



CARICOM

PAN-CARIBBEAN DISASTER PREPAREDNESS AND PREVENTION PROJECT

Telephones: 24436
24437

P. O. Box 1207
St. John's, Antigua, West Indies

Telex 2195
Cables DISPRLP

WORKSHOP REPORT
ON
EMERGENCY PLANNING FOR ENVIRONMENTAL HEALTH
AND
WATER SUPPLY SERVICES
HELD IN
ST. LUCIA
19-23 NOVEMBER 1984

ORGANIZED BY
THE PAN CARIBBEAN DISASTER PREPAREDNESS
AND PREVENTION PROJECT
IN ASSOCIATION WITH
THE CARIBBEAN ENVIRONMENTAL HEALTH INSTITUTE
AND
THE MINISTRY OF HEALTH OF ST. LUCIA

WORK SHOP REPORT
ON
EMERGENCY PLANNING FOR ENVIRONMENTAL HEALTH
AND
WATER SUPPLY SERVICES
HELD IN
ST. LUCIA
19-23 NOVEMBER 1984

ORGANIZED BY
THE PAN CARIBBEAN DISASTER PREPAREDNESS
AND PREVENTION PROJECT
IN ASSOCIATION WITH
THE CARIBBEAN ENVIRONMENTAL HEALTH INSTITUTE
AND
THE MINISTRY OF HEALTH OF ST. LUCIA

LIST OF CONTENTS

1. Introduction
2. Opening Ceremony and Programme
3. Keynote address by the Hon. Ferdinand Henry, Minister of State in the Ministry of Health, Housing and Labour.
4. "St. Theodore" simulation exercise, by Eng. Robert Swart, PAHO/PCDPPP Sanitary Engineer: instructor's guide
5. "Disaster effects and preparedness in environmental health and water supply" by Dr. James St. Catherine, St. Lucia's medical officer of Health, notes by Eng. Ronald Williams, PAHO Area Engineer.
6. "Vulnerability Analysis" by Eng. Wilton Conliffe, Barbados Senior Public Health Engineer and Eng. Robert Swart, PAHO/PCDPPP Sanitary Engineer.
 - a. presentation
 - b. guidelines and results of group discussions
7. "Role and Responsibilities of Environmental Health Services in different disaster phases" by Eng. Wilton Conliffe, Barbados Senior Public Health Engineer, notes by Eng. Ronald Williams, PAHO Area Engineer.
8. "Emergency Operations Planning" by Eng. Robert Swart, PAHO/PCDPPP Sanitary Engineer.
 - a. presentation
 - b. group discussions on review existing plans and development of new plans
9. "Environmental Health in Shelters and Relief Centers" by Robert Swart PAHO/PCDPPP Sanitary Engineer
10. "Handling of hazardous materials" by Eng. Wilton Conliffe, Barbados Senior Public Health Engineer, notes by Eng. Ronald Williams, PAHO Area Engineer.
11. "Disaster resistant building techniques" by Eng. Pat Brown, St. Lucia's consultant structural engineer.
12. "Preventive measures" notes by Eng. Robert Swart, PAHO/PCDPPP Sanitary Engineer Advisor.
13. "Follow-up" notes by Eng. Wilton Conliffe, Barbados Senior Public Health Engineer.

A N N E X E S

- a. List of participants and resource persons
- b. Workshop evaluation results
- c. Disaster plan for the Grenada Central Water Commission
- d. St. Lucia's Central Water Authority Hurricane Plan
- e. St. Vincent Central Water & Sewerage Authority Emergency Operations Plan
- f. Revised Environmental Health Emergency Operations Plan B.V.I.
- g. Public Health aspects of the National Health Disaster Preparedness Plan for St. Vincent & the Grenadines

1. INTRODUCTION

In June 1982, the Pan-Caribbean Disaster Preparedness and Prevention Project (PCDPPP) in collaboration with the Pan American Health Organization (PAHO) organised a series of two-day training courses on Water Supply and Environmental Health Aspects of Disaster Management in the Eastern Caribbean. The course was attended by participants from the Environmental Health and Water Departments.

The courses were structured to serve as a general introduction to the subject. Participants and the PAHO Course Director strongly recommended follow-up training. This recommendation led to the organization of follow-up Workshops on Emergency Planning for Environmental Health and Water Supply Services.

In March 1984 nominees from Antigua and Montserrat attended the Workshop on Emergency Planning for Environmental Health and Water Supply Services in Antigua. In September, 1984, St. Kitts, Nevis, B.V.I. and Anguilla participated in a similar workshop in St. Kitts.

Because of the similarity in size and nature the four Windward Islands Dominica, St. Lucia, St. Vincent and the Grenadines and Grenada were invited to participate in the Workshop in St. Lucia of which this report gives the results.

The main addition to the programme of the first two workshops was a simulation exercise. Since it is envisaged that Caribbean Institutions in the future will assume greater responsibility for disaster preparedness in the region, this training seminar has been organized by PCDPPP/PAHO through the CARICOM Caribbean Environmental Health Institute.

The objectives of the workshop included:

1. training in vulnerability analysis to enable the participants to identify critical areas in their services.
2. training as to protective measures to enable the participants to design proper measures to mitigate disaster effects on their services.
3. development/strengthening of draft emergency operations plans to be elaborated after the workshop by the participants.
4. development of a programme of follow-up activities and accompanying time schedule to ensure that the services represented will have an operational emergency operations plan, which will have been approved by management and national disaster committee, before the 1985 hurricane season. This implies plans for training, plan elaboration, emergency co-ordinator for the services.

The workshop-form was chosen, for a full and active involvement of all participants necessary to reach these objectives.

In this report outlines of presentation and discussion results are included as well as the existing emergency operations plans of participating departments, reviewed during the workshop.

PROGRAMME
AND
OPENING CEREMONY

P R O G R A M M E
F O R
O P E N I N G O F W O R K S H O P
O N
E M E R G E N C Y M A N A G E M E N T
F
E N V I R O N M E N T A L H E A L T H
A N D
W A T E R S U P P L Y
N O V E M B E R 19-23

CHAIRMAN	- Dr. Anthony DeSouza
WELCOME AND INTRODUCTION OF CHAIRMAN	- Mr. Ronald Gordon - ag. co-ordinator Caribbean Environmental Health Institute (CARICOM)
INTRODUCTORY REMARKS	- Mr. Victor Girard - Chairman of National Advisory Committee of National Emergency Organisation
KEYNOTE ADDRESS AND OFFICIAL OPENING	- Hon. Ferdinand Henry, Minister of State in the Ministry of Health, Housing and Labour
CHARGE TO THE WORKSHOP	- Mr. Dwight Venner - Director of Planning
VOTE OF THANKS	- Mr. Andre Worme - Participant (Grenada)

2.
WORKSHOP
ON
EMERGENCY MANAGEMENT
FOR
ENVIRONMENTAL HEALTH AND WATER SUPPLY SERVICES
IN
SAINT LUCIA
NOVEMBER, 19-23, 1984

DAY 1

MONDAY NOVEMBER 19, 1984
AT THE GREEN PARROT HOTEL

7.00 p.m.

- REGISTRATION

Briefing of Participants on
Simulation Exercise

DAY . 2

TUESDAY NOVEMBER 20, 1984

- 08:30 - 09:30 - Opening Ceremony (Separate Programme)
- 09:30 - 10:00 - Coffee Break
- 10:00 - 15.00 - Simulation Exercise
"St. Theodore"

- Co-ordinators
 - Eng. Robert Swart,
PAHO/PCDPPP Sanitary
Engineer
 - Eng. Wilton Conliffe

During the simulation exercise no lunch-break
is included, but at one time some small snacks
and drinks will be provided.

- 15:00 - 16:30 - Evaluation/debriefing simulation exercise
- 16:30 - 17:00 - Video Film "On the edge of Paradise"
- Tuesday evening - get together for participants at Green
Parrot Hotel

DAY 3

WEDNESDAY NOVEMBER 21, 1984

08:30 - 09:00	- General Introduction National Disaster Planning Roles and Responsibilities in Management of Environmental Health and Water Supply	- Mr. Stan James Disaster Pre- paredness Co-ordinator, Saint Lucia
09:00 - 09:45	- Disaster Effects and Preparedness in Environmental Health and Water Supply	- Dr. James St. Catherine St. Lucia M.O.H.
09:45 - 10:30	- Vulnerability Analysis	- Eng. Wilton Conliffe Sr. Public Health Engineer. (Barbados)
10:30 - 10:45	- COFFEE BREAK	
10:45 - 12:30	- Group Discussions Vulnerability Analysis	
12:30 - 13:30	- LUNCH BREAK	
13:30 - 15:15	- Continuation of Group Discussions on Vulnerability Analysis	
15:15 - 15:30	- COFFEE BREAK	
15:30 - 16:00	- Presentation of Results	
16:15 - 17:00	- Films: "A LADY CALLED CAMILLE" and "SURVIVING CYCLONES"	

DAY 3 (CONT'D)

Facilitators during
group discussions

- Eng. W. Conliffe
Sr. Public Health
Engineer (Barbados)

Eng. Robert Swart
PAHO/PCDPPP
Sanitary Engineer

DAY 4

TUESDAY NOVEMBER 22, 1984

- | | | | |
|-------|---------|---|--|
| 08:30 | - 09:15 | - Roles and Responsibilities of Environmental Health Services in Different Disaster Phases | - Eng. Wilton Conliffe
Sr. Public Health Engineer, Barbados |
| 09:15 | - 10:00 | - Development of Emergency Operations Plans | - Eng. Rob Swart
PAHO/PCDPPP
Sanitary Engineer |
| 10:00 | - 11:00 | - Review of Existing Plans; Group Discussions; Plans on File:

- Draft National Health Disaster Preparedness Plan, St. Vincent, including Public Health Plan.

- Environmental Health Emergency Operations Plan BVI.

- Central Water Authority, St. Lucia, Hurricane Plan

- Central Water Commission Grenada, Emergency Action Plan | |
| 11:00 | - 11:15 | - COFFEE BREAK | |
| 11:15 | - 11:45 | - Presentation of Results | - Group Leaders |
| 11:45 | - 12:30 | - Group Discussions on Development of an Outline for Non-Existing Plans:

- E.H. Emergency Operations Plan (Grenada)

- E.H. Emergency Operations Plan (St. Lucia)

- E.H. Emergency Operations Plan (Dominica)

- Water Emergency Operations Plan (Dominica) | |

DAY 4 (cont'd)

12:30	- 13:30	- LUNCH BREAK	
13:30	- 15:30	- Continuation of Group Discussions	
15:30	- 15:45	- COFFEE BREAK	
15:45	- 16:30	- Presentation of Results	- Group Leaders

DAY 5

FRIDAY NOVEMBER 23, 1984

08:30	- 09:15	- Environmental Health in Shelters and Emergency Relief Centers	- Eng. Robert Swart PAHO/PCDPPP Sanitary Engineer
09:15	- 09:45	- Handling of Hazardous materials including oil	- Eng. Wilton Conliffe Barbados Senior Public Health Engineer
09:45	- 10:15	- Slide series "Environmental Protection" from Canada Emergency Response Seminar "Transportation of Dangerous Goods"	
10:15	- 10:30	- COFFEE BREAK	
10:30	- 11:30	- Disaster Resistant Building- Techniques	- Eng. Pat Brown Consulting Engineer
11:30	- 11:45	- Follow-up activities	- Plenary discussions led by Eng. Wilton Conliffe, Barbados Sr. Public Health Engineer
11:45	- 12:00	- Closing ceremony: Presentation of certificates by Mr. Cornelius Lubin, Permanent Secretary of Health	

Note: due to the decease of an important St. Lucian civil servant the day's programme had to be compressed in the morning sessions.

3.

KEYNOTE ADDRESS AND OFFICIAL OPENING
OF THE
WORKSHOP ON EMERGENCY MANAGEMENT
OF
ENVIRONMENTAL HEALTH AND WATER SUPPLY

By the Hon. Ferdinand Henry
Minister of State in the
Ministry of Health, Housing and
Labour

KEY NOTE ADDRESS AND OFFICIAL OPENING OF THE WORKSHOP ON
EMERGENCY MANAGEMENT OF ENVIRONMENTAL HEALTH AND WATER SUPPLY

November 19 - 23, 1984

- Hon. Ferdinand Henry
Minister of State
Ministry of Health, Housing and Labour

Mr. Chairman, Ladies and Gentlemen,

The Honourable Clendon Mason, Minister responsible for Health, Housing and Labour has asked me to convey his sincere apologies for not being able to address this gathering. His absence is on account of prior official commitment out of the state. This honour of addressing you has befallen me and I would like, Mr. Chairman, through you, to thank the organisers for this pleasant opportunity.

This opening ceremony, which marks the beginning of a four (4) day workshop on "Emergency Management of Environmental Health and Water Supply" is testimony to the continuing commitment of the Pan Caribbean Disaster Prevention Project (PCDPP). The collaborative effort of the Caribbean Environmental Health Institute (CEHI) does not go unnoticed and I would like to acknowledge the presence of members of both these organizations. The success of the workshop could only be assured by the full participation of the resource persons and participants from the region. Let me therefore express our appreciation to your respective governments for enabling your presence at this workshop, and satisfaction for St. Lucia being chosen to be the host country.

To you ladies and gentlemen, I extend a very warm welcome on behalf of the Government and people of St. Lucia.

Until the recent substitution of the word "Emergency" for "Disaster" we spoke of disaster management and some of the more reflective among us attempted to define and even to classify "disaster". The result was a series of definitions only matched in their variations by the number of differing classifications. However, one thing is agreed and that is that disaster represents a significant disruption of the normal routine state of affairs which affects the consumption or/and utilisation pattern of resources. The extent of these disruptions are magnified by the geographically insular nature of our regional states and the smallness of our resources in a particular land mass. Thus, it is not unusual for disaster to assume national dimensions with a disquieting amount of ease. The word "disaster" or "emergency" has of late began to generate within us a sense of sharing to alleviate suffering and hardship; thus it is easy to understand why most agencies are concerned with immediate problems of resources allocations aimed at disaster relief, whilst the heavy toll from the reduction of potential for economic and social growth goes almost unnoticed once the initial rehabilitation process is over. It is the unattended remnant of the disaster scar that weakens the very fabric of our developmental plans. Disasters not only -

- (1) Hurts us individually. Disasters bring in their trail, grief, pain, financial deprivation and physical and emotional dislocation,
- (2) They also force us to modify, reduce the pace of our countries' progress or developmental thrust.

To use our local experience in 1980, Hurricane Allen swept through this agriculture-dependent land of ours leaving in its wake 90% of our banana industry in ruin, 6 deaths, dozens of casualties and damages to the tune of about 20 million dollars to property. This financial setback brings to mind a much overlooked but financially comparable disaster and that was the oil crisis of 1976 which led to a level of unprecedented inflation.

- (3) Disasters have the tendency to retard or re-direct trends in our development:

As I have said, disaster tends to slow us down, however, it is fair to say that a small rebound phenomenon of intense progressive activity is always evident in an effort to maintain the status quo. This difficult task usually evokes sympathy from friendly nations and other well-meaning institutions, who, through financial, material and technical assistance make meaningful contributions towards our recovery. In this regard I would like on behalf of the Government of St. Lucia to thank -

- (a) The International Funding Organisations
- (b) Friendly governments and
- (c) In particular health related institutions, for the useful and meaningful assistance we have received in time of need. We look forward for this cherished continued co-operation in the future.

However, restoration is seldom complete, and there is always ~~left~~ a lot undone or incomplete.

It is against this background of the interplay of factors in the external environment that we should examine the effect of disasters, and the need or demand for new services.

The majority of these new services are oriented towards personal and family safety eg. insurance, building re-designing and restructuring, and consumer items.

Most of the new services in a small country are very expensive since they require foreign inputs and large amounts of foreign exchange.

After a major disaster individuals lick their disaster wounds and lament their losses, the cost of repairs to the damage done to the environment including destruction of drainage, roads and water mains due to land slides and heavy rains, pollution of the environment as a result of fallen trees and scattered remains and debris, disruption of electricity and communication lines, pollution of the water supplies, to name a few, must be borne squarely by the individual Government. And as such, Governments must make a move, in addressing the question of disaster emergency management which is the substantive business of this workshop.

The concept of emergency management is very broad and encompasses the critical processes by which we hope to:

- (1) Reduce the risk of disaster or emergency,
- (2) Minimize the impact of disaster
- (3) Hasten the recovery from disaster, and
- (4) Have emergency management and aid capabilities available to assist regional states in times of disaster.

The last statement is in keeping with the direction of developments of the Pan Caribbean Disaster Preparedness and Prevention Project (PCD PPP) as expressed at the last meeting of the Caricom Ministers responsible for Health in Dominica in July of this year. However in the report of the Sixth Meeting of the Management Committee of the PCDPPP held in Kingston, Jamaica, in April 1984, under the caption Status of Project Funding in this paragraph: "The view was expressed that Phase III of the PCDPPP should represent a shift in responsibility from the project headquarters in Antigua and Barbados to existing regional organisations. Environmental health matters, for instance, could perhaps be shifted from the base in Antigua and Barbados to the Caribbean Environmental Health Institute (CEHI) in Saint Lucia, where an Environmental Health Sanitary Engineer could be located. It was noted that such a shift in activities would represent an increase in regional self reliance".

The workshop is therefore most opportune following the excellent work of the PCDPFF, the urgent need for developing and updating national plans, strengthening regional integration in disaster preparedness and most importantly developing local national emergency management capabilities that will serve as a part of a critical core for national emergency planning and implementation efforts.

During normal times the scope of environmental health keeps expanding whilst the demand for safe water supply continues to outstrip the supply.

These realities are further exaggerated during emergencies when the needs are greatest. It is therefore not with envy that I welcome this group of regional participants and resource persons who are rich in experience with handling emergencies and the technical expertise to plan for the effective management of emergencies involving environmental health and water supply. These are your fields and we the people look forward to the fruits of your deliberations.

It was my duty to reflect the sentiments of the political directorate. Now the onus is on you, the technical experts. Let me wish you, on behalf of the Government and people of St. Lucia, a very successful workshop.

The next four days will find you very preoccupied with work, but I am sure that the organisers will permit you to experience some of the socio-cultural charms of our hospitable people and the environment (weather permitting). With that hope, it is my pleasant duty, Mr. Chairman, to declare the workshop on "Emergency Management of Environmental Health and Water Supply" officially open.

Thank you.

. 4

SIMULATION EXERCISE

"ST. THEODORE"

By Eng. Robert Swart
PCDPPP/PAHO Sanitary Engineer

ST. THEODORE SIMULATION EXERCISE

2. INSTRUCTOR'S GUIDE

1. INTRODUCTION

The St. Theodore simulation exercise was developed for Water Supply and Environmental Health personnel in Caribbean countries. It is essentially based upon the "Cariba" exercise developed by Prof. Fred Nunes for PAHO. Roles for Environmental Health personnel were to a large extent, copied from this exercise. For added roles for Water Supply personnel, the "Tierra Bella" exercise developed by Dr. Enrique Rozenblatt provided many ideas.

2. OBJECTIVES

The main objectives of the exercise are:-

- 1) to familiarize the participants with decision-making, under uncertainty and with confusing and misleading information.
- 2) to stimulate participants to make critical reviews of in-coming disaster related information and promote systematic intelligence gathering as a priority, in case of a disaster.
- 3) to provide opportunities to make decisions on most of the technical topics to be discussed in the seminar.

Some of these technical topics are:-

- effects of disaster on health
- fear of disease outbreaks
- water quality monitoring; priorities and responsibilities.
- management of international aid
- sectoral disaster plan
- legal aspects
- communication problems.

The expected outcome of the exercise comprises:-

- a) the participants appreciate the stress to make several major decisions with very low levels of information or information from sources which may be highly unreliable.
- b) the participants acknowledge the need to be vigorous in their assessment of information reaching them from traumatized people.
- c) the participants are careful not to give a precipitate and uncritical "yes" to every offer of assistance that is made, they realize the longterm consequences of some of these "snap" decisions.

OBJECTIVES Con't.

- d) the participants recognize the political element of aid and Disaster Management.
- e) the participants appreciate the high level of cost considerations and the practical problems of implementation in the special situation of depleted resources, following a disaster.
- f) participants are sensitized as to the problem of managing volunteers - local, bilateral and multilateral alike.
- g) while still focusing on health, the participants grasp the integral link between health and other services such as customs, storage-facilities, electricity for refrigeration, vehicles and roads for transportation; radio, telephone and cable for communication, agriculture and stores for food, tools and building materials for shelter, police security for visiting personnel, etc.
- h) participants recognize the problems for Environmental Health Services to a shifting population and the difficulties of controlling health care in refugee camps.
- i) the participants are thoroughly aware that planning and preparation for disaster is needed.
- j) the participants appreciate the sometimes conflicting priorities as to quality and quantity of water supply, between the technical water utility and the health department.

METHODOLOGY

The co-ordinators of the exercise distribute the roles among the participants. The simulation is basically developed for 12 participants in two separate groups, but if necessary, roles can be taken out. (e.g. construction foreman, public health inspector). If roles are taken out, this only requires a minor modification of some messages, while it does not affect the simulation process.

Participants, who are selected to serve as messengers or observers, should be properly instructed before the start of the exercise. The exercise covers the first days after hurricane Goliath struck the little Caribbean island St. Theodore, which days are put into a 5 hour exercise, which however, can easily be transformed into a 7 hour exercise, if the organizers so wish. The participants should realize, that the simulation exercise does not comply with normal classroom hours, so that they should be warned to be prepared for an awkward time. No breaks will be provided, although one cup of coffee may be served. At the start of the exercise, each participant will be placed with his face to the wall of the room. Only after meetings will be convened by the Minister of Health and Water Manager (after 40 minutes) the participants receive an invitation and may turn around and sit at the table in the middle of the room. The electrical engineer, who is dealing with international communication, keeps a separate position in the Ministry's room. The first 40 minutes incommunicado, during which the participants will be given personal information and St. Theodore background data but almost no additional information, serves a two fold purpose. First, it is an attempt to simulate the long haunting period

METHODOLOGY Con't.

between the onset of a disaster and before the first actual meeting, during which time, one usually knows only of one's miserable experience. Second, that long period of loneliness and lack of information is designed to make the participants uncomfortable, irritable and predisposed to accepting widely exaggerated rumours when these begin to arrive. This can be increased by making use of sounds, lights going on and out, dependent on the locality.

The co-ordinators/observers will not answer questions of participants during this period.

Name cards showing the function of the participants should be put on the table.

When the meeting is taking shape, information flows to the participants by the distribution of messages, according to the schedule attached. However, it is herewith emphasized that this schedule is not rigid. Instructors should feel free to discard it and to develop their own.

This is even especially beneficial to the later stages of the simulation, when feed-back to action taken by the participants will enhance the reality of the exercise enormously. Furthermore, the decision making in the groups will depend on the availability of baseline information (e.g. the resources and responsibilities of the roles in normal circumstances), which might not be covered in the data provided initially and should be provided on request by the co-ordinators/observers. This requires active participation and much creativity of these resource persons. Messages can also be presented by acting out the content instead of just passing the note to a group member.

The co-ordinator/observer can use the role of the Prime Minister to introduce any change he wishes. It can be used to pull individuals out of the exercise temporarily, ostensibly because they are required for an urgent meeting elsewhere. This can disrupt the patterns of leadership that might have been emerging. or the Prime Minister can demand the submission of status reports, draft replies to cables, a statement of how a particular problem is to be approached, etc. Used judiciously, this role can give considerable direction to a group which might have difficulties.

If the rooms are equipped with a telephone, this facility can be used to simulate overseas offers of assistance or to query the lack of reply to such an offer. It is possible to create tension by using the generator to keep the party waiting for some time and cultivate some degree of frustration by feigning that the connection was a poor one and the respondent should shout his answers. It will be clear, that the larger the personal input of the co-ordinator/observer will be, the more thorough his/her preparation should be and the higher his/her creativity.

METHODOLOGY Con't.

The interaction between the two groups will be stimulated via messages, but it will be left to the groups what kind of interaction will be organized (combination of the groups, assigned messenger, etc).

The main functions of the co-ordinators are the following:-

- 1) Over all co-ordination of the action: the co-ordinators have the main responsibility for all aspects of the running of the exercise.
- 2) Preparation of rooms:
 - a) evening before the exercise
 - inspect the condition of the rooms
 - verify the number of chairs and tables, name cards
 - arrange for the provision of sufficient paper, pens, flip chart.
 - check the material to be distributed
 - verify the list of participants.
 - b) half an hour before the exercise:
 - check if all participants and assistant resource persons are present.
 - indicate to all that the exercise will start exactly at the fixed hour
- 3) Instruction of Participants: the proper instruction of those participants, who will act as observers/messengers requires special attention. The role playing participants should be told, that they:
 - should stay in the room unless their role requires otherwise.
 - should comply with the techniques of the exercise during the exercise.
 - should forget about personal affairs (business calls, etc) during the exercise and take the role seriously.
- 4) Distribute of roles: the distribution of roles can be determined according to the preference of the co-ordinators. It might be advised not to give a role to somebody who has the same in reality.
- 5) Provision of information:
 - a. prepared messages, including baseline data on personal experience and the country at the beginning of the exercise.
 - b. additional background data on the resources/personal position of the role in normal circumstances (to be invented adhoc); on request and if found appropriate.
 - c. feedback, when decisions are made within a group or action - taken by them (response to messages from the group, additional messages to help or confuse a group, etc).

METHODOLOGY Con't.

- 6) Intervention in the action: in order to change leadership patterns or to adjust the process within the group the co-ordinator(s) may assume the role of the Prime Minister.
- 7) Observation and analyzation: everything that occurs has to be observed and analyzed to be able to evaluate the simulation afterwards and direct the discussions with the participants on their discussions and opinions.

NOTE: All the above mentioned responsibilities can be shared with observers or assistant co-ordinators.

The main role of the observer(s) is to observe. He/she should make records of decisions taken (by whom, at what time, which), of the handling of problems, features of group dynamics. These records are to be used during the evaluation of the exercise and can also be utilized when a specific topic is discussed during the further proceedings of the workshop. Furthermore, the observer(s) can assist the co-ordinator(s) by relaying information on the group process and by co-operating with the feedback to the participants. This function can best be performed when there is a second observer in each room.

Towards the end of the exercise, the "Prime Minister" usually requests that proposals be put in writing.

At the end of the simulation, one can allow the participants an hour and a half for lunch and then return for a debriefing or one can go directly into the debrief.

ST. THEODORE SIMULATION EXERCISE

b. EVALUATION

In the evaluation of the first try out of simulation exercise as held during the workshop, the participants and the co-ordinators concluded that the exercise only partly met the objectives, as formulated in the instructor's guide. The main reason for this was the absence of a continuous stress situation, partly because of local circumstances:

- too many observers, too little experienced co-ordinators
- absence of external time-pressure like can be created by a "real" time indicating-time pressure device
- unfamiliarity among participants with playing of roles in general and roles of high level policy makers in particular (which implied an absence of "natural leadership")

Partly because of the methodology:

- irrealities, such as combined meetings between Ministry of Health and Water Authority, participation of a Minister in technical meetings
- no formal requirements to discuss messages/information aloud in the group

Positive aspects were:

- the comprehensive available or imagined background information enabled successful feed-back, involving the observers
- the necessity of planning and data recording were acknowledged by the participants after the exercise
- (technical) problems encountered in a disaster were adequately covered