

Caribbean Disaster Mitigation Project
Implemented by the Organization of American States
Unit of Sustainable Development and Environment
for the USAID Office of Foreign Disaster Assistance and the Caribbean
Regional Program



In the fall of 1998, the Caribbean Hotel Association (CHA) and the Caribbean Tourism Organization (CTO) produced a Hurricane Procedures Manual as a guidebook for tourist establishments in the Caribbean.

The Caribbean Disaster Mitigation Project supported the development of a chapter on 'Structural Vulnerability and Loss-Reduction Techniques' for inclusion in this manual.

Hurricane Procedures Manual

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The Caribbean Hurricane Experience

Hurricanes are a fact of life in the Caribbean (See [Appendix 1](#)). Within the past nine years, from 1988 through 1997, several hurricanes have unleashed their fury on the islands of the Caribbean. Hurricanes David in 1979, Allen in 1980 Gilbert in 1988, Hugo in 1989 and Luis and Marilyn in 1995 caused significant damage to hotels in Dominica, St. Lucia, Jamaica, Montserrat, Antigua,

and St. Thomas respectively. Marilyn also caused damage to beaches in Barbados. In 1995 and 1996, thirty-one storms crossed the Caribbean, the Atlantic and the Gulf of Mexico, causing the Regional Mechanism (Caribbean Disaster Response Agency) to be placed on alert nine times over the two years.

The 1995 Hurricane season was the most active, and perhaps the most destructive in recent decades. Hurricane Luis was the most destructive since Hurricane Hugo of 1989, with estimated damages of \$2.5 billion occurring in the Caribbean from Luis alone. Following on Luis, Hurricane Bertha affected the region in 1996. Wind damage, storm waves, heavy rains and flooding caused major losses within the tourism sector. In addition, inadequately designed and constructed buildings, damaging media reports and inadequate insurance coverage in some instances have aggravated the financial and social consequences of these events. Recovery for some islands has been slow and some territories have had more than one impact in a single year or in consecutive years.

This hurricane procedures manual, first published in 1990 following Hurricane Hugo, has now been revised to meet the recurring needs of the tourism/hotel sectors for hazard mitigation. Hazard mitigation is defined by the Federal Emergency Management Agency (FEMA) of the United States as " actions taken to reduce or eliminate long-term risk to people and property from hazards and their effects". This goal can best be achieved by applying various strategies though structural and non-structural measures. Prevention and preparedness planning can help to reduce loss and most importantly will assist speedy resumption of business after the event.

There are some initiatives which need to be taken by the individual hotelier; others require partnerships among hoteliers or between hoteliers and selected stakeholders within the community; and still others require national and even regional collaboration.

This revised edition of the manual includes a chapter on structural vulnerability and loss reduction. One of the most cost-effective measures for mitigating disaster damages is to design and construct hazard resistant structures.

The time to prepare or plan for a hurricane is **before** the Event. The manual therefore, outlines the steps and activities which need to be taken before the hurricane season and certainly before a hurricane threatens. Managing the property and guests **during** an event is crucial to business continuity after the hurricane. Procedures are outlined for all phases of hurricane management. **Immediately following** a strike, there are several critical issues to be dealt with - these are described in the Section entitled **Recovery and Restoration**. **Section IV** entitled, **Structural Vulnerability and Loss Reduction**, outlines procedures to be followed by the hotelier to assess vulnerability.

The Manual

The manual has been designed to provide recommendations, tasks, and responsibilities for each major department within the facility. It allows for distribution of sections of the plan to the relevant departments, while at the same time allowing for the security and confidentiality of the entire plan. Procedures and responsibility for preparedness, and procedures for vulnerability assessment, appropriate design and retrofitting are outlined.

The prevention and preparedness phase includes: structural and non structural vulnerability assessments, maintenance requirements, retrofitting requirements, emergency supplies, mutual

aid agreements, guest information, training, insurance, community liaison, vital records, guest security, weather information, and media communication requirements.

The hurricane phase includes tasks for each department, from hurricane alert to strike. The recovery phase embodies guest relations, damage assessment, impact evaluation, clean-up and salvage, business restoration, and community relations.

The section on structural loss reduction details procedures to be followed for design, maintenance, repair and retrofitting before a hurricane strikes.

Testing, Maintaining, and Upgrading Procedures

This manual is a written document, and not a plan. The procedures detailed must be tested, and the details for each property and department worked out and corrected through training drills and simulation exercises.

Additionally, the procedures must be integrated into the overall management plan for the organization in terms of company policy, operational budget, training, and job descriptions. Training is vital to the success of hurricane preparedness and disaster management and properties should seek to communicate requirements to the respective staff and to implement training programmes for the relevant procedures.

Testing of the Plan Should:

- Confirm that ALL personnel understand their responsibilities and can successfully carry them through.
- Serve as training for personnel.
- Be conducted on an annual basis, preferably before the onset of the hurricane season.
- Include consideration and review of the plan, incorporating changes as these are found necessary.
- Evaluate vulnerability assessments and requirements for maintenance, repair and retrofitting.

Acknowledgment

The revision of this Hurricane Procedures Manual has been a professional pleasure given the increasing exposure of the Caribbean Hotel sector to more intense and frequent hurricane activity within the region. I congratulate the Caribbean Hotel Association (CHA), and the Caribbean Tourism Organization (CTO) for this timely and well needed initiative. Special tribute to the Caribbean Disaster Mitigation Project (CDMP) which joined forces with the CHA and CTO. The CDMP is funded by the Office of Foreign Disaster Assistance (OFDA) of USAID and executed by the Organisation of American States (OAS).

I am grateful to Ms. Kelly Robinson, and Messrs Bill Moore and Alec Sanguinetti of the CHA and Mr Michael Youngman of the CTO for their valuable contribution.

Mr Al Wason, Professional Engineer and Disaster Mitigation Specialist, provided the substantial technical input for the section on Structural Vulnerability and Loss Reduction.

Mr. Joseph Murray of the Murray Group and Mr Luis Flamand of the CHA Insurance Company provided information for the Insurance component and WRH & Associates assisted with design and information for the communications plan.

Mr. Jerry Collymore and Ms. Audrey Mullings of the Caribbean Disaster Response Agency, CDERA, were generous with their reports on hurricane activity for the past 4 years.

Sarah Bell, Lovelette Brooks, and Sharonmae Shirley of Environmental Solutions Limited deserve special thanks for their revised design of the manual.

Grateful thanks to all who have contributed to making this manual a reality.

Eleanor B. Jones
Environmental Solutions Limited
Kingston, Jamaica W.I.

Letter from CHA

Dear Hotelier:

If the primary responsibility of a Trade Association is to respond to the needs of its members, then there could have been few more powerful imperatives than to assist the Hotel & Tourism Industry in dealing with the damage inflicted by hurricanes and other natural disasters in the Caribbean region.

Our sincere thanks must go to the International Hotel Association, whose generous donation from their Fund For the Future started the ball rolling; to American Express Travel related services and USAID/OFDA , who have supported this endeavour by including the chapter on structural loss reduction and picking up the printing bill. With help from CHA's own reserves, and matching support from CTO; this Hurricane Procedures Manual has thus become a reality. Our goal in bringing this project to fruition was to help you better protect the safety of your guests, your property, and certainly to strive to enhance the perpetuation of Caribbean Tourism.

Our thanks also to the professionalism and hard work of Eleanor Jones and Environmental Solutions for making our Manual a reality.

Signed,

John Bell

Executive Vice President

Letter from CTO

Dear Reader:

The Caribbean is blessed with such a glorious and delightful climate most of the time that, were it not for the occasional intrusion of hurricanes, we might be tempted to believe that we have already achieved heaven on earth. However, first Gilbert in 1988, Hugo in 1989, Luis and Marilyn in 1995 and 1996 respectively, are sad reminders that hurricanes do happen in the Caribbean, and that those unfortunate enough to encounter such violent forces of nature in an unprepared state can suffer considerable - and probably unnecessary damage. This Hurricane Preparedness Manual, which CHA and CTO have had prepared, with the technical expertise of Eleanor Jones and Environmental Solutions Ltd., is a timely and useful tool for the tourism sector. However, its real value lies in it being studied, and its action programme being complied with. For both tourism organizations, CHA and CTO, it is the first step in a total programme of education, training, and public relations, in meeting, coping with, and recovering from disasters.

I hope to hear from you readers how you value this document, and I would welcome any ideas on how it might be improved.

Yours Sincerely,

Jean Holder

Secretary General

Executive Summary

Hurricane Characteristics

In preparing for hurricanes, it is important to have some basic knowledge of hurricane characteristics and effects. The short section entitled Hurricane Characteristics provides just that information. The section describes the characteristics of a hurricane, hurricane effects, hurricane categories and the hurricane warning system.

Before a Hurricane

This phase should be ongoing throughout the year. Full preparation is the key to minimizing loss of life and property, and to ensuring speedy resumption of business. All Departments have tasks - but leadership is given by the General Manager, and the Emergency Coordinating Committee. During this stage, attention should be given to:

- Creation of the Emergency Coordinating Committee
- Vulnerability Assessment, including maintenance and retrofitting requirements
- Emergency supplies
- Mutual aid agreements
- Guest Information Packets
- Committee liaison policy
- Vital records protection
- Guest security protection
- Obtaining up-to-date weather information
- Training of staff
- Media Communications requirements*
- Insurance Coverage**

**Media Communication requirements will be discussed in [Section V](#)*

***Insurance Coverage will be discussed in [Section VI](#)*

During the Hurricane

The Hurricane section includes several phases of activity, from the period when the hurricane approaches the region, to the actual strike. Time is critical, and keeping tuned to weather information and national emergency procedures is important.

Section II - During the Hurricane, outlines the responsibilities of the Emergency Coordinating Committee and each of the departments by hurricane phase.

After the Hurricane

Safety of guests, communication with the outside, and prompt resumption of business are the major considerations in the period following the hurricane. Therefore the following elements require attention immediately after the hurricane:

- Activate the Communications Plan.
- Brief assessment of damage.
- Document (photograph) damage.

- Prioritize clean-up and salvage.
- Security of property, and safety of guests. Carry out head count.
- Seek mutual aid as needed, especially for comfort of guests.
- Facilitate contact between guests and organizations to enable communication with relatives and friends.
- Liaise with travel services concerning arrangements for guests.

Structural Vulnerability & Loss Reduction

Review of damage to buildings from recent events indicate failure of aspects of the structure to resist hurricanes. Hoteliers should be made aware of how hurricanes affect buildings so as to be able to effect quality control in roofs, windows, doors, foundations and other elements of structures. Design criteria to withstand both hurricanes and earthquakes are presented and procedures for assessing vulnerability and retrofitting are outlined. Maintenance plans are important to structural soundness.

Hurricane Characteristics

Hurricane Characteristics

SEASON: Commences June 1 and ends November 30, but storms may occur at other times of the year.

SPEED: Speed of advance of approximately 20-25km/hr (12-15 Knots).

COURSE: Normally moves from East/Southeast towards West/Northwest and Northwest during initial stages but curves towards the North as it progresses (in the Northern Hemisphere).

WIND SPEED: Wind speeds generally in excess of 135 km/hr (75 Knots) but may gust up to 315 km/hr (175 Knots) (GILBERT Sept. 1988).

SURGE: Storm Surge may be experienced if hurricane passes close offshore 3-10m (10-33 feet) and conditions are conducive.

WIDTH: Width of destruction 170-250 km (106-155 miles).

RAINFALL: Up to 450 mm (18 in) in the first two (2) hours.

LULL: A deceptive lull lasting approximately 30 minutes occurs when the centre (the EYE) of the hurricane passes. Wind speed resumes intensity and quickly, immediately after the eye passes.

EYE: Is the centre of the hurricane where there are no winds and where barometric pressure is very low.

Hurricane Effects

- **Wind damage** - This is potentially one of the most destructive aspects of the hurricane. It can result in loss of roofs, windows, doors and vegetation.
- **Collapse of buildings**
- **Damage by fallen trees** - Disruption of electricity and telephone facilities, damage to buildings and blocking of roads.
- **Flying debris** - Zinc sheets, tree limbs, timber, roofing materials, fruits etc. can cause further damage to other structures.
- **Rain Damage** - Otherwise sturdy trees and light poles may collapse earlier than expected due to water saturation around their bases. Leaking roofs, from torrential downpour can saturate walls and destroy contents of buildings and cause the destruction of structures.
- **Flood Damage** - Disruption of surface communications. For example, roads, flooded or washed away; landslides; bridges destroyed; railway lines flooded or washed away; contamination of drinking water supplies.
- **Storm Surge** - Heavy seas, storm waves and storm surge can cause extensive damage and completely destroy structures and coastal features. The direction of approach of the hurricane and the physical form of the coastal area will influence the potential destructive force of the waves.

Hurricane Categories

Category 1 Winds 119-152 km (74-95 mph) or storm surge 1 -1 1/2 m (4-5 ft) above normal.

Category 2 Winds 154-177 km (96-110 mph) or storm surge 1 1/2 -2 1/2m (6-8 ft) above normal.

Category 3 Winds 178-209 km (111-130 mph) or storm surge 2 1/2-3 1/2m (9-12 ft) above normal.

Category 4 Winds greater than 249 km (155 mph) or storm surge greater than 5 1/2 (18 ft) above normal.

The Warning System

The following warnings will be issued prior to a Hurricane. Members of staff should pay careful attention to these warnings as there are certain procedures to follow after each warning. Some radio and television stations in the region have a special signal which precedes warning messages. Become familiar with them.

Phase A **HURRICANE ALERT** - Hurricane entering the region.

Phase B **HURRICANE WATCH** - 36 hours to landfall.

Phase C **HURRICANE WARNING** - 24 hours to landfall.

Phase D **EMERGENCY PHASE** - Strike.

Section I: Before the Hurricane Strikes

The Emergency Management Team

In order to ensure that this emergency manual is an integral part of the culture and practice in your establishment, an emergency coordinating (EC) committee should be established. This committee will serve as the overall coordinating and executing body for all emergencies and will be responsible for managing and implementing emergency preparedness mechanisms at all stages of a hurricane.

EC Committee Structure

The members of the emergency coordinating committee should be appointed by management. At the head of the committee, is the Emergency Coordinator. An Alternate Emergency Coordinator should also be designated in the event that Emergency Coordinator is absent. The committee should also consist of a public relations person, the environmental person (if your facility has one) and at least one representative from each of the departments (or areas of the hotel or resort. These department representatives need not be managers or heads of the management team but should be any member of staff who knows the department integrally and is capable of carrying out the requirements of a committee member. Figure 1 outlines a possible structure of the emergency coordinating committee.

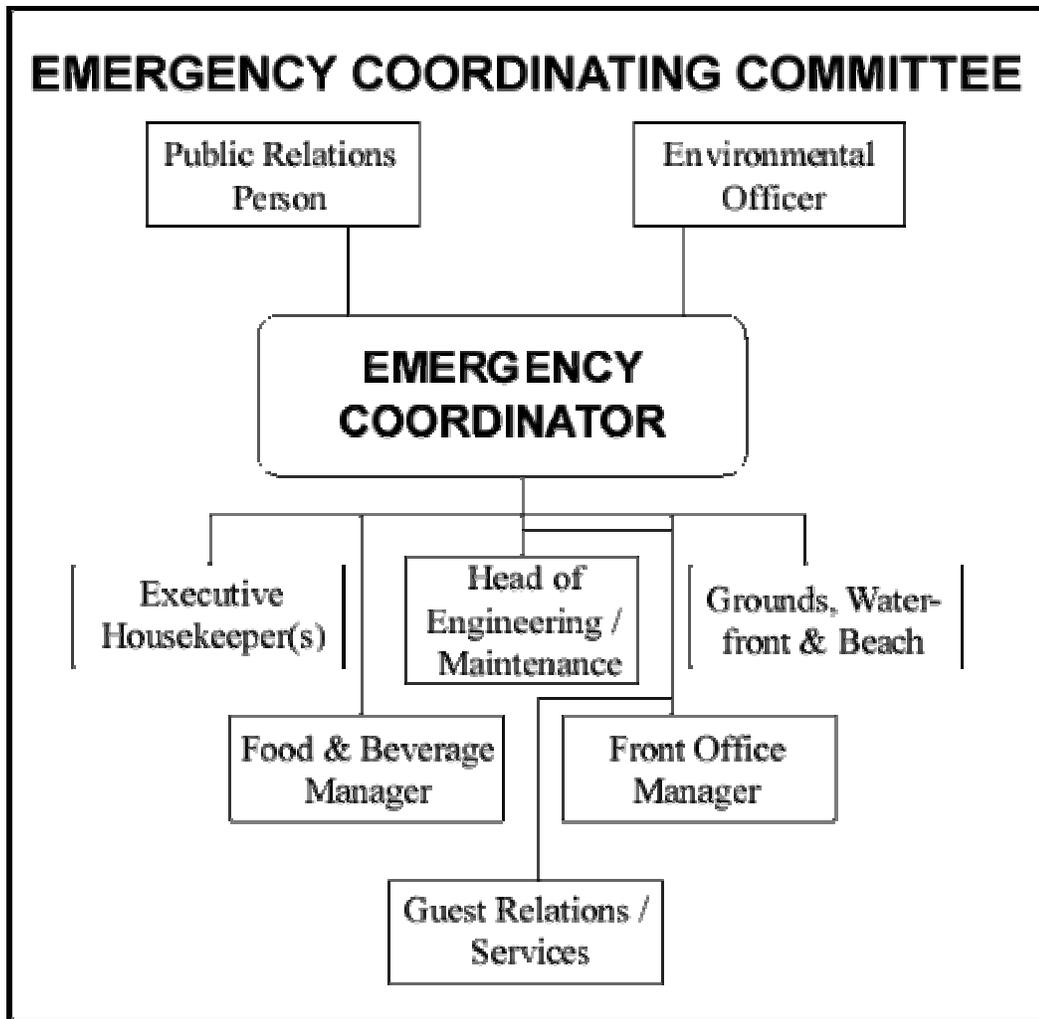


Figure 1: Emergency Coordinating Committee Structure

Committee Responsibilities

The first four projects of the EC Committee should be to:

- (1) Familiarize themselves with the plan;
- (2) Help the rest of the staff to become familiar with the plan;
- (3) Designate responsibilities for action before, during and after a hurricane; and,
- (4) Get first aid training.

All departments at your resort or hotel should be included when responsibilities are being assigned. These responsibilities should be made clear to each department and displayed in an openly accessible place within the department.

Suggestions for the EC Committee

- The EC Committee should meet at the end of March to review the maintenance report, review priority areas for action and review hurricane procedures with all staff.
- A second meeting must be held at the beginning of June, at the start of the hurricane season, to review and assess the level of preparedness, and fine-tune procedures.

With respect to the members of the Emergency Coordinating Committee, specific responsibilities are outlined as follows:

Emergency Coordinator (General Manager)

- Create the Emergency Coordinating Committee in consultation with other management staff at the hotel or resort.
- Overall coordination of regular hotel or resort operations and hurricane procedures.
- Liaise with emergency and information services (e.g. the National Office of Disaster Preparedness and Emergency Services, the Weather Reporting Station, appropriate community contacts) as well as mutual aid partners.
- Institute preventative measures (as described throughout this manual) to minimise opportunities for emergency situations.
- Conduct vulnerability assessment of the facility in consultation with other EC members and external expertise where necessary.
- Document the incident.
- Administer First-Aid when necessary.

Environmental Officer

- Give advice to the Emergency Coordinating Committee regarding Hurricane related prevention measures and Environmental matters on the property.

Public Relations Person

- Provide the link between the resort or hotel and the community, media and international stakeholders through a Communications Plan.
- It is also the responsibility of the PR person to keep the Communications Plan alive and to activate the Plan at the relevant time.

Other Emergency Team Members

- Ensure execution of prevention and preparedness tasks.
- Supervise clean-up activities.
- Ensure that sufficient quantities of emergency supplies (e.g. batteries, band-aids, stored water, etc.) are in stock.
- Dispose of damaged material.
- Administer first-aid where necessary.

There are many tasks that must be undertaken in order to properly prepare for a hurricane. The following charts can be used as *handy checklists* for ensuring that all tasks related to hurricane preparedness are completed.

Staff Liaison

TASK	RESPONSIBILITY
General Manager should meet with Departmental Heads; and Departmental Heads with staff.	Emergency Coordinating Committee

Recommendations

- Conduct monthly meetings on hurricane procedures.

Assess Your Risk

TASK	RESPONSIBILITY
<input type="checkbox"/> Check all buildings in March each year for both structural defects and non structural vulnerability. Check windows, doors, walls, roof, equipment, furniture, documents, etc. Repair or correct problems before the hurricane season.	Chief Engineer Emergency Coordinator Obtain external expertise where necessary
<input type="checkbox"/> Utilize Building Assessment Safety Checklist (Form 1). <input type="checkbox"/> Ensure compliance with National Building Code where it exists.	Chief Engineer

<input type="checkbox"/> Create and implement Hurricane Maintenance Programme (esp. roof, windows, doors, etc.)	Emergency Coordinator
<input type="checkbox"/> Basic maintenance budget required.	Emergency Coordinating Committee
<input type="checkbox"/> Utilise the assessment reports to determine: <ul style="list-style-type: none"> ➤ the most appropriate location within the facility which will serve as the HEADQUARTERS/COMMAND POST during the event; ➤ which room may be easily converted for use as a FIRST-AID CENTRE; ➤ which rooms are most appropriate for the safety of the guests during the hurricane. 	Emergency Coordinator/Engineering Maintenance Personnel Emergency Coordinating Committee

Recommendations

- Vulnerability assessment (Structural) of all buildings must be instituted as a permanent function of the Engineering Department (where one exists), or given to persons with equivalent responsibility. (See [Section IV](#)). Findings should be acted upon.
- Check non-structural vulnerability assessments twice annually - March and July each year. (Use Checklist - Form 1). The results of these assessments must be incorporated into the building maintenance programmes.

Weather Information

TASK	RESPONSIBILITY
<input type="checkbox"/> Keep radio tuned to channel for news where appropriate. <input type="checkbox"/> Install weather band for continuous reports during the Hurricane Season.	Emergency Coordinating Committee

Recommendations

- Acquire radio and place in main office to ensure continuous monitoring of weather information.

➤ If internet access is available, check the following web sites and share relevant data with EC Committee and staff.

National Hurricane Centre - <http://www.nhc.noaa.gov/>

Weather Net - <http://cirrus.sprl.umich.edu:80/wxnet/tropical.html>

Atlantic Tropical Weather Centre - <http://banzai.neosoft.com/citylink/blake/tropical.html>

➤ If cable or dish is available to your television, keep regular check of the weather channel to obtain updated hurricane and storm tracking information.

Vital Records

Determine secure storage areas for **VITAL RECORDS** and use for permanent on-site storage. Vital records of the company must be duplicated and stored off-site. (All magnetic tapes and computer disks should have back-ups in safe storage).

Emergency Supplies

TASK	RESPONSIBILITY
<input type="checkbox"/> Inventory tasks to be carried out by head of each department (or the equivalent) in the organization/facility.	General Manager / Financial Controller
<input type="checkbox"/> Inventory existing supplies.	Department Heads / EC Committee Rep.
<input type="checkbox"/> Requisition for replacement supplies.	Department Heads
<input type="checkbox"/> Prepare emergency supplies purchase orders, and keep in stock for distribution.	Department Heads

Recommendations

➤ Earmark and allocate funds for procurement of emergency supplies, and for regular maintenance of facilities. See suggested Emergency Supply Checklist (Form 2).

➤ Determine policy for handling keys and access to emergency supplies.

- Ascertain major department priority supplies for emergencies: e.g. Kitchen, Housekeeping, Engineering/Maintenance, First Aid, etc; then include in emergency budget.

Mutual Aid Agreements

TASK	RESPONSIBILITY
<input type="checkbox"/> Discuss mutual aid possibilities with relevant selected persons according to need and read agreements as necessary.	General Manager
<input type="checkbox"/> Review agreements annually and update status.	General Manager
<input type="checkbox"/> Where possible, share resource inventories which relate to particular agreements.	General Manager
<input type="checkbox"/> Negotiate purchase agreements on a contingency basis where necessary, e.g. hardware supplies.	General Manager

Recommendations

Formulate and adopt specific Mutual Aid Agreements with goods suppliers, neighbouring facilities, and operators on other islands, where applicable (Use Form 3). Areas of importance include:

- diesel and gasoline suppliers
- transportation for workers and possible evacuation of guests
- potable water
- local bakeries and food supplies
- hardware supplies
- heavy equipment service and rental companies.

Community Liaison Policy

TASK	RESPONSIBILITY
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<input type="checkbox"/> Hold discussions on community relations and determine policy to be followed in terms of emergency assistance to community members.	General Manager
<input type="checkbox"/> Implement policy as soon as a decision is reached, by informing the National Emergency Organization, Hotel Management, staff, etc.	General Manager under direction from Corporate Body

Recommendations

- Define policy on acceptance of local guests in the event of a hurricane, and responsibility to the community in terms of assistance, etc.

Communications

TASK	RESPONSIBILITY
<input type="checkbox"/> Section V outlines a communications strategy. Adapt this prototype to suit your property.	General Manger Public Relations Person

Recommendations

- The General Manager in consultation with the Board of Directors should define hotel policy on communications. [Section V](#) outlines steps for a communications plan.

Insurance

TASK	RESPONSIBILITIES
<input type="checkbox"/> Hold discussions on insurance and determine policy to be followed. Seek advice from insurance companies.	General Manager under the direction of the Corporate Body
<input type="checkbox"/> Implement policy as soon as a decision is reached.	General Manager

Recommendations

- The General Manager in consultation with the Board of Directors should define hotel policy on insurance coverage on physical structure, liability, and loss of profit. **Section VI** outlines steps for insurance coverage.

Guest Information

TASK	RESPONSIBILITY
<input type="checkbox"/> Prepare hurricane emergency procedures for guests. Keep on file.	Guest Relations/Services (see Form 4)
<input type="checkbox"/> Adapt guest information kits for condominiums and villas (as appropriate).	"
<input type="checkbox"/> Prepare a disclaimer letter for guests. Keep on file.	"

Recommendations

- Prepare guest information (brochures and disclaimer letter) for distribution at an appropriate time. Form 4.

Training

TASK	RESPONSIBILITY
<input type="checkbox"/> Provide briefing sessions for staff on hurricane procedures for the home.	Emergency Coordinator through relevant organizations, e.g. Emergency Management Agency, CHA, Red Cross.
<input type="checkbox"/> Include training in emergency procedures in orientation programme for new employees.	Emergency Coordinator

Recommendations

Conduct on-going training programmes in the following areas for different categories of staff:

- CPR, Basic First Aid

- Response procedures outlined in the manual
- Conducting regular exercises (Drills).

Evacuation of Guests

TASK	RESPONSIBILITY
<input type="checkbox"/> Establish conditions under which evacuation will be necessary and state these in the plan, determining responsibilities of members of the staff for this task.	General Manager under direction from the Corporate Body.
<input type="checkbox"/> Determine appropriate shelter with National Emergency Organization.	Same as above.

Recommendations

- Evacuation of guests to designated national shelters should be carried out only when this is felt to be the only appropriate course of action, given conditions for guest and staff safety.

Section II: During the Hurricane

Emergency Coordinating Committee

Phase A: Hurricane ALERT

TASKS
Hurricane Information
<input type="checkbox"/> Map should be posted in the room designated as Command Centre, as instructed by General Manager, and at the Guest Information Centre Desk.
<input type="checkbox"/> Telephone Operators should be instructed to refer ALL queries on the hurricane to the General Manager or designated spokesperson. (See Section V)

Recommendations:

- A hurricane tracking map should be duplicated and used to track hurricane paths in the Caribbean.
- Record information and establish and maintain contact with National Emergency coordinator and other local responsible authorities.
- Make contact with the National Emergency Office and local authorities.
- Ensure that all members of Coordinating Committee are made aware of hurricane developments.

Phase B: Hurricane WATCH

TASKS
Guest Information & Security
<input type="checkbox"/> Locate pre-published guest emergency procedure letters.
<input type="checkbox"/> Determine number of SAFE rooms for those persons that do not want to move to the central area. SUBMIT TO EMERGENCY TEAM. Give priority to disabled guests.

Recommendations

Make arrangements to:

- Distribute to each guest room (with assistance from General Management Personnel) a Memo and the brochure instructing guests on hurricane procedures, as it affects them. ONLY DISTRIBUTE WHEN DIRECTED TO DO SO BY GENERAL MANAGER.

TASKS
Vital Records
<input type="checkbox"/> Assist in securing all important files and equipment
Other Responsibilities
<input type="checkbox"/> Maintain hurricane tracking map at Command Post as policy dictates.
<input type="checkbox"/> Develop current list of key employees of Departments and contact addresses, phone numbers, etc.
<input type="checkbox"/> Request all needed materials and supplies based on inventory provided; should include potable

water
<input type="checkbox"/> Arrange worker transportation

Recommendations

➤ General Manager, as head of Emergency Coordinating Team, meets with Team; discusses priorities for action based on activities achieved to date and staff/resource availability.

Phase B: Hurricane WARNING

➤ Emergency Coordination Committee should lead the hurricane preparation procedures for each department. *(See each department's responsibilities for details)*

Phase C: EMERGENCY Phase

Special Note: During the Emergency Phase a skeleton Emergency Team of at least the General Manager and two other Committee members (preferably the Maintenance and the Kitchen Person) should remain.

TASKS
Guest Safety & Comfort (4-2 hours)
<input type="checkbox"/> Evacuate guests to designated in-house shelter: a) alternatively, to designated safe rooms b) solicit voluntary assistance from guests as may be deemed necessary.
<input type="checkbox"/> Check and ensure all rooms not designated safe are secured, unoccupied, and locked.
<input type="checkbox"/> Address guests on activities for duration of hurricane.
<input type="checkbox"/> Distribute games and/or initiate schedule of activities for guests (with assistance from volunteers).

General Manager / Offices

Phase A: Hurricane ALERT

➤ Provide assistance and information to the EC Committee where and when - ever necessary.

Phase B: Hurricane WATCH

TASKS
Guest Information & Security
<input type="checkbox"/> Determine number of guests likely to be resident at landfall of hurricane.
<input type="checkbox"/> Liaise with sales and marketing personnel.
<input type="checkbox"/> Determine schedule of events/ entertainment etc. available for guests to be included in guest memo.
<input type="checkbox"/> Obtain list of all the guests and their room numbers. All EC Committee members should get a copy.

Recommendations

- Review and backup computer files. Place existing hard copies, accounts, receipts, etc., in secure filing cabinets, away from areas subject to flooding etc.
- Ensure staff on hand to settle guests' bills where this has been adopted as established procedure.

TASKS
Mutual Aid
<input type="checkbox"/> Reconfirmation of Mutual Aid Agreement, if necessary, and revision of requirements as perceived.
Staff Roster
<input type="checkbox"/> Develop list and submit to Emergency Team.
<input type="checkbox"/> Recall all key personnel as deemed necessary.
<input type="checkbox"/> Make tentative arrangements for those who will stay on premises.
<input type="checkbox"/> Distribute all key personnel as deemed necessary.

Recommendations:

➤ Check and revise phone numbers of all Department Heads, Supervisors, and key personnel. Develop alternate list chart, dependent on those persons available (i.e. not on vacation, sick, etc.).

➤ Make arrangements for employees to manage facility and guests during the crisis. Develop Staff Roster.

➤ Allow employees time to make emergency preparations of their homes, ensuring they leave contact addresses, and are aware of possible rotation of staff roster.

Phase C: Hurricane WARNING

TASKS
Protection of Equipment, Supplies, and Vital Records (18-12 hours)
<input type="checkbox"/> Secure and make sure adequate supplies of polyethelene sheeting available to cover desks, and equipment as needed.
<input type="checkbox"/> Where necessary, prepare area for storage of small electrical items-(e.g. Calculators).
<input type="checkbox"/> Disconnect and store all electrical appliances which will not be used up to the point of electrical failure.
Guest Accounts (12-6 hours)
<input type="checkbox"/> Secure and lock away all vital records that are not necessary for usage within the next 24 hours.
<input type="checkbox"/> Ensure all guest bills are paid or locked away in filing cabinets.
Staff Duty
<input type="checkbox"/> Discharge all staff not required to be on hand.
<input type="checkbox"/> Record and verify names of staff on duty.

Kitchen

Phase A: Hurricane ALERT/WATCH

TASKS

Food and Water Supplies
<input type="checkbox"/> Take inventory of canned meats, vegetables, drinks, disposable sanitary ware, etc. (See Form 2).
<input type="checkbox"/> Report status to General Manager or Team Leader, request additional supplies as necessary.

Recommendations

➤ Conduct briefing meeting with kitchen staff, identifying priority tasks and delegate according to specific time requirements.

TASKS
Menu
<input type="checkbox"/> Create cycle menu based on inventory.
<input type="checkbox"/> Serve buffet style meals as determined necessary.
<input type="checkbox"/> Sterilize and fill all available water containers; store in a safe place.
<input type="checkbox"/> Make tentative arrangements with staff concerning possible rotation; establish contact addresses for key persons.
<input type="checkbox"/> Allow staff to make personal emergency preparations.

Phase B: Hurricane WATCH

TASKS
Lighting, Cleaning, Mopping
<input type="checkbox"/> Ensure provision of Emergency Lighting.
<input type="checkbox"/> Place mops, buckets, garbage cans, etc. in strategic locations.

Recommendations:

➤ Prepare for service during emergency phase.

Phase C: Hurricane WARNING/EMERGENCY Phase

TASKS
Food and Drink Service (12 hours up to Emergency Phase)
<input type="checkbox"/> Set up tea/coffee/drink stations in or near designated shelter area, or safe blocks of rooms, using vacuum containers.
<input type="checkbox"/> Raise or remove all items on floor areas subject to flooding
<input type="checkbox"/> Prepare safe dining area and set up tables for guests
<input type="checkbox"/> Arrange sterno heating with safe guard sternos. Arrange dishes and food
<input type="checkbox"/> Close bars- no alcohol to be available
<input type="checkbox"/> Serve sandwiches, soups, cold drinks- if all else fails
<input type="checkbox"/> Chill canned juices/sodas to reduce demand for ice

Maintenance & Engineering Department

Phase A: Hurricane ALERT

TASKS
Cleaning
<input type="checkbox"/> Clean all drains and remove debris on roofs/ drainage ditches
<input type="checkbox"/> Clear or prepare rooms appropriate for storage of pool furniture

Recommendations:

- Alert staff and brief them on developments.
- Delegate and assign specific tasks, and define objectives in terms of time.

TASKS

Storage
<input type="checkbox"/> Store pool chemicals
<input type="checkbox"/> Clean out all floor drains
<input type="checkbox"/> Prepare plywood and plastic sheeting to cover transformers in the event of leaks.
Emergency Supplies
<input type="checkbox"/> Inventory existing emergency supplies and detail requests for additional supplies as necessary.
Standby Generators
<input type="checkbox"/> Service plant and emergency generators.
➤ Replenish diesel fuel
➤ Service all cables and oil filters.
<input type="checkbox"/> Test generator to check output reliability.
<input type="checkbox"/> Provide rain/wind protection around plant.
Transport Vehicles
<input type="checkbox"/> Check operating condition and service all transport vehicles.
<input type="checkbox"/> Fill vehicles with fuel

Phase B: Hurricane WATCH

TASKS
Grounds
<input type="checkbox"/> Trim limbs from large trees or those near buildings.
<input type="checkbox"/> Remove coconuts from trees.
<input type="checkbox"/> Clear drains -- including roofs.
Water Tanks

<input type="checkbox"/> Fill water tanks with emergency water supplies.
Emergency Equipment
<input type="checkbox"/> Service and test emergency power generators under load, prior to emergency use.
<input type="checkbox"/> Check conditions of emergency equipment to ensure it is operable.
<input type="checkbox"/> Secure emergency lighting supplies for kitchen, if generator not available.
<input type="checkbox"/> Remove and store wind breaks from fences.
Flooding
<input type="checkbox"/> Fill sandbags to protect areas from flooding, where appropriate.

Phase C: Hurricane WARNING

TASKS
Air Conditioning
<input type="checkbox"/> Operate air conditioning/boilers until power fails.
Shutters
<input type="checkbox"/> Install plywood or storm shutters to areas of glass or deemed most vulnerable to breakage.
Drains (12 Hours)
<input type="checkbox"/> Ensure final check of drains cleared, including roof drains.
Tennis Courts
<input type="checkbox"/> Remove nets from courts and store in secure area.
Swimming Pool (As necessary)
<input type="checkbox"/> Lower water in pool by 2-3 feet.
<input type="checkbox"/> If flooding begins in critical areas, use pumps to discharge storm water.
Satellite Dishes, Flags, Sign Boards, etc. (6-12 hours)

<input type="checkbox"/> Dismantle satellite dishes, antennas, umbrellas, flags, sign boards, etc.
Pool Furniture (6 hours)
<input type="checkbox"/> Store pool furniture not stored in pool. Secure those that need be, with rope.
Other Preparations
<input type="checkbox"/> Tie down all other equipment which needs to be secured.
<input type="checkbox"/> Load cameras with film.

Housekeeping / Laundry

Phase A: Hurricane ALERT

TASKS
<input type="checkbox"/> Compile updated list of housekeeping staff, and establish a tentative roster.
<input type="checkbox"/> All linen to be secured.
<input type="checkbox"/> Distribute Guest Emergency procedures on direction from the Emergency Coordinator.

Recommendation:

➤Alert staff of conditions, and delegate tasks with respect to securing laundry facilities. Ensure that adequate linen, etc. are available.

Phase B / C: Hurricane WATCH / WARNING

TASKS
24 hours
<input type="checkbox"/> Remove all patio furniture and pots and place in rooms.
<input type="checkbox"/> Begin to secure rugs (roll up) drapes or remove and store in secure position in unoccupied guest rooms.

18 hours
<input type="checkbox"/> Ensure that emergency lighting is available in all designated safe rooms.
<input type="checkbox"/> All television sets (alarm clocks, radios etc.) should be secured in garbage bags, taped/stored in cupboards starting with unoccupied rooms.
<input type="checkbox"/> Guests should be provided with large garbage bags to wrap suitcases.
8 hours
<input type="checkbox"/> Finish securing all room furniture, draperies, etc.
<input type="checkbox"/> Close all louvers securely in rooms.
<input type="checkbox"/> Close all doors in unoccupied rooms.
➤ Place all small damageable items in rooms not occupied, in closets, e.g. lamps, bed linen, etc.
6 hours
<input type="checkbox"/> Ensure all tubs are filled in guest rooms with water for guest use.
<input type="checkbox"/> Housekeeping to use old sheeting to stuff windows and under doors to prevent rain from soaking (assisted by ground staff).

Grounds Staff

Phase A / B / C: Hurricane ALERT / WATCH / WARNING

TASKS
Trees & Shrubbery
<input type="checkbox"/> Trim trees.
Secure Objects
<input type="checkbox"/> Secure all outdoor signs.
<input type="checkbox"/> Secure all big lighting fixtures that could be blown away or other wise damaged.

<input type="checkbox"/> Secure nets/tennis courts.
<input type="checkbox"/> All loose objects to be secured and stored indoors where possible.
Shutters
<input type="checkbox"/> Raise emergency guest shutters in rooms where supply exists.
<input type="checkbox"/> Ensure sandbags are in place in critical areas where required.
Assist Housekeeping
<input type="checkbox"/> Assist housekeeping staff to secure rooms.

Security

Phase A: Hurricane ALERT

TASKS
Staff Schedule
<input type="checkbox"/> Establish necessary rotation schedule for backup.
Emergency Lighting
<input type="checkbox"/> Secure lighting for immediate use. Activate radio with battery, and alternative communication facilities where established.
<input type="checkbox"/> Secure all important files, equipment, and data.

Recommendation:

- Determine adequacy of backup personnel.

Phase B / C: Hurricane WATCH / WARNING

TASKS

Security Posts
<input type="checkbox"/> Establish security posts.
<input type="checkbox"/> Take all steps necessary to ensure safety of all personal property.
Emergency Phase
<input type="checkbox"/> Be on the alert for damages in the area and record.
<input type="checkbox"/> Be on the lookout for intruders who will take advantage of the uncertain situation.

Section III: Recovery and Restoration

Immediately after a hurricane there are many tasks that must be attended to in order that operations are returned to normal as soon as possible.

The following **TASK/ RESPONSIBILITY** checklists should be used to ensure that all necessary tasks towards full recovery and restoration are completed.

Immediate Post Hurricane Hours

TASKS	RESPONSIBILITY
<input type="checkbox"/> Establish overall ability to provide service to guests, based on resource availability, including Mutual Aid Agreements.	General Manager and Emergency Coordinating Team
<input type="checkbox"/> Review and assessment resources to assist in clean-up and salvage operations and detailed damage assessment.	General Manager and Emergency Coordinating Team
<input type="checkbox"/> Deploy staff available into teams with responsibility for: ➤ Damage Assessments (use Damage Assessment Report Form) and	General Manager and Emergency Coordinating Team

➤ Clean-up Salvage	
<input type="checkbox"/> Assess shortfalls in returning to normal operations.	General Manager and Emergency Coordinating Team
<input type="checkbox"/> Assess and negotiate for joint use, lending, borrowing, and sharing of facilities, equipment, and personnel services.	General Manager and Emergency Coordinating Team
Guest Relations	
<input type="checkbox"/> Carry out head count of guests.	Emergency Coordinating Team
<input type="checkbox"/> Find alternative accommodations for guests, if this proves necessary, utilizing mutual aid agreements.	General Manager and Emergency Coordinating Team
<input type="checkbox"/> Use media, where necessary, to provide workers with information regarding resumption of duties.	General Manager and Emergency Coordinating Team
<input type="checkbox"/> Liaise with travel services and provide guests with information on possible travel arrangements, given the state of these services.	General Manager and Emergency Coordinating Team
<input type="checkbox"/> Facilitate contact between guests and those organizations which may be able to facilitate communication with their relatives and friends, for example; local Embassies, the Red Cross, or American Express.	General Manager and Emergency Coordinating Team
<input type="checkbox"/> Provide guests with information on interim arrangements being provided for their comfort and safety.	Emergency Coordinating Team

Recommendations

- The Emergency Management Team members should make a brief assessment of the damage then meet to discuss and agree on priority activities to be taken.
- The Manager should activate Mutual Aid Agreements (inter-hotel/company agreements for recovery operations.)
- Provide information to guests to reduce their anxiety and to assure them that their interests are not being neglected.

➤ Accurate information to the media should be provided as requested. Ensure that statements to the press are accurate, and brief, and without exaggeration. Be positive. (See the Communication Plan - [Section V](#))

➤ The loss of credibility with the public and guests following a crisis, such as a hurricane, could affect future operations, market share, and customer base.

Damage Assessment

TASKS	RESPONSIBILITY
<input type="checkbox"/> Consult Priority Repairs Needs Report, developed by the initial inspection team immediately following the event (See Damage Assessment Report).	General Manager and Engineering and Maintenance
<input type="checkbox"/> Photograph damage	Damage Assessment Team
<input type="checkbox"/> Survey properties on basis of priority identified above. Insurance under-writer to accompany team/or retained quantity surveyor.	Damage Assessment Team
<input type="checkbox"/> Itemize structural and non-structural damage.	Damage Assessment Team
<input type="checkbox"/> Itemize damage to specific building equipment.	Damage Assessment Team
<input type="checkbox"/> Itemize damage to utilities and communications system.	Damage Assessment Team
<input type="checkbox"/> Identify need for contracted services.	Engineering and Maintenance
<input type="checkbox"/> Identify labour and material needs for damage repair.	Engineering and Maintenance
<input type="checkbox"/> Estimate each building's repair costs.	Engineering and Maintenance
<input type="checkbox"/> Summarize damage survey with estimated repair cost.	Engineering and Maintenance
<input type="checkbox"/> Develop recovery schedule.	Engineering and Maintenance
<input type="checkbox"/> Request advice on redesign or modification of vulnerable elements.	Engineering and Maintenance

Recommendations

➤ Assess structural and non-structural weaknesses which contributed to damage.

Impact Evaluation

TASKS	RESPONSIBILITY
<input type="checkbox"/> Identify disrupted telephone and power services, water shortages, damage to major transportation routes, and disruption of public transportation facilities.	General Manager and Emergency Coordinating Team
<input type="checkbox"/> Ascertain projected restoration period.	General Manager
<input type="checkbox"/> Contact employees to ascertain extent to which personal damage and dislocation will prevent work resumption.	Emergency Coordinating Team
<input type="checkbox"/> Assess level of human resources needed for recovery work.	General Manager
<input type="checkbox"/> Make decision relative to hiring temporary personnel.	General Manager
<input type="checkbox"/> Assess reallocation of resources and unplanned expenditure.	General Manager

Recommendations

- Identify effect of event on total environment within which each property is located.
- Determine emergency measures needed to facilitate business restoration in the interim short-term period prior to full recovery.
- Identify areas of dislocation.

Clean Up And Salvage

TASKS	RESPONSIBILITY
<input type="checkbox"/> Establish temporary dump on premises, where necessary.	Emergency Coordinating Team
<input type="checkbox"/> Activate clean-up and salvage team.	General Manager
<input type="checkbox"/> Activate mutual aid for transportation and other support for	General Manager

recovery activities.	
<input type="checkbox"/> Clean-up facilities; utilize voluntary assistance of those guests with any interest.	Clean-up and Salvage Team
<input type="checkbox"/> Secure contractor services where needed.	General Manager
<input type="checkbox"/> Request professional assistance if necessary.	General Manager

Recommendations

- Identify, remove, and dispose of rubble and debris.

Business Restoration

TASKS	RESPONSIBILITY
<input type="checkbox"/> Activate plan for temporary front office, in the event of damage.	General Manager
<input type="checkbox"/> Ensure that key personnel (or back-up staff) report to headquarters, provide assistance where necessary.	General Manager
<input type="checkbox"/> Provide transportation for movement of key personnel and supplies.	General Manager
<input type="checkbox"/> Implement recovery plan for business operations, revising marketing strategy as opportunity presents itself.	General Manager

Recommendations

- Examine possibilities for change in marketing strategies, as in many instances, accommodation facilities for relief and rehabilitation workers are required.

Community Relations

TASKS	RESPONSIBILITY
<input type="checkbox"/> Obtain information on extent and magnitude of damage to overall area in which the properties are located.	General Manager and Emergency Coordinating Team

<input type="checkbox"/> Obtain information on governmental action schedule to restore roads and utilities.	General Manager
<input type="checkbox"/> Negotiate assistance for structural inspection and demolition, where necessary.	General Manager
<input type="checkbox"/> Negotiate several permits, as may be required, for recovery operations.	General Manager
<input type="checkbox"/> Make known any assistance which the hotel can provide to the community, e.g. shelter, food, etc.	General Manager or Public Relations Person

Recommendations:

- Establish and maintain means of communication exchange with relevant public sector agencies.
- Consult matrix of responsibilities in local National Disaster Plan to determine which agencies to contact in case of need.