

Preliminary draft outline

A Research Agenda for Global Science Mission in Support of Risk-Informed Sustainable Development and Planetary Health

14 December 2019

‘At no point in human history have we faced such an array of both familiar and unfamiliar risks, interacting in a hyperconnected, rapidly changing world. New risks and correlations are emerging. Decades-old projections about climate change have come true much sooner than expected. With that come changes in the intensity and frequency of hazards. Risk really is systemic, and requires concerted and urgent effort to reduce it in integrated and innovative ways.’ (SRSG, GAR2019)

Note: Most elements are already in GAR2019 and could be referred to.

1. Context and rationale (3000 words):

- ✧ DRR, a landscape undergoing rapid and profound changes.
- ✧ Brief assessment of progress in DRR since 2015 vs SFDRR Priorities and Targets: evidenced by figures and cases (GAR2019) with highlights on those changes by science applications and integration of science, social sciences, technology and engineering.
- ✧ Clear assessment on challenges, gaps, emerging risks and growing uncertainties in the course of SFDRR implementation
 - ✧ Data, knowledge, expertise and the related access and sharing
 - ✧ Capacity development and diverse capacity distribution across countries, regions and sectors
 - ✧ Sectoral, disciplinary and traditional technical approaches vs integrated and interdisciplinary approaches
 - ✧ Factors of climate change and extremes, fast growing interconnectivity, continued urbanization and explosion of technologies.
 - ✧ Calls for coherent effort with the parallel UN frameworks in addressing risks related to SDGs, Paris Agreement on Climate Change, New Urban Agenda, Addis-Ababa Action Agenda and Agenda for Humanity. DRR has evolved and become a mainstream development issue, for which science is required to work more effectively, differently and more innovatively.
- ✧ The acknowledgement on the need for a **new global research agenda which has a new orientation for risk-informed development, or, for development safety.** This agenda will be expected to guide the work of scientists, researchers, academics, technical institutions in both

the public and private sectors, to build the evidence base needed for risk-informed decision-making in all geographies, sectors and scales.

2. Recap of the missions and research objectives of the existing international research programmes, platforms and networks (mapping exercise: max 200 words for each entity included for max 10 entities)

- IRDR and related ISC programmes
- STAG and related expert groups
- GRAF
- GADRI
- RIKS-KAN
- WFEO
- ...

Summary comments on the existing programmes, platforms and networks, with notes on needs for connection and synergy and the identification of missing expertise and priority areas for concerted science intervention.

3. The basic questions for the purpose of further clarification (1000 words):

- ◇ Why do we need to launch a new global DRR research agenda toward 2030 and beyond, rather than by amending the present settings of science networks, platforms and research programmes? (This is to further clarify the added values.) (300 words)
- ◇ Would the new DRR research agenda look at only the current 7 Targets of SFDRR, or it would go beyond? If is the later, how to ensure it is coherent and mutually stimulating and benefiting with other UN 2030 frameworks (500 words)?
 - Comments on risk issues in relation to poverty; food and water security; human health; energy solutions; resilient urban setting and communities, climate change related extremes, ecosystem health.
 - Comments on systemic risk and risk due to growing interconnectivity in physical, biological, environmental, social, and cyber forms.
 - Other risks
- ◇ What are the main aspects of differences that the new DRR research agenda should generate? (200 words)
 - Knowledge generation and sharing
 - Engagement and interactions between science, policy and society

- The development in risk science and education
- The roles and niches of DRR research in SFDRR and the agenda of sustainable developments

4. A **new vision statement** by scientific communities committed to SFDRR and to 2030 UN frameworks (300 words)

This vision statement should be long-sighted, projected beyond 2030, inspiring and strategic, and is crafted through broad consultation. It gives clear idea on science's roles and contributions toward risk-informed development or development safety.

5. Defining of the **Mission and major research objectives** (max 4 major objectives - 2000 words in total)

This part should give specific clarification to each major research objectives and the sub-objectives, including cross-cutting themes if provided.

6. **Strategic areas of cooperation in DRR research and action** (max six areas - each has a justification - 3000 words), including for example the following:

- ◇ Data and knowledge: standard, production, access, sharing and servicing (including warning systems)
- ◇ New technologies and acceleration of technology development: as new means for solutions as well as sources of new challenges - in relation to the digital revolution
- ◇ Scientific understanding on uncertainties, increasing hazards and risks: systemic, cascading, and multi-dimensional
- ◇ Science, policy and society engagement, dialogue and action: new dynamics to foster societal awareness and consensus for risk-informed decision making and action
- ◇ Institutional capacity development: strengthening science and education in the global south and fostering young DRR professionals.

7. A **proposal for implementation mechanisms** (1500 words)

- ◇ An international programme as the main mechanism of scientific coordination and planning (membership, governance, programme planning and reporting, deliverables, outreach and resource).
- ◇ Alliances and institutional partnerships for the implementation of the new agenda.
- ◇ Mechanism for effective interaction with SFDRR and other UN 2030 agreements.

References

Annex