

# **Upgrade of Rivoli / Thompson Pen Community Flood Warning System**

*CDM Conference*

**December 2012**

# Community flood Warning System

- **A System aimed at forecasting and forewarning of impending floods that may occur in an area so as to save life and property. The system is designed to provide maximum lead time for the evacuation of persons that are likely to be affected by flood conditions and to coordinate the response of specific communities to the occurrence of floods.**

# Components of flood warning System

- **Prediction** -- forecast of adverse weather
- **Detection** --- monitoring rainfall and rivers
- **Communication** – effective system of relaying messages.
- **Decision** – action based on established criteria.
- **Mobilization** – program for evacuation

# Existing Flood Warning and Response System

Local Flood Warning System

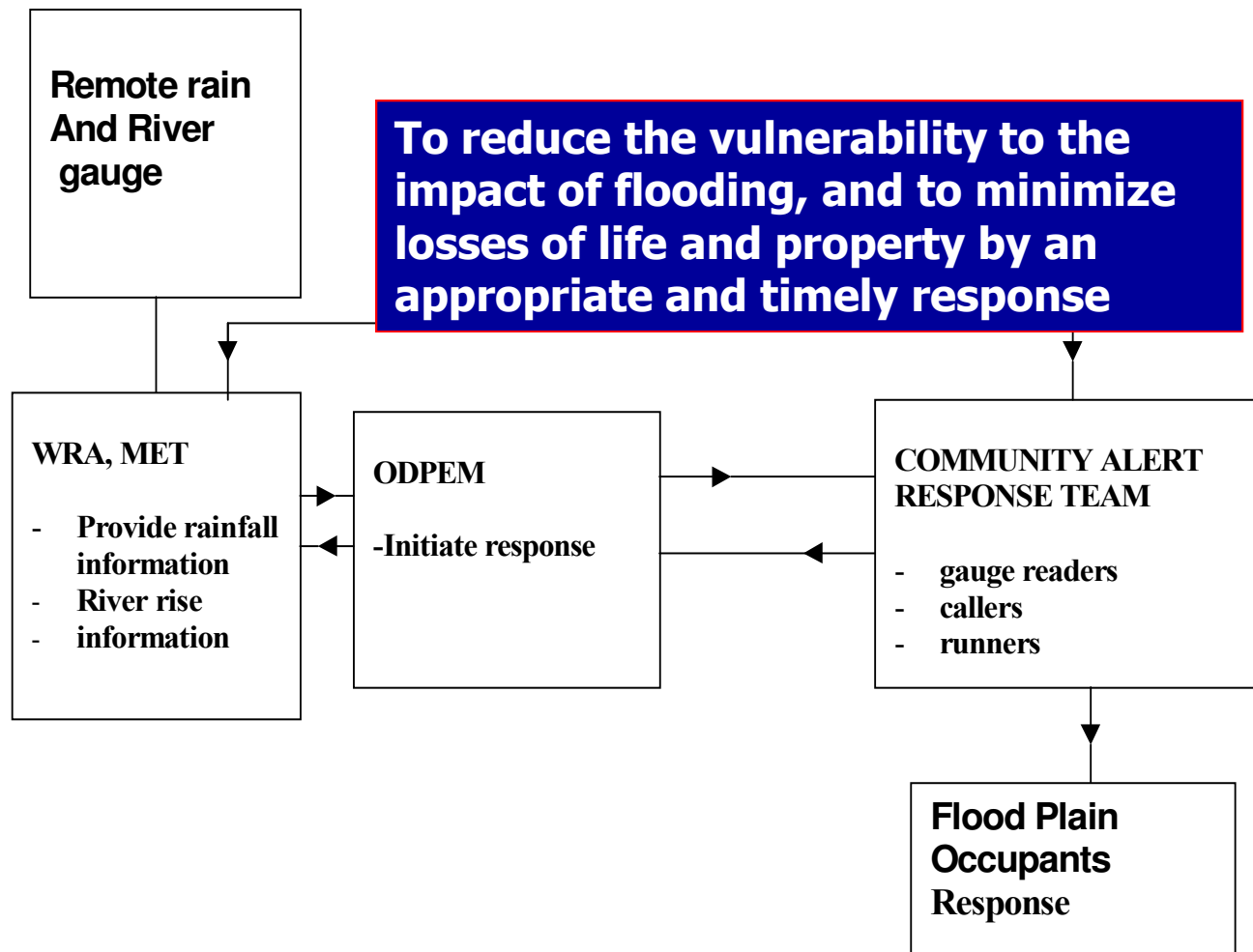
- Step 1. Data Collection
- Step 2. Data Transmission
- Step 3. Flood Forecast
- Step 4. Inform Local Officials

Response System

- Step 5. Warn Local Residents
- Step 6. Evacuation
- Step 7. Re-Entry



# Flood Warning System Operation



## **OBJECTIVE OF UPGRADE**

- **To strengthen the flood disaster reduction program at the Local Government and community level**
- **To support the efforts of the government of Jamaica to reduce the impacts of flooding on vulnerable sections of the population by enabling them to be better equipped to anticipate and respond to this hazard**



# RAIN AND RIVER GAUGING STATIONS



# Rio Cobre @ Bog Walk

**Flood Gauge**



**Data Logger**





# Flooding at Bog Walk end of Gorge

## Hurricane Gustav August 2008



# Rabys Corner





# Rabys Corner



# FLAT BRIDGE





# Rio Cobre Dam





**NIC Water Level Gauge**



**WRA Data Logger**



# Rio Cobre Dam





# Rivoli



# Thompson Pen flooding August 2008





# Thompson Pen Flood Gauge





# Community Flood Gauge

**Rivoli**



**Thompson Pen**



# PROPOSAL FOR UPGRADE

- Repair existing community flood gauges
- Installation of Siren Alarm System
- Prepare Simple Community Flood Map
- Prepare flood gauge network Topo Map
- Prepare a Flood Warning System Handbook
- Document operation of flood warning system and maintenance of equipment
- Meetings and training on flood warning system preparedness plan and responsibilities of flood response teams



# Alarm Mechanism Location





# Damaged Rivoli Flood Gauge

