Building Damage Assessment

A tool for policy making and rapid recovery
Technical expertise and Digital technology
The methodology

- Questionnaire
- App development

**Technical definition**

- Team formation
- Training

**Inspectors**

- Sectorization / zoning
- Data collection

**Field assessments**

**Reporting**

- Data analysis
- Visualization
- Reports

**Data verification**

**Data Management**

- Decisions
- Actions
- Recovery

**Programs and policies**
2. INFORMATION AVAILABLE
Roofs, ceilings, floors and walls
And more relevant information
3. COLOR TAGGING
Green:
minimal or no damage
Yellow:
Minor repairs required
Orange:
Major repairs required
Grey: Unclear
4. DATA MANAGEMENT & REPORTING
Mission

Barbuda

1,221 Total Surveys
100% % of Total Surveys

District | Total Surveys
---|---
Midlands | 1,187
Salt Lake | 61
South Coast | 13
Palmetto | 10
Total | 1,221

Assessment Date
11/6/2017 11/10/2017

Faults by table:

Country | District | Section | Location | Green | Yellow | Orange | Red | Other | Total
---|---|---|---|---|---|---|---|---|---
Barbuda | Midlands | | | | | | | | 2
Codrington | | | | | | | | | 132
Middle Section | | | | | | | | | 228
Mulatto | | | | | | | | | 207
Park | | | | | | | | | 164
Indigo | | | | | | | | | 210

Right click on table values and select Drillthrough to see details.

Data as of
11/10/2017
Data exportable, sharable and compatible
5. ANALYSIS
(few examples)
Roof damage

- Minimal roof damage
- 25%-49% roof damage
- 50%-75% roof damage
- Over 75% roof damage
Damage by building size

% of road needs relate to extra small, small and medium buildings.
Construction techniques

70% damage VS 20% damage
Ongoing repairs (permanent housing)*

*Plastic sheeting and other temporal/transitional solutions are not considered as repairs in this assessment.
Public buildings – level of damage
Debris to be managed

- Volume
- Location
- Heavy equipment required
- Storage capacity
- Transportation
## Color tag (by district)

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<th>Section</th>
<th>Location</th>
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Planning and Budgeting

Damage + Size + Materials + Type + Cost/unit = Budget required
6. WAY FORWARD
Quick impact – families back to SAFE homes

Green buildings
- Minimal fixes
- Reinforcements
- Inexpensive
- Fast

Yellow buildings
- Minor repairs
- Installation of galvanized
- Minor rafter replacement
- Prioritization (possible criteria):
  - Government buildings
  - Essential personnel
  - Business
  - Houses with occupants
Reconstruction

Orange buildings
• Major repairs
• Reinforcements
• Good quality materials
• Time frame

Red buildings
• Debris management
• Disaster resilient structures
• Location
• Vulnerabilities
Long term view

• Building codes (use)
• Urban planning
• Resilience and Climate Change adaptation
• Adequate financing
• Livelihoods
• Sustainable development
Thank you for the attention

a house is NOT a home

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