

REPORT ON A SEMINAR ON DISASTER MANAGEMENT  
FOR HEALTH HELD AT ROSE HALL INTERCONTINENTAL  
HOTEL FROM 3RD TO 6TH SEPTEMBER, 1981

The Seminar was planned with the following objectives that at the end of the seminar participants would have:

1. gained an understanding of their roles, responsibilities and functions for disaster preparedness and relief;
2. tested and improved the managerial capacity in case of a disaster through a simulation exercise and the analysis of major issues;
3. gained a thorough knowledge of the existing Disaster Preparedness and Relief Plan for Health;
4. identified necessary changes in the Disaster Preparedness and Relief Plan for Health;
5. identified the main components to be included in the Parish Disaster Plans.

The seminar opened with a dinner meeting on Thursday evening 3rd September, 1981, at which the Minister of Health, The Honourable Dr. Kenneth Baugh gave the address.

On Friday 4th September, 1981, the day commenced when disaster struck at 5:30 a.m. in a simulation exercise based on the floods of 1979. There were three groups representing the Ministry of Health Headquarters, the Parish of Westmoreland and the Parish of St. James. The exercise concluded at 1:00 p.m. A review held later in the day was characterized by much lively discussion and brought out several problem issues.

Saturday 5th September, 1981, commenced with a talk by Mr. Sam Aymer on "Decision Making Under Uncertainty" and continued with a panel discussion on "The Role of National Agencies in Health Disaster Management." In the afternoon the Ministry of Health Headquarters Group reviewed their own roles and the health disaster plan in the light of the simulation exercise. The Westmoreland and St. James groups prepared guidelines for Parish Disaster Preparedness and Relief Plans.

On Sunday morning 6th September, five work groups considered some of the problem issues identified during the exercise. The issues were:

1. Reporting Forms to be used in the transfer of information between Parish and Ministry of Health Headquarters.

2. 2.
2. The format for requesting drugs, supplies and equipment for use in the emergency and the preparation of a standard list of drugs and medical supplies which should be held in each Parish.
3. List of information to be included in the Disaster Directory;
4. Guidelines for the selection of suitable buildings to serve as a shelter for the homeless.
5. Records to be maintained at the Command Centre.

In the closing session, chaired by the Permanent Secretary Mr. Donald Miller, problem areas in disaster management were summarized. It was felt that the seminar had provided a good learning exercise for all participants.

The next steps to be taken were identified as follows:

1. To collate the information generated and recommendations made at the Seminar and to develop appropriate systems.
2. Parish Health Team to inform the Parish Disaster Co-ordinator of this Seminar, to develop the health component of the Parish Disaster Plan and to become the agent for change in the Parish. The Parish representative at this seminar to have responsibility for implementation.
3. The Red Cross and the Ministry of Health should co-operate to extend First Aid Training.
4. Assistance to establish surveillance systems at Parish level.
5. The provision of financial and technical assistance at Parish level for preparation of disaster plan and training for disaster management.

Our grateful thanks go to Dr. Fred Nunes, Head of the Department of Management, University of the West Indies for the excellently prepared and executed Simulation Exercise and for his constant advice and guidance during the seminar, and to Mr. Locksley Lindo, at the same Department

Department, University of the West Indies who assisted him. We also wish to record our appreciation to Mr. Sam Aymer and Mr. Peter Carr of PAHO who shared their managerial experience with us and contributed in many ways to the success of the seminar. We thank Mr. Franklyn McDonald, Miss Judith Allen, Colonel Trevor McMillan and Dr. Wynante Patterson who shared their expertise on disaster management in Jamaica, and Dr. Lorraine Davies, Director of Emergency Services, Ministry of Health and Welfare, Canada, who shared similar experience from Canada.

We thank Dr. Sam Street who participated in his capacity as Special Advisor to the Minister of Health on Emergency Medical Services. Finally we thank Mrs. Kitty Moulton-Campbell of the Red Cross who also contributed to the Seminar.

C. O. Moody  
Principal Medical Officer (Primary Care)  
Co-ordinator  
6th September, 1981



## MINISTRY OF HEALTH & SOCIAL SECURITY

ANY REPLY OR SUBSEQUENT REFERENCE  
TO THIS COMMUNICATION SHOULD BE  
ADDRESSED TO THE **PERMANENT**  
**SECRETARY** AND THE FOLLOWING  
REFERENCE NUMBER:-

No. \_\_\_\_\_

10 CALEDONIA AVE.,  
P.O. BOX 478,  
KINGSTON, JAMAICA.

Sept. 15, 1981

Dr. Claude d'Ville de Goyet  
PAHO,

Dear Dr. d'Ville

Disaster Management Seminar  
Jamaica

This is to express our very sincere thanks to you for sponsoring a Disaster Management Seminar for the Ministry of Health. The seminar was held at the Rose Hall Intercontinental Hotel from 3rd to 6th September 1981. The seminar went well, there was a good level of participation and it proved to be a useful learning experience.

I am enclosing herewith a copy of the material produced which I thought you might be interested to have.

Yours sincerely

D. Miller  
Permanent Secretary

## DECISION-MAKING UNDER UNCERTAINTY

(Summary of Paper Given by Sam Aymer\*)

This note relates "uncertainty" in this case to crisis and national disasters. It attempts, also, in dealing with decision-making in crisis/disasters to treat, albeit peripherally, with some issues of public policy in similar situations.

Some definitions of decision-making may usefully include the following:

### DECISION-MAKING

'A process that selects a problem for decision and produces a limited number of alternatives from among which a particular alternative is selected for implementation'

(Snyder - "Decision-making as an Approach to the Study of International Politics").

"A decision is made when there is an obvious change in the direction of policy. It is difficult to see who made the decision, when the process began and when it ended:

(Chapman - "Decision-Making")

"A decision is a moment in a process."  
(Mary Parker Follett)

"Causal unreasoning action by ordinary men in positions of extraordinary power"  
(Sir David Kelly)

Decisions arise out of judgemental responses, employing hunches, intuition, guesswork, good luck and experience  
(The Author)

Some definitions of CRISIS and DISASTER may also assist in providing perspective. The following are submitted.

### CRISIS

"A large and unfavourable change in the inputs of some social system" (Barton)

(\* Sam Aymer is Administrative Methods Adviser - PAHO/WHO  
NASSAU PARAGUAY)

The event or set of events will usually include the following requirements:

- (i) It should normally be related to important human requirements for which national governments have to take some responsibility (e.g. matters relating to loss of life; damage to property; restoration and maintenance of law and order etc.)
- (ii) There is usually very little time for policy and decision-making
- (iii) It is relatively unexpected or expectations are general to the problem and not related to the specific event.

### DISASTER

"An event, concentrated in time and space, in which a society or a relatively self-sufficient sub-area of society undergoes severe damage and incurs such losses to its members and physical appurtenances that the social structure is disrupted and the fulfillment of all or some of the essential functions of society is not provided" (Fritz)

In brief, however we may define the terms, it is clear when thinking of decision-making in crisis and disasters, that it will be necessary to address issues arising out of:

- Large and unmanageable change to the status quo - to normalcy
- Human and property losses
- Disruption to the social structure and
- Severe strain on the provision of some (at times most) of the essential functions of society.

Essential to an appreciation of some of the issues in policy/decision making that may arise in a situation of crisis, would be a survey-albeit brief - of the main decision making models and their perceived application in situations of normalcy. This exercise may then give perspective to any subsequent discussions and submissions of the likely dynamics to be encountered in situations of abnormalcy.

Decision-making may be viewed as lying on a continuum ranging from pure rationality to extra-rationality. The one representing a comprehensive and very systematic approach to decision-making and relying to a very large extent on a broad information base; the other being largely judgemental, subjective and intuitive with a very narrow data base.

A distinction may also be made between decisions concerning ENDS and those concerning MEANS. Those concerning ENDS can be viewed as conclusions reached from what are called VALUE PREMISES. Decisions concerning MEANS are called FACTUAL PREMISES.

VALUE PREMISES will include such things as:

- a) organization objectives
- b) criteria of efficiency
- c) standard of fair play (equity etc.)
- d) personal values of decision-makers

FACTUAL PREMISES will include -

- a) information that can be verified
- b) files, rules, regulations, manuals, etc.
- c) settled hierarchical positions including authority/responsibility structural arrangements etc.

THE PURE RATIONAL MODEL suggests the following phases/ functions:

- (i) Identification of problem(s)
- (ii) Search for alternatives (Comprehensive List)
- (iii) Evaluation of all alternatives
- (iv) Choice of the best alternative (decision)
- (v) Implementation
- (vi) Evaluation (This will provide feedback for the second cycle)

This is very largely an ideal construct which provides the base on which to build more plausible theories purporting to relate to the real world.

As an ideal it is therefore subject to a number of valid criticisms as to its application in practice. For example:

- (a) The entire range of alternatives are never immediately apparent.

- (b) Hierarchical constraints - information not having percolated sufficiently down to provide sufficient information.
- (c) Biological constraints.
- (d) Political constraints
- (e) Economic constraints
- (f) Phasal/Linear approach quite unreal

SATISFICING/INCREMENTALIST MODEL - selects some minimum satisfactory conditions and chooses the first alternatives that satisfies requirements for a decision.

MIXED SCANNING MODEL - takes first a wide-angled approach for a comprehensive view of the problem and then uses a "telephoto" technique to select and then to zoom in on a specific problem for decision. This model attempts to off-set the conservative bias inherent in incrementalism.

EXTRA RATIONALITY - has to do with judgement, intuition, hunches, experience and good luck. It is founded on a strong subjective base.

These models were developed with different situations in mind but largely in states of normalcy. What of their application or otherwise in situations of uncertainty, especially those occasioned by crisis and disasters?

A first attempt at an answer is shown in Diagram 1 in which a suggested list of dichotomised responses to situations of normalcy and crisis have been set out. This model will certainly need refining but will have served its present limited purpose, if only to provoke and stimulate discussions on the various issues.

#### Some Public Policy Issues

- (i) What is the objective in management and control of crisis? Is this a return to the status quo? In some cases do we want to return to the pre-disaster status?

It seems reasonable to argue that many crises may have and often do have a permanent impact on the system. And so it may be difficult to readily determine settled objectives in the wake of a crisis.

Initially, therefore, it will make decision making efforts very difficult. It will be difficult to determine alternatives and even more difficult to choose appropriate alternative(s) with a view to effective implementation.



The point is that a disaster may well at one and the same time contain elements of DANGER and OPPORTUNITY.

- (ii) Which parts of the decision-making and/or policy making process will actually be involved in management of specific crisis? Might there be a correlation between level of participation and the severity of the devastation?

It seems that effectiveness or otherwise of the response will be a feature of-

- a) the occasion (i.e magnitude, intensity, etc.)
- b) the organizational context and
- c) the individual characteristics of the decision-makers.

- (iii) What seems to be the sequence of government's response? In settle states the sequence might take the form of -

PASSIVITY → CO-ORDINATION → SUPPLICATION → LEGISLATION

The policy seemingly employed in crisis has a different sequence thus:

SYMBOLISM → COERCION using STATE INSTRUMENTS →

SYMBOLISM (sometimes) → ENABLING LEGISLATION

Often coercion and enabling legislation are introduced simultaneously.

Rationale for employing coercion via the military early would seem to include -

- (a) A search for certainties amidst uncertainty
- (b) Government has control of these forces and their utilization and deployment provide an element of predictability.
- (c) The military and police already have established structures, equipment and standard operating procedures. They are also trained for control functions.

Symbolism, which usually takes the form of national broadcasts, visits to sites, statements of intent and published indiscriminate requests to the international bodies for assistance, is usually employed to give assurance to the public that something is being done. This also gives legitimacy to the Government's implied ability to manage.

Finally, are Governments learning much from the handling of crisis by others or must each experience its own disaster? Indeed will it learn from the handling of its own disaster(s)?

There may currently be some difficulty at arriving at an answer and this is in part the result of the dearth of comparative studies and meaningful exercises in the field.

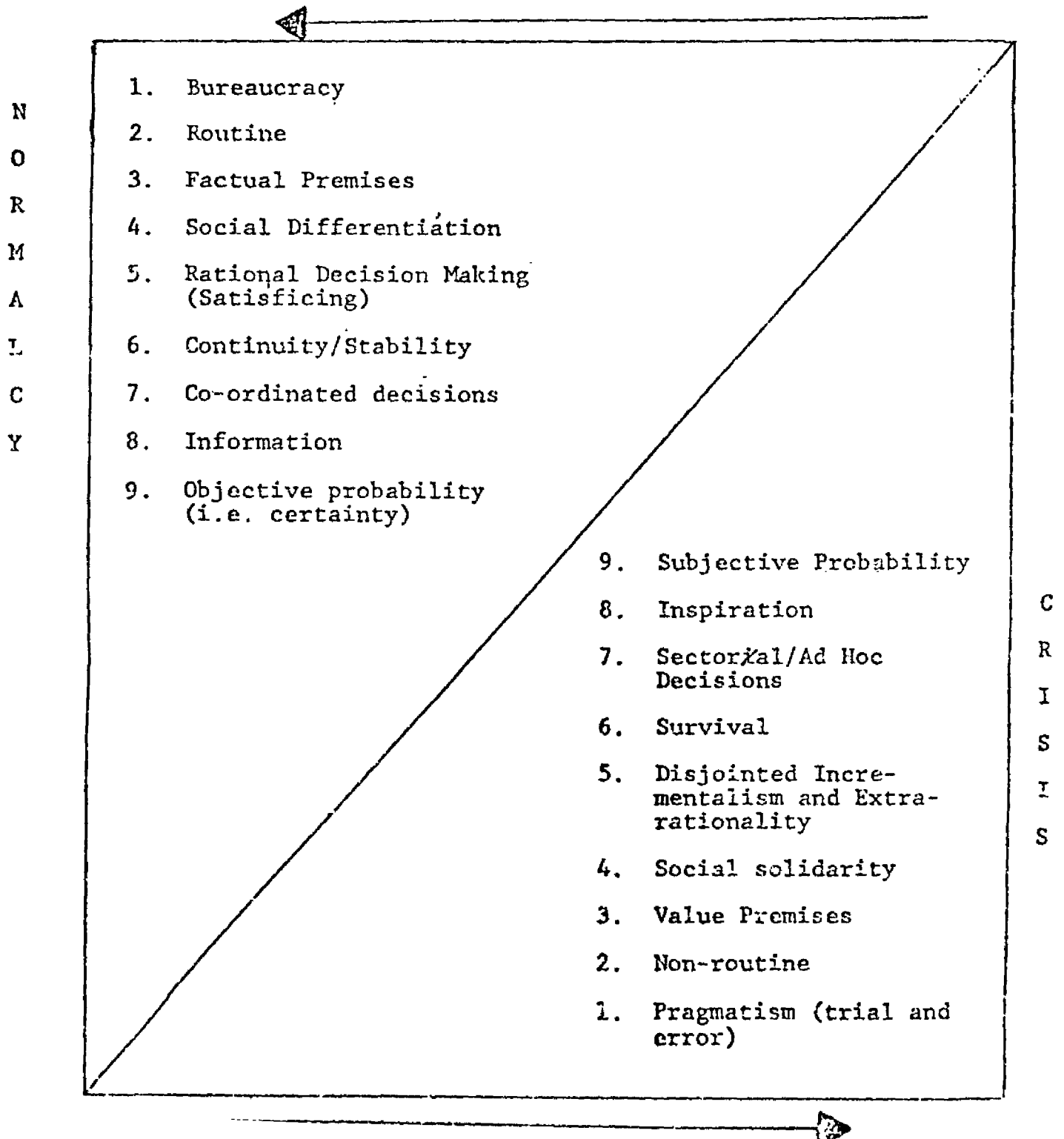
Consequently the need to correct these is not only apparent but very real indeed

One mechanism is disaster management seminars and these should be expanded and encouraged. But it is submitted that comparative studies with regard to the dynamics of leadership and decision making in situations of crisis are also likely to be of potential benefit in sensitizing nationals to the problems of pre-disaster planning and post-disaster management.

SAM AYMER

DIAGRAM I

DECISIONAL BASES: NORMALCY/CRISIS



## COMMENTS ON THE EVALUATION

The tabulated results of the evaluation clearly indicate the high level of success which the participants attribute to the seminar.

The four most positive responses were -

- (i) the simulation exercise was a very worthwhile learning experience,
- (ii) the issues in the simulation exercise were very realistic,
- (iii) the Thursday afternoon presentation and discussions by Ms. Judith Allen and Col. Trevor McMillan were very useful, and
- (iv) participants felt very strongly that they had gained an understanding of their roles, responsibilities and functions for disaster preparedness and relief.

The seminar/workshop format was obviously well received. Mr. Aymer's formal lecture getting a high rating and one which was equalled by the Saturday afternoon workgroup discussions. The use of local resource persons with first-hand administrative experience in disaster management (Allen, McMillan and McDonald) clearly proved very valuable. The visual aids, pictures and video tapes (seen by only some members) was also a powerful device and strengthened the realism of the exercise.

It should be noted that the right-hand-side boxes in the answers to question four (4) is a favourable response. Those eight (8) persons are saying that the simulation was only a little too long. It is also interesting to note that five (5) of the nine (9) who answered "good extent" to question No. 2 were in the Kingston group which had particularly ~~difficult~~ passages during the exercise. Most members of that group occupied roles in the exercise which are their formal roles in the Ministry of Health. For them 'role playing' was understandably especially difficult.

The answers to question No. 15 (least useful) are also indicative of the seminar's high degree of success. Eight (8) participants said 'none' and four (4) others gave no answer. The following was the profile of responses:

None	8
No answer	4
Insufficient time for plenary discussions	2
Hospital aspects ignored	1
Saturday afternoon group discussions	1
CMO's presentation	1
Reading the Health Disaster Plan	1
Film	1
Lecture	1

The responses to question No. 16 (most useful) further underline the distinctive success of the simulation, and also by virtue of the wide spread indicate the several strong elements of the seminar. More than half of the respondents felt that the simulation was the most useful aspect of the program:

Simulation	12
Group discussions	7
Friday afternoon discussions	2
Films	1
Reading the Health Disaster Plan	1

There was a wide range of suggestions and criticisms in reply to question No. 17. Several of them should prove valuable for consideration by persons designing subsequent Disaster Management seminars. The following is a brief summary statement of those observations:

- 4 : There is a need for more time for plenary discussions.
- 3 : There was no formal debriefing sessions for the simulation: a major omission.
- 2 : Congratulations, the seminar was well organized.
- 2 : A wider cross-section of health personnel and other related agencies should be included in the seminar.
- 1 : In the simulation the real people should be used to play all their roles e.g. the Superintendent of Works and the Member of Parliament, etc.
- 1 : An inter-sectoral seminar is needed.
- 1 : More local people should be involved in the planning process.
- 1 : The seminar should be one week long.
- 1 : There was a great need for more discussion on shelters.
- 1 : There was a need for more discussion on nutrition.
- 1 : During the simulation Ministry personnel should play field roles and vice - versa.
- 1 : The simulation should be started without any warning at all - not even the statement "between 10.00 p.m. tonight and 10.00 a.m. tomorrow."
- 1 : Planners should avoid using weekends.
- 1 : There is a need for more frequent training of this sort.

The enthusiasm with which the participants approached their task was extraordinary. On several occasions hard-working groups had to be stopped for lunch and to join plenary discussions. Plenary discussions also had to be sternly controlled as participants wanted to prolong those sessions. Further, group leaders occasionally worked late into the night in order to prepare the summary statements of their groups' discussions for typing and circulation.

A list of the schedule of the seminar is attached. So too is a list of the topics for all of the group discussion seminars.

THE ROLE OF NATIONAL AGENCIES IN HEALTH  
DISASTER MANAGEMENT

1. PLANNING

The importance of planning was not scored on, because in reality, either plans are not made in Government, or they are made but not used.

2. Building Codes

There are no standards for building and no regulations governing construction, to ensure that buildings are safe.

3. Disaster Preparedness in Education

It needs to be done during the routine professional training of personnel and not after graduation, as done that way, it has less impact and appears to be just a marginal function.

4. Responsibility of Scientific Groups

There is a lack of appreciation among scientific groups on information needs of the public, and the impact that information can have on the public, example, the meteorologist.

5. Communication System

There is an under-utilization of existing communication network, also there is no interferring between the different systems.

6. Evacuation

Information on evacuation must include specific instructions on route of exit,

7. The responsibility of Central Authority to local needs

Responsibilities could be motivational.

8. Responsibility of Parish Council

That they are pivotal in the development and implementation of Disaster Parish Plan. However, they lack the personnel and resources at present to do this work.

## The Role of the Office of Disaster Preparedness in National Disaster Planning

The Office of Disaster Preparedness is a Department in the Office of the Prime Minister whose major objective is to reduce the effects on Jamaica of future disaster events. ODIPERC was established in July 1980 following a careful review of the national needs in disaster and emergency management. It replaces and supercedes the former Central Emergency Committee which had been established in 1948. It is now in the process of being staffed and organized along the lines of a report from the Management Services Division of the Ministry of the Public Service.

It was the opinion of the technical group which reviewed Jamaica's needs after the disastrous flood in 1979 that a permanent office was required to prepare National Disaster Plans; ensure that all agencies with emergency functions maintain up-to-date contingency plans; to raise the level of public awareness and information on disaster; to execute technical studies on disaster situations in Jamaica; and in the event of a disaster or any major emergency to co-ordinate the emergency relief operations.

ODIPERC will function through three (3) main sections as illustrated on the attached (Appendix I). These are Planning and Research; Preparedness and Emergency Operation; and Public Education, Information and Training.

Because disaster management involves a wide cross section of sectors, a National Disaster Committee has been established. This Committee is headed by the Prime Minister and is responsible for ensuring that adequate counter disaster measures and plans exist in Government Ministries, Essential Services and critical Private Sector Organisations. The Committee's main role is advisory but it will also perform a support function in the implementation of disaster plans.

The National Disaster Committee operates through a number of working Sub-Committees which are responsible for areas such as Emergency Health Care, Emergency Welfare Service, Disaster Communication, Public Information and Education, Vital Supplies and Services; and Emergency Shelter. The Committees and Sub-Committees are serviced by a Secretariat in the Office of Disaster Preparedness.



Because disaster response requires immediate local operations it is important that decision making and co-ordination at local government level, is efficient. Parish Disaster Committees are therefore being established. These Committees will be responsible for creating local Contingency Plans, Resources Lists, identifying high risks areas, shelters and local operating centres in use in disasters. The agencies represented on the Parish Disaster Committees include the Parish Council and their technical staff, Ministries of Government operating in the parish (Construction, Health, Agriculture, Social Security etc.) The Security Forces, Essential Services and Public Utilities, major private sector firms active in the parish and the voluntary agencies. Assessment of damage, determination of needs and control of relief will be some of the primary responsibilities of parish disaster Committees.

In the event of a disaster, very close coordination will be required between parish Committees and the National Emergency Operating Centre in ODIPERC. The office is therefore represented on each parish disaster Committee and intends to assist the parishes to develop contingency plans appropriate to each parish. ODIPERC also will be continuously supplying parishes with materials to maintain parish activities and training parish officials in Emergency Management Techniques.

The effectiveness of emergency response measures will be greatly influenced by the capacity to mobilize all Government Resources as well as supporting resources from the private sector and voluntary agencies. ODIPERC is therefore seeking to work with all the Ministries of Government to up-grade the emergency Plans and to ensure that effective use is made of all Government resources when a disaster is to be faced. While the Emergency functions of some Ministries are well known, (for instance, Ministry of Health, Construction and National Security) many other Ministries have important emergency functions which they are not aware of or prepared to execute.

ODIPERC is therefore seeking to prepare with each Ministry a disaster plan for all its Departments, agencies and parastatal bodies. This requires a review by all Ministries of their existing arrangements for protecting their own assets and personnel and formulating plans for their Emergency Operation where necessary and plans for restoring normal duties rapidly. ODIPERC is urging strong action in this area, particularly, in those Ministries that control critical and life lines facilities such as hospitals, water supply, communication networks and generation of electrical power.

Appendix II illustrates the Emergency Communication system. It is expected that the voluntary agencies will play a very active part in the Parishes.

ODIPERC's main function therefore is to set in place arrangements to facilitate management of disaster situations and create an information base which will lead to mitigation through physical planning and Building Regulations; to educate and inform the public of the history of disaster and the level of risks; the many steps that can be taken to protect persons and property in the event of a disaster; and to establish the basic emergency command system, Emergency Operation Centres and communication system required to control and disseminate information for disaster management. It is the policy of ODIPERC to work through all existing agencies of Government and to provide a sharper focus on their emergency functions.

The major task of ODIPERC in the short term is to gather relevant information, to develop the manpower resources and to establish Emergency Operations capacity and emergency communication capabilities. A Draft National Disaster Plan has already been prepared and will be reviewed by the National Disaster Committee and its working Sub-Committees.

ODIPERC  
September, 1981

# OFFICE OF DISASTER PREPAREDNESS

Administration and Support Services  
(Secretarial to M.D.C.)

Appendix 11  
Functional Chart

## Planning and Research

- o Identifying : Disasters Areas
- o History of past Events
- o Hazard and Vulnerability Analysis
- o Review Scientific Monitoring of Disaster Agents
- o Review of Current and Future Physical Plans
- o Critical Facility Plans and Supplies
- o Promote Prevention Measures viz Building Code, Land Use Zonations.
- o Liaise with, TCPA, TDP, NROD, WRD, GSD Met Office etc.
- \* Assessment of Disaster Operations
- \* Survey of Disaster Areas.

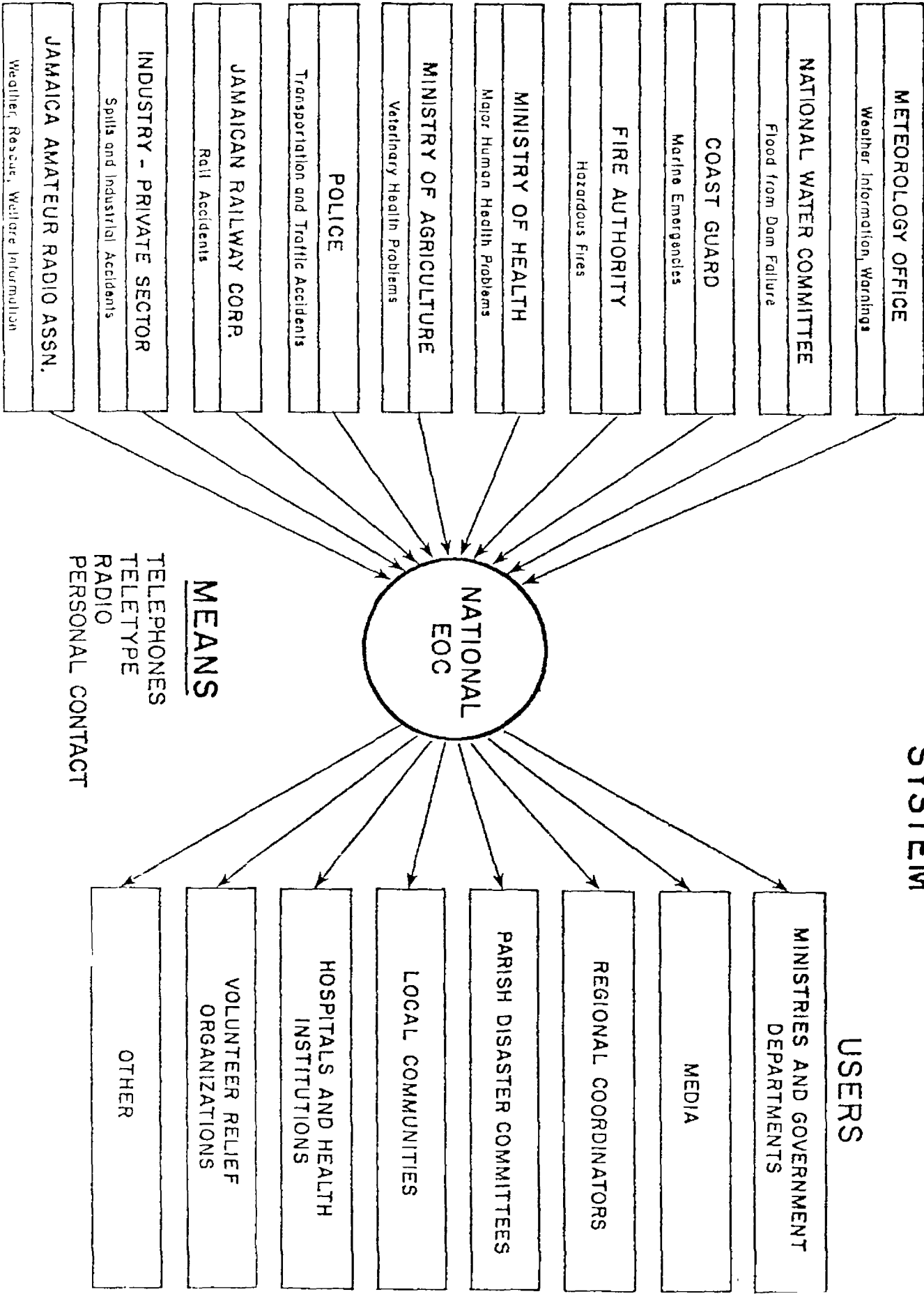
## Preparedness and Emergency Operations

- o Developing and Coordinating Contingency plans for assessment, emergency operations relief and rehabilitation at National Parish Level.
- o Establishing liaison with private organisations
- o Voluntary agencies etc for effecting quick access to non governmental resources in emergencies
- o Under prearranged agreements
- o Continuous assessment of risks and resources at regional and parish level.
- o Establish and maintain an operational EOC ready to be mobilised to coordinate and control major emergencies and disasters events
- o Maintain records of vital resources and supplies
- o Develop and maintain adequate Disaster Communication system for warning, assessment, control and Public information purposes.

## Public Education, Information and Training

- o Ongoing Public Awareness Programs of risks and precautions through media
- o Promoting educational programs in schools
- o Preparing appropriate literature and training material
- o Executing training programs for central local Government and Voluntary groups
- o Gathering, collecting, disseminating information on Disaster Threats and Government policy etc to the public
- o Channeling to the public technical information on Disaster Threats
- o Maintaining a National Documentation Centre for Disaster material
- o Handling Public Information from the EOC in Disasters.

# NATIONAL WARNING AND ALERTING SYSTEM



CHECKLIST FOR  
PLANNING FOR HURRICANES

- I. General: Before a storm
  - A. Have plan of action
  - B. Have necessary data
    - 1. Likely storm surge and flood elevations, etc.
    - 2. Evacuation routes
    - 3. Location of emergency services, shelters, etc.
    - 4. List of key people, including employees, with phone numbers and addresses
    - 5. List of all facilities under your jurisdiction including data on current insurance
    - 6. Inventory of emergency supplies
    - 7. Inventory and list location of all emergency equipment (such as emergency generators)
  - C. Prepare a printed list of emergency procedures to be carried out at each location, and assign responsibilities and time table for carrying out procedures.
  - D. Have an alternate base of operations in case the disaster disables your regular base. Prepare to move if necessary.
  - E. Plan for alternatives (radio communications) if phones are out of order.
- II. During the Hurricane Watch (more than 24 hours before arrival)
  - A. Check condition of all emergency equipment to make sure they are operable.
  - B. Check employees to make sure they know emergency procedures and responsibilities.
  - C. Check emergency supplies for condition and usability.
  - D. Check to see that keys to all facilities are available at base of operations.
- III. During the Hurricane Warning (12 - 24 hours before arrival)
  - A. Requisition all needed materials and supplies in plenty of time.
  - B. Raise or move critical equipment and supplies above anticipated high water level where possible.

- C. Set up lockers in major building for needed emergency supplies and equipment.
  - D. Post list of emergency procedures at each location.
  - E. Arrange budget for purchase of emergency supplies.
  - F. Stock appropriate vehicles with emergency equipment and supplies as applicable.
  - G. Check emergency generator systems - fill fuel tanks.
- IV. Preparations (Departmental) during Hurricane Warning (6 - 12 hours before arrival)
- A. Secure buildings as required
    - 1. Board up openings or tape glass.
    - 2. Sandbag openings where applicable.
    - 3. Cut off electric power and gas service where applicable. Shut down building equipment as necessary.
    - 4. Remove or tie down loose exterior objects such as furniture, garbage cans, planters, etc.
    - 5. Cover desks and other vital equipment with polyethelene
    - 6. Add guy wires where necessary - flag poles, radio towers, exterior air conditioners, and air handling equipment.
    - 7. Fill containers with emergency water supply where appropriate.
    - 8. Deliver necessary emergency supplies to each location.
  - B. Check all vehicles and equipment
    - 1. Fill fuel tanks
    - 2. Fill additional containers with fuel for portable generators, chain saws, etc.
    - 3. Stock appropriate trucks with chainsaws, axes, tow chains, ladders, portable radios, flashlights, etc.
    - 4. Verify radio equipment is in operating condition.
  - C. Allow employees time to make personal emergency preparations at their homes.
  - D. Notify supervisors of outdoor operations (such as construction projects) to secure the project and tie down or remove loose objects.
  - E. Assign portable radios to appropriate employees.
  - F. Keep check on weather conditions and evacuate if necessary.
  - G. Instruct employees to report to work as soon as possible after the emergency.
  - H. If possible, allow employees to take radio-equipped vehicles home with them.
  - I. Double check all preparations.

## DURING STORM

- I. Stay Inside
  - A. Keep radio on for bulletins or evacuation notice
  - B. Stay calm and use your common sense
  - C. Stay on downwind side of building away from windows
  - D. Adjust windows for proper pressure
  - E. Be aware of the "eye" of the storm; stay inside until officially told that all danger is past
  - F. Because of the threat of floods, keep supplies off the ground where possible, (raised on blocks or atop sturdy furniture)
  
- II. Evacuation
  - A. Leave areas which might be affected by storm surge (tidal wave) or stream flooding
  - B. If evacuation is necessary, leave during daylight
    - 1. Take small valuables and basic food and medicinal supplies but travel light
  - C. Shut off utilities at main control
    - 1. Water
    - 2. Gas
    - 3. Electricity

## AFTER STORM

- I.     Checking
  - A.    If away from home during storm, go home when it is safe and make temporary repairs if necessary and secure it.
  - B.    Make arrangements for your family's shelter, food, and water.
  - C.    Assess and file insurance claims.
  
- II.    Report to work
  - A.    Report to work as soon as possible.
  
- III.   Establish Communications
  - A.    Utilize portable radios, phone bearers etc.
  - B.    Assign appropriate employees with radio-equipped trucks.
  
- IV.    Procurement of necessities
  - A.    Arrangements should be made to obtain water, ice, food, and gas for those employees who cannot stand in the long lines to obtain these necessities due to working long hours.
  
- V.     Records of Repairs
  - A.    Documentation of all repairs should be well-organised and maintained for each item. Important items are
    - 1.    Numerical work orders
    - 2.    Time and labour required for repairs
    - 3.    Materials used
    - 4.    Location of repair
  - B.    A running inventory of materials should be kept day by day to ensure stock level is adequate.
  
- VI.    Establish survey teams
  - A.    Assign survey teams by areas and facilities (lists previously established) consisting of at least two people with equipment including where possible.
    - 1.    Radio-equipped trucks
    - 2.    Raingear
    - 3.    First aid Kits
    - 4.    Cameras and Films
    - 5.    Maps



V. Immediate Preparations - Personal

A. Home

1. Board up or tape windows
2. Secure emergency cooking equipment
3. Put new batteries in flashlights and radios
4. Buy candles or kerosene lamps
5. Secure or remove loose exterior objects
6. Move boats to safe location
7. Stock up on non-perishable foods
8. Turn up refrigerator and freezer to maximum cold setting
9. Fill portable chest with ice
10. Fill containers with water
11. Check first aid and medicinal supplies

B. Prepare to evacuate if necessary

1. Fill automobile with fuel
2. Plan evacuation route to destination (home of friends or relatives or official shelters)

VI. List of Emergency Supplies and Equipment

- A. First aid kit
- B. Batteries - radio, flashlight, etc.
- C. Film for camera
- D. Portable generators, chain saws
- E. Plywood
- F. Polyethelene film or plastic garbage bags
- G. Roofing felt and nails
- H. Roofing mastic
- I. Plexiglass
- J. Duct tape
- K. Lumber and nails

HEALTH AND WELFARE CANADA  
EMERGENCY SERVICES

(Lorraine Davies)

Emergency Services Division in the Federal Government has the responsibility for health and social services emergency/disaster planning.

Responsibilities

1. Ensure federal health and social services can respond to disaster situations.
2. Co-ordination of plans for the departmental role as a "Lead" department in response to requests for assistance i.e. epidemic.
3. Coordination of departmental response to provide support to other departments of government. "Resource" role, i.e. airport disaster plans.
4. Advise and assist other levels of government (provinces or communities in their efforts to develop emergency/disaster response plans for health and social services.

Programs/Activities

1. Emergency planning
2. Training Programs
3. Advise counterparts in other levels of government
4. Maintain emergency supplies i.e. extra drugs and equipment
5. First Aid Training Programmes for Federal employees
6. Produce manuals, brochures, precis referring to disaster planning
7. Consultation/Liaison functions
  - A. Ambulance service
  - B. Hospital and Public Health Planning
  - C. Liaison with volunteer agencies (St. Johns Ambulance, Red Cross)
  - D. Liaison with other Federal Departments and agencies
  - E. Liaison with NATO/WHO/PAHO, etc.

Emergency Social Services Programs

1. Emergency Feeding
2. Emergency Lodging
3. Emergency Clothing
4. Registration and Inquiry
5. Personal Services

Health has responsibilities which overlap emergency social services, for example:

Emergency feeding - ensuring safe food supply and management;

Emergency lodging - screen for communicable disease

daily surveillance for health problems

Personal Services - psychological aspects

rehabilitation.

The first impact of any disaster is at the Community level and therefore, the Community MUST BE ABLE TO RESPOND to its own needs initially - it cannot wait for someone to do the job.

Plans must be flexible and known. Training and exercises are essential components of preparedness. Evaluate response in disasters LEARN FROM MISTAKES in order to do better next time.