



REPUBLIC OF THE PHILIPPINES  
DEPARTMENT OF PUBLIC WORKS AND HIGHWAYS  
OFFICE OF THE SECRETARY  
MANILA

April 20, 1988

DEPARTMENT ORDER

No. 36 *5/11*  
Series of 1988

SUBJECT: DPWH Calamities and Disaster  
Preparedness and Control Plan  
(CDPCP)

Furnished herewith for the information, reference and guidance of all concerned is the updated DPWH Calamities and Disaster Preparedness and Control Plan (CDPCP) including the following attachments, viz:

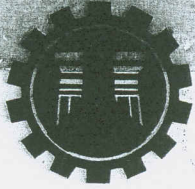
1. Organizational Chart - DPWH National Disaster Coordinating Body (NDCB)
2. Functions of DPWH NDCB and its Staff Elements
3. Organizational Chart - Typical DPWH Regional/District/City Disaster Coordinating Body
4. Disaster Team Functions
5. Communications Flow Chart
6. Standard Operating Procedures
  - SOP - 1 - Fire Prevention and Control
  - SOP - 2 - Typhoon and Flood Preparedness and Control
  - SOP - 3 - Volcanic Eruption, Earthquake and Tidal Preparedness and Control
  - SOP - 4 - Preparedness for Attack and Disorder
  - SOP - 5 - Disaster (Accident) Preparedness and Control

Wherefore the Regional/District/City Disaster Coordinating Bodies should now be organized and that the corresponding Regional/District/City Disaster Preparedness and Control Plans be prepared along the framework of the DPWH CDPCP, and immediately be made operational.

In this connection, it is further directed that the different Disaster Coordinating Bodies submit the following documents soonest to the Chairman, DPWH Disaster Coordinating Body, DPWH, Manila, viz:

1. Regional/District/City Disaster Preparedness and Control Plan and SOPs.
2. Organization of Regional/District/City Disaster Coordinating Body including composition of Disaster Teams (with Addresses and Phone Numbers of members).
3. Address and Phone Numbers of Disaster Operation Centers (Regional, District/City).

*J. Nery Ferrer*  
J. NERY FERRER  
Secretary



REPUBLIC OF THE PHILIPPINES  
DEPARTMENT OF PUBLIC WORKS AND HIGHWAYS  
OFFICE OF THE SECRETARY  
MANILA

DPWH CALAMITIES AND DISASTER PREPAREDNESS AND CONTROL PLAN (CDPCP)  
AND STANDARD OPERATING PROCEDURES

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1. GENERAL

- 1.1 The Philippines lies on the typhoon and earthquake belt of the Pacific, hence, it is often subjected to the destructive effects of typhoons, floods, earthquakes, volcanic eruptions and other calamities.
- 1.2 These Calamities and Disaster Preparedness and Control Plan (CDPCP) and Standard Operating Procedures (SOPs) will delineate the Department's Pre-Disaster, Emergency and Post Emergency functions to meet its assigned responsibilities

2. DPWH RESPONSIBILITIES

- 2.1 Restoration of damaged roads and bridges, and other public infrastructures such as flood control structure, waterworks, buildings, etc.
- 2.2 Provision of heavy and light equipment and personnel expertise as may be needed to assist Calamities and Disaster Coordinating Councils (National, Regional, Provincial, City and Municipal) on rescue, evacuation, relief, salvage and recovery and other disaster-related operations.

3. CONCEPT

- 3.1 This "Plan" embraces all conceivable contingencies making use of all available resources of this Department. It is functional and action-oriented, and envisioned to develop capabilities of various agencies in the Department and their respective staffs and action teams in coping with disasters.
- 3.2 Whenever exigent, agencies under the Department will tap the skills and resources of the private sector, in this case, those involved in the construction industry to enhance their capabilities on disaster preparedness and control.



#### 4. ORGANIZATION

##### 4.1 DPWH National Disaster Coordinating Body

4.1.1 This is the implementing arm of the Department in exercising direction and control over all emergency operations nationwide.

4.1.2 It shall maintain close coordination with the National Disaster Coordinating Council (NDCC) thru the Office of Civil Defense (OCD) and direct and implement support/assistance as may be required of DPWH.

4.1.3 It shall be composed by:

Undersecretary for Regional Operations,  
Construction, Equipment and Maintenance -- Chairman

Assistant Secretary for Internal Audit  
Service ----- Vice-Chairman

Assistant Secretary for Comptrollership  
and Financial Management Service ----- Member

Assistant Secretary for Administrative  
and Manpower Management Service ----- Member

Assistant Secretary for Monitoring and  
Information Service ----- Member

Assistant Secretary for Planning Service --- Member

Director, Bureau of Construction ----- Member

Director, Bureau of Design ----- Member

Director, Bureau of Equipment ----- Member

Director, Bureau of Research and Standards - Member

Director, Bureau of Maintenance ----- Member and  
Executive Officer

Assistant Director, Bureau of Maintenance -- Assistant  
Executive Officer  
and Chief of the  
Operations Center

The Executive Officer and the Assistant Executive Officer  
shall be DPWH Representative and alternate Representative  
to the NDCC, respectively.

- 4.1.4 The body shall be directly responsible to the Secretary and shall advise him in the status of the preparedness program, disaster operations and rehabilitation effort of the Department.
- 4.1.5 The body shall utilize the offices and facilities of the conference room of the Bureau of Maintenance as "Disaster Operations Center" where disaster-related reports are received and through which its relevant instructions are disseminated.
  - 4.1.5.1 At the first sign or warning of typhoon or other calamity, the "Operation Center" shall be activated and placed on 24 hours operation until after the emergency.
  - 4.1.5.2 The Operations Center shall receive all situation reports on damages as well as requests from Disaster Coordinating Councils and other agencies for assistance.
  - 4.1.5.3 The situation reports to come from the Regional/District/City Coordinating Bodies will include among others:
    - 4.1.5.3.1 Type/nature, location (station limits) and extent of damages
    - 4.1.5.3.2 Where traffic is disrupted, possible detour routes
    - 4.1.5.3.3 What restoration activities are being done
    - 4.1.5.3.4 Estimated date for opening to traffic
    - 4.1.5.3.5 Rough estimate of costs of restoration
    - 4.1.5.3.6 Request and nature of assistance if warranted
  - 4.1.5.4 The Public Affairs Office of the Department will maintain a liaison with the Operations Center for effective dissemination of relevant information to the Media provided such releases to the Media are first cleared with the Office of the Secretary.
  - 4.1.5.5 The Operations Center operating during emergencies shall receive all telex, telegrams and phoned in disaster-related reports.
  - 4.1.5.6 After the emergency, the Regional and District/City Coordinating Bodies will submit the Regional



damage reports in the prescribed formats to the Secretary thru the Bureau of Maintenance.

#### 4.2 DPWH Regional Disaster Coordinating Body

- 4.2.1 This body shall prepare the Regional Disaster Preparedness Program and shall oversee its implementation by directing and monitoring all disaster operations and rehabilitation activities. It shall also be responsible for the preparation and submittal through fastest possible means of the needed reports on disaster operations, rehabilitation activities and situation reports on damages wrought by calamities and disaster.
- 4.2.2 It will coordinate with the Regional Disaster Coordinating Council and provide support/assistance as may be required of DPWH in the region.
- 4.2.3 The Regional Body shall be composed of the following:
  - Regional Director ----- Chairman
  - Assistant Regional Director for ---- Vice-Chairman  
Operation
  - Assistant Regional Director for ---- Member abd Executive  
Administration Officer and Representative  
to the Regional Disaster  
Coordinating Council
  - All Division Chiefs ----- Members
- 4.2.4 The body shall establish an Operations Center which will be the nerve center for directing disaster operations and of disaster-related communications and reports.
- 4.2.5 To carry out its functions, the body shall organize its Operational Staffs and Action Teams, viz:
  - 4.2.5.1 Administration and Communication Staff
  - 4.2.5.2 Transportation and Supply Staff
  - 4.2.5.3 Monitoring and Survey Team
  - 4.2.5.4 Rescue and Evaluation Team
  - 4.2.5.5 DPWH Assistance Team
  - 4.2.5.6 Fire Control and Technical Team
  - 4.2.5.7 Repair and Restoration Team

#### 4.3 DPWH District/City Disaster Coordinating Body

- 4.3.1 This body shall be responsible for the preparation of the District/City Disaster Preparedness Program, and shall oversee and direct the implementation of such program, the attendant disaster operations and rehabilitation activities. It shall prepare and submit thru fastest possible means the needed disaster-related reports to the Regional Coordinating Body.

4.3.2 It shall coordinate with the Provincial or City Disaster Coordinating Council and shall provide such support/assistance as may be required of DPWH in the District/City level.

4.3.3 The District/City Body shall be composed of the following:

District/City Engineer -----	Chairman
Assistant District/Assistant City Engineer -----	Vice-Chairman
All Section Chiefs -----	Members
Chief, Maintenance Section -----	Member, Executive Officer and Representative to the District/City Disaster Coordinating Council

4.3.4 The body shall establish an "Operations Center" which will be the nerve center for directing disaster operations and for disaster-related communications/reports.

4.3.5 To carry out its functions, the body shall organize its operational staff and action teams patterned after item 4.2.5.

5. TASK OF NATIONAL, REGIONAL AND DISTRICT/CITY DISASTER COORDINATING BODIES

5.1 PRE-DISASTER PHASE

- 5.1.1 Prepares plans, operating procedures
- 5.1.2 Organizes and train Action Teams
- 5.1.3 Establishes necessary communication links (maintains directory of personnel, agencies, private companies involved in the disaster operations) and make available communication facilities

5.2 EMERGENCY PHASE

- 5.2.1 Activates Operations Center including the Disaster Action Teams
- 5.2.2 Directs assistance/support as may be needed or required by the appropriate Disaster Coordinating Council, thru the proper action teams.

5.3 POST EMERGENCY PHASE

- 5.3.1 Surveys and make assessment of damages and render timely reports thru the DPWH National Disaster Coordinating Body to the Secretary.



- 5.3.2 Implements immediate restoration of damaged roads and bridges and other public infrastructures

## 6. COORDINATING INSTRUCTIONS

- 6.1 Vertical and lateral coordination will be undertaken by DPWH units in the national, regional and local level.
- 6.2 The Regional, District/City Disaster Coordinating Bodies including the tasked staffs and action teams will be organized in accordance with item 4.
- 6.3 Timely reports on disaster operations to include reports on extent, nature and location of damages with estimated costs of restoration should be submitted to the Secretary thru the DPWH National Disaster Coordinating Body.
- 6.4 All units shall maintain a Directory of Key Personnel (Names, Address, Telephone Numbers and their responsibilities on disaster operations).
- 6.5 During and immediately after disasters, the various DPWH Disaster Coordinating Bodies shall maintain the Disaster Operations Centers with adequate communication facilities, office supplies and personnel as necessary to receive information, transmit directives and monitor disaster operations, etc.

## 7. FUNDING AND LOGISTICS

- 7.1 Operating expenses of DPWH offices in the national, regional, district/city levels
- 7.2 Calamity Funds for restoration purposes
- 7.3 Other sources

## 8. EFFECTIVITY

- 8.1 Upon approval of the plan

## 9. ENCLOSURE

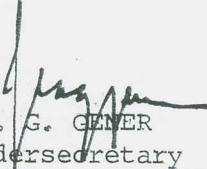
- 9.1 Organizational Charts - DPWH National Disaster Coordinating Body (NDCB)
- 9.2 Functions of DPWH NDCB and its staff elements
- 9.3 Organization Chart - Typical DPWH Regional, District/City Disaster Coordinating Body
- 9.4 Team Functions

9.5 Communications Flow Chart

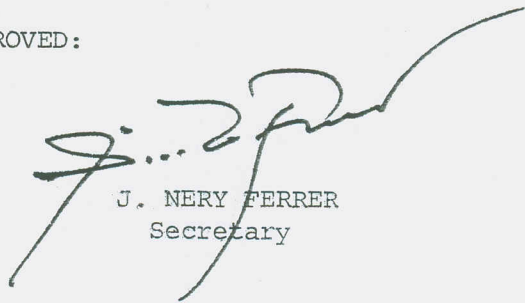
9.6 Standard Operating Procedures

- 9.6.1 SOP 1 - Fire Prevention and Control
- 9.6.2 SOP 2 - Typhoon and Flood Preparedness and Control
- 9.6.3 SOP 3 - Volcanic Eruption, Earthquake and Tidal Wave Preparedness and Control
- 9.6.4 SOP 4 - Preparedness for Attack and Disorders
- 9.6.5 SOP 5 - Disaster (Accident) Preparedness and Control

SUBMITTED BY:

  
T. G. GEMER  
Undersecretary

APPROVED:

  
J. NERY FERRER  
Secretary



FUNCTIONS OF DPWH NDCB  
AND STAFF ELEMENTS

1. DPWH NDCB
  - 1.1 Responsible to the Secretary for the overall disaster preparedness and control plan of DPWH and its effective implementation during actual disaster.
2. Administration and Supply Staff
  - 2.1 Provide the administrative supports (personnel acquisition, clerical, reporting, recording, financials, etc.) and supplies including equipment.
3. Communication Staff
  - 3.1 Provide networks in telephone, telegraph, radio system, courier and postal service for DPWH Disaster Preparedness and Control Units, and DPWH assistance to other Government Agencies and Disaster Coordinating Council.
4. Transportation Staff
  - 4.1 Provide transport assistance to DPWH Units and Councils/ Agencies that need assistance.
5. Action Teams
  - 5.1 See separate sheet for functions of action teams.

## TEAM FUNCTIONS

### 1. MONITORING AND SURVEY TEAM

- 1.1 Monitors impending disasters, and at the first sign of disaster, sound alarm to activate appropriate Teams.
- 1.2 Surveys damages to infrastructure and transmit relevant reports to DPWH Manila within 24 hours.
- 1.3 Monitors all emergency and post emergency activities of various Teams, particularly the Repair and Restoration Team, and prepare/submit corresponding reports.

### 2. RESCUE AND EVACUATION TEAM

When requested during emergencies by appropriate agencies thru the DPWH Coordination Body, shall assist in the:

- 2.1 Rescue operations in locating injured or trapped persons and moving them to places where they can be cared for.
- 2.2 Evacuation operations by providing available personnel and equipment to expedite controlled movement of evacuees.

### 3. DPWH ASSISTANCE TEAM

When requested thru the DPWH Coordinating Body by appropriate agencies during emergencies, shall assist in the:

- 3.1 Dismantling/demolitions of obstructions to rescue operations specially related to fire and earthquakes.
- 3.2 Relief operations of Red Cross/Social Services by providing vehicles and personnel.
- 3.3 Salvage and Recovery Operations in coordination with other agencies by providing vehicles and personnel.

### 4. FIRE CONTROL AND TECHNICAL TEAM

- 4.1 Controls fire in office building or assist in controlling fire in adjoining buildings.



- 4.2 Controls and maintain operation of essential utilities such as water and power supply. Also provides cooperation to technical experts in disarming explosive devices, minimizing the effects of both natural and man-made disasters through physical, chemical, biological and radiological counter or preventive measures.

5. RESTORATION AND REPAIR TEAM

- 5.1 Repairs and restore damaged roads, bridges and other public infrastructures within the area of jurisdiction.

FIRE PREVENTION AND CONTROL

1. GENERAL

Fire can start anywhere so that any agency or unit should be prepared to control it or even better to prevent it. Prevention or control of fire can be achieved by elimination of any of the elements of fire: either oxygen, heat or fuel. Since the presence of oxygen is difficult to control, then the most logical is to remove heat or fuel. Heat source such as matches, stove, electrical contacts, excessive friction, etc. should be properly handled. Fuel or any combustible materials should be kept away from the source of heat.

2. PURPOSE

To orient and guide DPWH personnel in the prevention and control of fire and how to minimize its effects in terms of casualties and damage to properties.

3. CONCEPT

All agencies under DPWH will organize their respective Fire Control Team and other Disaster Teams based on the DPWH Calamities and Disaster Preparedness and Control Plan (CDPCP), orient and train concerned personnel with team and group rehearsals until a certain degree of proficiency is attained for an effective prevention and control of fire.

4. ORGANIZATION

Same as the organization in the DPWH Calamities and Disaster Preparedness and Control Plan (CDPCP).

5. TASKS

Same as the functions of the Fire Control and Technical Team and other Disaster Teams in the CDPCP.



## 6. PROCEDURES

### BEFORE:

- a. DPWH Agency Head organizes Fire and Technical Team and other teams in accordance with the DPWH CDPCP.
- b. Evacuation Plan will be prepared for each separate building or facility.
- c. Concerned personnel will be briefed and oriented in their respective assignment, functions, procedures and evacuation plan. The information and education team will conduct public information and education drive on disaster preparedness and control.
- d. Rehearsals will be conducted until proficiency is attained and procedures are further improved.
- e. Hazardous portions of facilities, buildings, structures and areas will be pinpointed by the warning and survey team.
- f. The Repair and Restoration Team strengthen weak structures and portion of a building of facility and assistance from the regular maintenance and repair unit.

### DURING:

- a. Alarm is sounded by the Monitoring and Survey Team
- b. All team members take their respective positions and immediately act accordingly. After the alarm is sounded and most personnel notified, the team secure the building and its premises.
- c. Office personnel and critical equipments and records will be evacuated to the assigned assembly or evacuation point through the evacuation route as indicated in the building floor layout plan.

### AFTER:

- a. All clear signal is given.
- b. The various teams continue their functions until every life and property are given the proper attention and action.

- c. The DPWH Assistance Team together with the Rescue and Evacuation Team start performing their respective assignment.
- d. After all teams have completed their assignments, damage and casualty survey follows, then report is prepared with cost estimates. Contents of the report are as follows:
  - (1) Specific location and duration of the disaster
  - (2) Cause and source of disaster and the size of affected area
  - (3) Casualties and property damaged and destroyed
  - (4) Estimates of property damaged/destroyed and names of dead and injured persons
  - (5) Specific actions taken
  - (6) Recommendations
- e. Repair and Restoration Team repairs and restore to the maximum the previous condition of the facility, building, furniture, etc.

#### 7. INSTRUCTION

- a. Constant coordination and interaction of the Disaster Coordinating Body Unit with the other concerned agencies shall be maintained.
- b. Public and civic organization participation including the barangay members and school force shall be secured.
- c. Unit readiness for disaster shall be maintained.

#### 8. APPLICABILITY

All agencies under the direct control and supervision of DPWH.

#### 9. RESCISSION

All previous orders and instructions in conflict with this SOP is hereby rescinded.

#### 10. EFFECTIVITY

Upon approval of this SOP.

TYPHOON AND FLOOD PREPAREDNESS AND CONTROL

1. GENERAL

The Philippines is being frequently visited by typhoon which is normally followed by flood and erosion. All bring casualties and damages/destruction to properties, crops, vegetations, vital lands, infrastructures, etc.

Effort is being done by the government by prohibiting cutting of trees and planting of trees in the watershed areas, construction of dams and waterway protection, flood control and drainage system, and even in the rain making and typhoon moderation experiments.

2. PURPOSE

To orient and guide DPWH personnel in the preparedness and control against the destructive effects of typhoon, flood, erosion, etc., so as to minimize their effects and hasten relief, rehabilitation, recovery and restoration.

3. CONCEPT

All agencies under DPWH will organize their respective disaster teams based on the DPWH CDPCP, orient and train concerned personnel with team and group rehearsals until they are proficient in typhoon and flood preparedness and control.

4. ORGANIZATION

Same as the organization of teams under the Calamities and Disaster Preparedness and Control Plan of DPWH.

5. TASKS

Same as the functions of the various disaster teams under the DPWH CDPCP.



## 6. PROCEDURES

### BEFORE:

- a. Agency head organizes various disaster teams in accordance with DPWH CDPCH.
- b. Disaster Preparedness and Control Plan will be prepared for every Regional, District/City Office.
- c. Concerned personnel will be briefed and oriented in their respective assignment, functions, procedures and evacuation plan.
- d. Rehearsals will be conducted until proficiency is attained and procedures are improved.

### DURING:

- a. Upon receipt of weather information, operation centers of the various agencies will be on full alert with radio tuned-up to weather broadcast and in close communication contact with other DPWH Operation Centers and the Disaster Coordinating Councils concerned.
- b. As typhoon approaches and its presence is imminent, signal is given for every member of the local disaster teams to take position in accordance with their assignment. Evacuation Team and other teams assist other office personnel evacuate to high ground and secure vital equipment and supplies. The Repair and Restoration Team strengthen weak structural members and patch up possible sources of leaks.
- c. Monitoring and Survey Team as much as possible assess the situation during the emergency and render relevant reports thru the Operations Center to DPWH Operations Center.

### AFTER:

Same as in DPWH SOP 1

## 7. INSTRUCTIONS

Same as in DPWH SOP 1

8. APPLICABILITY

Same as in DPWH SOP 1

9. RESCISSION

Same as in DPWH SOP 1

10. EFFECTIVITY

Same as in DPWH SOP 1

PREPAREDNESS FOR ATTACK AND DISORDER

1. GENERAL

War and disorder can happen anytime and we do not want to be caught unaware. Preparedness is therefore a "must" for every personnel of DPWH particularly in terms of safety and security. For safety, protective shelter with some provisions (bottled/canned water, canned goods, first aid kits, etc.) is one basic requirement. For security, perimeter fence with lights and identification/control gate with security guard are necessary.

2. PURPOSE

To orient and guide DPWH personnel on what action to take before, during and after an attack or disorder.

3. CONCEPT

DPWH agencies will organize their respective disaster units as well as orient, inform and educate the personnel and the people in the immediate vicinity on preparedness and action to take before, during and after an attack (air and ground) or disorder. Team members will assist personnel and take appropriate action during and after an attack or disorder.

4. ORGANIZATION

Same as in DPWH SOP 1

5. TASKS

Same as in DPWH SOP 1



## 6. PROCEDURES

### BEFORE:

- a. The Disaster Coordinating Body will arrange with the proper technical agencies on the teaching and orientation of office personnel on how to act in case of an attack or disorder.
- b. An adequate shelter (may be the basement or first floor of a multi-storey building or a separate covered dugout for field office) will be constructed and then provided with emergency provisions (food, first aid kits, etc.).
- c. An evacuation or deployment plan will be prepared and set in proper location.

### DURING:

Same as in DPWH SOP 1 with the following addition:

- d. Area and buildings are secured by closing all gates and doors. Security personnel are deployed.

### AFTER:

Same as in DPWH SOP 1

## 7. INSTRUCTIONS

Same as in DPWH SOP 1

## 8. APPLICABILITY

Same as in DPWH SOP 1

## 9. RESCISSION

Same as in DPWH SOP 1

## 10. EFFECTIVITY

Same as in DPWH SOP 1

DISASTER (ACCIDENT) PREPAREDNESS AND CONTROL

1. GENERAL

Great disaster due to accident rarely happens. Now what do we do when this happens? Can this be predicted? This disastrous accident can be classified as Chemical, Biological, Radiological and Spatial (CBRS).

Chemical accidents are the action of chemicals including pollutants in the environment and human beings. Biological accidents are the action of living things against the environment and human beings such as epidemics, rat and locus pests. Radiological accidents are the action of radioactive materials giving off destructive thermal and gamma rays. Spatial accidents are caused by falling debris, meteors, ultraviolet rays and others from outer space.

2. PURPOSE

To orient and train personnel on how to minimize the effects of these kinds of accident.

3. CONCEPT

Same as in DPWH SOP 1

4. ORGANIZATION

Same as in DPWH SOP 1

5. TASKS

Same as in DPWH SOP 1

6. PROCEDURE

BEFORE:

Same as in DPWH SOP 1 with the following addition:

- h. Coordination and arrangement with proper technical agency for instruction and orientation of personnel on what to do in case of disastrous accidents.

DURING:

- a. Concerned teams assume their respective positions and initiate action.
- b. Close coordination with ground agencies is maintained.

AFTER:

Same as in DPWH SOP 1

7. INSTRUCTIONS

Same as in DPWH SOP 1

8. APPLICABILITY

Same as in DPWH SOP 1

9. RESCISSION

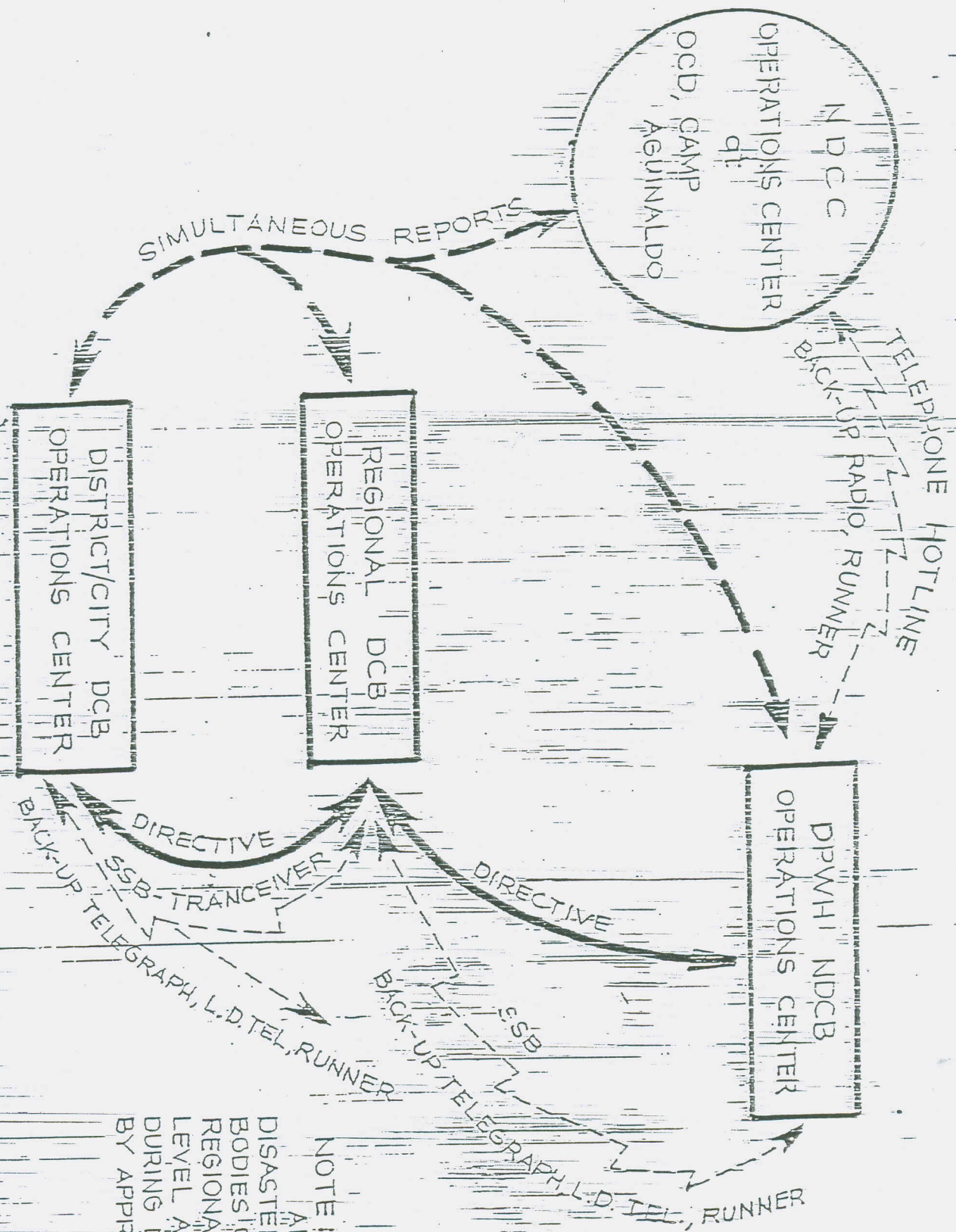
Same as in DPWH SOP 1

10. EFFECTIVITY

Same as in DPWH SOP 1



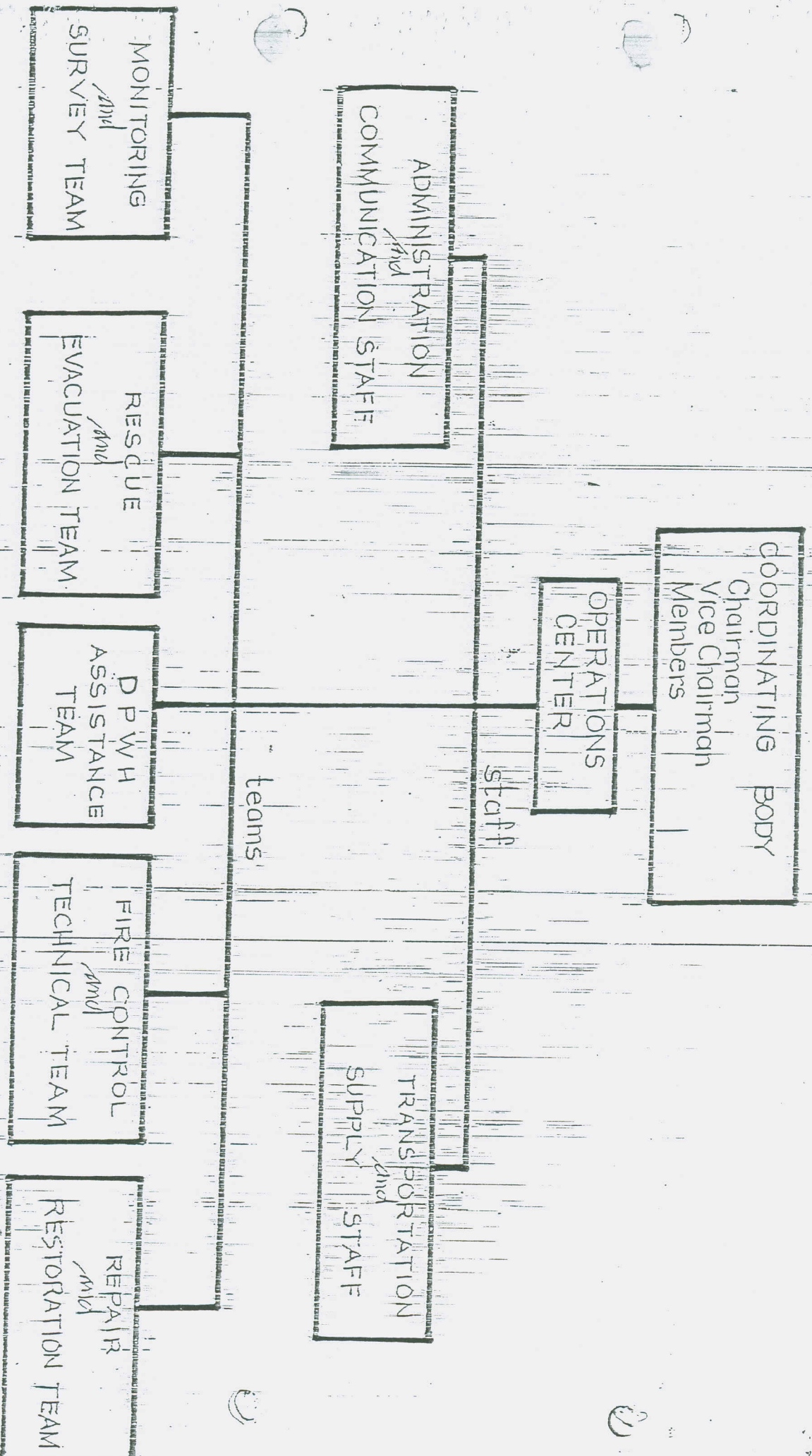
# COMMUNICATION FLOW CHART



NOTE:  
ALL DPWH  
DISASTER COORDINATING  
BODIES ON NATIONAL,  
REGIONAL, and DISTRICT/CITY  
LEVEL ACT SIMULTANEOUSLY  
DURING DISASTER GUIDED  
BY APPROVED PLAN, and SO

# ORGANIZATION

## TYPICAL DPWH REGIONAL/DISTRICT/CITY DISASTER COORDINATING BODY





# ORGANIZATION

## DPWH NATIONAL DISASTER COORDINATING BODY (NDCB)

NDCB  
Chairman  
Vice Chairman  
Members

advice

CIVIL DEFENSE  
OPERATION CENTER

DPWH  
OPERATION CENTER  
BUREAU OF MAINTENANCE

coordination

staff

ADMINISTRATION  
and supply

COMMUNICATION

TRANSPORTATION

ACTION TEAMS  
PER BUILDING  
OR COMPLEX