



National Emergency Management Organization

Damage Assessment and Needs Analysis

INITIAL SITUATION ASSESSMENT REPORT



HURRICANE ERNESTO (Category 1- at Landfall)

As at 8TH AUGUST, 2012

BELIZE C.A.

Damage Assessment and Needs Analysis Committee

Initial Situation Assessment (ISA)

August 8th 2012

The Preliminary assessment of damages ideally should be undertaken within 4-8 hours after the all clear has been given. The assessment will be informed by one or all of the following;

- *An aerial reconnaissance done by national or regional teams*
- *District/Local surveys*
- *The application of pre-established baseline vulnerability database*

The objectives of this stage in the DANA process are to;

- *To obtain a general overview of the damage.*
- *Identify the initial needs of the impacted population including emergency response requirements*

From this stage a report will be generated on completion of the assessment. The damage and losses presented here reflect the available information, compiled during a brief period of time. This is not a final assessment of the damage and needs since it reflects information available at the time of the assessment.

This information is collected within 4-8 hours of the all clear and will therefore:

- *Provide a general overview of the extent and magnitude of the damage etc.*
- *Determine the need for a Disaster Declaration*
- *Provide information that would inform the responses of the International and Regional Donor Community*
- *Assist in determining the initial response to the event*
- *Help to determine the need for the second phase of the assessment process.*

Event Summary

Hurricane Ernesto with sustained winds of 85 MPH made landfall south of Mahahual, Quintana Roo, Mexico at approximately 9:15PM on Tuesday August 7th, 2012. At the time of landfall Hurricane Ernesto registered hurricane force winds extending up to 35 miles from the centre (**18.8N 86.2W**) and tropical storm force winds extending outwards up to 140 miles from the centre, with the strongest winds located within the NE quadrant of the system.

In preparation for landfall, some 592 individuals were recorded in the official shelters nationally and it is believed that numerous others, in vulnerable areas, voluntarily relocated inland to family and friends including 911 evacuees from Ambergris Caye and Caye Caulker. There are no casualties directly attributed to Hurricane Ernesto.

The path of Hurricane Ernesto directed north of the Belize/Mexico border resulting in the most significant impact to Belize's two most northern administrative districts of Corozal and Orange Walk with increased rainfall across the entire country. Approximately 180,000 individuals experienced varied effects of the passage of the outer bands of Hurricane Ernesto.

Ernesto's impact to infrastructure is reported as negligible in this initial report; however, assessments are ongoing. The Agricultural sector is believed to have suffered the greatest losses, with the initial assessment figures estimating BZ\$763,000 in direct losses, however further detailed assessments may result in an adjustment of this early estimate. The emergency management team remains vigilant in regards to possible secondary impacts to the agriculture and other sectors from flooding.

8-hour report

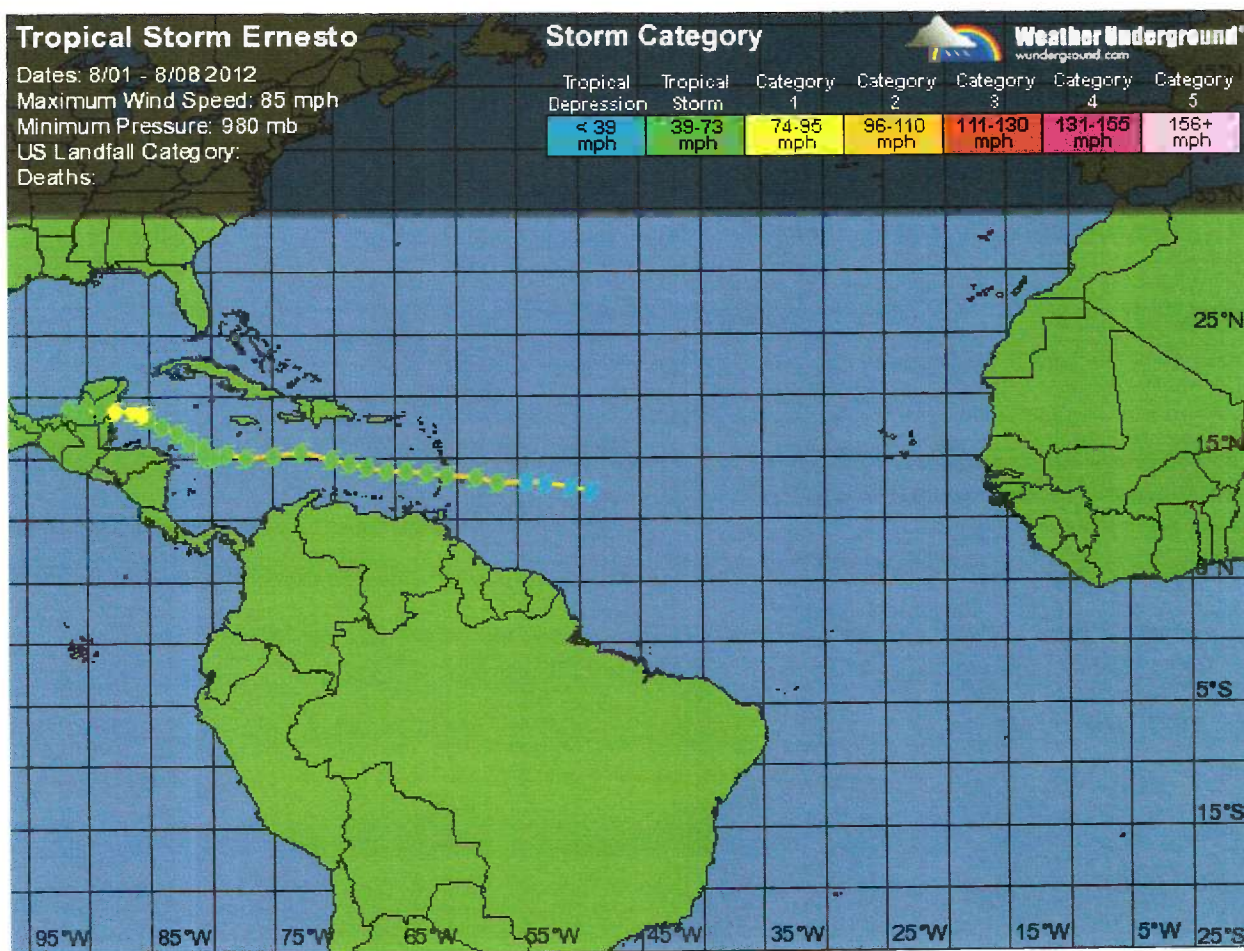
NATIONAL DISASTER SITUATION REPORT

8th August, 2012

A. SITUATION:

1. Nature of the Disaster

Hurricane Ernesto, the fifth named storm of the 2012 North Atlantic Basin Hurricane Season, evolved from a tropical depression five in the tropical Atlantic East of the Windward Islands on August 1st, 2012. The Tropical Depression which evolved into Hurricane Ernesto at approximately 2:00 pm on Tuesday, August 7th formed near latitude 18.5 North, 85.5 West.



Source: Weather Underground <http://www.wunderground.com>

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Hurricane Ernesto with sustained winds of 85 MPH made landfall south of Mahahual, Quintana Roo, Mexico at approximately 9:15PM on Tuesday August 7th, 2012. It was reported moving west north west at 15 MPH at approximately 3:00PM with hurricane force winds extending up to 35 miles from the centre (**18.8N 86.2W**) and tropical storm force winds extending outwards up to 140 miles from the centre, with the strongest winds located within the NE quadrant of the system.

The National Emergency Management Organization issued the ‘ALL CLEAR’ for the Southern part of the country from the Toledo District to Belize City at 6:00 am on Wednesday August 8, 2012 and at 9:45 am, the “ALL CLEAR” was given for the remaining areas of the country.

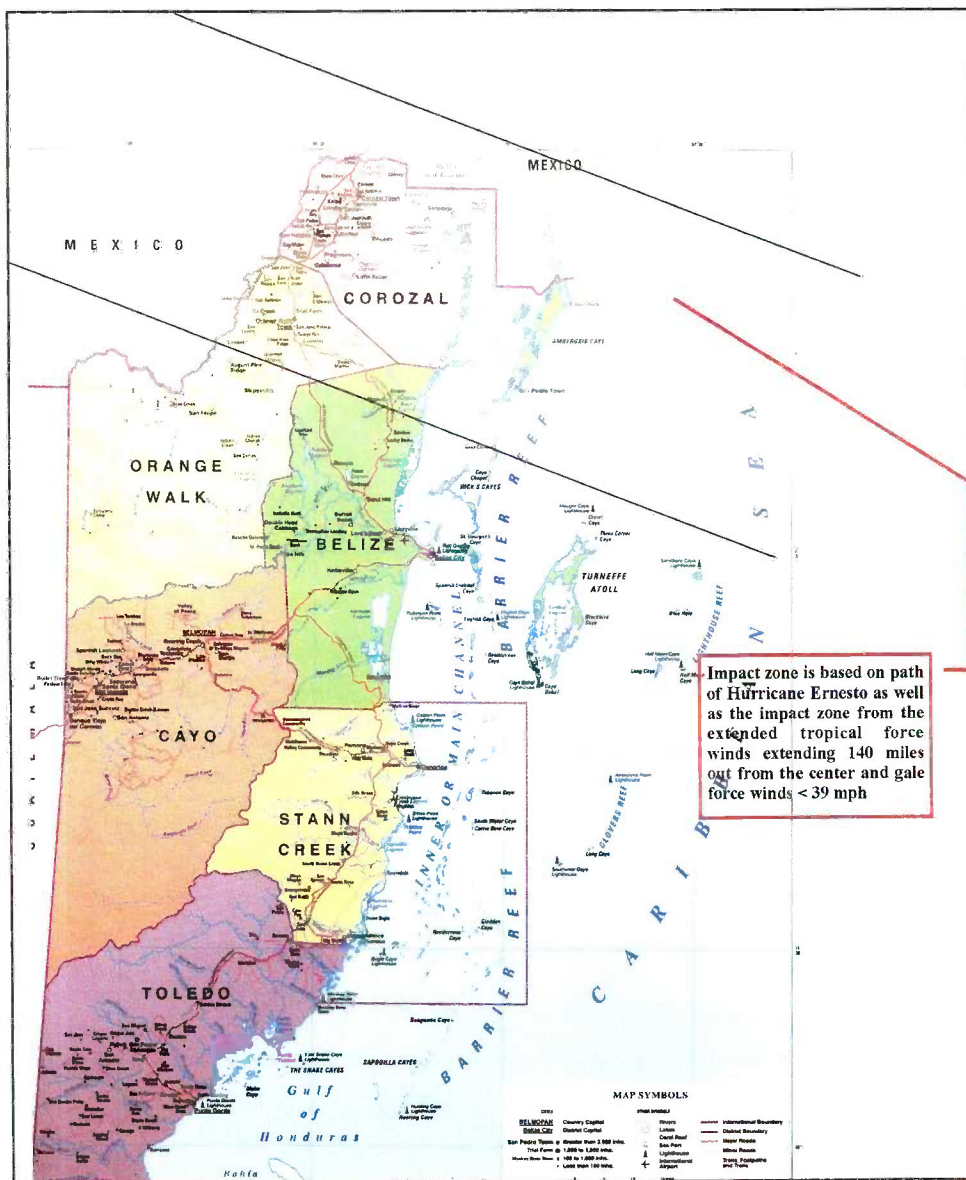
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2. Areas Affected

Hurricane Ernesto made landfall just south of Mahahual Mexico at 9:15 p.m. At time of landfall TS forced winds extended some 140 miles away from the center on the storm putting the northern tip of the Corozal District on the southern periphery of the TS winds. Gale force winds of less than 39 mph extended further south into central Orange Walk District. The predicted 3-5 inches of rain associated with the storm system was not fully realized and very little localized pooling of water has been reported within the impact zone. Minimal effects are reported at this time for the Belize and Orange Walk Districts.

Map 1: Illustration of Areas of Impact



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3. Impact

3.1. Effects on Population

Approximately 180,000 individuals of the Belize, Corozal, Orange Walk Districts and northern cayes experienced varied effects of the passage of the outer bands of Hurricane Ernesto. As a precautionary measure approximately 592 citizens sought the security of national shelters with the greatest number of shelterees originated from the Corozal District (53.7%). By 10:00 a.m on Wednesday 8th August, more than 70 % of all shelterees had returned to their residences. Some 911 persons from Caye Caulker and San Pedro, Ambergris Caye chose to voluntarily evacuate off the islands. Close to 100% of these individuals sought shelters in the homes of family and friends on the Belize mainland.

District	# of Shelters	# of People
Corozal	4	97
Orange Walk	1	14
Belize City	5	104
Corozal	4	314
San Pedro	2	63
TOTAL	16	592

There are no reported damages or losses to residences or public infrastructure within the impact zone. A small percentage of those affected have reported inconveniences associated with the pooling of water in yards and roadways. It is expected however that this will subside quickly.

There is minimal reported losses associated with the agriculture productive sector which is the basis of a large percentage of the livelihoods within the impact region. The Tourism sector which forms the basis of economic activities in the cayes has reported no significant losses up to the point of report preparation.

The primary impact of the passage of Hurricane Ernesto on the national population came as a result of the suspension of businesses and services in light of the approaching threat. All businesses and service providers were directed by National Emergency managers to suspend services allowing workers adequate time to secure self and property. It is expected that there is associated economic loss with this action.

The Education sector suffered setbacks in its annual implementation schedule as personnel development workshops and school year start-up programmes including registration were postponed nationally.

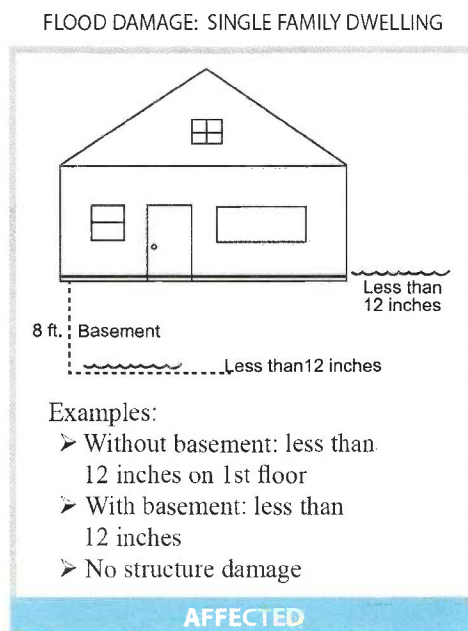
There are no reported health conditions including mortalities and injuries associated with the passage of the event.

3.2 Damage by Sector:

Road Infrastructure: Damages to the road networks within the broad impact zone has been reported as negligible with the low rainfall volume there has been little impact to the network. Minor disruptions from debris; blown down trees, has been reported. Most of the debris has been cleared and roads are once again traversable. The Ministry of Works has indicated that all repair needs can be accommodated under their normal maintenance program.

Housing Infrastructure: At this time a total of seven houses in the Chula Vista area, Corozal Town were reported to be flooded, Level 1* (affected). No other reported housing damage has been observed.

* Level of Affection is determined by numbers of domiciles disrupted/ damaged or destroyed in relation to the total number of domiciles in the impacted area.



Public Buildings: At this time there are no reported damages to schools, however it should be noted that the assessment of education buildings are still underway.

Tourism: At this time there are no reported damages to the tourism sector.

Agriculture: Areas impacted in the agriculture sector were, corn, sugar cane, papaya, plantain, vegetable and livestock (apiary) production, all losses and damages are in the Corozal District.

Field assessment teams have reported direct loss of 1-2% of total acreage of corn under production; Little Belize has reported losses of 100-140 acres of the total 7000 acres. The estimated loss is \$65,000 BZD.

Reported losses in the papaya industry total 23 acres or approximately 1% of bearing trees within Fruta Bomba and 13% of bearing trees within Little Belize. This loss represents \$695,000 BZD, further detailed tree surveys are being conducted.

An estimated 1.29 acres of plantain in Chunox has been reported by the field assessment teams, representing a total loss of \$1,400 BZD.

The sugar industry has reported lodging of sugar cane in numerous fields; however a quantified estimate has not been prepared, field verifications is ongoing. It is anticipated that the loss to the sugar cane industry will be negligible as the lodged fields are expected to recover. There have also been reports of damage to bee hives in the Sarteneja area.

An estimated 0.4 acres of sweet pepper were reported to be destroyed in the Cristo Rey village, Corozal. This represents approximately \$1,400 BZD in losses.

The Ministry of Natural Resources & Agriculture is conducting further field assessments of major crops as well as damages to subsistence farms within the impact zone of the hurricane.

Initial cost estimate of the direct damages to the agricultural sector at this time is \$762,800 (BZD).¹

Telecommunications/ Electricity: There are no reports to disruption of telecommunication or electricity services.

Petroleum: No disruptions to operations have been reported.

¹ Estimates quantified from ground surveys conducted by the Ministry of Natural Resources & Agriculture.

Environment: There have not been reports of sediment plumes associated with accelerated runoff from rainfall however this is a common product of storm events. Surface runoff and sediment upturn are commonly associated with storm events. A rapid environmental assessment is being undertaken by the Fisheries Department.

Scouring and minor beach erosion has been reported for the entire eastern coast of San Pedro, Ambergris Caye and for sections of the eastern coast of Caye Caulker.

4. Projected Evolution/Secondary Threats

"Secondary impacts" of a storm are those related to the direct impacts and are realized after the passage of the storm. In most cases these secondary threats are tied to public health and human security. At this time no secondary threats are being predicted by emergency managers. Emergency managers however remain vigilant and continue monitoring the Rio Hondo and the New River for flooding. Risks associated with water and vector borne diseases are low, however monitoring of local situations is advised.

B. NATIONAL RESPONSE

5. National Authorities responded to the threat of Hurricane Ernesto with the full activation of the National Emergency Management Organization and decentralized DEMO's and CEMO's. Emergency shelters were made available for those individuals unsure about the safety of their residences. The NEMO prepositioned equipment and support human capacities within the predicted zone of impact facilitating rapid response and the maintenance of personal security.

No declaration of emergency from Central Government was done. Damage assessment field teams as well as Relief Field teams are presently conducting initial assessments of damage and needs.

NEMO continues to monitor the situation for the evolution of secondary threats and work in the coordination of national response efforts.

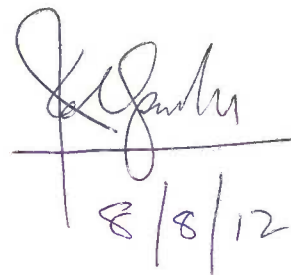
Total government expenditure for the preparation and response to hurricane Ernesto has not yet been quantified.

6. Priority Needs

There are no identified priority needs at this time due to the minimal impact from Hurricane Ernesto and it is deemed that the national capacities for response and recovery have not been exceeded.

Depending on the evolution of secondary impacts this position may be revisited.

This report is submitted to NEMO for its consideration and action.

A handwritten signature in purple ink, followed by a horizontal line and the date "8/8/12" written below it.