

Data, Equipments and Technology: How science contributes to reduce disaster risk in Sri Lanka

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- Key roles and challenges of science and technology in disaster risk reduction in your country with specific emphasis on:
 - Science technology in decision making
 - Investment in science and technology
 - Science link to people
- Out of four SFDRR priority areas, where you see the need of immediate emphasis, and how this can be done (give specific example)

No place on earth is safe: Sri Lanka is no exception.

Sri Lanka is an island situated in the Indian Ocean.

The island is specially vulnerable to the extreme changes in weather (floods and droughts), landslides, Tsunami and impacts of sea level rise.



Various disciplines of science is often used in different levels/ strata by different stakeholders in the country.

Government

a. Policy and decision making level

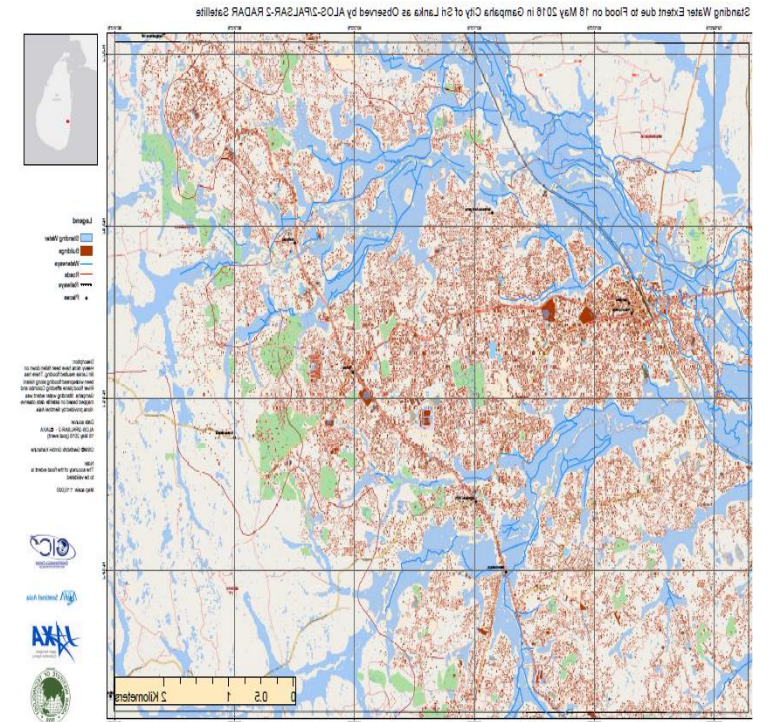
Disaster vulnerability analysis using Geo special tools - RS and GIS
Development of hazard maps (depicting safe areas)

b. Implementation level

Computer aided information generation and flows/ electronic media

Emergency operation center

- Early warning towers and operating systems
- Dissemination and coordination of information
- Emergency communication room



University/ Higher education/ Research institutes

- Generation of information : filed investigations, laboratory testing
- Analysis and interpretation of information: GIS, Satellite maps, Computer and statistical modelling

Community groups/ CBOs

- Emergency communication with mobile phones, internet
- Social media
- Digital photos/ Videos



Case study: Social media and disaster communication in flood disaster, May 2016

Emergency response: Facebook safety checks

Facebook allowed users to;

“Let your friends know you're OK by marking yourself safe.” As well as “Check on Friends Quickly find and connect with friends in the area. Mark them safe if you know they're OK.”

Was popular and well used by “youth groups”



Yet, challenges exist !

What is lacking, inadequately used or needs improvements....

- Science in monitoring and detecting

Better ways to integrate scientific observations and data to create models for forecasting the impacts (need investments in equipment, capacity building in technical training)

- Enhanced use of IT

- Use of mobile phone technology for rapid emergency communication, emergency alerts, establish areas that need help in partnership specially with corporate sector
- Intervene of the government to promote effective use of internet and web, and call center technologies to establish essential services at community level

- Science and people

People are distant from science. To be heard, “Science” should be translated to “people’s language”

Their priority is secured living environment, social and economic security.

Capacity building of communities to understand, use and appreciate “science and technology” is essential. Use of local languages is a must.

- Training community leaders, youth how to understand “emergency alerts” and communication
- Invest in adaptations- Eg: research to introduce better crops in disaster prone areas, use of live fences (mangrove/ coral planting) in the coast



Needs immediate focus on SFDRR – Priority 3; Investing in DRR for resilience

DRR through science based solutions....

- Systemic vulnerability assessment in disaster prone areas and use structural and non structural preventive measures
- Enhance capacities of societal resilience with IT
- Community science and response- how citizens can communicate disaster information in their areas to the authorities
- Effective use of science based solutions to enhance capacity of women/ elderly/ kids and differently able persons