

R E V I S E D   E N V I R O N M E N T A L   H E A L T H  
Emergency Operations Plan- British Virgin Islands- 1984

1. Introduction

Promptly and properly instituted environmental health measures are fundamental to the preservation of health and well-being in a disaster-stricken area.

The British Virgin Islands, like most Caribbean territories, are prone to disasters of hurricanes, floods and earthquakes; all of which can cause considerable loss of lives, damage to property and disruption of essential health services.

The British Virgin Islands experienced damage to property during Hurricane Donna (1960) through flooding and high winds. Another experience, though less traumatic was recorded during Hurricanes David and Frederick which struck the Caribbean in 1979.

2. Anticipated Effects on Environmental Health Services

<u>Water Supply:</u>	damage to structures, broken mains, contamination, etc.
<u>Sewage Disposal:</u>	damage to main, flooded septic tanks, manholes, flooded pit latrines
<u>Solid Wastes Handling:</u>	transportation failures, equipment shortages, personnel shortages
<u>Food Handling:</u>	transportation failures, power outages - spoilage, flooding of facilities, contamination/degradation of relief supplies
<u>Vector Control:</u>	proliferation of breeding site, increase in human vector contacts, disruption of Control Programs
<u>Home Sanitation:</u>	destruction or damage to structures, possible contamination of water and food. disruption of

Emergency Response Service

After a hurricane the following persons will comprise the environmental health team for conducting/initiating control measures. At least two (2) members of the team on each island will be needed to make a significant impact.

Personnel	Designation	Address & Tel. No.	Disaster Responsibility
A. George	Senior Public Health Inspector	Baughers Bay 42870	Will lead emergency operations under direction of Chief Medical Off
F. Penn	Public Health Inspector	Fat Hogs Bay 52516	Assist head of team with special responsibility for inspection of foods and epidemiological work.
J. Mercer	Public Health Assistant	Baughers Bay	Direct garbage collection vehicles under direction of Senior Public Health Inspector.
S. Connor	Public Health Assistant	Purcell Est.	Assist in premises inspection.
A. Rubaine	Foreman	Lower Estate 42290	Assist Public Health Team as directed.
<b>O U T I S L A N D S</b>			
V. Stevens	Supervisor	Valley - Virgin Gorda	Organise basic emergency measures in co-operation with Chairman District Committee
M. Flax	Chairman - District Committee	Valley - Virgin Gorda 55445/55335	Dissimination of disaster information, advises National Emergency Committee, monitor post disaster damages, etc.
R. George	Chairman - District Committee	North Sound 55310	Same as above
I. Smith	Chairman - District Committee	Anegada 43449	Same as above
A. Chinnary	Chairman - District Committee	Jost Van Dyke 43450	Same as above
D. Benson	Chairman - District Committee	Peter Island 42561	Same as above
C. Smith	Chairman - District Committee	Salt Island 43490	Same as above

Response Actions

A: 1. Pre-Disaster Warning Period

The Senior Public Health Inspector will collaborate with the Health Educator to ensure that the population is informed concerning emergency sanitation measures over radio station Z.B.V.I. e.g. boiling all drinking water, sterilising with household clorox, personal hygiene; eating of tinned foods,

2. All vehicles - (trucks, landrovers) belonging to the Environmental Health Division will be parked in the open area at the entrance of Government House, for easy mobilisation.
3. Alerting all potential persons to be engaged in emergency disaster measures.

B:

Post-Disaster Measures

- 1.1 As soon as practicable, after the disaster all available environmental health personnel on Tortola will head for the Command Station at Peebles Hospital to await orders. The Senior Public Health Inspector or deputy will lead the environmental health team but, except situation dictate otherwise, will work closely with Community Nursing Team on community visits for the purpose of giving on the spot advice to householders.
- 1.2. The Senior Public Health Inspector will also seek to contact Chairman of out-island District Committees, if need be. As soon as practicable thereafter technical assistance will be given in organizing emergency relief measures.
- 1.3 Based on anticipated effects cited earlier, the following strategy will be used in respect of the identified programme areas:
  - Water Supply  
Close collaboration will be maintained with the Water & Sewage Engineer to correct any system deficiency and ensure adequate chlorination of the piped water supply, (not less than 0.2 ppm residual).

- A house inspection team will advise householders to boil all drinking water or otherwise purify same by the use of household clorox.
- Sewage Disposal  
Close collaboration will also be maintained with the water & Sewage Engineer to ensure that all damaged sewer lines are repaired to avoid contamination of water, prevalence of flies, etc. Assistance will be given householders to empty overflowing septic tanks and pit latrines. Temporary pit latrines, trench latrines will be built in disaster areas and shelters where facilities might have been destroyed.
- Solid Wastes Collection  
Immediate action will be taken to ensure the the collection of Solid Wastes in the disaster area(s) by burning or burying or reactivation of municipal collection service.
- Vector Control Measures  
Essential vector control measures will be instituted as early as possible to reduce increase in vector breeding.
  - (i) Mosquito Control workers will treat cisterns with Abate 1% sand granules. Standing water will be sprayed with Diesel oil.
  - (ii) Overturning receptacles during house visitations.
  - (iii) As far as practicable flooded areas will be drained.
  - (iv) Information will be given to the public on measures to eliminate breeding places.

#### Food Handling Sanitation

The following Environmental Health measures/to be considered for reducing or eliminating the risks of food-borne diseases:

1. Solicitation of co-operation of food retailers not to sell damaged foods.
2. Foods intended for shelters will be checked for fitness by Environmental Health personnel.
3. Foods supplied by official agencies and voluntary relief societies will also be inspected.

4. Advice will be given to the general public on what foods are safe for consumption and methods of preparation.
5. Sorting of foods in local shops, supermarkets, etc.

  
A. George,

Senior Public Health Inspector.

D R A F T

NATIONAL HEALTH DISASTER PREPAREDNESS PLAN

FOR

ST. VINCENT AND THE GRENADINES

PUBLIC HEALTH EXCERPTS

Prepared by The Ministry of Health  
July, 1983

## Introduction

A plan of action is desirable in order to co-ordinate and operate disaster relief services, since any disaster will make it necessary to work from a plan to ensure the delivery of the services using a well worked-out and methodical approach to minimize the incidences of injuries, disease and loss of life and property.

A National Disaster Relief Plan is of greatest importance especially in a country like ours so prone to a multiplicity of natural and man-made disasters, viz; hurricanes, floods, mass-fire, air transport disasters, sea transport disasters and sea pollution.

The occurrences of these disasters will therefore necessitate a rapid mobilisation of health services, resources and personnel to effectively cope with the consequences of these disasters.

The health services are primarily effected in the immediate emergency phase and the post-disaster period, and this creates additional pressures on this essential service. A plan is most crucial.

A Disaster Plan within the Health Services will be critical to the smooth operation of disaster relief activity in ensuring the safety, health and welfare of disaster victims, and the entire population.

The Government has designated the following tasks to the Health Services:

- (1) Sanitation
- (2) Water Supply
- (3) Immunization
- (4) Medical aid
- (5) Health Surveillance
- (6) Health Supervision
- (7) Public Health Education

## Emergency Legislation

Legislation has been enacted to deal with aspects of Disaster Relief, viz.:

- (1) National Disaster (Relief) Ordinance No. 13 of 1947.
- (2) Emergency Powers (Hurricane, Earthquake, Fire, Flood or any natural disaster) Ordinance No. 5 of 1967.
- (3) Emergency Powers (Hurricane, Earthquake, Fire, Flood and any natural disaster) (Amendment) No. 24 of 1968.

S.R.O.            of  
S.R.O.            of

A Disaster Handbook published by the government, outlines parts of the legislative measures and their implementation during disasters and other emergencies..

The main act was introduced 36 years ago, and other subsequent legislation is scattered. They deal mainly with the exercise of emergency powers to be used during disasters.

It appears that Disaster Legislation is not modified and perhaps a new approach should be made to one (1) Central Emergency Relief Organisation Manual, 1980 to have all disaster-related laws compiled into a single statute, and be disseminated on a regular basis.

### Sectoral Plan (as part of National Plan)

The Health Plan is one of the Sectoral Plans of the overall National Disaster Plan. The Health Sector Plan addresses itself to the health component in the exercise of disaster relief actions. It covers all aspects of the health services, and its rapid implementation is crucial to the effective management of disasters.

### Role of the Sectoral Plan

The purpose of the Health Sectoral Plan is to organise the mobilisation of Health resources and personnel to ensure a safe and healthy environment during the immediate emergency phase of any disaster.

### Linkages with National Plan

The Health Component in National Disaster Relief is perhaps the most important to the efficient and timely management of disasters. This component is linked to the National Level through the Health Disaster Co-ordinator, who is the Permanent Secretary of Health.

The Health Disaster Co-ordinator shall be responsible for the co-ordination of all health services at the pre-disaster stage, in the Emergency Phase and the post-disaster period. He shall be a member of the National Emergency Relief Organisation and its Committee. He shall liaise with the Central Committee and report back to the Disaster Preparedness Committee for Health, and the Health Command Centre with policy directives and authorisations from the government.

The Health Services at District Level will be co-ordinated by the District Medical Officers and District Nurses under the direction and supervision of the Senior Medical Officer.

In the exercise of his duties, he shall seek the technical advice of the Senior Medical Officer, the Medical Officer of Health and the Public Health Superintendent.

The health resources within his portfolio include medical stores, medical aids, public health and sanitation services, hospitals, district clinics, health centres, epidemiology services and primary health care services.

Health Sub-Plans together constitute Health Disaster Plan

- (1) Hospital Plan forms part of the overall Health Sectoral Plan and will assist in the organised management of hospital facilities and personnel during the emergency phase.
- (2) Public Health Sub-Plan - The Object of the Public Health Sub-Plan is to highlight the specialised services and activities of the Public Health and Sanitation Department during a disaster. Disease surveillance is crucial to the preservation of health standards at camps and disaster sites ensuring a secure environment.
- (3) District Health Plan is also another sub-plan within the overall Health Plan. Health-related resources during disasters are methodically organised to dispense health services to disaster victims at emergency centres at the District level.

### Conclusion

The successful implementation of the Health Disaster Management Plan will depend on the following factors:

- (1) The awareness of all health personnel of the Plan.
- (2) Continuing education in related aspects of disaster preparedness and relief.
- (3) The convening of seminars and workshops by related health services as often as possible.
- (4) Simulation and practice exercises in the use of the Plan.
- (5) Assessment and evaluation of the Plan as a useful mechanism in disaster management.

### National Operation Centre

Personnel - Permanent Secretary  
Co-ordinator - Assistant Secretary

### Functions

- (1) On declaration of a hurricane watch or other possible disaster, call a meeting of the Health Action Committee for Disaster Relief.
- (2) Consults the Senior Medical Officer to take charge of the Command Centre.
- (3) Keeps the Government and Central Emergency Committee informed concerning the emergency health situation.
- (4) Liaison with the Senior Medical Officer to decide what requests for assistance shall be sent to international agencies.
- (5) Ensures that all requests for assistance and health relief measures are channelled through the officer in charge of the Command Centre.
- (6) The Assistant Secretary shall work in close collaboration with the Permanent Secretary and document all incoming information received.
- (7) To relay and keep other centres informed of decisions made by the Permanent Secretary.

### Action Plan for the Disaster Preparedness Committee for Health

Chairman            - Permanent Secretary

Vice Chairman      - Senior Medical Officer

Members            - Manager W.A.S.A., Public Health Superintendent, M.O.H., Medical Superintendent Hospital, Senior Technicians Lab. and X-ray, Principal Nursing Officer, Senior Nursing Officer - Hospital and Community Health, Health Educator, Medical Store-Keeper, Family Planning Administrator and also Assistant Secretary and Nutrition Officer.

- (1) The Committee will meet in January each year to review and update guidelines for health for disaster preparedness and relief with particular reference to hurricanes and volcanic eruptions.

- (2) The Committee should meet again in April to ensure that all necessary preparations have been made for the onset of the hurricane season. Dates should be set by the Committee for meetings as frequently as felt necessary throughout the hurricane months ahead.
- (3) The Committee should maintain constant contact with the Central Emergency Relief Organization and the Emergency Operation Centres.

#### Functions of the Disaster Preparedness Committee for Health

- (1) To mount a public education programme for disaster preparedness.
- (2) To appoint members of the Health Action Committee for Disaster Relief.
- (3) To ensure that the roles of members of Health Action Committee are clearly defined and known by all members concerned.
- (4) To ensure that District Health and Hospital Disaster Committees have clear and well defined plans with which they are clearly and fully familiar.
- (5) To ensure that practice Disaster Preparedness and Relief drills are implemented on a regular basis.
- (6) To prepare and circulate to members of both the disaster preparedness committee for health and the health action committee for disaster relief, a list of telephones and addresses of all key persons within the Ministry. This is to be constantly reviewed, so that it is always currently correct.
- (7) To prepare and circulate to the members of both committees, names, addresses and telephone numbers of Medical Officers in charge, District Nurses, Nursing Officers and Medical Officer of Health and Superintendent of Public Health.
- (8) To prepare information regarding the location, telephone number etc. of private and voluntary health organisations and institutions in St. Vincent and the Grenadines.
- (9) To prepare and issue necessary directives and circulars especially those concerned with hurricanes and volcanic eruption preparedness to the responsible health personnel throughout the state.

- (10) To ensure that the required supplies of drugs, medical sundries and kits are available for nationwide distribution.
- (11) To ensure that methods of communication and emergency lighting systems are in place and in working order. Particular attention should be paid to radio, telephones, flashlights and storm lanterns.
- (12) To prepare a list of transport by April, which could be made available for emergency use in the event of a disaster.
- (13) To maintain a state of readiness at all times for disaster in the Health Sector.
- (14) To ensure that the health plan for Disaster Preparedness and Relief is in harmony with, and forms a part of the Central Emergency Relief Organisation.
- (15) Other personnel who are on sub-committees should:-
  - (a) know their function.
  - (b) be notified that in the event of a disaster, they should be on stand-by and report to their centres.

### Health Command Centre

#### Personnel

Senior Medical Officer and Medical Officer of Health,  
Principal Nursing Officer, Senior Nursing Officer - Community,  
Executive Officer and Secretary.

#### Function

When the Permanent Secretary states that a disaster for Health has occurred, he will give instructions for the establishment of a Command Centre in the Ministry of Health. He will state room for the location of the Command Centre and arranges for the installation of direct telephone lines and other ancillary supplies.

### Method of Work

The Senior Medical Officer will be responsible for:

- (a) Supplies of medical stores.
- (b) Arranging daily visits by Medical Officer to evacuation camps.
- (c) All medical attention required.
- (d) Making provision for temporary privy accommodation and environmental sanitation.
- (e) Approving requests for the acceptance or rejection of offers of international assistance for health.
- (f) Advising Medical Officer of Health to liaison with the Red Cross and other voluntary groups.
- (g) Public Health Officer to keep disease surveillance daily report forms and return same to Medical Officer of Health.

### Disaster Plan for the Health Districts

St. Vincent and the Grenadines is divided into nine (9) Health Districts, but has twenty-one (21) assigned District Emergency Relief Committees. Each Health District will have a District Disaster Health Committee, which will be under the direct control of the Health Command Centre.

### Membership of the District Committee

The following resource personnel would be utilized:

#### Medical and Health

- 1. District Medical Officers/Chairmen.
- 2. Family Nurse Practitioners.
- 3. District Nurses, Health Aids and Nursing Assistants.
- 4. Hospital Nurses and Staff.
- 5. Public Health Inspectors.
- 6. Dispensers.
- 7. Public Health Nurses.

Where there is no District Medical Officer, the Family Nurse Practitioner shall be Chairperson, or alternatively the P.H.N.

Non-Medical

8. Teachers.
9. Police Officers.
10. Community Development Workers.
11. Agricultural Officers.
12. Religious Leaders
13. Red Cross Officers.
14. Scouts.
15. Electricity Department.
16. Other Voluntary Groups.
17. Representative of Water Authority in the Area.
18. Maintenance Personnel, e.g. carpenters, plumbers.
19. Chairman can co-opt. persons whenever the need arises.

At the time of preparation for a disaster the District Health Committee will set up a District Operations Centre.

Aims of the District Health Committee

- (1) To prevent and minimise injury, disease and loss of life.
- (2) To assist in seeking adequate transportation for drugs, supplies and the injured.
- (3) To ensure that food and shelter are readily supplied.
- (4) To ensure proper and satisfactory sanitary facilities.
- (5) To provide suitable dust bins and arrange for the disposal of refuse.
- (6) To assist in the rehabilitation of evacuees.
- (7) To work with the District Emergency Relief Committee in the identification of suitable shelters.
- (8) To co-ordinate with the District Emergency Relief Committee to ensure that adequate space is provided in the various areas to hold evacuees.
- (9) Promoting disaster preparedness among the Community.
- (10) To organise first-aid training for Community members.

## Responsibilities of Committee Members

- (1) D.N.O., F.N.P., Chairman/Co-ordinator responsible to the S.M.O./M.O.H. at the Command Centre
  - Responsible for determining the quantity and type of drugs required.
  - Must co-ordinate in collaboration with the District Nurses, the activities of the District Committee.

N.B. This is the pre-disaster period.
- (2) P.H.I. - Health Education, Water and Sanitation.
- (3) Dispensers - drugs, equipment and transportation of the necessary medical supplies.
  - Liaise with the District Emergency Relief Committee for provision of transportation for drugs and the injured.
- (4) Nurse in charge Hospital, Clinic and Health Staff - First-aid, Intensive Care Measures and referring all seriously injured persons to the General Hospital in the absence of the doctor, responsible for education and distribution of Family Planning Methods.
- (5) Red Cross for provision of utensils, linens, etc. to evacuees. Preparation of food.
- (6) Scouts - carrying messages.
- (7) Teachers - can be used as volunteers by the Red Cross to assist with the preparation of food etc.
- (8) Community Development - cots, mats, assist in preparing list for the number of shelters. Responsible for record keeping, i.e. the number of persons, names and addresses, also assisting in the location of displaced persons.
- (9) Agricultural Officers - to assist in any way requested by the team.
- (10) Police and Auxilliary - security and transportation (in addition to medical department vehicles).
- (11) Religious Leaders - spiritual and moral support, counselling, organising self help leadership among the evacuees.

During the pre-disaster phase it is the responsibility of the Committee to ensure:

- that each person is aware of duties and responsibilities.
- that there is an up-dated list of names and addresses of persons on the Committee. Each person should inform the Committee if he/she is leaving the area or country, so that arrangements can be made for his/her replacement.

#### Method of Work

#### Preparedness for the Hurricane Season

Before the start of the Hurricane Season, between April and June, the District Disaster Health Committees shall meet at specified times to ensure:

1. that each member of the Committee knows the details of the District Disaster Plan;
2. that all Health Centres/Clinics are properly equipped and stocked;
3. that buildings identified as shelters are known and have adequate sanitary facilities and water supply, and are structurally safe;
4. that the arrangements for the provision of food, clothing, transportation and communications are understood;
5. that education programmes to prepare the community are carried out; and
6. that Community members are trained in emergency first-aid.

#### First Warning

The Chairman shall:

1. Contact Committee Members to report at a pre-arranged meeting place.
2. Remind Committee Members of responsibilities.
3. Check available non-medical supplies (specify).

4. Check on shelters for readiness.
5. Contact Health Centres to verify the quantity and type of supplies available.
6. Review communication strategy.
7. Assign Committee Members to individual shelters.
8. Inform relatives with shut-ins who occupy dwellings that are deemed unsafe, of shelters to be taken in event of Final Warning.

#### Final Warning

1. Committee Members to report to shelters assigned to.
2. Committee Members in collaboration with camp co-ordinators must see to it that records are made. (No. of people, names, addresses, quantity of food and other supplies needed).
3. Ensure that proper means of communication and transportation are available.
4. Leave available space for Registration and Casualties.

#### Immediate Pre-disaster

1. Counter check the security of the building (make sure that persons mentioned on Records are within).

#### Immediate Post-disaster

1. Check for Casualties and deal with them accordingly.
2. Communicate with relatives and friends of the injured or dead.
3. Make sure that water supplies and food stored within are not contaminated. (Nursing mothers should be encouraged to breast feed babies.)
4. Get rid of all waste immediately.
5. Check for damages to shelter and take necessary actions.
6. Implement epidemiological surveillance system and be alert for contagious diseases.

7. Dead to be transported to the appropriate mortuary.
8. The District Medical Officer is responsible for liaising with the Police to waive the necessity for post-mortem examination on human bodies where death is clearly the result of the disaster.
9. The Police to be responsible for contacting next of kin for the removal of the bodies.
10. P.H.I. to ensure the removal of carcasses and burial of same in cases where owners can not be identified.
11. After all clear has been given by Central Committee encourage persons to return to their homes.

### Volcanic Eruption

In view of the nature of a volcanic eruption, most preliminary action taken during a hurricane watch should be employed. Due to the fact that the number of people to be evacuated and the areas affected will be already known, most of the problems will arise in the actual transportation and placing of those who are evacuated. The Committee should therefore pay particular attention to the following:

1. Removal of the sick, particularly the non-ambulant sick.
2. General Sanitation of Camps.
3. Daily Medical Care.
4. Preparation and distribution of Food.

At First Warning - take the same action as with Hurricane Warning.

### Evacuation Order

#### Medical Care and Removal of the Sick

1. At the time of Evacuation Order, Committee Members are to ensure that the identified shelters are safe and drugs are available.

2. Chairman to call Meeting and check supplies and send request to Headquarters for any additional supplies.
3. Ensure that Emergency Kit is at each shelter.
4. Ensure that drugs are relevant to the injuries that may be sustained, i.e. burns, respiratory disorders (adequate quantities to be available).
5. Arrange for the removal of drugs and other medical supplies from the danger areas.
6. The Committee must ensure that adequate transportation is available for the removal of the sick, utilizing not only the ambulance, but any other vehicles available.
7. Daily visits to be made by District Medical Officers to camps to take care of any medical problems.

#### General Sanitation of Camps

1. The Committee is responsible for the overall maintenance of cleanliness of the Camp.
2. The Public Health Inspector is to make regular inspection of the Camps' sanitary facilities and ensure that they are properly kept.
3. The Public Health Inspector must ensure that all waste are properly disposed of.
4. The Public Health Inspector in conjunction with the Water Authority representative on the Committee must make regular checks on the camp's water supply to ensure its safety.
5. Epidemiology surveillance system to be initiated,

#### Storage and Preparation of Food

1. The P.H.I. must advise the Camp's Coordinator on the storage and proper maintenance of food.
2. The Committee must ensure that the area where food is prepared is kept in a satisfactory condition at all times.
3. The D.M.O. must ensure that persons responsible for food preparation are medically fit.
4. The P.H.I. must make regular inspections of the kitchen and ensure that cleanliness is maintained at all times.

### Mass Casualties - District Level

Most serious casualties will only occur during the initial impact of any disaster and the numbers requiring treatment will therefore be known in the first few hours or two to three days. It is therefore important that trained personnel be available at the District Level at all times in order to determine:

1. The serious and not so serious casualties, which can be managed without additional assistance.
2. Those casualties which require hospital attention.

In the event of serious accidents, however, all health personnel working within the area must make themselves available at the Health Centre or Clinic within fifteen minutes and await instructions from the District Medical Officer.

Mass Casualties will include:

- (1) Road Traffic Accidents.
- (2) Air Disasters.
- (3) Sea Disasters.
- (4) Fires.
- (5) Floods.
- (6) Landslides.
- (7) Poisoning.
- (8) Earthquakes.

1. The plan for mass casualties will be initiated as soon as a warning is received at the Health Centre or Clinic.

2. The persons receiving such a message must immediately inform the District Medical Officer and the other medical personnel, who in turn will contact other Committee members in order to take the necessary action.

3. The District Medical Officer alerts the Health Command Centres and proceed to the disaster site with the Emergency Team.
4. The Police must ensure that the disaster area is cleared of unauthorised persons.
5. The Emergency Team will assess the extent of the casualties and treat and tag according to injury and arrange for the transportation of casualties to the Hospitals or Health Centres.
6. The District Nurse and her assistants must be responsible for the treatment of casualties sent to her Clinic.
7. The District Medical Officer must be responsible for requesting additional assistance from the Command Centre according to casualty assessment.
8. Accurate records on the scheduled forms must be made of all casualties and treatment given.
9. In the case of the dead, these will be sent to the mortuary or a pre-arranged place for identification.
10. The Red Cross in collaboration with the police will be responsible for tracing and contacting next of kin.

#### Public Health Plan

#### Water Plan - Pre-disaster Precautionary Measure

A survey of all public water supplies should be made, giving priority to drinking water distribution systems. In the event of the disruption of a water supply in any district, there is a supervisor from CWASA, who would be contacted, and whose

responsibility is to ensure a relatively safe and adequate potable water supply.

In case of heavy rains, or any other reasons such water supply is likely to accumulate foreign matters. The care-taker in charge will close all inlets immediately, and switch-over to a stand-by supply. Meanwhile, the closed supply will be treated with chlorine. Water purification tablets will also be made available and distributed by P.H.I. to ensure safe drinking water.

In the case where a stand-by supply tank is not available, supplies of drinking water will be provided by trucking under supervision of CWSA and PWD.

### Sanitation Plan

All faecal matter and liquid waste must be disposed of properly. Therefore, the need for adequate and suitable sanitary toilet facilities must be constructed at all centres with consideration ~~caused~~ by observing proper health practices.

A supply of tetanus toxoid should be available to treat casualties who are not immunized.

Also, persons not previously immunized against D.P.T. and Polio should be given the opportunity to do so.

### Vector Control

Vectors are very good vehicles of transporting diseases and/or infections as gastro, leptospirosis and typhoid. Therefore, care must be taken of proper storage and handling of all foods, also proper disposal of garbage.

Controlling vector borne diseases, priority should be given especially where such diseases are known to be prevalent.

The public should be informed of measures to take to eliminate breeding places:

- (a) Reduce overgrowth around houses
- (b) Burn all discarded motor car tyres
- (c) Bury all empty cans, coconut shells, or any other receptacle capable of holding water.
- (d) Finally, rigid environmental sanitary practices and personal hygiene are acceptable measures.

A daily inspection of all camps would be made by the Public Health Inspector, and a report submitted to the Public Health Superintendent

As far as refuse collection and disposal is concerned suitable bins should be provided at all centres. Evacuees must be educated as to the reasons for the proper collection and disposal of garbage. Burning and burying where possible must be encouraged. Obviously, this method will greatly reduce the fly, cock-roach and rat population. The Co-ordinator of the camp and members of the staff should encourage evacuees to participate in the cleaning of their surroundings.

In cases where central services are provided, the refuse will finally be disposed of by the Public Health Department. Temporary bathing, washing and cleaning facilities should be provided and personal hygiene encouraged,

### Epidemiology

Weekly reports are submitted to the Medical Officer of Health from the District Medical Officers. These reports reveal either communicable or any other diseases. Therefore, in the event of a disaster, the District Medical Officer and his team will know the diseases which are likely to occur in camps. Special attention will therefore be given to such areas as the dysenteries, e.g. gastroenteritis, typhoid, also leptospirosis and tetanus.

A daily disease surveillance report would be submitted by the District Medical Officer to the Medical Officer of Health.

Weekly Report for Environmental Sanitation  
Disaster Relief Camps/Centres

Name of Camp/Centre..... Location.....

Type of Building.....

State of Repair.....

Population - Adults

Males.....

Females.....

Children under 14

Males.....

Females.....

1. Water Supply

Adequacy

Quality

Regularity of flow

Liquid waste and excreta disposal

Type

Condition of structure

No. of sittings

Adequacy

Cleanliness

2. Food Handling Practices

Storage of food

Cooking Utensils

Type

No.

Adequacy

Condition of Kitchen

Evidence of Fly breeding

Evidence of Cockroaches

Evidence of Rats

3. Solid Waste Disposal

Method of Disposal

Type of Storage

Method of Collection

.....  
Name of Reporter

.....  
Signature

Basic Items for an Evacuee Camp

Water

Food

Garbage cans

Pails, buckets, basins

Disinfectant, soap

Toilet paper

Blankets

Cots

Brooms, Mops

First Aid Kit (complete)

Flash lights, Batteries, Bulbs

Lanterns, Kerosene

Matches

Pots, Pans

Kitchen Utensils

Fuel, Stove, Charcoal

Coal-Pots

2 Cutlasses

1 Wheel barrow

2 rekes

2 Pick-axes, 2 Shovels

Baths and Toilets

Surveillance Forms

Pens and Paper

2 Hammers

Rope

Nails