December 21, 2013 (Ver.1) May 12, 2014 (Ver.2)

# IRDR Flagship: Disaster Risk and Loss Reduction – Integrating Research, Policy and Practice

Task Team

Tony Liu, Daniele Ehrlich, Dijillali Benouar, Mark Pelling and Kuniyoshi Takeuchi

### Recall SC10 at Sanya in Nov 2013

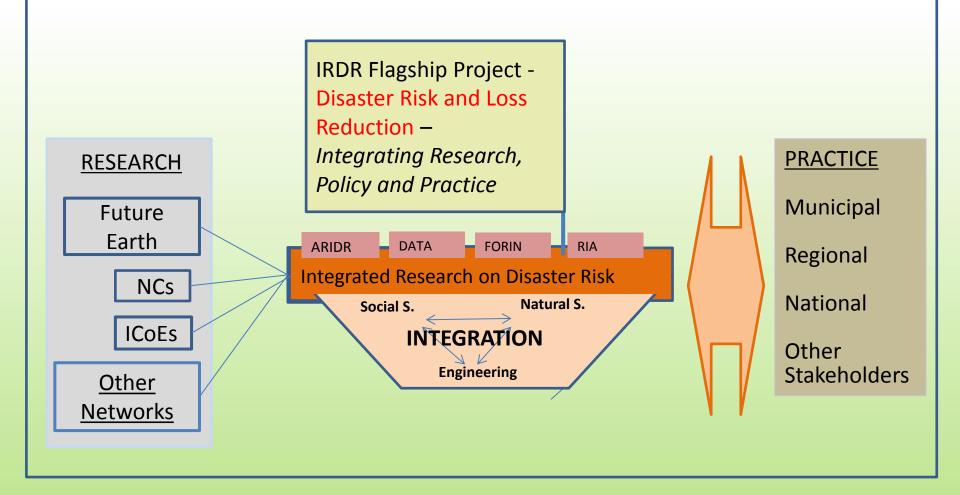
- Proposal by Tony Liu, ICoE-Taipei
  - IRDR needs a concrete project on the third objective "Reducing risk and curbing losses through knowledge-based actions" by integrating practitioners and researchers.
- IRDR does not add a new project but would need a visible 'Flagship' which work across and draw from the existing four IRDR projects and other research initiatives such as ICSU Future Earth and thinking towards the SDG and HFAII process.
- Formed a task team to look into a potential flagship & assigned K Takeuchi and M Pelling co-coordinators.

December 21, 2013 (Ver.1) based on brief meeting at Sanya followed by extensive e-mail discussion by Tony Liu, Daniele Ehrlich, Djillali Benouar and Kuniyoshi Takeuchi

January 24, 2014 Kuniyoshi Takeuchi and Mark Pelling met at Hamburg, Germany at the PEARL kick-off meeting, followed by another series of e-mail exchanges by all.

May 12, 2014 (Ver.2) based on e-mail exchanges by Tony Liu, Daniele Ehrlich, Djillali Benouar, Mark Pelling and Kuniyoshi Takeuchi

## IRDR Flagship: Disaster Risk and Loss Reduction – Integrating Research, Policy and Practice Mission of the Virgin Voyage: Integrate Science & Technology to Achieve HFA2 & SDG on DRR



### Essence of Flagship

- Flag: disaster risk and loss reduction by integrating research, policy and practice.
- Mission of the Virgin Voyage: integrate S&T with P&P to achieve HFA2 and SDG.
- IRDR FORIN, RIA, DATA and AIRDR are on the deck.
- Ship: integrates Social Sciences, Natural Sciences and Engineering for Practice, the unique function of IRDR.
- Ship: tows research outcomes of IRDR projects, ICoEs, NCs, Future Earth, GEM, GEO, other research institutes and academia & brings them to practice processed for use by decision makers and practitioners.
- It is a mutually benefiting process (a big two-way arrow).

- The flagship provides through case studies (eg in Taiwan) concepts that can be adopted in different disaster risk scenarios and circumstances.
- A successful flagship might produce a toolkit on the internet with links to methodologies and implementation cases.
- The flagship will need to be kept updated with improved methodologies and data which require considerable financial/capacity support.
- Given this ambition we may start in a small focused case study site where tools have already been applied and experience exists.
- But the highest needs to science exist where little data and resources are available and a standard toolkit may not apply. The Flagship has to pay thorough attention to diversity of socio-cultural conditions forming different root causes in progression of vulnerability.

### Towards a voyage of the flagship

- Vessel: project
- Crew: project members
- Boats to tow:
- Goods (S&T) to deliver: research outcomes
- Destination: municipalities to work with
- Fuel: funds

### Criteria of selection of municipalities for case studies: Municipalities which have

- Incentives to seek for scientific support for DRR.
- Willingness to share data and information about the current reality and history.
- Active focal person or a group of people to work with.
- Some direct interests in SDG on DRR and HFA2.
- Any concrete subjects to work on such as early warning, risk assessment, engineering infrastructure, landuse management, education, insurance etc.

The case studies of the current four projects may be the starting points for considering case study municipalities.

#### **NEEDS AND RATIONALE**

- The identified gap in IRDR activity is:
  - To break down barriers between all kinds of science and practice.
  - To provide mechanisms for closer coproduction and codesign of tools, processes and other products.
- This requires the building of close dialogue between science and practice communities, including joint practical application in experiments, demonstration and pilot projects to realise real-life, captivating dialogues; and review of existing practical cases to obtain feedback between research and practice.
- This responds to a concern that while all of IRDR activities contribute to the reduction of risk and loss, the contribution is likely to be indirect, long-term and intangible. More visible contributions to risk and loss reduction would help to promote IRDR and its mission.

### Possible Activities in a case study

- (1) listen to cities to understand their needs
- (2) with cities identify constraints that might have led in the past to either (a) the misdiagnosis or (b) lack of capacity to reduce risk and loss,
- (3) work with users to make sure any existing scientific tools/indexes etc delivered are appropriate to city needs, or help in city capacity building or to make any new research fit the practical needs of an individual city,
- (4) finally this should result in measurable impacts in risk and/or loss reduction.
- (5) this may require the development of new risk/loss observation, estimation infrastructure and tools to go beyond existing approaches (eg expert judgment).
- (6) strategically the goal is that such efforts should help cities to reduce risk/loss to meet the SDG and HFAII goals; and to better monitor this process.

### Does this fit in the existing IRDR structure?

- IRDR needs a flagship on the core aim of IRDR. The proposed work meets this aim
  - (1) to integrate sciences
  - (2) to work with policy makers/practitioners
  - (3) to provide the vision as well as the practical steps to be followed and
  - (4) to reduce losses.
- The IRDR science plan emphasizes case studies so promotes this activity.

- The dilemma is is there advantage to the proposed work in being organized at the global level?
- Pro: One or two local sites (eg in Taiwan) may be selected as the target/partners that can concentrate all IRDR activity. They are local sites but become the melting pots for IRDR in action in the real world.
   While HFA is at national/policy level, the flagship acts at local level. The global level supports the concept and makes sure that the lessons learned are disseminated.
- It would be preferable though challenging if a site is included from the least developed countries where there is a large lack of skills in the disciplines and thus capacity building is a must.

- The aim is not to build a new global work-programme with new activity demands but to have a vehicle for channeling the best science and experience globally into some representative sites, practically starting from a single site, and to learn from it.
- IRDR global networks are essential for this flow, as are IRDR Taiwan's local linkages (in this case, and over time we hope there will be others).
- So we may have a globally recognized 'hotspot(s)' for IRDR activity and exchange (local to global and back).

#### Alik Ismail-Zadeh's comments

 1. Fuel is an important issue, and the flagship will not move without funds (as the AIRDR project cannot make further development, because it is based on the NSF (or similar) money only, which Susan kindly used to perform the pilot project). The sources for local, regional, international and private funding should be explored to sustain the project for a long period of time. And here ICSU, ISSC and UNISDR should help promoting the flagship program via its Scientific Unions, Regional Offices, and National Platforms as well as via media and industrial partners (e.g. insurance companies).

- 2. I would suggest to consider setting up a team of experts (representing various organizations) to advise on major priorities of the program. An Advisory Committee of the Flagship project should not replace IRDR-SC but should have advisory and review functions related to the project. The Advisory Committee should be comprised on experts from
  - the ICSU and ISSC Unions (dealing with disaster risks analysis, in general, or with analysis of natural hazards and vulnerability, particularly);
  - UNISDR, UNESCO, WMO, UNEP, UNOOSA, World Bank, and other UN organizations dealing with disaster risks;
  - local governments (especially those participating in the project); and
  - representatives of end-users of the product developed in the framework of the program.

 The Advisory Committee could meet every second year to review the project and to advise the future development. This committee will provide an essential link to all stakeholders dealing with risks and help in promotion of the project.