

UNISDR Scientific and Technical Advisory Group (STAG) Platform and Network Survey

Summary Report

On behalf of the UNISDR Scientific and Technical Advisory Group (STAG), GRF Davos has initiated a survey amongst Disaster Risk Reduction platforms and networks. The STAG’s current understanding is that the “platforms” have a scientific and technological basis revolving around risks and disasters, whereas the “networks” have more of a coordination function at their core with respect to key areas of disaster risk reduction (DRR). The survey served the STAG to get a closer insight into the structure and the working mechanisms of the platforms and networks and to get an overview on how to make better use if the platforms and networks in supporting the UNISDR systems work, as well as the see if a network of networks shall be put in place to strengthen DRR activities.

The survey consisted of 26 questions including closed and open ended questions. A total of 26 Platforms provided information. Table 1 provides an overview of the platforms and network that responded to the survey.

Table 1: Responding platform & networks (in alphabetical order)

| Platform/Network | Acronym |
|---|-----------------------------|
| Asian University Network for Environment and Disaster Management | AUEDM |
| CANEUS International | CANEUS |
| Centro Internacional para la Investigación del Fenomeno de El Niño | CIIFEN |
| Committee on Earth Observation Satellites | CEOS |
| Economic and Social Commission for Asia and Pacific/World Meteorological Organization Typhoon Committee | ESCAP/WMO Typhoon Committee |
| Global Earthquake Model | GEM |
| Global Facility for Disaster Reduction and Recovery Labs | GFDRR Labs |
| Global Fire Monitoring Center (GFMC) / Global Wildland Fire Network | GFMC / GWFN |
| Global Network for Disaster Risk Reduction | GNDRR |
| Global Risk Forum GRF Davos | GRF Davos |
| Group on Earth Observations | GEO |
| Helmholtz Alliance Energy Trans | Energy Trans |
| ICL-IPL Thematic Networks on Landslides | ICL-IPL |
| Integrated Risk Governance Project | IRG Project |
| International Group for Wind-Related Disaster Risk Reduction | IG-WRDRR |
| International Network of Crisis Mappers | Crisis Mappers |
| International Platform for Reducing Earthquake Disasters | IPRED |
| International Research Institute of Disaster Science | IRIDeS |

| | |
|---|------------|
| International Thematic Group for Wind-Related Disaster Risk Reduction | IG-WRRR |
| Partnership for Environment and Disaster Risk Reduction | PEDRR |
| People Enhancing Resilience to People Exposed to Risk | PeriPeri U |
| Rapid Analysis and Spatialisation of Risk | RASOR |
| Science in Humanitarian Emergencies and Disasters | SHED |
| The Earthquakes and Megacities Initiative | EMI |

Organisational Structure

Information about the organisational structure, eligibility for membership, the members of the platform/networks and the amount of individual members was given. Out of the 26 responders, 4 responded that their platform/network is “A loose organisational construct without defined responsibilities”, 1 responded that it is “Part of a university”, 7 are “An association with membership option, bylaws, etc.”, 2 are “A foundation with membership option, bylaws, etc.” and 13 responded that they have a different structure. These responses ranged from being an International, Intergovernmental Organisation, to research consortium, a team of specialists, internal networks and non-governmental institutions.

Responses for the “**Eligibility for participation within the platform/network**” is reflected within Figure 1. Other responses are more detailed according to the specific eligibility criteria of the respective platform/network and cover Governmental agencies, UN bodies and professional organisations but also countries and regions as well as funding agencies and partnerships.

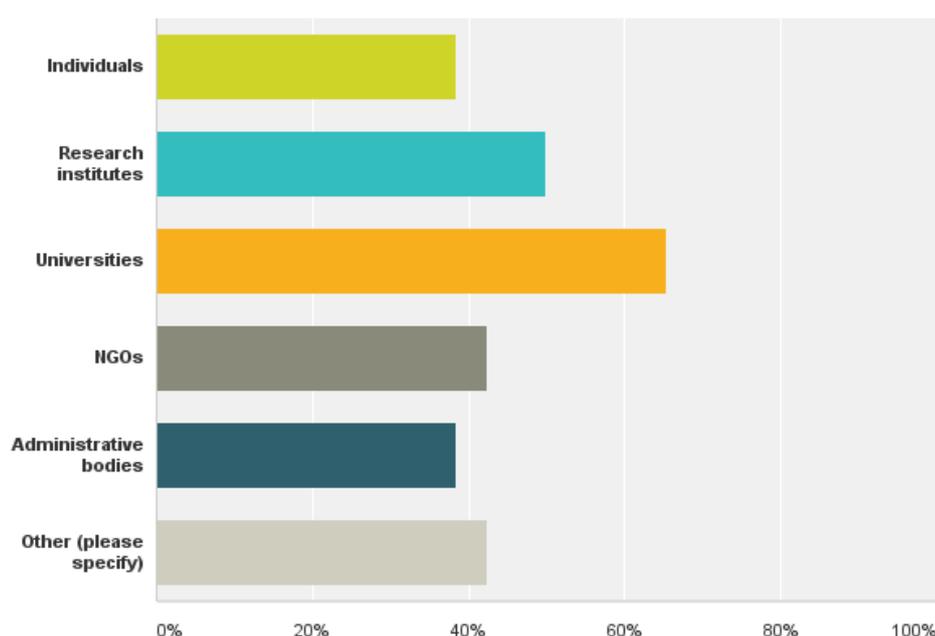


Figure 1: Eligibility for participation

Individual participation ranges from 11-25 participants within 2 platforms/networks, to 26-50 within 6 platforms/networks, to 51-100 from 4 different platforms/networks. 3 platforms and networks responded that they have between 101-250 members, and 2 have between 501-100. The remaining 9 platforms/networks have over 1000 members.

Thematical focus

Within the thematical focus, information was gathered around the kind of hazard, risks and disasters the platform/networks are working on, what their main objectives are, which disaster phase they cover, and which DRR management fields and disciplines they cover.

Table 2 provides an overview about the responses on the **Hazards/Risks/Disasters covered** (multiple selection possible). Most of the platform seem to be involved in Climate Change and in Weather related disasters. Overall, a vast range of risks are covered. Several have mentioned that they are working within an integrative risk management approach and therefore do not focus on specific disasters only.

Table 2: Hazards/risks/disasters covered

| Hazard/Risk/Disasters covered | Responses |
|--|-----------|
| Climate change | 22 |
| Hurricanes, cyclones, typhoons, surge storms | 20 |
| Earthquakes and related tsunamis | 19 |
| Floods, debris, mudflows | 18 |
| Mass movements, landslides, rock falls, avalanches, liquefaction | 16 |
| Environmental degradation | 16 |
| Drought, desertification, sand/dust storms | 15 |
| Volcanic activities and emissions | 15 |
| Wildfires | 13 |
| Heatwaves, temperatures extreme | 13 |
| Health risks | 13 |
| Surface collapse, geological fault activity | 11 |
| NaTech (Technological disasters caused by natural hazards) | 11 |
| Other (please specify) | 10 |
| Permafrost, snow/ice avalanches | 9 |
| Technological risks | 9 |
| Biological risks | 7 |

Most of the **platform/networks aim/objectives** evolve around supporting policy advice, 25 platforms/networks mentioned this. 23 mentioned that they support research and 21 support

education and training activities. 19 support implementation and consultancy, whilst other mentions capacity building, advocacy and publishing.

Looking closer into the **disaster phase covered by the platform/networks**, it seems that most of them work in prevention (25), mitigation is covered by 23 and 22 are involved in preparedness activities. 16 are working in response, recovery, and reconstruction. 4 additionally mentioned that their main focus is on all phases of the disaster cycle (Compare Figure 2: Disaster phases covered)

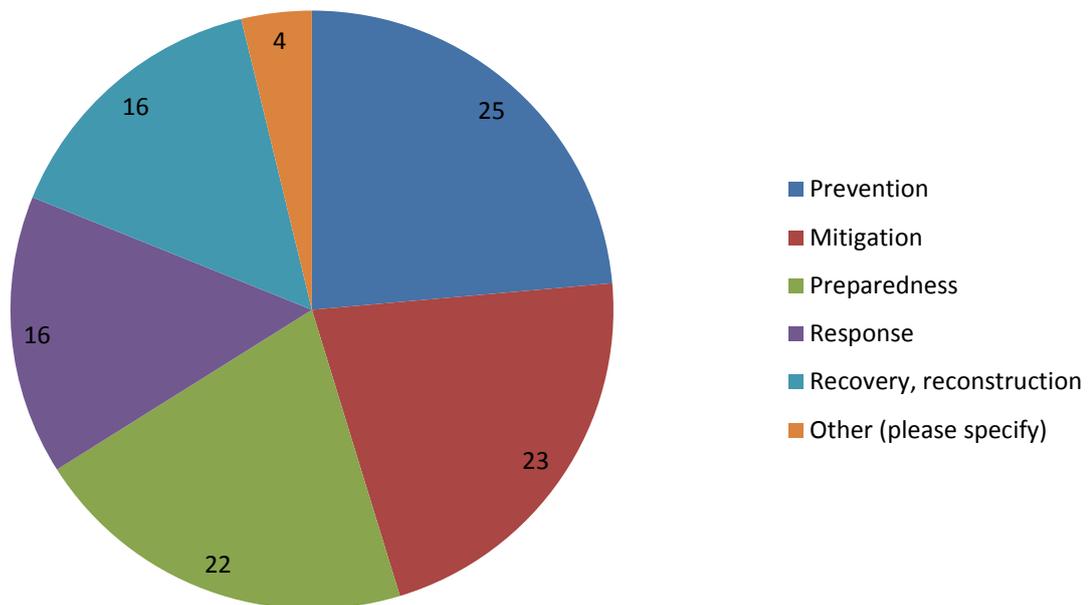


Figure 2: Disaster phases covered

Table 3 provides an overview about the mentioning of **solutions from the platforms/networks in different DRR management fields**. Most of the platforms (23) are working in “Vulnerability/capacity analysis” or “policy development, political commitment, legislation” (22) and “risk analysis and DRR targets” (22). On the end of the table remain 7 platforms/networks that cover insurance and reinsurance issues and 8 are working in public health in disaster risk reduction.

Table 3: DRR management field

| DRR management field | Responses |
|--|-----------|
| Vulnerability/capacity analysis | 23 |
| Policy development, political commitment, legislation | 22 |
| Risk analysis and DRR targets | 22 |
| Hazard identification and mapping | 21 |
| Public awareness raising | 18 |
| Exposure identification and mapping | 18 |
| Education for disaster risk management | 17 |
| Organisational risk reduction measures (early warning systems, etc.) | 16 |
| Impact assessment, disaster losses (data bases, etc.) | 14 |
| Emergency management | 14 |
| Land use planning | 13 |
| Codes, standards | 13 |
| Technological risk reduction measures | 11 |
| Ecological risk reduction measures | 10 |
| Cost/benefit analysis | 9 |
| Public health in disaster risk reduction | 8 |
| Insurance, reinsurance | 7 |

The **disciplines covered** are mainly natural sciences which was mentioned by 23 different platforms/networks. Engineering sciences was mentioned by 21 and 15 mentioned Information communications and technology (ICT). Social sciences including economics is covered by 17 different platforms/networks and health sciences by 10. Additionally, education and culture, satellite earth observations, space based science and technology, humanities and anthropology as well as public administration and local administrative law was mentioned.

Achievements and contributions

The **major achievements in the last five years of the platform/networks** have been listed very detailed by the responders. The achievements provided cover a broad range of different activities and products and are varying from very specific and detailed to very broad and global activities. The following provides an attempt to cluster the main activities that have been mentioned by the 26 responders for an overview of these.

The development and promotion of various different concepts, methodologies, practices and tools such as field investigation tools was listed several times. Also the development and promotion of different indicators, monitoring tools and practices but also educational material and policies have been listed. Achievements also included technical and financial support of implementation and practice and the training of professionals. This also included awareness raising activities within the

wider public but especially within governmental institutions on DRM issues, gaps and needs also to provide advice and consult national governments. The strengthening of intergovernmental and intersectoral work, as well as advocacy and policy recommendations was also listed as major achievements by several responders. The conceptual work and therewith the publication of articles, journals, fact sheets and assessment reports are also listed contributions. With the provision of all the data, information and successful practices provided, several platform/networks have achieved to ease and foster better data collection and provision tools, such as open data centres and website, crowdsourcing activities and real time analysis of such data. The execution of conferences to foster knowledge exchange was also listed as a major achievement of several platforms/networks.

HFA input

On the question **how the platform/network contributes to the HFA priorities**, the responses could provide contributions toward the 5 priorities for action provided by the HFA. The following provides a consolidated overview of responses per priority action:

Priority Action 1: “Ensure that disaster risk reduction is a national and a local priority with a strong institutional basis for implementation.”

Contributions to priority action 1 are the organisation of workshops and symposia to foster exchange amongst national and local stakeholders, supporting and informing national agencies and ministries on DRM related issues, supporting policy development and the promotion of DRM, but also international advocacy and awareness raising aiming an national and local impact, as well as the enhancement of the cooperation between platforms and national governments as well as data acquisition.

Priority Action 2: “Identify, assess and monitor disaster risks and enhance early warning.”

The development of assessment and early warning tools seems to be a major contribution of the platforms/networks, applied research activities and the establishment of such research centres are also part of the support for priority action 2. The data collection especially on a local level for improved monitoring of DRR activities is also listed, as well as the development of early warning products and tools.

Priority Action 3: “Use knowledge, innovation and education to build a culture of safety and resilience at all levels.”

Education and training programmes focussing on DRR related matters are highlighted by several responses. The execution of seminars and workshops as well as the development and mainstreaming of DRR school and other curricula’s is listed. Information sharing and the establishment of graduate schools and fellowship programmes are additional activities undertaken to support priority action 3 of the HFA.

Priority Action 4: “Reduce the underlying risk factors.”

By conducting research and applying knowledge into different activities and by developing new technologies for risk reduction the responders aim to contribute to the reduction of underlying risk factors. But also by consulting agencies, the private sector and governments and undertaking risk assessments, contributions to Priority Action 4 are provided. Within risk reduction planning awareness raising activities are undertaken that call for action.

Priority Action 5: “Strengthen disaster preparedness for effective response at all levels.”

The priority action 5 is supported by focussing on strengthening climate prediction and research on preparedness activities and integrating response planning and training as an integral part of methodologies and approaches.

Most of the responders (23) are interested in **sharing their experience** with others to provide good practice case studies that demonstrate the use of science in practical disaster risk reduction activities. They have responded with several ideas of case studies, the following only lists an excerpt of them:

- ECO-DRR and green recovery technical inputs after the Japan East Asia Mega Disaster
- Open source software for hazard and risk assessment
- Inexpensive and practical early warning devices
- Wind resistant design codes at national and ISO levels
- Landslide monitoring and early warning system
- Risk maps for governments and insurance companies
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As a response to **what is missing in the HFA and needs to be included in the post 2015 DRR** framework, responses have provided some general and some very specific contributions. However, clustering the major concerns, six different needs have been highlighted by the responses:

- The need to integrate Disaster Risk Reduction with Sustainable Development
- The need to increase the private sector engagement in DRR activities
- Better data access, collection, transparency, sharing and interfaces
- Increased monitoring and evaluation mechanisms for DRR activities
- Focus on education and training of all stakeholders

To respond to these needs, these **network/platforms’ contribution to the implementation of the HFA2** until 2020 evolve around the different suggestions. Very detailed information has been provided by the responders and was clustered to the following:

- Generation and provision of data and information
- Development of new technologies & tools
- Advocacy and provision of policy recommendations

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- Capacity building activities and knowledge dissemination
- Foster knowledge exchange and dialogue

The needs for **better coordination of the activities of the platforms and networks** include amongst others:

- Network of networks platform for knowledge sharing, exchange and collaboration
- Better communication structures
- Increased understanding of the end user needs
- Clear mission for platform/network participants
- Thematic areas

The **topics future UN ISDR Thematic platforms cover** are mainly:

- Data access and infrastructure of information exchange
- Integrative Disaster Risk Management approach including multi discipline approach
- Integration of science in practice and provision of actionable solutions

Suggestions to structure and organize future platforms and networks include:

- Avoiding overlaps on the activities of the different platforms/networks
- Open the structures to attract additional stakeholders
- Provision of easily accessible information on existing networks and their roles for new/other networks/platforms to identify overlaps and opportunities for collaboration

Conclusions & Recommendations

Needs to be discussed

- Need for concentrated efforts in preparedness and prevention
- Need for increased efforts in data sharing and exchange
- Establishment of a network of networks with a steering mandate to organise the existing networks more efficient and effective
- Establishment of a DRR research market place (Demand and Supply Management scheme) – Regulated DRR stock market?

Marc Stal/ Walter Ammann, GRF Davos, April 2014

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