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The National Damage Assessment Plan

1.0 Introduction

Damage assessment can be described as an inspection/investigation into the damage of either a specific facility and/or a particular area, to aid disaster managers in deciding on the type and amount of assistance required to restore a sense of normality to the affected area. The result of this inspection is to be recorded and assessed at the National and/or Parish levels by the appropriate agencies.

The damage assessment exercise is critical to the country being able to restore all sectors to normality after a disaster, hence the need for the development and implementation of this plan.

Relationship to National Disaster Plan – the Damage Assessment Plan is a sub-plan of the National Disaster Plan. The authority, roles and standard procedures remain the same as outlined in the National Disaster Plan and the plan will be reviewed on an annual basis.

2.0 Authority

The ODPEM will be responsible for all preparedness, response and relief activities for the island as mandated under the Emergency Management Act (1993). The ODPEM will therefore facilitate the design and review of this plan.

3.0 Objectives of the National Damage Assessment Plan

The objectives of the Plan are to:
(i) Enable the rapid collection of information pertaining to the damage incurred after any disaster event.
(ii) Standardise the instruments used to record and report damage sustained after an event.
(iii) Guide the process of assessing, estimating and reporting the damage.
(iv) Define the time required to prepare detailed and accurate reports.
(v) Facilitate the quick recovery of lifeline\(^1\) facilities in a timely and orderly manner by assessing the magnitude of the damage incurred and identify priorities and resources required for resumption of normal operations.

\(^1\) Lifeline facilities include health facilities, bridges, roads, utilities, police stations and shelters.
4.0 Types of Damage Assessment Teams and Composition

4.1 Composition of the teams

A damage assessment team is a group of technical and professional persons who have been trained in the field of data collection as it relates to the varying needs of affected communities. The team should consist of persons who are able to recognise the varying types of damage. Special teams will be named as Damage Assessment Teams at National and Parish levels. After the disasters, either the NEOC or PEOC will dispatch them to the disaster site where the information will be collected. The teams will be responsible for data collection and evaluation.

There are a number of Damage Assessment Teams; the type and magnitude of the event will determine the team deployed. The teams are:

a) Rapid Damage Assessment Team
b) National Damage Assessment Team
c) Parish Damage Assessment Team

4.2 Rapid Damage Assessment Team (RDAT)

This team will conduct reconnaissance trips after all large-scale disaster events and operates only at the national level. It is to provide an assessment of the damage within the first 4-6 hours.

Roles and Responsibilities

a) Confirm the reported emergency and estimate the overall magnitude of the damage.
b) Identify, characterise and quantify populations at risk in the disaster.
c) Identify and classify type of damage.
d) Identify access routes and the levels of entry into the affected areas
e) Identify critical buildings, infrastructure/facilities.
f) The extent of the damage.
g) Existing and potential threats.

Composition of the team

The core team will consist of persons taken from the ODPEM, JDF, PWD and the JPS. The team will vary depending on the size of the reconnaissance helicopter available from the Jamaica Defence Force. The other agencies to be included are:

The Ministry of Health
The National Water Commission
Members of the Media

Ministry of Agriculture
Cable and Wireless
Jamaica Fire Brigade
The members of the core team are expected to be available at all times. In an emergency, the members of the core team are to contact the ODPEM, if they are not contacted within four hours after the event has occurred.

4.3 National Damage Assessment Team (NDAT)

This team is responsible for the collection of data pertaining to all major disasters within the island. The members of the National Damage Assessment Team are drawn from the National Damage Assessment, Recovery and Rehabilitation sub-committee. It will operate in close collaboration with the National Emergency Operation Centre. The Director of the National Damage Assessment Team will provide information to the Director of the National Emergency Operation Centre. The members of the team will carryout assessment independently of jointly, but each agency will report damage to the head to the Director of the NDAT at least once every 24 hours initially and then as required.

Roles and Responsibilities

The role of the national damage assessment team is to:

a) Continue detailed identification and quantifying populations at risk.

b) Help define and prioritise the actions and resources required to reduce immediate risks.

c) Identify the priorities of the affected people

d) Estimate the additional support required from local, national and international sources for relief and recovery.

e) Identification and documentation of existing resources.

Composition of the Team

The National Damage Assessment Team is taken from the National Damage Assessment Recovery, and Rehabilitation Sub-Committee. The team is responsible for all events affecting either the entire island or one (1) or more counties. The National Damage Assessment Team will operate in close collaboration with the NEOC. The members of this team are listed in table 1 – Part 2 - Operation. Each member of the team is expected to provide reports on the damage incurred to its facilities island as well as the damage observed.

4.4 Parish Damage Assessment Team (PDAT)

The Parish Damage Assessment Team is responsible for the collection of data pertaining to all major disaster events within the parish. The members of this team will also assist the National Damage Assessment Team whenever the need arises.

The Parish Damage Assessment Team will be a sub-committee of the Parish Disaster Committee. The Parish Damage Assessment Team (PDAT) will operate in close collaboration with the Parish Disaster Committee and the Parish Disaster Coordinator.
The role of the parish damage assessment team is to:
   a) Confirm the reported emergency and estimate the overall magnitude of the damage.
   b) Identify, characterise and quantify populations at risk in the disaster.
   c) Help define and prioritise the actions and resources to reduce immediate risks.
   d) Identify the priorities of the affected people.
   e) Estimate the additional support required from local, and national sources for relief and recovery.
   f) Identification and documentation of existing resources.

5.0 TRAINING

Damage assessment training is the responsibility of the individual organization and/or agencies. However, the ODPEM will be responsible for providing training for these instructors. This training exercise will be conducted twice per year and seeks to empower the participants in quantifying, classifying and evaluating damage.

Although the ODPEM will be responsible for conducting/scheduling training, the training manual will be a composite, with each member of the sub-committee contributing to the syllabus.

6.0 THE ASSESSMENT PROCESS

This is designed to assist the National Emergency Operations Centre and/or the Parish Emergency Operations Centre in its decision-making process. The assessment process is important because it helps to:
   - determine the impact of the event on the island;
   - determine the needs and priority areas for assistance;
   - identify the resources available and the development opportunities created, as shown in Figure 2.

The five components of the process are:
   a) Information, needs and resources identification
   b) Data gathering
   c) Data analysis
   d) Reporting
   e) Response
   f) Deactivation
Figure 1. THE ASSESSMENT PROCESS

Disaster Event

Activate the NEOC

Aerial reconnaissance - RDAT

Identification information, needs and resources. NDAT at the NEOC

Collect data Smaller teams/ground forces

Analyze and interpret

Report conclusions Chairman – NDAT to Director of the NEOC

Design/modify response NEOC

Chairman – NDAT to Director of the NEOC

Source: UNDP Damage Assessment Process
6.1 Information, Needs and Resources Identification
This is the first stage in the assessment process. It involves the recording of the emergency event, identification of the resources, which will be required based on the reports, anticipating the needs of the person in the affected areas and estimating the magnitude of the event.

6.2 Data Gathering
This stage is concerned with the confirmation of the reported event, identifying, characterizing and quantifying the populations at risk as a result of the disaster.

6.3 Data Analysis and Interpretation
Stage 3 focuses on the analysis of the data collected to:
   a) define and prioritize the actions and resources needed to reduce suffering and deaths;
   b) identify the existing local and functional response capacity;
   c) anticipate future immediate problems.
   This involves the use of the GIS systems and/or any other such analytical programmes.

6.4 Reporting
Stage 4 of the process relates to the information analyzed in stage 3. The results of the analysis will be sent to the relevant response agencies for their immediate attention.

6.5 Response
This is the final stage of the assessment process and it entails the enforcement of the pre-designed disaster response plans. This stage is also concerned with the re-designing or modification of existing plans as the situation deteriorates or improves.

6.6 Deactivation
On deactivation of the NEOC the DARR sub-committee of the NDC will assume the functions of the NDAT. The DARR sub-committee will guide the rehabilitation and recovery process according to the Recovery and Rehabilitation Sub-plan of the National Disaster Plan.

7.0 Reporting Procedures

7.1 Damage Assessment Reports
For each type of assessment there are three different types of reports, which are listed in the table 7.1 below. Each assessment report requires its own individual form. These forms are essential to the Emergency Relief and Short –term restoration (4 hrs. – 7 days) period.

These instruments are designed to assess:
   i. Life threatening situations by the provision of search and rescue;
ii. The need for emergency food, water, shelter, medicine and medical assistance;

iii. The restoration of critical facilities and services, and

iv. The removal of debris and the restoration of basic utilities.

| Table 7.1 Types of Assessment Reports for Emergency Relief and Short-term Restoration |
|---------------------------------|---------------------------------|---------------------------------------------------------------|
| **Type of assessment**           | **Time Period**                 | **Purpose**                                                   |
| Local Situation Report          | 12-24 hours after the disaster has occurred | To provide information on overall damages and casualties needs to allocate critical supplies in the first 72 hours after a disaster |
| Parish Situation Report         | 12-24 hours after disaster occurs | To summarize data on overall damages and casualties by parish. |
| National Damage Assessment Report | 1-7 days after disaster          | Updates information reported on Situation reports and provides more details on damages in order to continue the allocation of emergency resources |

8.0 Notification

The ODPEM will notify the National Disaster Committee and the Parish Disaster Coordinator of impending hazards as follows:

a) In the event of a hurricane 48-24 hours before impact.

b) In cases of flooding, immediately.

c) For landslides, immediately.

d) After a major fire, immediately.

e) After a major earthquake as soon as possible (time frame should not exceed a 4 hour limit).

Appendix 1 shows the structure and relationship of the National Disaster Executive, the National Damage Assessment, Recovery and Rehabilitation Committee and the National Emergency Operations Center (NEOC).

9.0 Activation

The Director General of ODPEM in conjunction with the Chairman and/or the Vice-Chairman of the National Disaster Committee (NDC) will activate the plan, either partially or fully based on the following:

i) once either one or more Parish Disaster Response Mechanisms have been overwhelmed.

ii) the receipt of/or absence of any Situation Reports.
iii) the number of calls received from affected residents will also help to decide if the plan is to be activated.

Sequence of Events leading to Activation of the National Damage Assessment Teams

Sequence of Events leading to Activation of the Parish Damage Assessment Teams

9.1 Call out Procedure

A. Disasters with a long warning period e.g. hurricanes, drought and epidemics.

The Director of the NEOC will notify the Chairman of the National Damage Assessment Recovery and Rehabilitation Sub-Committee. The Chairman will then call out the National Damage Assessment Team, who will report to the NEOC.
B. Disasters with no warning period e.g. earthquakes, flooding and landslides.

The Office of Disaster Preparedness and Emergency Management, the Public Works Department, the Jamaica Public Service and any other specially named agency; will identify persons to serve on the Rapid Damage Assessment Team. These persons will contact the NEOC based on the notification procedures listed above. If the communication linkage with the NEOC is severed, then these persons are to report to the Jamaica Defence Force - Air Wing as soon as possible.

9.2 Dispatch of Team

Teams will be dispatched at the discretion of the Director of the NDAT, in consultation with team members, and may be dispatched either individually or jointly. Each team will be required to provide the Director of the NDAT with a copy of its itinerary (field assessment schedule) for the next day in order to allow for the optimum use of the resources available.

10.0 Communication

Damage Assessment Teams would proceed to damage sites with the necessary communication equipment. The team will use the communication facilities existing within the group/centre.
Figure 2. Communication Flow chart
Large Scale Disasters (Islandwide)

Small Scale Disasters (Parish Level)

11.0 Reporting Relationships

The diagram below is a graphic representation of the teams responsible for collecting and preparing damage assessment reports.
Reporting Relationships for Large scale Events

1. **Islandwide** – 2 Counties (8 parishes and more)

   OR
2. **REGION** – 2 or more parishes, but less than 2 Counties

Reporting Procedure for Small Scale Events

1. PDAT → PDC → RC → ODPEM

OR

2. PDC → ODPEM
12.0 Deactivation

The Director of the NDAT, who will be operating from the NEOC, will in conjunction with the Director of the NEOC (or the Director General – ODPEM) decide when to deactivate the teams. If the NEOC is deactivated before the damage assessment process is completed then the field teams will report to their local headquarters. These reports will then be sent to the Director of the National Damage Assessment, Recovery and Rehabilitation Sub-committee. The diagram below shows the expected communication flow.

Field Teams → Organization HQ → Chairman – DARR → ODPEM

13.0 Agencies and their Responsibilities

Table 13.1 below lists the members of the National Damage Assessment Team and the role and responsibilities of these agencies.

<table>
<thead>
<tr>
<th>Agency</th>
<th>Roles and Responsibilities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jamaica Institute of Engineers</td>
<td>To provide report on structural damage to buildings and to make decisions on the extent of structure integrity to critical facilities.</td>
</tr>
<tr>
<td>Utility Companies</td>
<td>To provide report on the extent of damage incurred to the utilities sector and estimated time for repair of damage facilities.</td>
</tr>
<tr>
<td>Jamaica Constabulary Force</td>
<td>To maintain law and order; to provide security for Damage Assessment Team in areas prone to violence; to provide reports of alternative routes where possible; to provide initial reports of damage as well as general situation reports and information on the damage sustained to all JCF facilities.</td>
</tr>
<tr>
<td>Ministry of Agriculture</td>
<td>To identify and record the extent of damage to agricultural crops, holdings and industries</td>
</tr>
<tr>
<td>Ministry of Local Government and Community Development</td>
<td>To ensure the activation of PEOC and coordination of all activities at Parish Level.</td>
</tr>
<tr>
<td>Jamaica Fire Brigade</td>
<td>To provide qualitative and quantative analysis of the situation, to provide hazmat and search and rescue reports.</td>
</tr>
<tr>
<td>Ministry of Health –</td>
<td>To identify pending medical outbreaks/potential medical emergencies and on the damage sustained to all health facilities. This should include all medical storage facilities.</td>
</tr>
</tbody>
</table>

Source: ODPEM
| Ministry of Transport and Works – | To identify the most affected areas, prioritize areas for the deployment of relief and welfare workers and to identify sites for the establishment of welfare registration centres. To provide report on infrastructural damage and to government facilities. |
| Ministry of Education and Culture | Identify shelter, suitability of building for schools and shelter |
| Mines and Geology Division | To provide geological information about high risk areas |
| STATIN | To provide field personnel to assist in data collection and to provide reports. |
| Ministry of Labour, Social Security and Sports. | To identify the extent of the damage and record the vulnerable communities affected. |
| Planning Institute of Jamaica | To coordinate the development of sectoral recovery and rehabilitation plans |
| Water Resources Authority | To provide information on state of underground water facilities |
| Meteorological Service | To collect data on rainfall amount and intensity, to monitor and provide information on weather conditions hereby-enabling smoother damage assessment process. |
| The Port Authority | To assess the damage done to port facilities. |
| Jamaica Defence Force | To provide reconnaissance service |
| Earthquake Unit | To monitor and provide information on the intensity, magnitude, epicentre and depth of all earthquake tremors |
| Airport Authority | To provide information on the status of the airports |
| NEPA | |
| Ministry of Housing and Water - | To monitor and provide information on housing stock across the island. |
| Building Societies Association of Jamaica/JAGIC | To provide information on status of Housing Stock |

Source: ODPEM
14.0 Activities according to Phases of Disaster Management

The activities for the damage assessment team was divided into two set according to the phases of the disaster management system. The two phases that are applicable to the damage assessment are Preparedness and Response. The tables below highlights the activity associated with the phase and the agencies responsible for performing these activities. The agencies are listed in order of priority, that is those with the primary responsibilities are listed first (1), secondary agencies are next (2) and support agencies are last (3).

Table 14.1 Preparedness activities associated with the Damage Assessment Process

<table>
<thead>
<tr>
<th>ACTIVITY</th>
<th>AGENCIES RESPONSIBLE</th>
</tr>
</thead>
<tbody>
<tr>
<td>a) Recording the emergency event</td>
<td>(1) Met. Service / Earthquake Unit / WRA. (2) ODPEM</td>
</tr>
<tr>
<td>Acquire the equipment required to</td>
<td></td>
</tr>
<tr>
<td>record the data.</td>
<td></td>
</tr>
<tr>
<td>Install and/or upgrade equipment</td>
<td></td>
</tr>
<tr>
<td>b) Identification of resources for</td>
<td>(1) NDAT (2) ODPEM</td>
</tr>
<tr>
<td>conducting damage assessments in the</td>
<td></td>
</tr>
<tr>
<td>field</td>
<td></td>
</tr>
<tr>
<td>c) Anticipating the needs of the population</td>
<td>(1) MOH / MLSS / STATIN. (2) MOA. (3) ODPEM / WRA / Mines &amp; Geology Division  (1) NDAT / RDAT. (2) ODPEM / Met. Service / Earthquake Unit / MOH</td>
</tr>
<tr>
<td>most vulnerable</td>
<td></td>
</tr>
<tr>
<td>d) Estimating the magnitude of the event</td>
<td>(1) NDAT / ODPEM</td>
</tr>
<tr>
<td>i.) Training</td>
<td></td>
</tr>
<tr>
<td>ii) Conduction of simulation exercise</td>
<td></td>
</tr>
<tr>
<td>Data Gathering</td>
<td>(1) NDAT / ODPEM</td>
</tr>
<tr>
<td>a) Characterizing vulnerable population</td>
<td>(1) MOH / MOA (2) STATIN / PDC. (3) ODPEM</td>
</tr>
<tr>
<td>b) Quantifying vulnerable population</td>
<td>(1) STATIN. (2) MOH / MOA / PDC. (3) ODPEM</td>
</tr>
<tr>
<td>Define and prioritize (actions) resources</td>
<td>(1) NDAT. (2) ODPEM</td>
</tr>
<tr>
<td>a) Identify the location of existing</td>
<td>(1) NDAT / ODPEM</td>
</tr>
<tr>
<td>functional resources locally</td>
<td></td>
</tr>
<tr>
<td>b) Identify potential problem areas</td>
<td>(1) NDAT /ODPEM. (2) MOH / MOA</td>
</tr>
<tr>
<td>Reporting</td>
<td>a) 1. NDAT / ODPEM</td>
</tr>
<tr>
<td>a) Review damage assessment forms</td>
<td>b) 1. NDAT / ODPEM</td>
</tr>
<tr>
<td>b) Conduct training sessions in their usage</td>
<td></td>
</tr>
<tr>
<td>Response</td>
<td>(1) NDAT / ODPEM</td>
</tr>
<tr>
<td>a) Test time required by the teams to get</td>
<td>(1) NDAT / ODPEM</td>
</tr>
<tr>
<td>activated and operating in the field</td>
<td></td>
</tr>
<tr>
<td>b) Test time required to file a properly</td>
<td>(1) NDAT / ODPEM</td>
</tr>
<tr>
<td>completed damage assessment form</td>
<td></td>
</tr>
</tbody>
</table>
Table 14.2 Response activities associated with the Damage Assessment Process

<table>
<thead>
<tr>
<th>ACTIVITY</th>
<th>AGENCIES RESPONSIBLE</th>
</tr>
</thead>
<tbody>
<tr>
<td>a) Record event</td>
<td>(1) Met. Service / Earthquake Unit. (2) ODPEM</td>
</tr>
<tr>
<td>b) Identify (collect) resources</td>
<td>(1) NDAT / PDAT (2) ODPEM / PDC</td>
</tr>
<tr>
<td>a) Anticipate needs of affected areas</td>
<td>(1) MOH / MOA / MLSS. (2) ODPEM / PDC</td>
</tr>
<tr>
<td>b) Estimate magnitude of event</td>
<td>(1) Met. Service/ Earthquake Unit / RDAT. (2) PDC</td>
</tr>
<tr>
<td>a) Confirm the event</td>
<td>(1) Met Service / Earthquake Unit/ RDAT</td>
</tr>
<tr>
<td>b) Identify, characterize affected population</td>
<td>(1) RDAT / MOH / MOA / PDC. (2)MLSS</td>
</tr>
<tr>
<td>c) Quantify affected population</td>
<td>(1) MLSS / PDC / STATIN</td>
</tr>
<tr>
<td>a) Define and prioritise resources</td>
<td>(1) NDAT / ODPEM</td>
</tr>
<tr>
<td>b) Identify existing local resources</td>
<td>(1) NDAT / OPDEM / PDC (2) MTW</td>
</tr>
<tr>
<td>c) Identify problem areas</td>
<td>(1) JCF / JIE / MTW. (2) Earthquake Unit / MOA / MOH. (3) ODPEM / PDC / NDAT</td>
</tr>
<tr>
<td>Reporting</td>
<td></td>
</tr>
<tr>
<td>a) Report for the NDC</td>
<td>(1) Director General – ODPEM. (2) Director – NDAT</td>
</tr>
<tr>
<td>b) Report for the ODPEM</td>
<td>(1) Director – NDAT. (2) Individual agencies headquarters</td>
</tr>
<tr>
<td>c) Report for the PDC</td>
<td>(1) PDAT</td>
</tr>
</tbody>
</table>

Source: ODPEM

**Key**

(1) Agencies with primary responsibility
(2) Agencies with secondary responsibility
(3) Agencies with support role.
Appendices

Appendix 1  Local Situation Report Form
Parish Situation Report Form
Damage Assessment Report Form
Form 1

**SITUATION REPORT**

EMERGENCY OPERATIONS CENTRE

<table>
<thead>
<tr>
<th>EVENT:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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</table>

<table>
<thead>
<tr>
<th>DATE OF EVENT:</th>
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<tbody>
<tr>
<td></td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>SITUATION REPORT NO.:</th>
</tr>
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</table>

<table>
<thead>
<tr>
<th>DATE:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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<table>
<thead>
<tr>
<th>TIME:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
</tbody>
</table>

**NATURE OF EVENT:**

**AREAS AFFECTED:**

**CASUALTIES:**

**ACTIONS TAKEN:**

**NEEDS ASSESSMENT:**

**WELFARE/RELIEF:**
DAMAGE:

1. CRITICAL FACILITIES

a) Hospitals/Health Centres:

b) Police Stations:

c) Fire Stations

d) Electricity:

e) Emergency Shelters

f) Water:

2. INFRASTRUCTURE

a) Roads

b) Bridges

c) Retaining Walls/River Training Works.

3. BUILDINGS

a) Public Buildings

b) Ports/Airports

c) Private/Commercial

d) Houses
4. **AGRICULTURE**
   
a) Crops/Livestock/Fisheries

5. **TOURISM/COMMERCE/INDUSTRY**

6. **OTHERS**

RESOURCES NEEDED:

ACTION TO BE TAKEN:

Contact:
E-Mail:
FAX#: 
**Damage Assessment Report – Form 2**

This report is to be completed within 2-7 days after the disaster has struck. This will be a detailed report containing updated information on damages to houses, roads, bridges, public utilities and private enterprises. The information gathered will be compiled in order:

a) To assist the ODPEM and the National Disaster Committee in determining the magnitude of damage and estimating resources needed to recover from the disaster.

b) To assist the ODPEM and the National Disaster Committee in coordinating the allocation of additional resources to respond to the disaster or emergency and to begin short-term restoration of damaged facilities and disrupted services.

It will also be used to assist in the coordination and allocation of the available resources for the resumption and short-term repair to damaged facilities.

A detailed assessment of damages incurred requires sector specific knowledge and the knowledge of pre-disaster conditions. Damage assessment teams should have representatives from the affected areas, as well as representatives from the respective sectors.

For large-scale disasters the National Damages Assessment Team will be activated and this group will have the responsibility of collecting damage assessment information. In assessing disaster events of a smaller magnitude, that is, within a parish, the Parish Disaster Coordinator will have the primary responsibility for preparing the Damage Assessment report. The data collection, for this report will be the responsibility of the Parish's Damage Assessment committee. In cases where the event affects more than one parish, the Regional Coordinator is expected to submit the final damage assessment report. The respective Parish Disaster Coordinator should supply this information.

This form is to be complete as soon as possible using, the most accurate estimate available at the time of completion. It is to be used to report data for communities and or districts. In the event of large disasters information collected for each community/district is to be summarised and a total submitted for each parish. When the form is being used to submit a summary for a parish, a listing of all the towns involved is to be attached to the back of the form.
Form 2

DAMAGE ASSESSMENT OF CRITICAL BUILDINGS

Date ______________ Time ____________ Inspector ______________

A. BUILDING LOCATION

1. Address _______________________________________________________
2. Parish/Community _____________________________________________
3. Owner ________________________ Tel. No. _________________
4. Occupancy/Use

a. Public Buildings
   - Cinema
   - Church
   - Lecture Hall
   - Other (please state) _________________________________________

b. Institutional Buildings
   - Hospital
   - Infirmary
   - Other (state) _______________________________

b. Institutional Buildings
   - Prison
   - Orphanage

b. Commercial and Industrial Buildings
   - Power Station
   - Factory
   - Other (state) _____________________________________________

b. Commercial and Industrial Buildings
   - Warehouse
   - Aeroplane hangar
   - Commercial Laboratory

b. Commercial and Industrial Buildings
   - Market/Shop/Store
   - Radio/TV station

b. Commercial and Industrial Buildings
   - Civil Administration
   - Other (state) ____________________________

d. Office, Administrative and Retail Service Buildings
   - Banks
   - Civil Administration
   - Other (state) ____________________________

d. Office, Administrative and Retail Service Buildings
   - Office
   - Radio/TV station

b. Institutional Buildings
   - Other (state) ____________________________

e. Residential Buildings
   - Apartment
   - Dormitory
   - Hotel/Motel
   - Guest house
   - Private residence
   - Other (state) ____________________________

e. Residential Buildings
   - Halls of Residence
   - Tenement

e. Residential Buildings
   - Other (state) ____________________________

e. Residential Buildings
   - Private residence

f. Buildings used for storing and/or processing hazardous materials

Hazardous material(s) stored ______________________________________

Hazardous material(s) process ______________________________________
### B. DESCRIPTION OF BUILDINGS

**Type of Construction**

- [ ] Steel frame
- [ ] Bearing wall
- [ ] Reinforced concrete
- [ ] Wood frame
- [ ] Pre-cast concrete
- [ ] Block & steel masonry
- [ ] Brick masonry
- [ ] Wattle & daub
- [ ] Timber stud & hor. boarding
- [ ] Other (state) ___________________________________________________

**Number of Stories** _______________________________________________

**Typical Floor Area** _______________________________________________

**Total Building Area** _______________________________________________

**Type of foundation used**

- [ ] Striped   [ ] Assumed   [ ] Confirmed
- [ ] Pile      [ ] Assumed   [ ] Confirmed
- [ ] Pad       [ ] Assumed   [ ] Confirmed
- [ ] Raft      [ ] Assumed   [ ] Confirmed
- [ ] Other (state) __________________________________________________

### C. CONSTRUCTION

#### 1. Exterior Walls

- [ ] Wooden
- [ ] Nog
- [ ] Block & steel masonry
- [ ] Reinforced concrete
- [ ] Pre-cast concrete
- [ ] Other (state) __________________________________________________

#### 2. Roof

- [ ] Reinforced concrete slab
- [ ] Pre-cast concrete
- [ ] Steel Framing and sheeting
- [ ] Timber framing & sheeting
- [ ] Other (state) __________________________________________________

#### 3. Floors

- [ ] Pre-cast concrete
- [ ] Wooden
- [ ] Steel Deck
- [ ] Reinforced concrete slab
- [ ] Other (state) ____________________

Draft Damage Assessment Plan 24
4. **Interior Walls**

- Block & steel masonry
- Brick masonry
- Wooden
- Reinforced concrete
- Pre-cast concrete
- Other (state) ________________________________

5. **Partitions**

- Glass
- Bagasse
- Wooden
- Gypsum Panel
- Other (state) ________________________________

6. **Stairs**

- Steel
- Wooden
- Reinforced concrete
- Other (state) ________________________________

**D. DAMAGE NOTED**

<table>
<thead>
<tr>
<th>ELEMENT</th>
<th>NONE</th>
<th>SLIGHT</th>
<th>MODERATE</th>
<th>SEVERE</th>
<th>TOTALLY DAMAGED</th>
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</thead>
<tbody>
<tr>
<td>Exterior walls</td>
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<tr>
<td>Frame general</td>
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<td>Frame members</td>
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<td>Frame connections</td>
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<tr>
<td>Roof</td>
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<tr>
<td>Floors</td>
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<td>Interior walls</td>
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<tr>
<td>Partitions</td>
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<td>Stairs</td>
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<td>Foundations</td>
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<tr>
<td>Falling Hazards</td>
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<tr>
<td>Mechanical Equipment</td>
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<td>Elevators</td>
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<tr>
<td>Glass</td>
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<tr>
<td>Plumbing</td>
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<td>Electrical</td>
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### E. DEGREE OF DAMAGE TO BUILDING

<table>
<thead>
<tr>
<th>Yes</th>
<th>No</th>
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</thead>
<tbody>
<tr>
<td>Minor – No Hazard</td>
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</tr>
<tr>
<td>Damaged</td>
<td>☐</td>
</tr>
<tr>
<td>Major Hazard</td>
<td>☐</td>
</tr>
<tr>
<td>Severe Hazard</td>
<td>☐</td>
</tr>
<tr>
<td>Safety jeopardised by unsafe adjacent building</td>
<td>☐</td>
</tr>
<tr>
<td>Building damaged by fire</td>
<td>☐</td>
</tr>
</tbody>
</table>

**Falling Hazards:**
- Boiler Ducts/Pipes | ☐   | ☐   |
- Fasade | ☐   | ☐   |
- Verandahs | ☐   | ☐   |
- Antennae | ☐   | ☐   |
- Elevated Water Tanks | ☐   | ☐   |
- Ornamentation | ☐   | ☐   |
- Light Fixtures | ☐   | ☐   |
- Ceilings | ☐   | ☐   |
- Air conditioning ducts & condensers | ☐   | ☐   |
- Cabinets | ☐   | ☐   |
- Transformers | ☐   | ☐   |

### F. SUMMARY OF STRUCTURAL DAMAGE

<table>
<thead>
<tr>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Minor</td>
<td>☐</td>
</tr>
<tr>
<td>Slight</td>
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</tr>
<tr>
<td>Moderate</td>
<td>☐</td>
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<tr>
<td>Severe</td>
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</table>

### G. SUMMARY OF NON-STRUCTURAL DAMAGE

<table>
<thead>
<tr>
<th>Yes</th>
<th>No</th>
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<tbody>
<tr>
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</tr>
<tr>
<td>Slight</td>
<td>☐</td>
</tr>
<tr>
<td>Moderate</td>
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<tr>
<td>Severe</td>
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### H. SOIL AND GEOLOGIC PROBLEMS

<table>
<thead>
<tr>
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<th>No</th>
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<tbody>
<tr>
<td>Settlement</td>
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<tr>
<td>Liquefaction</td>
<td>☐</td>
</tr>
<tr>
<td>Landslide</td>
<td>☐</td>
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<tr>
<td>Faults</td>
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<tr>
<td>Others (state)</td>
<td>______________________</td>
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### I. PHOTOGRAPHS

<table>
<thead>
<tr>
<th>Yes</th>
<th>No</th>
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<tbody>
<tr>
<td>Photographs taken</td>
<td>☐</td>
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</tbody>
</table>
No. of rolls/frames taken ________________________________

J. ESTIMATED COST OF DAMAGE

Building area ____________________________
Estimated building valuation ____________________________
Estimated percent damage ____________________________
Estimated valuation of damage ____________________________

K. RECOMMENDATIONS

Total Demolition of building □ Yes □ No
Shoring and Bracing
□ Not needed
□ Needed to protect building
□ Needed to protect adjacent building
□ Needed to protect public safety
Re-inspection required □ Yes □ No

Inspector’s signature: _______________________________________________
Prepared by _______________________________

Source: Ralph Field

DEFINITIONS

DESTROYED - means the item is a total loss or damage is to the extent that it is no longer usable and that, repairs are not technically or economically feasible

MAJOR DAMAGE - means the item is damaged to the extent that it is no longer usable.
or is usable under limited conditions or reduced levels of service and in either case it may be returned to service with extensive repairs.

MINOR DAMAGE - means the item is damaged but may either be used for the intended purpose, or may be restored to service with minimal repairs.
National Damage Assessment Report

This report is to be completed within 2-7 days following the disaster and is to be used only for critical facilities after the initial situation report has been submitted. It is to be completed by the respective sectors and/or essential services and sent to the NEOC/ODPEM.

The objective of this report is to help the NEOC/ODPEM in determining the basis for the allocation of the available manpower and equipment. It also serves as a guide to both the ODPEM and the NDE to the critical facility (facilities) requiring the most immediate assistance.

The completion of this report form requires technical expertise and henceforth it is to be completed by experts within the respective sectors. If the National Damage Assessment Team is activated, it will have the responsibility for collecting data on the repair needs of the critical facilities within the area(s) assigned. The nature and scale of the event would determine the composition of the team. If the parish damage assessment team is activated it's primary purpose will be to collect data on the critical facilities within the affected areas. Like the Rapid Damage Assessment Team, the composition will vary depending on the size and the nature of the event.

A separate form is to be completed for each critical facility/system. However, the following is to be specified as appropriate:
  
  a) Water Supply System – storage area and/or source.
  b) Electricity producing plants – type of power generating facility and size of transmission lines.
CRITICAL FACILITIES/SYSTEMS REPORT – FORM 3

Name of Facility: ____________________________________________________

Location of Facility: ________________________________________________

Type of Facility: ____________________________________________________

Parish &/or Region: _________________________________________________

Date: __________ Time: __________ Inspector: _________________________

<table>
<thead>
<tr>
<th>Location of Problem/ Damage</th>
<th>Description of Damage</th>
<th>Type &amp;/or Extent of Damage</th>
<th>Equipment</th>
<th>Personnel</th>
<th>Supplies</th>
<th>Repair Urgency</th>
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Prepared by ____________________________

Source: Ralph Field