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Draft Proposal

IRDR Flagship:

Disaster Risk and Loss Reduction – integrating Research, Policy and Practice

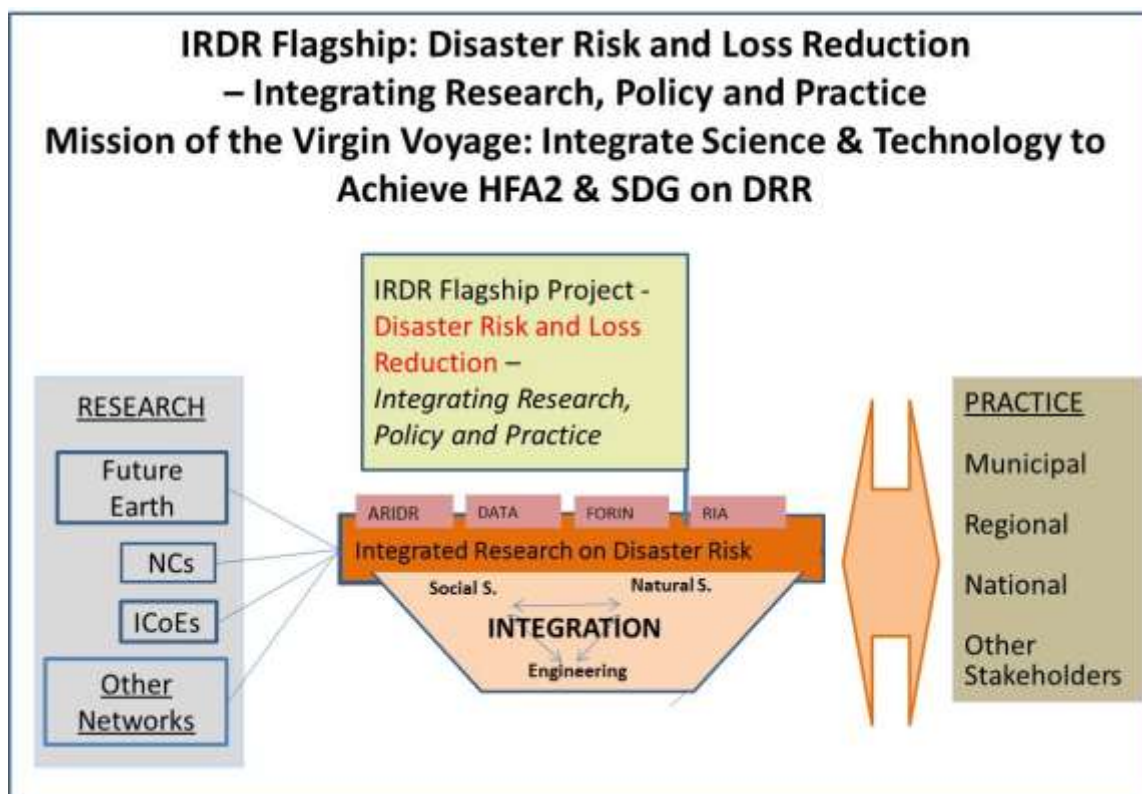
BACKGROUND

At the IRDR SC10 on 12-14 November 2013 in Sanya, China, the ICoE-Taipei proposal on Disaster Risk Reduction and Loss Mitigation was presented by Tony Liu. The proposal pointed out that IRDR needs a concrete project on the third objective “Reducing risk and curbing losses through knowledge-based actions” by integrating practitioners with researchers. The original reaction of the SC was that the IRDR would be better to focus on the current four projects with policy and practice integration and practical outcomes to be sought within these existing projects. At the same time it was recognised that IRDR would benefit from a very visible ‘Flagship’. Instead of adding another project this would 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. Its distinction would be to show concretely how to make a visible contribution to society through improved disaster risk management.

The SC10 then decided to form a task team to discuss the proposal and report to the SC11 in Beijing. The chair appointed Kuni Takeuchi and Mark Pelling as co-coordinators. This draft is an outcome of discussion and e-mail exchanges among Tony Liu, Daniele Ehrlich, Dijillali Benouar, Mark Pelling and Kuni Takeuchi to serve as the point of departure for full discussion on design of the IRDR Flagship.

DRAFT PROPOSAL

The image of draft proposal of the Flagship is as follows:



The central part of the figure – the flagship of IRDR - aims to show the main objective of IRDR activity: To develop and apply integrated approaches to disaster risk and loss reduction by bringing research, policy and practice into conversation. The methodology is integration of Natural Sciences, Social Sciences and Engineering for practice. “The Mission of the Virgin Voyage of the Flagship” is to serve for achieving the global post-2015 agenda: Post-Hyogo Framework for Action and Sustainable Development Goals on disaster risk reduction. The methodologies of implementation and monitoring of the post-2015 policy are eagerly awaited by society to which Science and Technology communities are responsible.

On the ship deck there are the current four IRDR projects, FORIN, RIA, DATA and AIRDR. The ship hull shows the integration of Social Sciences, Natural Sciences and Engineering for Practice, the unique function of IRDR. The “ship” tows research information that are generated in the left part of the figure (colored in gray) into the ship and integrate them together with the IRDR own and bring the outcomes to practice processed for use by decision makers and practitioners grouped on the right side of the figure (colored in brown). Note that the flagship is not a ship of IRDR family but is a ship for all people concerned on the mission and objectives to be on board and work. It is a factory. It is a factory that should be able to display unambiguously the possibility and benefit of integrated research on better understanding and tangible reduction of risk and loss in a single empirical context.

The area on the left lists a selected number of international projects that already deliver scientific knowledge and observation data and information of relevance to IRDR. The research outcomes of IRDR ICoEs, National Committees and the Future Earth projects would be important components but many others such as GEM, GEO and those of research institutes and academia should also be integrated. This should connect to IRDR affiliated projects – which we need to generate and which the flagship project can provide a rationale for selection.

The research outcomes of IRDR integration activities would be brought to practitioners and, by interaction between researchers and practitioners, research would be customized into practical use and get feedback from practice in Disaster Risk Reduction and Loss Mitigation (big two-way arrow right of the ship).

The beneficiaries would be policy makers and the administration authorities operating at the different scales: municipality, regional, national level and other users such as international agencies and programs. Administrative authorities would be part of the integrated process by providing feedback and being involved in the information generation process.

The output needs to be something that can be widely applied in different hazard, vulnerability and policy contexts. It needs to show utility at a policy maker level. Thus it is important to keep the primary product at the level of an approach, this can be worked through a specific case study (eg in Taiwan). The flagship provides through case studies concepts that can be adopted in different disaster risk scenarios and circumstances. A successful flagship might produce a toolkit that may be disseminated through the internet and allow risk managers to identify different elements of an integrated risk assessment framework, then underneath this provide links to specific methodologies (in some cases more than one methodology can be proposed for a specific research problem), and then have implementation cases to illustrate the challenges and potential outcomes. The flagship will need to be kept updated and open to ongoing improvement in methodologies and updating of data. To do this requires considerable financial/capacity support to develop the toolkit and apply or bring together and monitor applied research. Given this ambition we may start in a small focused case study site where tools have already been applied and experience of social, physical and engineering sciences exists. At the same time, we have to keep in mind that 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 IMPLEMENTATION OF THE MISSION OF THE FLAGSHIP VOYAGE

In order to start off for a voyage, the shipping plan is necessary such as on the crew, boats to tow, the goods (Science and Technology) to deliver, the destination and the fuel. As the destination is the municipality to work with, the most important is to find municipalities to work with as case studies where researchers and practitioners meet in front of concrete problems to be solved. For which, there may be the following agenda:

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

1. Needs and incentives to seek for scientific support for DRR such as the ones just experienced a major disaster.
2. Willingness to share data and information about the current reality and history of hazards, preparedness by structural and non-structural means and policy and implementation of disaster management.

3. Active focal persons or a group of people to work with who are supported by the municipality administration.

4. Some direct interests in SDG on DRR and HFA2.

5. Any concrete subjects to work on such as early warning, risk assessment, engineering infrastructure, landuse management, education, insurance etc.

The current four projects would already have some case studies which would be the starting points for organizing case study municipalities.

The fund raising efforts should follow after the authorization of the IRDR Flagship proposal.

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 relationships, and probably of practical, tangible, and maybe urgent policy and practice needs, where scientists and practitioners can come together to improve both science and practice. This might include 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:

Identify case study locations (cities?) that can act as locus for collaboration around IRDR aims and work-packages with a view to best integrating IRDR science within urban planning and risk management activities, and to provide practice informed input to SDG, HFAII agenda; and before 2015 to provide evidence to comment on potential indicators, data infrastructure etc. to help feed into the process from a science perspective.

The ethos here is not to deliver science ie indicators; but to understand first what cities' need, what the constraints are for taking up science and applying it (human resource, economic constraint, legal and political) so that science can best help within these constraints. This can sit with emerging global science agenda (eg 'good enough' data and decision-making)

The approach is (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.

In this process IRDR can act as a knowledge broker and focal point for the most appropriate science for any city. This requires a strong local connection and trust between the IRDR focal point and interested city partners.

Does this fit in the existing IRDR structure?

IRDR needs a flagship, the flagship should be 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 loss.

But – the best mechanism for this is local. The IRDR science plan emphasizes case study work 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.

In selection of target/partner sites, aforementioned diversity of local conditions should be strategically considered. It would be preferable though challenging if a site is included from the least developed countries where all the powers are the central government level and thus should be integrated from the beginning in all the DRR activities to guarantee a certain degree of success. Also, in these countries, the will is not enough as there is a large lack of skills in the disciplines and thus capacity building is a must today. We have to take into account the reality of achievements of HFA1 into our perspectives for HFA2 and any other action.

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 recognised 'hotspot(s)' for IRDR activity and exchange (local to global and back).