

Suva Expert Dialogue – Report by Rapporteurs –

Session: Risk Assessment (15:30 – 16:45), May 2
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Team:

Background

The Suva Expert Dialogue (SED) aimed to advance from the inputs received through the secretariat's call for submissions on *the type and nature of actions to address loss and damage for which finance may be required*. In the context of comprehensive risk management, risk assessment was the third most mentioned action area within the 18 submissions from Parties and non-Party stakeholders, many of which stressed the need for risk assessments to become integral to the development and priority-setting processes across all sectors susceptible to climate change. Multiple submissions viewed risk assessments as the first step of a comprehensive risk management approach and pointed to, inter alia, the following actions necessary to address I&d: the development of risk evaluations, including risk criteria setting; undertaking risk assessments with long-term planning horizons; aggregate and sectoral impact assessments; a registry of at-risk populations to assess data needs, reconstruction costs, and sea level rise as well as the associated relocation costs; and I&d databases. Furthermore, several submissions highlighted that developing countries should be supported through the development of a process allowing countries to conduct risk assessments; decision-making tools and standardized sets of risk assessment guidelines; inventories of assets at risk of I&d; and institutional capacity-building. Additionally, some submissions called for the enhancement of weather and climate information services in terms of both, the quality as well as the quantity of available data.

Discussion: Summary

The roundtable discussions on risk assessment featured many discussants from developing country Parties and non-Party stakeholders, yet less participants from Annex I Parties. Based on the eight guiding questions that structured the SED, the following three overarching areas can be discerned: 1. Existing and emerging approaches of climate risk assessment; 2. Gaps of assessment approaches, solutions, design and associated challenges; and 3. Cooperation, sources and types of support: finance, capacities, and technologies. The most substantial parts of the dialogue centred on areas two and three, most particularly on gaps, potential solutions and associated challenges. In terms of the latter, the discussants focused on questions addressing the *who*, *what* and *how* of risk assessments, highlighting the need for participatory approaches, the need to assess risks in a comprehensive manner, including elements such as non-economic losses, and the necessity of basing such assessments on sufficient data quality, availability as well as modelling approaches and assessment tools that incorporate climate change related risks more adequately. Hereby, discussants converged significantly around data and modelling improvement requirements. Interestingly, the discussions highlighted very concrete and specific gaps and needs in relation to the methodology, accessibility and

applicability of risk modelling tools, but delivered much fewer concrete suggestions for solutions and design, presumably pointing to the complexity of these gaps. Discussants did, however, provide and strongly converge around modalities to address these gaps such as capacity-building and technology support in developing countries as well as sufficient funding. As for the latter, almost all discussants repeatedly stressed the lack of finance as a profound barrier and an important solution vice versa, and demonstrated strong convergence regarding their interest to more deeply explore the role of the GCF in overcoming this barrier.

1. Existing and emerging approaches in climate risk assessment

The discussants **converged** around the view that risk assessment integrates insights from hazard, exposure, and vulnerability analyses and represents the core element of risk reduction. Further, there was **some convergence** that the majority of existing approaches of risk identification, assessment, and analysis relies on historical data of I&d, which proves increasingly challenging with view to current and future climate impacts. Some discussants also highlighted that in terms of both sudden and slow onset events, current models take an almost exclusively quantitative approach and mainly focus only on I&d assessments regarding damages to economic and physical/built assets, while a more holistic identification and indication, including that of non-economic losses, is needed.

2. Gaps of assessment approaches, solutions, design and associated challenges

As for the discussions on gaps in existing approaches as well as their potential solutions, design and associated needs and challenges, the dialogue centred around questions relating to I) Participation and transparency, focusing on *who* should be involved in risk assessment; II) The scope of risk assessments, addressing questions concerning *what* is to be assessed in terms of risk and impact; and III) The data, methodology, accessibility and applicability requirements for risk assessments, pertaining to the question of *how* risk assessments should be conducted.

I. Risk assessment: Through and for who?

Several discussants highlighted *procedural gaps* in the implementation of risk assessments, meaning gaps which focus not so much on the substance of assessment approaches, e.g. the methodologies underlying risk analyses, but more on *who* is involved in carrying out risk assessments and how. Discussants argued that the significant shortcomings in this area could lead to substantial problems for the reach, sustainability and ultimately effectiveness of risk assessments. Gaps were raised with view to:

1) Communication of and awareness for risk assessments

There was **relatively strong convergence**, especially from civil society organizations and academia, on the need for stronger as well as simpler communication of the application and importance of risk assessments. This is considered crucial for making the conversation accessible for everyone, including disabled people, and to raise awareness for the need and benefits of risk assessments. This, it was argued, would ultimately also raise acceptance and compliance.

One proposed solution was the development of communication tools based on the involvement of organisations engaged with the respective communities.

2) Transparent, participative, and inclusive approaches

Convergence seemed to emerge, especially among discussants from civil society organizations, that greater efforts to promote more transparent, participative and inclusive approaches to the implementation of risk assessments are needed. The problems discussed revolved around the exclusion of the affected communities, including but not limited to remote, rural and local communities; women; people with disabilities; and the poorest population segments due to failures to provide opportunities of participation to those suffering the most from I&d.

Proposed solutions entailed the design of participatory communication tools, which ensure that people are put at the centre of risk assessments so that their needs are taken into account, with one potential tool being the Talanoa Dialogue (TD). Here, one discussant stressed that the TD could be promoted more strongly by the UNFCCC in the context of I&d.

For such kind of solution, a substantive challenge identified relates to the aforementioned issues around communication and the need to find ways to communicate in understandable terms to the respective groups, particularly local communities.

The remaining part of the SED focused on *substantive gaps* in the context of risk assessment, that is, gaps concerned particularly with the technical substance/content of risk assessments. Here, discussants highlighted shortcomings in terms of data availability and quality as well as barriers associated with assessment methodologies and modelling techniques that negatively affect the comprehensiveness, meaningfulness, and validity of risk assessments.

II. Risk assessment: Of what?

3) Scope of risk assessments

There was **relatively strong convergence** regarding the need to expand the scope of current risk assessments and to make them more comprehensive, with **multiple discussants** from Parties and non-Party stakeholders highlighting the need for integrating non-economic elements such as: Human capital assets like the loss of human life and culture; permanent losses, like the loss of freshwater and food insecurity; the risks presented to ecosystems on which peoples' lives depend most crucially; and relocation and displacement in terms of its monetary and non-monetary costs, e.g. health impacts.

Further points stressed were the necessity to not only focus on sudden onset events but also on slow onset events and its impacts; to pay special attention to communities living remotely from countries' capitals; to put a strengthened focus on sea-related impacts especially for low-lying islands; to mainstream risk assessments into different sectors, including agriculture, energy and transport; and to account for differential vulnerabilities of individuals, e.g. women, children and the poor as well as of assets, e.g. different crops and the associated livelihoods.

Some discussants also emphasized that the scope of any risk assessment should not only depend on its relevance for insurance design and implementation, as insurance is not feasible for certain risks or informal economic structures. Instead, any scope should be set keeping in mind other risk mitigation options such as social safety nets and other forecast-based financing instruments.

Additionally, **several discussants** challenged the underlying premise of risk assessments – its future-oriented scope – and argued for assessments more responsive to the overall I&d context: In addition to conducting I&d assessments regarding future risks, assessments and assessment methodologies should also be developed for already occurring I&d.

III. Risk assessment: How?

4) Data availability and quality

Strong convergence emerged across all experts that the current data quality as well as availability is far behind of what is actually needed. In this context, several gaps/barriers were mentioned: For SIDS the lack of quantitative baselines and long-term data represents a significant barrier to conducting risk assessments; in developing countries, data on climate impacts and socio-economic dynamics is often missing or inadequate. Further, the development of good economic indicators is needed; as is increased support of risk assessments with climate data at sectorial and national scales; and with view to the dry corridor, the need for the establishment of assessment systems, including the compilation of long-term data and the utilization of and linkages to existing I&d systems was accentuated.

Proposed solutions pointed to the identification of ‘assessment champions’, such as the insurance industry whose core business is the focus on risk assessments; to map and utilize existing open source platforms provided by insurers which can be used by developing countries and also allow to account for the conjoined impacts of sudden and slow onset events; and to map, utilize and enhance the free availability of data provided by the space community.

5) Modelling tools: Methodology, Accessibility & Applicability

Methodology: **Some convergence** emerged among all discussants that existing modelling methodologies and tools were profoundly insufficient to capture current and future climate scenarios and their interplay with socio-economic factors. Nearly all discussants stressed that especially in the context of long-term climate change, current models need to shift from their reliance on historical data towards utilizing more probabilistic scenarios. In relation to this, further discussants highlighted the need to develop approaches that allow risk as well as weather and climate prediction models to not only capture the increased frequency and intensity of weather perils better, such as El-Nino, but also the sequential and incremental impacts of several consecutive perils as was the case with cyclones in the Caribbean 2018. One discussant underlined that this is particularly important for the correct calibration of early warning systems. (EWS), which becomes increasingly problematic with the currently applied methodologies.

In the context of insurance, another discussant furthermore underlined the necessity to advance especially risk transfer facilities' understanding of basis risk at the local level.

A further gap **highlighted repeatedly** was the lack of dynamic models which could be customized and downscaled to regional and local settings so as to support the assessment of impacts at regional and local scales. Such techniques were considered of substantial importance also for government-level planning.

In the context of non-economic losses, **some discussants** also mentioned the need to find mechanisms to translate qualitative data into quantitative data and tools to integrate qualitative data more meaningfully into assessment techniques and models.

Accessibility & Applicability: In addition to the above, there was **strong convergence** in terms of accessibility and applicability issues regarding risk assessment instruments and techniques. Some discussants, particularly with view to African countries, pointed to significant problems arising from lack of free access to existing models – one discussant highlighting how such barrier prevented the downscaling to assess climate related risks in Sudan.

Multiple discussants, especially from developing countries and civil society organizations, emphasized the lack of knowledge, expertise and capacities in developing countries to apply assessment tools and models. Consequently, risk assessments remain challenging e.g. for African countries, SIDS and countries with small national economies. In a similar fashion, one discussant also explained that SREP disposes of regional sensors ready to use for risk assessment but in relation to I&d lacks the necessary personnel.

6) Cross-cutting

On a more superordinate level, there was **some convergence** that a common risk assessment framework and guidelines, including methodologies and criteria, across institutions and key stakeholders are needed. In relation to this, discussants also pointed to the necessity of harmonizing and integrating existing risk assessment approaches. Such common framework and guidelines could have the dual benefit of supporting the execution of risk assessments in and by developing country institutions, while simultaneously making research more easily available for modelling.

Mostly in connection to applicability, the last important barrier that was **mentioned across all discussants** from developing country Parties, civil society organizations, and research and academia was the lack of financial resources to take the steps necessary to address the gaps, needs and barriers elaborated above.

Yet, while the discussion outlined very specific assessment needs and gaps, discussants rarely went beyond the generic mentioning of 'mechanisms' and 'tools' to solve these issues in terms of their concrete substance, most particularly those associated with modelling. For instance, no specific approaches for moving towards more probabilistic models or for converting and integrating qualitative data were flagged. This might point to the stark complexity and diversity of the gaps and barriers mentioned. One solution, which was mentioned as a potential first starting point entailed a suggestion to the WIM to synthesize the available information on risk assessment and disseminate it in an accessible format to African countries. Another

suggestion pointed to the important role the ARC and the UNFCCC could play for African countries to produce and disseminate the tools needed. A further proposal in the context of EWS highlighted the chance of learning from existing systems, e.g. in terms of downscaling and how to integrate existing data into assessment frameworks. Moreover, in terms of scalability of proposed solutions, one discussant expressed the opinion that as of now, downscaling needs to take priority over discussing solutions with regard to their potential scale.

Regardless of the type of tools and models needed to close these gaps, discussants did, however, repeatedly point to and **converge around** the need and potential of enhancing cooperation across institutions, both public and private, as well as strengthened capacity-building and improved financial resources to facilitate and catalyse the closing of the aforementioned gaps. Such enhanced support should furthermore go along and be in line with needs assessments regarding the capacities and finances at the community and national levels: There was relatively **strong convergence** around the notion that any solution should be feasible in a developing country context and accompanied by the necessary capacity development and technology support.

3. Cooperation, sources and types of support: Finance, capacities, and technologies

1) Cooperation needs

Cooperation needs and potentials to address some of the issues above were highlighted particularly in relation to data quality and availability, where enhanced collaboration with 'risk champions' from the insurance industry and with the space community could enhance free access to data and modelling instruments.

Regarding the development and promotion of EWS as expressed by many developing countries in their NDCs, the potential of cooperating with institutions such as the WMO was also accentuated as a means to capture the benefits of aligning existing EWS with those now emerging in the context of climate change.

2) Capacity-building and technology support

In terms of enabling the applicability of risk assessment tools for developing countries, **strong convergence** emerged around the need for capacity-building and technology support in developing countries. Hereby, **some convergence** emerged on the need to conduct comprehensive capacity assessments of research and implementing institutions, at both the individual level in terms of competency and the institutional level in terms of analysis and planning capacities. Some discussants even suggested a mechanism to measure such respective needs of developing countries.

3) Finance

Regarding financial support and funding sources, one modality **repeatedly mentioned** was the GCF. Hereby, **several discussants** pointed to promoting a better understanding of the GCF funding parameters regarding the limitations in terms of I&d funding, while one suggestion entailed the possibility to access GCF funding for risk assessment under the umbrella of its

Readiness Programme. In addition, **some discussants** proposed an extra funding modality to immediately support countries in carrying out risk assessments.