International Day for Disaster Risk Reduction

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The Disaster Risk Reduction Centre (DRRC)
The University of the West Indies, Mona, Jamaica

Panel Discussion

About the Presenter

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Background: Dr. Villarroel-Lamb is a lecturer in the Department of Civil & Environ. Eng. at UWI, St. Augustine, Trinidad

My current research is focused on the numerical modelling of coastal processes that are linked to coastal morphology and the improvement of the design and the assessment of green/grey coastal structures/solutions. Hazard assessment and mitigation are component aspects of ongoing research.

Introduction

Talk focus:

Developing the next generation of Disaster Risk Management (DRM)-Disaster Risk Reduction (DRR) leaders

Talk Aspects:

- Increasing Awareness: Who do we want involved?
- Training and Development: What is required?
- Disaster management- a collective approach!

Increasing Awareness

- Improving Awareness not only for the general public but those technical experts who do not understand the key role that they can play (can come from various sectors: engineers, mathematicians, musicians etc.)
- Engaging public and private sector entities to facilitate a more cooperative approach
- Changing the perception that it is a non-technical field. There is a lot of intricate science involved in disaster management
- Event-associated interest in disaster: Attracting interest year-round, not only after a disastrous event like a major hurricane or earthquake. Changing that mind-set. e.g. Civil Engineers….from design through to operation; monitoring; preventive measures
- Ensuring Gender Diversity is achieved (about 50/50 in engineering classes)

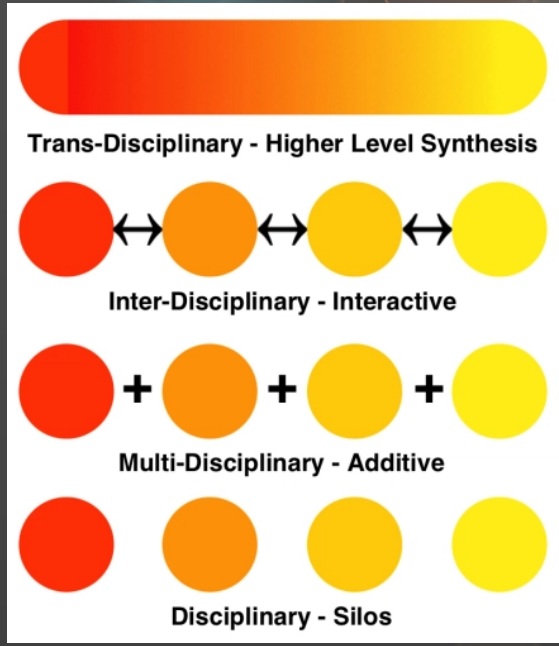
Training and Development

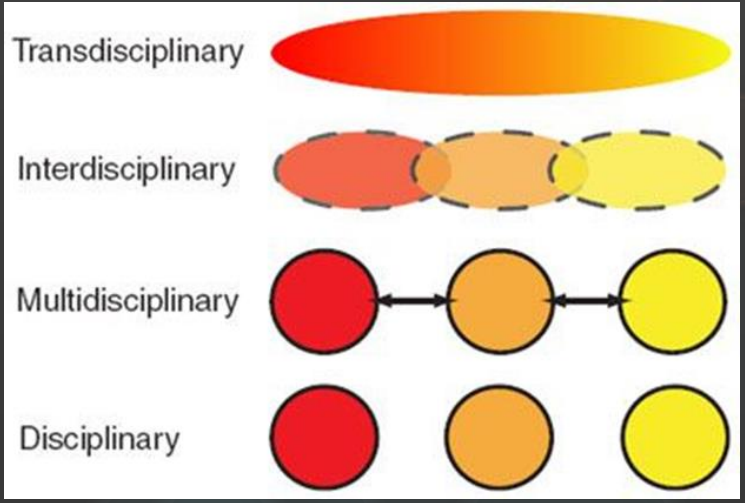
- Accessing and Engaging in State-of-the-art research
- Using the latest tools and technology
- Being mindful of local limitations and constraints (video camera system – warning system)
- Relevant Training and Development: using tools that are applicable to your location so that you are able to still function; satellite data, mangroves/ seagrass beds role in mitigation; learning how to involve the wider public: fishermen being involved, secondary school students being involved;
- Include both public and private sector entities to create or support training initiatives
- Including sensitivity training of the role of other fields or disciplines.

Interdisciplinary Approach

Getting the terminology correct for discussion:

- **Intradisciplinary**: working within a single discipline or subject area.
- **Crossdisciplinary**: involving more than one discipline; can range from multidisciplinary, to interdisciplinary through to transdisciplinary, with increasing levels of interaction among disciplines.





Interdisciplinary Approach

- **Multidisciplinary**: people from different disciplines working together, each relying on their disciplinary knowledge. Practitioners remain within their own disciplines but synthesise results from other disciplines at the end; minimum level of interaction expected among technical persons for projects.
- **Interdisciplinary**: integrating knowledge and methods from different disciplines, using a tangible synthesis of varying approaches; team analyses and synthesises where disciplines intersect from the beginning to the end of a project; optimal level of interaction expected among technical persons for a project; input from non-technical persons is still included throughout project.
- **Transdisciplinary**: creating a harmony of intellectual frameworks beyond the single disciplinary perspectives; implies that all disciplines (including academics and non-academics) work together throughout a project; ideal level of interaction expected for projects (among technical and non-technical persons); however, may not always be practical.

Interdisciplinary Approach

Understanding the interdisciplinary nature of Disaster management

An interdisciplinary approach is usually recommended for assessing resource allocation and management (Breton et al, 2006).

The goal is to promote collaboration between the social, natural and applied sciences in order to achieve an optimal solution; in particular where conflicts are expected.

An interdisciplinary team shares certain values, recognizes the complexity of the systems and adopts a mutually agreed focus; this mentality must be maintained throughout the project.

Interdisciplinary Approach

Some benefits of an interdisciplinary team:

- Can integrate a set of values that clearly provide a single direction for the entire team; rather than a fragmented analysis
- Can encourage collaborative decision-making and effective team execution
- Can promote role interdependence while respecting individual expertise, skills, roles and independence; rigorous disciplinary perspectives are still required
- Can promote transformation of methods executed in a given discipline
- Output can be more readily disseminated as knowledge was created from integrating and synthesizing diverse views and discipline languages
- Fosters creative and innovative solutions

Interdisciplinary Approach

Some drawbacks of an interdisciplinary team:

- Members of interdisciplinary teams may not be seen as highly specialized as they must create linkages between disciplines
- There are pronounced differences in perceptions of natural scientists, social scientists and applied scientists
- Terminology across disciplines are not always easily transferable to another discipline
- Problems associated with any group work such as varying levels of participation among members for various reasons;
- Interpersonal Interactions driven by personality types
- Difficulty including input from non-technical persons

Conclusion

- Education is important and critical; not just for the general public but also for technocrats
- Ensuring that there is an awareness of the various roles in disaster management and mitigation
- Relevant and appropriate training
- Finding a way to work as a cohesive team to solve the problems across the various disciplines

Questions????

Thanks for Listening!