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HudsonTrident
Maritime Security Management



CIP | Inter-American
Committee on Ports

Improved Disaster Risk Management for Caribbean Ports

Training Module 4 of 6

March 2022



Background



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The following training materials have been developed by HudsonTrident for the Organization of American States (OAS) Inter-American Committee on Ports (CIP) in the context of the CIP Project 'Improved Disaster Risk Management for Caribbean Ports'. The training materials have been reviewed in collaboration with the Caribbean Disaster Emergency Management Agency (CDEMA), Caribbean Shipping Association (CSA), OAS Executive Secretariat for Integral Development (SEDI) Risk Management Division, and the United States Coast Guard (USCG), and address key components of efficient Disaster Risk Management (DRM) in ports.

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Outline

1. **Lesson 1: Identification of Resource Requirements**
2. Lesson 2: Resource Allocation and Plan Implementation
3. Lesson 3: Training and Exercising the Plan

Identification of Resource Requirements

There are many resources required for a disaster risk management program including:

- People
- Facilities
- Communications and warning technologies
- Fire protection and life safety systems
- Pollution control systems
- Equipment
- Materials and supplies
- Funding

Identification of Resource Requirements

A needs assessment should be conducted to determine resources needed. Resources may come from within the business including:

- Trained Employees
- Protection And Safety Systems
- Communications Equipment
- Other facilities owned or leased by the business

Other resources from external sources include:

- Public Emergency Services
- Business Partners
- Vendors and Contractors
- Private Emergency Services

Identification of Resource Requirements

(cont.)

Following the needs assessment, the suggestion is made for the development of a Resource Mobilisation Plan, including the list of resources needed; the source of the resource, the cost, the plan to access the resources, the contingency should the primary means to access, pay, or deliver etc. fails), among others.

Identification of Resource Requirements

The availability and capability of resources must be determined as some are required immediately.

For example: Resources such as plywood to board up windows in anticipation of a hurricane may be stockpiled in advance or purchased when a storm is forecast. Even if plywood is stockpiled in advance, temporary labor may be needed to install the plywood over windows and doors.

The availability of resources often depends on logistics. Logistics is the management of resources to get them to where they are needed when they are needed.

Identification of Resource Requirements

High-level goals for resources include:

- Protect the safety of employees, visitors, contractors and others who may be at risk from hazards at the facility
- Maintain customer service by minimizing disruptions of business operations
- Protect facilities, physical assets and electronic information
- Prevent environmental pollution
- Protect the organization's brand, image, and reputation

Identification of Resource Requirements

Examples of performance objectives include:

- The first aid team (that is trained to administer first aid and perform CPR) will be able to reach any employee within two minutes.
- The evacuation team will be able to direct all employees to safe exits and account for them outside the building within four minutes.
- Customer service staff will begin contacting customers within 8 hours of a service disruption using office space and telephone service provided by a business partner.
- The primary network server will be restored within 24 hours with replacement equipment from your primary vendor and data restored from backup media retrieved from the secure storage site.

Identification of Resource Requirements

Besides identifying specific resources for the risk management program, the resource needs assessment should answer other questions:

- What quantity of a resource is required?
- When will the resource be needed?
- What capability does the resource need to have? Are there any limitations?
- What is the cost for procuring or having the resource available?
- Are there any liabilities associated with use of the resource?
- What are the costs associated with the storage and maintenance of the resources?

Outline

1. Lesson 1: Identification of Resource Requirements
2. **Lesson 2: Resource Allocation and Plan Implementation**
3. Lesson 3: Training and Exercising the Plan

Resources Allocation and Plan Implementation

Disasters cause damage to physical infrastructure and important economic facilities, resulting in human, financial and environmental losses.

The post-disaster recovery and reconstruction efforts require huge financial commitment. This slows down economic growth and developmental gains. The financial aspect of disaster can be mitigated through prudent fiscal policies and many risk financing instruments. These instruments include risk transfer tools (insurance) and compensation arrangements provided by the private sector or government, as a complement to physical risk reduction measures.

Resources Allocation and Plan Implementation

Money invested in the risk management program can pay big dividends if an incident occurs.

Consider the benefits of a fire being controlled quickly; immediate medical assistance that saves an injured employee; a recovery strategy that enables continued customer service; or a resilient service that prevents the loss of business reputation. Spending funds prudently on risk management can pay back multiple times when measured against the potential for damage to:

- Equipment
- Facilities
- Loss of Staff
- Lost Customers and Lost Revenue

Resources Allocation and Plan Implementation

Resource management is the most crucial phase of disaster management. Efficient and in-time allocation of resources is very important; otherwise, it may result in more fatalities.

Resource management requires efficient resource allocation, and in case of overdemand for resources, it must be followed by resource scheduling.

Resources Allocation and Plan Implementation

The response and recovery operations need different kinds of resources for performing various tasks. Thus, there is a need for optimal allocation of resources at multiple emergency locations. This is a challenging issue when there are multiple locations of disaster, and at each location, the set of response related tasks are needed to be carried out.

The recovery operation can be elaborated by reconstruction and restoration of services like electricity, communication, transportation, rehabilitation of ecosystem, and redevelopment, as and when required.

Resources Allocation and Plan Implementation

An optimum resource allocation strategy decides how resources may be distributed from different warehouses to the affected region in time. However, in case of a limited number of resources, the resources must be scheduled to reduce the demand and supply gap during the response and recovery operations in the disaster-affected regions.

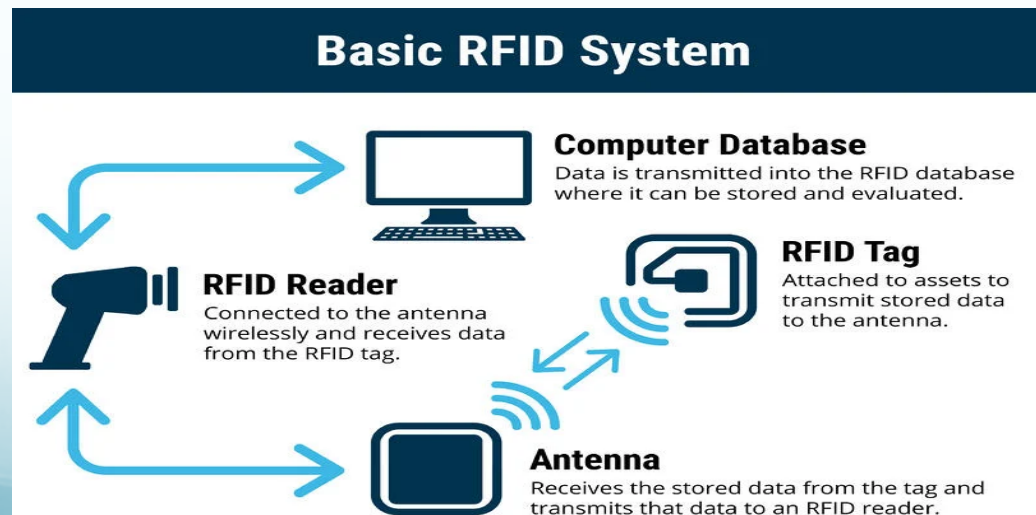
Resource scheduling supports the process of resource allocation by aiding efficient scheduling of the resources for the optimal allocation.

Agreements with agencies that own and operate satellite warehouses (Local, regional and international) will be of value.

Resources Allocation and Plan Implementation

The allocation and scheduling operations need effective data collection and communication.

If resources are tagged with appropriate sensor devices, QR Codes and/or RFID, then it becomes easy to compile the real-time information about various resources through an established network. It allows the facility to perform optimal allocation and scheduling of the resources.



Resources Allocation and Plan Implementation

The distribution of resources must be done carefully, and it is required to trace out whether the resources are allotted and if utilized efficiently or not. In this process, mitigation or preplanning activities take care of the tagging of resources in advance.

Even without RFID based tagging, some mechanism is required to trace the distribution of different resources. In this context, RFID based tagging helps in monitoring and tracking the resources. Implementation of tagging mechanisms are critical to ensure optimal allocation.

Outline

1. Lesson 1: Identification of Resource Requirements
2. Lesson 2: Resource Allocation and Plan Implementation
- 3. Lesson 3: Training and Exercising the Plan**

Training and Exercising the Plan

If there is an emergency in the building or surrounding region would your employees:

- Know what to do?
- Are they familiar with the system that would alert them to evacuate, shelter or lockdown?
- Do they know who is in charge during an emergency?
- Do they know who is authorized to speak with the news media?
- Are they familiar with their responsibilities for building and information security?
- Can they carry out their assigned responsibilities during an emergency or business disruption?

Training and Exercising the Plan

Who needs training?	What training should be provided?
All employees	<ul style="list-style-type: none"> • Protective actions for life safety (evacuation, shelter, shelter-in-place, lockdown) • Safety, security, and loss prevention programs
Emergency Response Team (evacuation, shelter, shelter-in-place)	<ul style="list-style-type: none"> • Roles and responsibilities as defined in the plan • Training as required to comply with regulations or maintain certifications (if employees administer first aid, CPR or AED or use fire extinguishers or clean up spills of hazardous chemicals) • Additional training for leaders including incident management
Business Continuity Team	<ul style="list-style-type: none"> • Roles and responsibilities as defined in the plan • Additional training for leaders including incident management
Crisis Communications Team	<ul style="list-style-type: none"> • Roles and responsibilities as defined in the plan • Additional training for leaders including incident management • Training for spokespersons

Training and Exercising the Plan

Training and exercises should be conducted to validate:

- Emergency Response
- Business Continuity
- Crisis Communications Plans

Training and exercising also needs to evaluate the ability of personnel to carry out their assigned roles and responsibilities. Lives can be saved if a strong training component is built into the disaster risk management plans, particularly in the pre-disaster phase.

A formalized training schedule can ensure all aspects of the plan and all applicable personnel are included in the training program.



Training and Exercising the Plan

Disaster risk management training activities shall include:

- The identification of training needs at all levels;
- Arranging for appropriate training activities to be developed;
- Preparing and conducting an annual program for training;
- Develop a system for nomination and selection of participants in training activities;
- Identify international training events and opportunities that can help to develop disaster risk management capabilities;
- Selecting appropriate and qualified persons to attend in-country, regional and international activities;
- Maintaining a training resource register.

Training and Exercising the Plan

- Disaster risk management plans should be drawn up and rehearsed well in advance of the onset of any disaster.
- Exercises should include clear and simple messages containing the basics of risk and stress management, including control of such emotions as fear and techniques for maintaining calm at the time of impact. These issues should also be included in risk communication packages.
- Volunteers and emergency responders may be involved in many different aspects of assistance at the disaster site, inviting them in trainings can help further test your plans cohesively.

Summary

- Identification of Resource Requirements
 - **Conduct** Needs Assessment
 - **Determine** Availability and Capability of Resources
- Resource Allocation and Plan Implementation
 - **Plan** now, **save** later
 - **Disperse** DRM resources
- Training and Exercising the Plan
 - **Train** individuals
 - **Train** your entire port
 - **Train** with Stakeholders