GAPS & CHALLENGES OF SCIENCE BASED DECISION MAKING

FIJI PERSPECTIVE

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INTRODUCTION & BACKGROUND

- Fiji is exposed to different hazards, mostly hydro-meteorological

- These hazards are expected to be affected by climate change, being projected to become more frequent, more intense or both

- Last example was TC Winston in February 2016

- However, the use of science to inform decision making processes is limited to TC and weather forecast and to tsunami early warning system

DATA COLLECTION & MANAGEMENT

- In small islands states, data collection in rural communities and outer islands is complicated and expensive

- Limited human resources capacity to maintain automatic data collection systems or stations

- Issues with data accessibility, some data are still stored on paper in specific offices and thus difficult to access

- Limited sharing of collected data, each agency, organization has its own storage system and there is very few data available to all stakeholders

DATA ANALYSIS

- Limited analysis of hazards data (good analysis of climate data and generation of climate trends)

- Very limited analysis of vulnerability drivers. Some analysis was done for assets (PCRAFI Project)

- Limited human resources with analytic skills

- Limited access to data

- Reliance on licensed instead of open-source software, leading to difficulties to regularly renew licenses or update software

COMMUNICATION

- In some cases, especially TC or extreme weather event forecast, scientific information is communicated to decision-makers, but:

  - expressed in scientific terms that are sometimes difficult to interpret for non-scientists

  - communicated only to decision makers at national level, not a sub-national or community leaders (or with a delay)

  - Without explanation on the degree of the potential associated impacts for the different sectors

COMMUNICATION (contd.)

- Limited feedback from decision makers to the scientific community on the information needed

- Limited scientific background of decision-makers

- At community or outer island level, it is difficult to discuss directly with scientists (language, connection and transportation barriers)

- The language issue is an important one. There is a need to translate information for early warning systems into the local language

ASSESSMENT OF RISK REDUCTION MEASURES

- Science-based information should also support the assessment of potential risk reduction actions focusing on:
  - ➢ degree of efficiency of the proposed actions to reduce the identified risks
  - ➢ impacts of proposed actions (e.g. environmental impacts)
  - ➢ inclusion of the impacts of climate change on the scale and lifetime of potential actions
  - ➢ Comparison of different potential actions

WAY FORWARD

- Develop and support more regular data collection
- Improve data management and accessibility
- Professionalise DRR in Fiji
- Develop exchanges between decision-makers and scientists
- Support capacity building to increase understanding of the science behind natural hazards and climate change
- Translate science into local language
- Improve access of community members to scientific information

WAY FORWARD (contd.)

- Capacity building programmes at different levels (TVET, university) for community members and decision makers
- Capacity building for scientists or technical experts (Meteorological officers), including communication training
- Development of a multi-hazard early warning system focusing on:
  - The scientific aspect (data collection, analysis, monitoring and forecasting)
  - The human aspect (communication and capacity building to respond efficiently to the warnings