

**Report - Technical Briefing on Indicators**  
**8 September 2015, 3pm – 5pm**  
**Room XIII - Palais des Nations, Geneva**

**Chair & Moderator:**

**Margareta Wahlström**, Special Representative of the Secretary-General (SRSG) for Disaster Risk Reduction.

**Panelists:**

**Tiina Luige**, Chief of Environment and Multi-domain Statistics Section, (UNECE).

**P.G. Dhar Chakrabarti**, Distinguished Fellow, the Energy and Resources Institute, India.

**Andrew Maskrey**, Chief of Risk Knowledge Section of the UNISDR

**Video Presentation:**

**Akapusi Tuifagalele**, Director, National Disaster Management Office, Fiji

**Alexander P. Pama**, Executive Director & Civil Defense Administrator, National Disaster Risk Reduction and Management Council (NDRRMC)

**1. Background**

The technical briefing on indicators, organized in preparation for the first session (29-30 September 2015) of the Open-ended Intergovernmental Expert Working Group (OIEWG) on Indicators and Terminology relating to Disaster Risk Reduction (DRR), provided an opportunity for countries to discuss the challenges of developing indicators and their application in various contexts. An update was provided on the technical review undertaken via a consultative process to develop global indicators to monitor the Sendai Framework's targets, resulting in a background paper<sup>1</sup> that will serve as a reference document for the OIEWG meetings.

**2. Synopsis of presentations**

**a. SRSG Wahlström (UNISDR)** highlighted the opportunities and challenges in monitoring progress in reducing disaster risk, developing indicators for the Sendai Framework's global targets and how to build linkages with the SDG process and other mechanisms. Groundwork on developing relevant indicators for DRR has been ongoing for more than two years, including consultations and pilot testing with countries at the national level. As such, the OIEWG process has useful reference material to build on. The development of the 22 core indicators for the Hyogo Framework for Action (HFA) followed a similar process and prioritized the development of clear-cut, action-orientated and cost-effective indicators. As many countries joined the HFA monitoring process during the two most recent reporting cycles, the reports serve as an important foundation to take forward.

**b. Tiina Luige's (ECE)** presentation focused on the challenges and opportunities related to the development of indicators for the SDGs and DRR, and outlined the practicalities and functions of indicators, which serve to simplify complex realities, reveal trends, provide warning signals and assess the success of a given policy in achieving its desired objectives. One of the clear limitations of indicators is that they can only 'indicate' or raise awareness of trends, but cannot provide an explanation. Depending on context, the same indicator can point in opposite directions (both positive and negative developments). There are different types of indicators and they can be direct or proxy, objective or subjective or quantitative or qualitative.

The quality criteria for an indicator set is contingent upon the institutional environment, statistical production processes and output. There is a need to adhere to the Fundamental Principles of Official Statistics which necessitates a clear mandate to produce data with a commitment to quality. A quality

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<sup>1</sup> [http://www.preventionweb.net/files/45466\\_indicatorspaperaugust2015final.pdf](http://www.preventionweb.net/files/45466_indicatorspaperaugust2015final.pdf)

indicator set needs to be methodologically sound, follow appropriate procedures, be consistent and complementary, limited in numbers and relevant to its users. Indicators also need to be practical and cost-effective in terms of measurability, allowing for data to be collected and updated at regular intervals at a reasonable cost and without imposing an excessive burden on respondents. Accuracy, accessibility, clarity, communicability, coherence, comparability, interpretability, reliability, timeliness, focus on outcomes, a responsible agency for producing data and the possibility to get disaggregated data constitute the quality criteria for the selection of SDG and DRR indicators.

The ongoing process for the development of indicators for the SDGs was outlined to identify lessons learnt and good practices. The process has faced many challenges to date with scale being a key concern - while the Millennium Development Goals (MDGs) had 8 goals, 21 targets and 60 indicators that needed to be measured by developing countries, the SDGs are expected to have 17 goals, 169 targets and as many indicators to be measured by all countries. Whereas policymakers emphasize that indicators should respond directly and give equal weight to all targets and not undermine or re-interpret them nor introduce new issues, statisticians are concerned that too many targets and indicators will be difficult to comprehend and communicate.

Inter-linked and overlapping indicators and a considerable reporting burden (providing data on the all indicators) will constitute a challenge even for developed countries. Data collection and reporting mechanisms will need to be set up and implemented and indicators will need to be developed for new areas (peace, security, governance, human rights) for which no methodology presently exists. The increasing cost and difficulty of acquiring data also poses a challenge. The information available from data is at times very limited and does not cover vulnerable groups which is essential to SDG and Sendai targets measurement. Data is often owned by private companies and needs to be purchased at high costs.

**c. Andrew Maskrey (UNISDR)** provided a briefing on the technical review on indicators to monitor Sendai's global targets, the outcome of an expert driven process that started in 2013. The expert group systematically reviewed each target to develop possible indicators and identified the following nine critical issues that the OIEWG will need to carefully consider:

- 1) The scope of the indicators. The key issue here is what category of hazards will the indicators include. This is a complex question as it is already partly defined in the Sendai Framework (e.g. in defining made-made hazards, the questions arises as to what hazards to include in this category.)
- 2) Normalization of data is essential, as in many parts of the world, a large proportion of disaster mortality is concentrated on a very limited number of events like the Indian Ocean tsunami (2004) or the earthquake in Haiti (2009). Disasters that occur once in a hundred years needed to be normalized within the limited 15 year frame of Sendai. The OIEWG will thus need to discuss how to normalize the data so that reasonable, credible and defensible trends can be established through data, taking into consideration the fact that a lot of the data is concentrated in outlier events.
- 3) Bounding the data in terms of time. In disasters, deaths may occur months or even years after the event - thus the question arises as to how this should be recorded? There is also the issue of slow onset disasters, like droughts, that are complex, multi-year and cross national boundaries. This issue will have to be reviewed when representing such data through national statistics on an annual basis.
- 4) Ensuring consistency between terminology adopted and its use in indicators. This has to be done in a pragmatic manner - as a term may have a complex definition, factors to be considered in developing an indicator include measurability, cost and practicability in terms of how much of the complexity (of the term) can be represented in an indicator.
- 5) Disaggregation. There is a clear call in the Sendai Framework to disaggregate data by gender, age, disability, place of residence and other factors. In this regard, practicality, measurability and cost in terms of actually attaining such disaggregated data need to be considered.

6) Ensure maximum coherence between Sendai and SDG indicators. This is a complex task as the two processes are occurring in parallel and thus need to be synced. UNISDR provided feedback into the work of the first Interagency Expert Group on SDG Indicators (IAEG-SDG) (New York, June 2015) to ensure coherence between the two frameworks and it is expected that based on the results of the first OIEWG, further feedback will be provided to the second IAEG-SDG meeting (Bangkok, end-October 2015). Some SDG targets refer directly to the DRR targets, notably, targets 11.5, 13.1 and 1.5.<sup>2</sup> While the wording of such targets is not identical to the Sendai targets, there is certainly a great degree of overlap and connection.

7) National database. While data for targets A-D will have to be extracted from national disaster loss databases, not all countries have such databases. There is also the issue of data standardization - while there are norms and standards in certain regions and for certain kinds of data, there is no common global standard for collecting disaster data (e.g. no ISO standards). Presently, 85 countries have comparable national disaster loss databases i.e. databases that have been developed using methodologies that, although not identical, can be compared and compiled globally. Additionally, another 32 countries are expected to develop such databases in 2015-2016, which would result in 117 countries with disaster loss databases. Given that the UN has 193 Member States, a considerable gap will still remain in terms of having global coverage by 2017. This gap will pose a challenge in establishing a baseline for 2005-2015 after the OIEWG concludes its work.

8) For targets E (national strategies) and G (early warning), information on the indicators will have to come from government self-assessment, which in turn necessitates that there be a clear link between global and national targets and indicators.

9) Baseline data need to be developed, as the Sendai Frameworks call for measuring progress in 2015-2030 as compared to 2000-2015. Data sources will have to be ready by 2017 to enable baseline establishment.

**d. The Director of the National Disaster Management Office (NDMO) of Fiji** highlighted three key findings from national consultations on indicators for the Sendai Framework:

1) Indicators need to be informative at the global level but also relevant at the national level and provide guidance to the national government. Some of the global indicators (e.g. threshold of population of 100,000) may not be relevant to Fiji and other Pacific island nations as the threshold is too high relative to their small populations. For such countries, a threshold based more on population density rather than on total inhabitants will be more appropriate.

2) Indicators need to be related to identified data and data sources. Data collection processes, including quality control, also need to be identified and strengthened. While a significant amount of data has already been collected in Fiji that can inform the indicators, they are stored in different databases, thereby limiting the possibility for sharing.

3) With several related frameworks/mechanisms being adopted in 2015, for small countries like Fiji, it is important that reporting on one framework does not take more time and resources than implementing other frameworks. There is a need to coordinate and synchronize reporting mechanisms for the different frameworks (Sendai, SDGs). The process should help to identify indicators that can be relevant to other frameworks in order to streamline monitoring and reporting.

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<sup>2</sup> Target: 11.5: By 2030, significantly reduce the number of deaths and the number of people affected and substantially decrease the direct economic losses relative to global GDP caused by disasters...  
Target 13.1: Strengthen resilience and adaptive capacity to climate-related hazards and natural disasters...  
Target 1.5: By 2030, build the resilience of the poor and those in vulnerable situations and reduce their exposure and vulnerability to climate related extreme events...and disasters

The NDMO will continue consultations with the government and other stakeholders in order to redefine and refine the indicators for Fiji and discuss potential reporting strategies for the country.

**e. Alexander P. Pama (NDRRMC Executive Director & Civil Defense Administrator)** highlighted that the development of the indicators for the Sendai framework would serve as an enabling mechanism allowing DRR managers to gauge actual progress and identify areas for improvement in DRR undertakings and programmes. Outlining various steps and ongoing initiatives undertaken by the Philippines DRR Management (DRRM) system with regards to the four priority areas of the Sendai Framework, it was noted that the indicator system can be simplified to cover distinct features and characteristics of the local DRR scene. The indicators, once developed, will serve as an additional assessment tool for the national DRRM plan. The indicator system can also serve as a useful tool in the sunset review of the national DRRM law to inform where the Philippines needs to go and what it needs to do to get there, in view of what has been accomplished as regards the HFA and the way forward set via the goals and priorities of the Sendai Framework.

**f. Dhar Chakrabarti (Energy and Resources Institute, India)** highlighted the challenges and opportunities of developing DRR indicators at the national and regional levels. Paragraph 50 of the Sendai Framework clearly outlines the process (development of indicators by OEWG by end 2016), linkages (with SDG indicators) and the product to be developed (a set of possible indicators to measure global progress in the implementation of the framework). The indicators may go beyond measuring the implementation of targets to the implementation of the entire framework which encompassed an expected outcome, goal, 7 global targets, 13 guiding principles and 4 priorities of action encompassing 91 activities of which 59 are at the national and local level and 32 are at the global and regional levels.

Developing indicators for the Sendai Framework may pose a more challenging task than was the case for the HFA due to some reasons. First, the scope of the Sendai Framework (para. 15) is broader than the HFA; while the HFA focused primarily on natural hazards, the Sendai Framework also focuses on technological, biological, small-scale, large and catastrophic disasters. Second, unlike the HFA, the Sendai Framework has seven global targets (Para. 18) that have to be monitored.

Several lessons can be gleaned from the experience of implementing and measuring progress on the HFA indicators and the qualitative self-assessment of progress reported by countries. Some countries over-assessed themselves while others under-assessed themselves, while others still assessed themselves highly in one cycle and lowly in another, without providing any logic or scientific basis for doing so. Thus, the entire assessment process proved to be a subjective one, leaving much scope for improvement. Additionally, the HFA monitor was not able to monitor the progress in all countries - 140 countries had participated in reporting on progress and 33 countries participated in all 3 cycles.

### **3. Synopsis of interactive discussions**

#### **a. Role of National Statistical Offices (NSOs) in collecting disaster related data**

On the role of NSOs in collecting disaster related data, it was noted that data production is dictated by the official statistical programmes (lists of topics on which to produce data) emanating from the government and typically include the production of socio-economic-environmental statistics. It was also noted that while NSOs produce data on a regular basis (e.g. monthly consumer prices indexes), disasters occur irregularly and trigger an unexpected need for data that statistical offices may not be ready to provide.

NSOs have a clear role to play as they already collect data (e.g. population by geographic areas, data on businesses etc.) that are contextually relevant for DRR indicators. It is thus very important to build up national capacity to collect data, rather than rely on international organizations to do so as countries may not necessarily agree with the data produced, as was the case at times with the MDGs. Based on the same data and statistics, a range of indicators can be produced; thus enhancing national

capacity will allow for the utilization of data for a range of policy purposes beyond DRR and the SDGs. Awareness raising on the need for disaster-related data also needs to occur and government, parliaments and policy makers need to decide on the involvement of statisticians in the production of DRR data.

A Task Force set up by the Bureau of the Conference of European Statisticians (the ECE Sectoral Committee on statistics) is presently in the first stages of reviewing how statistical offices and national statistical systems can be more involved in measuring extreme events and disasters and it has two years to deliver its recommendations. A similar initiative was undertaken in 2011 to come up with recommendations by 2013 on the role of official statistics in climate change related statistics; the recommendations developed are presently under implementation and many statistical offices have undertaken concrete measures in this regard. Thus, as was the case for climate change data, it can be reasonably hoped that NSOs can begin collecting DRR related data within a few years.

#### **b. Addressing lack of an adequate global disaster database**

There is no adequate global database for disaster damage, loss and resilience. Unless national statistical systems can be strengthened to capture such information, a lot of data necessary for the measurement of indicators will remain missing.

Currently, the only global, publicly available, disaster loss database is the Emergency Events Database (EM-DAT) operated by the Centre for Research on the Epidemiology of Disasters (CRED), which has some limitations. Two other global disaster databases are: 1) Nat Cat disaster loss database from Munich Reinsurance; and 2) Sigma from Swiss Reinsurance. While both have very good quality data, neither are publicly available and cannot be consulted. DesInventar, an alternative database developed by ECLAC, collects data using common descriptors and a common methodology for measurement. However, the level of institutionalization and timeliness of data updates varies greatly.

There is thus the need to work from the bottom up and properly develop a government owned, institutionalized and publicly available database, to provide the data needed for the DRR indicators. Challenges to be addressed in developing such a database include: 1) the need for global coverage – the measurement of global indicators requires data from all countries; and 2) the institutionalization of such databases to the maximum extent possible within the next three year. This is an important first step and is an ongoing process that will take time.

#### **c. Consideration of demographic trends (absolute vs. relative)**

On the question of what consideration was given to demographic trends (particularly as regards population movement and growth in the next 15 years) in the development of the Sendai indicators, it was noted that the issue was extensively discussed both in the informal working group on targets and indicators during negotiations on the Sendai Framework. Some of Framework's targets are relative to population (e.g. deaths or numbers affected relative to 100,000) while other targets are absolute in terms of numbers of people. In order to not reopen the debate, the expert group stuck to what was already defined in the Sendai targets be it in absolute or relative terms.

#### **d. Role of national focal points for DRR**

On the question of whether DRR focal points in countries have the capacity to deal with the enlarged scope and complex technical issues related to the Sendai Framework, it was noted that discussions are presently ongoing in many countries. It was reminded that the Sendai Framework encourages multi-institutional and multi-stakeholder mechanisms to strengthen national coordination on DRR through the inclusion of all sectors of society. It was further noted that the national focal point for the HFA is typically not a technical person. The focal point's role is to serve as a point of correspondence who can then share information and bring together the relevant parties.

#### **e. Linkages between the Sendai Framework and Habitat III**

On the linkages between the Sendai Framework indicators and expected goals and targets of Habitat III conference (to be held in Ecuador in October 2015), it was noted that the SDG on human

settlements contains one of the strongest statements on DRR. Additionally, local level indicators for cities as well as national level indicators and targets emanating from the Sendai framework will be relevant to Habitat III.

#### **f. Conclusions**

The ability to undertake measurement will be crucial to achieving the Sendai Framework targets. The key challenge will be to develop indicators that are practical, realistic, measurable and simple. As the majority of countries will face constraints in measurement, it will be necessary to arrive at a minimum common denominator by limiting the number of indicators.