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Section: Natural Disaster Preparedness
Problems and Challenges (LACIGF Session 7)

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Date: 1 August 2018
Place: Buenos Aires, Argentina
Time Zone: 1:00 pm – 2:30 pm

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Rapporteur: Shernon Osepa, ISOC

Introduction

Lito gave an introduction on why this Natural Disaster session matters:
- We are increasingly using technology, particularly Internet connectivity;
- We are encouraging more people to connect;
- Our dependence on connectivity is ubiquitous and the Internet has become essential to our daily lives;
- There is an element of fragility in case of natural disasters.

Natural events and phenomena
- Climate change
- Greenhouse effect
- Oceans
- Atmospheric phenomena
- Earthquakes
- Flooding
- Storms
- Landslides
- Fire
- Tsunamis
- Volcanic eruptions

While governments, operators and ISPs are trying to connect more people to the Internet, the challenges posed by natural disasters makes it quite difficult to achieve this goal. This is the reason why it is important to mitigate the effects of natural disasters as much as possible.

The session involved the discussion of the following six questions:

1. ***What measures can be taken to mitigate this problem?***
The experiences of some countries were used as a starting point.

- *Mexico*
  - After the experiences Mexico went through, they developed a natural disaster contingency plan that focuses mostly on critical infrastructure, configurations, and measures that people should adhere to in order to avoid traffic congestion during natural disasters.
  - The regulator (FTC) serves as the focal point for disseminating among the community all relevant information regarding the proper use of telecommunications during a disaster.

- *Argentina*
  - In Argentina, the SINERGIR structure coordinates the assistance in case of natural disasters. They broadcast messages from all stakeholders, including the government, fixed and mobile operators, and ISPs.

- *Guatemala*

- o Guatemala is very sensitive to volcanoes and has experienced 33 events in the past year.
  - o Monitoring stations have been developed using modern technology to monitor seismic activity.
  - o These systems will also monitor where people are.
  - o This country has also focused on raising awareness regarding natural disasters and the measures that should be taken during such events, including communications plans.

- *Haiti*
  - o Spearheaded by the Government and Regulator, Haiti has been focusing on alternative emergency communications systems that don't rely solely on the Internet.
  - o Critical infrastructures such as power and water supply must also receive due attention.
  - o Installation of CB radios are also explored.

2. ***Who should take an interest in damage prevention? What is the role of each stakeholder (civil society, government, private enterprise, academia, technical community)?***
- All stakeholders:
  - o Government:
    - As they can develop relevant policies on how to mitigate natural disasters.
  - o Operators/ISPs:
    - Since they are the Internet service providers.
  - o National disaster agencies:
    - Given their roles in coordinating national disasters.
  - o Academia:
    - As they can be helpful in developing suitable emergency equipment.
  - o Civil Society:
    - To raise awareness on how people should protect themselves.
  - o Private sector:
    - As they can help invest in suitable solutions.
  - o Technical Community:
    - As they can help think of suitable solutions.

3. ***Which components of the connectivity system should be protected?***
- DNS servers
- Traffic exchange points
- Datacenters
- Local and international connectivity providers
- Cables, fibers, links, routers, switches, etc.

4. ***Where should resources be obtained to develop preventive or mitigation measures?***
- Financial resources
  - o Donors or other financial institutions

- Human resources
  - o Technicians/Engineers enhancing telecoms/Internet infrastructure

5. ***Should this work be conducted at a national or an international level?***
- The biggest impact could be noticed at a national level, which is why the focus should be laid nationally.
- The international aspect is also important, especially to learn how others have been doing things (best practices).

6. *Should this topic be included under Internet Governance?*

- So far, within the global IGF there is not much focus on "Natural Disasters".
    - The group is of the opinion that this topic should be included in the IGF agenda, the main reason being that:
        - natural disasters could be a direct threat to the Internet access deployment agenda.
        - Especially in development nations, this topic is very important.