plan
2. Interpretation	11. State of Warning
3. Chief Hurricane Safety Officer	12. Declaration of State of Emergency
4. Hurricane Safety Officers	13. Compensation for injury and loss of or damage to personal property
5. Functions and Powers of Chief Hurricane Safety Officer	14. Protection from liability
6. Delegation of Powers of Chief Hurricane Safety Officer	15. Requisitioning powers
7. Hurricane Safety Committee	16. Evacuation of places and buildings
8. Functions of Hurricane Safety Committee	17. Obstruction or impersonation of officers
9. Preparation and approval of National Hurricane	18. Penalty for offences
	19. Regulations
	20. Annual Report

AN ACT TO PROVIDE FOR HURRICANE SAFETY

18 May 1973

BE IT ENACTED by the Legislative Assembly of the Cook Islands in Session assembled, and by the authority of the same, as follows:

1. *Short Title* — This Act may be cited as the Hurricane Safety Act 1973

2. *Interpretation* — In this Act, unless the context otherwise requires:

“Minister” means the Minister charged with the responsibility of hurricane safety.

3. *Chief Hurricane Safety Officer* —

(1) The Minister shall from time to time by notice in the Gazette appoint —

- (a) A Chief Hurricane Safety Officer, stationed in Rarotonga who shall be charged with the duty of carrying this Act into effect; and
- (b) A Deputy Chief Hurricane Safety Officer, stationed in Rarotonga, to act in case of the illness, absence, death or removal of the Chief Hurricane Safety Officer.

(2) The Deputy Chief Hurricane Safety Officer while so acting, shall exercise the duties and shall have the powers and authorities of the Chief Hurricane Safety Officer, and the fact that he so acts shall be sufficient evidence of his authority to do so.

4. *Hurricane Safety Officers* —

(1) The Chief Hurricane Safety Officer shall from time to time appoint —

- (a) Hurricane Safety Officers, who will be in charge of Hurricane Safety arrangements for the island or district to which they are appointed;
- (b) Supervisors, who will be in charge of Safety Centres and posts to which they are appointed;
- (c) Hurricane Safety Officers for each village or tapere on the recommendation by the Village Committee for that area;
- (d) Such other officers as in the opinion of the Chief Hurricane Safety Officer are required in any island to implement the provisions of this Act;
- (e) A substitute for any officer appointed under this section to act in the case of the illness, absence, death or removal of that officer. The substitute while so acting, shall exercise the duties and have the powers and authorities of the officer for whom he is acting, and the fact that any substitute so acts shall be sufficient evidence of his authority to do so.

(2) Any reference in this Act to one of the officers appointed under this section shall be deemed to include any substitute appointed for that officer.

(3) Every person appointed under this Act shall exercise his duties and functions subject to the control of the Chief Hurricane Safety Officer, and shall comply with any directions received from him from time to time.

5. *Functions and powers of Chief Hurricane Safety Officer* —

(1) The functions of the Chief Hurricane Safety Officer shall be —

- (a) To advise and assist the Minister in all matters relating to hurricane safety;
 - (b) To exercise and perform such functions, duties, and powers with respect to hurricane safety as are conferred or imposed on him by this Act.
- (2) Without limiting the generality of the provisions of subsection (1) of this section, the Chief Hurricane Safety Officer shall have the following specific functions: —
- (a) The co-ordination of the planning and execution generally of hurricane safety measures;
 - (b) The taking of all steps necessary to provide, or to arrange the provision of, or otherwise to render readily available, personnel, material, and services adequate for the effective carrying out of hurricane safety;
 - (c) The direction and control for the purposes of this Act of personnel, material, and services available and at his disposal for hurricane safety purpose.
- (3) In the exercise of his functions, the Chief Hurricane Safety Officer may —
- (a) Co-ordinate the use of, and during a state of warning or of emergency use, the personnel, material, and services made available by Departments of State, other Government agencies, statutory corporations, public bodies, other organizations, and otherwise for the purposes of hurricane safety, and in particular, without limiting the generality of the foregoing provisions of this paragraph, for—
 - (i) The provision of transport;
 - (ii) The removal of endangered persons and casualties from any area affected by hurricane emergency to areas of safety or to hospitals;
 - (iii) The affording of medical care and attention to casualties;
 - (iv) The relief of distress and suffering;
 - (v) The accommodation, feeding, care, and protection of persons;
 - (vi) The provision of other services necessary for the welfare of the public;

(vii) The purposes of this Act generally as may be directed by the Minister or considered necessary by the Chief Hurricane Safety Officer;

(b) Enter into arrangements with any person whereby that person gives or undertakes to give his services or those of his staff, whether individually or in units under the control of that person, for the purpose of carrying out such hurricane safety measures as may be agreed upon:

(c) Devise, promote, and carry out, or cause to be carried out, research and investigations into matters relating to hurricane safety, and promote and carry out, or cause to be carried out, the dissemination of information and advice on matters relating to hurricane safety:

(d) Promote and carry out, or cause to be carried out, the training of personnel for hurricane safety purposes.

(4) During a state of warning or emergency the Chief Hurricane Safety Officer shall have and may exercise, in addition to the functions and powers specified in this section, such functions and powers as may be conferred on him by regulations made under this Act.

6. *Delegation of powers of Chief Hurricane Safety Officer—*

(1) The Chief Hurricane Safety Officer may from time to time, by writing under his hand, either generally or particularly, delegate to any employee of the Crown or of any statutory corporation all or any of the powers exercisable by the Chief Hurricane Safety Officer under this Act, except this power of delegation.

(2) Subject to any general or special directions given or conditions attached by the Chief Hurricane Safety Officer, any person to whom any powers are delegated under this section may exercise those powers in the same manner and with the same effect as if they had been conferred on him directly by this section and not by delegation.

(3) Every person purporting to act pursuant to any delegation under this section shall be presumed to be acting in accordance with the terms of the delegation in the absence of proof to the contrary.

(4) Any delegation under this section may be made to a specific employee or to employees of a specified class, or may be

made to the holder or holders for the time being of a specified office or class of offices.

(5) Every delegation under this section shall be revocable in writing at will, and no such delegation shall prevent the exercise of any power by the Chief Hurricane Safety Officer.

(6) Every delegation under this section shall, until revoked, continue in force according to its tenor. In the event of the Chief Hurricane Safety Officer by whom any such delegation has been made ceasing to hold office, it shall continue to have effect as if made by the person for the time being holding office as Chief Hurricane Safety Officer.

7. *Hurricane Safety Committee*—

(1) For the purposes of this Act there shall be a Committee, to be called the Hurricane Safety Committee.

(2) The Committee shall consist of—

- (a) The Chief Hurricane Safety Officer, who shall be Chairman;
- (b) The Superintendent of Police;
- (c) The Director of Works;
- (d) The Superintendent of Radio;
- (e) The Director of Health;
- (f) Chief Postmaster;
- (g) Secretary of Internal Affairs;
- (h) Such other persons as are appointed by the Chief Hurricane Safety Officer with the approval of the Minister.

8. *Functions of Hurricane Safety Committee*—(1) The general functions of the Hurricane Safety Committee shall be to advise and assist the Chief Hurricane Safety Officer in planning and implementing all measures considered necessary or desirable for the establishment, maintenance, and effective operation of hurricane safety.

(2) The Committee shall determine its own procedure.

9. *Preparation and approval of National Hurricane Safety plans*—

(1) Not later than the first day of November in each year the Chief Hurricane Safety Officer shall forward to the Minister a national plan in respect of hurricane safety for the immediately ensuing hurricane season.

(2) Where the Minister is satisfied that any national plan pre-

pared under this section provides adequately for hurricane safety measures, he may approve the plan, and the plan shall thereupon be deemed to be operative.

10. *Obligation to conform to operative plan*—Every department of state, other government agency, or statutory corporation required or authorised by any operative plan, or regulations made under this Act to undertake any hurricane safety measures or to exercise any functions shall take all necessary steps to undertake those measures or to exercise those functions.

11. *State of Warning*—(1) A state of warning shall exist from the time a preliminary warning is publicly notified by such means of communication as are available by the Chief Hurricane Safety Officer, or by the New Zealand Meteorological Service.

(2) The state of warning shall continue until an all clear signal is publicly notified by such means of communication as are available by the Chief Hurricane Safety Officer or the New Zealand Meteorological Service.

12. *Declaration of state of emergency*—(1) If at any time it appears to the Minister that—

- (a) A civil emergency has occurred or may occur; and
- (b) The emergency is or is likely to be of such extent or magnitude or severity that national measures are necessary or desirable in respect of it, he may declare a state of emergency for any island or islands, as he sees fit.

(2) The Minister shall forthwith give public notice, by such means of communications as are available, of every declaration of a state of emergency made by him under subsection (1) of this section; and the declaration shall be gazetted as soon as practicable.

(3) A state of emergency shall terminate on the seventh day after the date on which it was declared.

13. *Compensation for injury and loss of or damage to personal property*—(1) Every person who while carrying out hurricane safety work, or participating in hurricane safety training, under the control of any person appointed under sections 3 or 4 of this Act, suffers bodily injury or loss or damage to his personal property shall be entitled to receive compensation equal to—

- (a) All expenses directly incurred as a result of the injury; or
- (b) The value of any personal property that has been lost; or

(c) The diminution in value of any personal property that has been damaged —

as the case may be, if the injury or loss or damage was directly attributable to carrying out of such work or the participation in such training.

(2) Any compensation payable under subsection (1) of this section shall be paid by the Crown out of moneys appropriated by the Legislative Assembly for the purpose.

(3) In the event of any dispute as to the proper compensation payable under this section the amount of compensation payable be fixed by the High Court.

(4) For the purposes of this section, travelling directly to and returning directly from any place where hurricane safety training is to be or has been carried out shall be deemed to be the carrying out of such work or the participation in such training as the case may be.

14. *Protection from liability* — (1) No action or proceedings shall be brought against the Crown, or the Chief Hurricane Safety Officer, or any officer or servant of them, or against any other person whatsoever to recover damages for any damage to property occasioned by any person in the exercise or performance in good faith of his powers, duties, or obligations under this Act.

(2) No person shall be personally liable for any act done or default made by him in good faith in the course of carrying out hurricane safety work, or participating in hurricane safety training, under the control of a person referred to in sections 3 or 4 of this Act.

15. *Requisitioning powers* — (1) Where a state of warning exists or a state of emergency has been declared, and, in the opinion of the Chief Hurricane Safety Officer or member of the Police, the action authorised by this subsection is immediately and urgently necessary for the preservation of human life, he or any person authorised by him may, without any further authority than this subsection, require the owner or person for the time being in control of any vehicle, horse, boat, apparatus, implement, earth-moving equipment, construction equipment, or other equipment of any kind whatsoever (hereinafter in this section referred to as requisitioned property) forthwith to place that requisitioned property under the control and direction of the Chief Hurricane

Safety Officer, Hurricane Safety Officer or member of the Police, or person so authorised, as the case may be:

Provided that where the owner or person for the time being in control of that requisitioned property cannot be immediately found the Chief Hurricane Safety Officer, Hurricane Safety Officer or member of the Police, or person so authorised may assume forthwith the control and direction of the requisitioned property.

(2) Every person commits an offence against this Act who fails to comply with any direction given to him under subsection (1) of this section.

Provided that no person shall be deemed to have committed an offence under this section unless the Court is satisfied that the Chief Hurricane Safety Officer, Hurricane Safety Officer or member of the Police or person so authorised had reasonable grounds for believing that in all the circumstances of the case the requirement was immediately and urgently necessary for the preservation of human life.

(3) Where under this section any requisitioned property has come under the control of a Chief Hurricane Safety Officer, Hurricane Safety Officer or member of the Police, there shall, on application by the owner, be paid to him out of money appropriated by Legislative Assembly such amount as the Minister approves by way of reasonable compensation for—

(a) The use of that requisitioned property:

(b) Any loss of or damage or injury to that requisitioned property suffered or incurred while under that control.

16. *Evacuation of places and buildings*—(1) Where a state of warning exists or a state of emergency has been declared, and, in the opinion of the Chief Hurricane Safety Officer or a Hurricane Safety Officer or any member of the Police, the action authorised by this subsection is immediately and urgently necessary for the preservation of human life, he or any person authorised by him may, without any further authority than this subsection, require the evacuation of any area or building or place and the exclusion of any persons and vehicles from any area, building, or place.

(2) Every person commits an offence against this Act who fails to comply with any direction given to him under subsection (1) of this section:

Provided that no person shall be deemed to have committed an offence under this section unless the Court is satisfied that the Chief Hurricane Safety Officer or Hurricane Safety Officer or member of the Police had reasonable grounds for believing that in all the circumstances of the case the requirement was immediately and urgently necessary for the preservation of human life.

17. *Obstruction or personation of officers* — Every person commits an offence who willfully —

- (a) Prevents the Chief Hurricane Safety Officer, any person acting under the authority of the Chief Hurricane Safety Officer, or any member of the Police, or any person duly authorised or employed for the purpose of carrying out any provision of or under this Act or of any operative plan from carrying out any such provision; or
- (b) Obstructs or impedes any such person in carrying out any such provision; or
- (c) Not being a person referred to in paragraph (a) of this section, for the purpose of committing or facilitating the commission of an offence under any enactment, by words, conduct, or demeanour pretends that he is such a person, or puts on or assumes the dress, name, designation, or description of such a person.

18. *Penalty for offences* — Every person who commits an offence against this Act is liable on conviction to imprisonment for a term not exceeding three months or a fine not exceeding four hundred dollars.

19. *Regulations* — (1) The High Commissioner may from time to time, by Order in Executive Council, make such regulations with respect to hurricane safety as appear to him to be necessary or expedient for the purpose of securing the public safety and generally safeguarding the interests of the public during any warning or emergency.

(2) Regulations made under subsection (1) of this section may prescribe penalties for the breach of any such regulation, not exceeding —

- (a) In the case of an offence committed willfully by an individual, imprisonment for a term of three months or a fine of two hundred dollars;

(b) In the case of any other offence committed by an individual, a fine of one hundred dollars.

(3) The High Commissioner may from time to time, by Order in Executive Council, make regulations generally providing for such matters as are contemplated by or necessary for giving full effect to the provisions of this Act or any operative national plan and for the due administration of this Act.

(4) All regulations made under this Act shall be laid before the Legislative Assembly within twenty-eight days after the making thereof if the Legislative Assembly is then in Session, and, if not, shall be laid before The Legislative Assembly within twenty-eight days after the commencement of the next ensuing session.

20. *Annual Report*—(1) The Chief Hurricane Safety Officer shall, no later than the thirty-first day of May in each year furnish to the Minister a report on the administration of this Act.

(2) A copy of the report shall be laid before the Legislative Assembly within twenty-eight days after it has been received by the Minister if the Legislative Assembly is in Session, and, if not, shall be laid before the Legislative Assembly within twenty-eight days after the date of commencement of the next ensuing session.

This Act is administered by the Chief Hurricane Safety Officer

RAROTONGA, COOK ISLANDS: Printed under the authority of the Cook Islands Government, by T. KAPI, Government Printer 1973

SECTION 2

EXAMPLES OF EXISTING ORGANIZATIONAL STRUCTURES

SOLOMON ISLANDS

3. The organizational structure for the Solomon Islands is outlined below.

Cabinet

- (a) *Minister Responsible for National Disaster Affairs*
(Minister for Home Affairs and National Development who has overall responsibility for disaster matters in the country)
- (b) *Ministry Responsible for National Disaster Affairs*
(Ministry of Home Affairs and National Development)
 - is responsible for overall planning, organization, training, public awareness, and administration in relation to disaster matters;
 - provides chairman (Permanent Secretary/Home Affairs) for National Disaster Council (NDC);
 - provides Secretary for NDC;
 - provides administrative services necessary for functioning of NDC;
 - maintains liaison with Provincial Assemblies on day-to-day disaster preparedness matters and during operations (under its responsibility for agriculture) renders assistance,

through provincial channels, to disaster victims whose crops or livestock may have been destroyed or damaged;

- in its planning and development roles, initiates measures likely to assist in long-term disaster preparedness and prevention.

(c) *Authority Responsible for Organizing and Implementing Disaster Preparedness and Response*
National Disaster Council (NDC)

This council functions under the general aegis of the Ministry of Home Affairs and National Development (MHA & ND) and comprises:

Chairman

Permanent Secretary, Home Affairs (Ministry of Home Affairs and National Development)

Members

Permanent Secretary, National Development (MHA & ND)

Permanent Secretary, Ministry of Finance

Permanent Secretary, Ministry of Health and Medical Services

Permanent Secretary, Ministry of Transport, Communications and Government Utilities

Commissioner of Police

Chief Information Officer

Co-opted Members

Permanent Secretary, Ministry of Foreign Affairs

Permanent Secretary, Ministry of Western Affairs

Permanent Secretary, Ministry of Central Islands and Isabel Affairs

Permanent Secretary, Ministry of Malaita Affairs

Permanent Secretary, Ministry of Makira and Temotu Affairs

Permanent Secretary, Ministry of Guadalcanal Affairs

Under Secretary Works, Ministry of Transport, Communications and Government Utilities

Under Secretary, Health and Medical Services

Chief Geologist

Chief Marine Officer

Manager, Solomon Islands Ports Authority

General Manager, Solomon Islands Broadcasting Corporation

Director of Red Cross

Secretary, Solomon Islands Christian Association
 Chairman, Chamber of Commerce
 Clerk to Honiara Town Council
 (The NDC is empowered to co-opt other membership as it
 deems appropriate)

Secretary NDC

To be provided by Ministry of HA & ND

Terms of Reference for the Council

- To advise Ministry of Home Affairs and National Development of all matters concerning disaster in the Solomon Islands.
- To ensure the viability of the National Disaster Plan.
- To maintain liaison with Provincial Disaster Committees, particularly with regard to effective coordination of the National Disaster Plan with Provincial Disaster Plans.
- To act upon disaster situations, as and when they arise, making appropriate decisions and recommendations, especially to ensure coordinated action.
- To issue action guidelines to the Disaster Operations Coordinator (Commissioner of Police) during disaster operations.

(d) *Disaster Operations Coordinator (DOC)*

Commissioner of Police

- Responsible during disaster operations for implementing policy decisions along the guidelines issued by the NDC.

Planning Structure:

This consists of a National Disaster Plan;

Provincial Disaster Plans, which interlock with the National Disaster Plan; and

Individual plans of departments and other agencies that are allocated roles and responsibilities under the National Disaster Plan or a Provincial Disaster Plan.

Allocation of Roles and Responsibilities.

Under the National Disaster Plan and Provincial Disaster Plans, roles and responsibilities are allocated to departments and agencies on an agreed basis.

Concept of Organization and Operations.

The concept of organization and operations utilized to ensure effective interaction between national and provincial levels is shown in Figure 3.

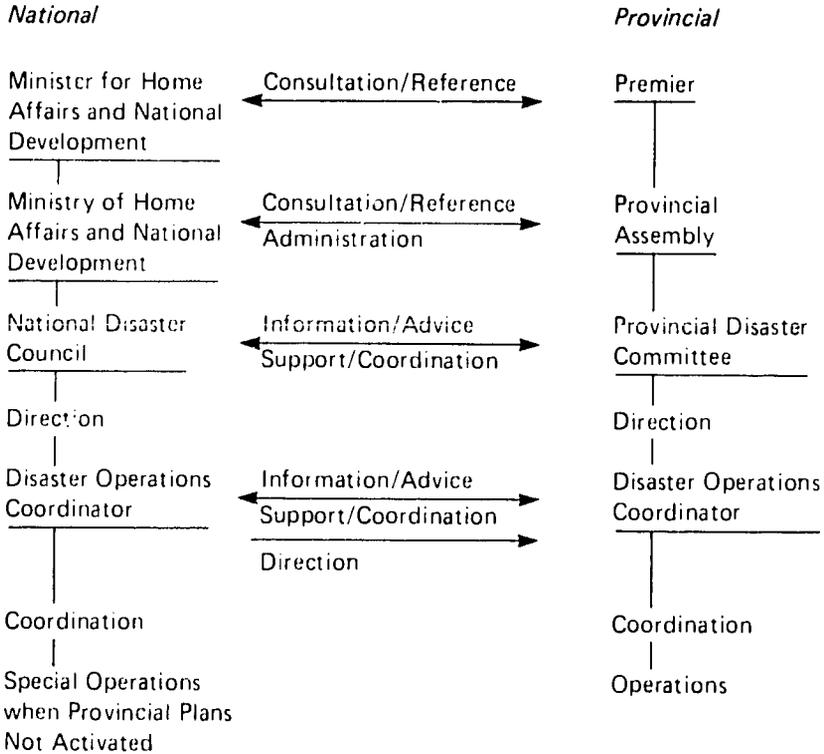


FIGURE 3 Concept of Organization and Operations

MARSHALL ISLANDS

4. The main features of the organizational structure used in the Marshall Islands Disaster Plan are:

- (a) *All Ministries and agencies of the Government of the Marshall Islands* are considered to be a part of the disaster response organization.
- (b) *Disaster Committee.* The heads of those departments most likely to have an active role in disaster preparedness and

response are members of the Disaster Committee to which the Cabinet has delegated responsibility for coordinating and directing all counter-disaster activities on behalf of the Government. The Committee is chaired by the Chief Secretary and comprises the following members:

- Chief Secretary (Ex-officio, Chairman)
- Secretary of Foreign Affairs
- Secretary of Finance
- Secretary of Education
- Secretary of Health
- Secretary of Resources and Development
- Secretary of Public Works
- Secretary of Transport and Communications
- Secretary of Social Services
- Secretary of Internal and Outer Islands Affairs
- Chief of Public Safety
- Meteorological Officer

- (c) *All Government agencies* are required to prepare and submit to the Chief Secretary:
- A register or registers listing details of those buildings, equipment, plants, and stores that are assessed to be of use in responding to disasters;
 - Detailed plans and procedures as required to meet departmental or agency responsibilities established by the Disaster Plan and supplemented from time to time by the directions of the Disaster Committee.
- (d) *Local Governments* are required to prepare local area disaster plans, as directed by the Disaster Committee, for submission to the Chief Secretary.
- (e) *Technical Assistance* is provided by the Disaster Committee to agencies of the national and local governments, as requested, in the development of detailed plans and disaster procedures.

THE EAST-WEST CENTER

The East-West Center is a public, non-profit educational institution with an international board of governors. Some 2,000 research fellows, graduate students, and professionals in business and government each year work with the Center's international staff in cooperative study, training, and research. They examine major issues related to population, resources and development, the environment, culture, and communication in Asia, the Pacific, and the United States. The Center was established in 1960 by the United States Congress, which provides principal funding. Support also comes from more than 20 Asian and Pacific governments, as well as private agencies and corporations.

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, potential beneficial roles of multinational corporations, government systems, problems of indigenous business development, and regional cooperation.