EXECUTIVE SUMMARY

The Disaster-related Statistics Framework (DRSF) was developed through an iterative and interactive process by the Expert Group on Disaster-related Statistics in Asia and the Pacific from 2014-2018.

During the process of developing the DRSF, several important events or initiatives coincided with the Expert Group's mission. Therefore, the Asia-Pacific Expert Group established partnerships and worked with the intention to create alignment and clear and simple inter-operability with related projects or emerging requirements of national statistical systems.

Most notably, the World Conference on Disaster Risk Reduction (WCDRR) in 2015 led to adoption of the Sendai Framework for Disaster Risk Reduction 2015-2030 and subsequently a collection of agreed international indicators and terminologies for monitoring its implementation (UNGA, 2015 and UNISDR, 2017).

The Sendai Framework represents a new global consensus on core concepts and targets and overall statistical requirements for disaster risk reduction. The Sendai Framework describes statistics requirements for global monitoring, via the Sendai Framework Monitor[1] for the seven global targets for disaster risk reduction.

The adoption of the Sendai Framework and inclusion of disaster risk reduction targets in the Sustainable Development Goals (SDGs) has created enhanced demand for investments for development of accessible databases for disaster risk management and for improved international comparability of statistics for monitoring risks and impacts from disasters. A main objective of the DRSF is to generate relevant statistics that are used for calculating international indicators for reporting to the Sendai Framework and SDGs global monitoring systems, managed through the UNISDR Sendai Framework Monitor.

For consistency, the Inter-Agency and Expert Group on Sustainable Development Goal Indicators (IAEG-SDGs) decided to align their indicators with selected Sendai Framework indicators for the disaster-related targets for Sustainable Development Goal monitoring.[2] Targets for reducing disaster impacts appear prominently across three of the 18 SDGS: including 3 indicators (1.5.1, 1.5.2 and 1.5.3) under Goal 1 "End poverty in all its forms for all people everywhere" and also including targets under Goal 11 "Make Cities and Human Settlement, Inclusive, Safe, Resilient and goal 13 "Take Urgent Action to Combat Climate Change and its Impacts".

Whereas core concepts and indicators for disaster risk reduction (DRR) for international monitoring have been defined in the Sendai Framework and SDGs, there is a need to translate the agreed concepts and definitions into specific instructions and technical recommendations for production and dissemination of statistics.

Disaster-related statistics includes, but is not limited to, statistics about disaster occurrences and their impacts. Disaster-related statistics also includes statistical information used for risk assessment and post-disaster impact assessments, which rely on analyses of a variety of

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[1] https://sendaimonitor.unisdr.org/

[2] See United Nations Statistics Commission Document E/CN.3/2017/2.

sources of data on the population, society, and economy, like censuses, surveys, and other instruments used in official statistics for multiple purposes.

Each disaster is different, unpredictable, and creates significant changes to the social and economic context for affected regions. Disaster risk is unevenly dispersed within countries, across the world and over time. To identify authentic trends, rather than random fluctuations or effects of extreme values, much of the analyses of disaster related statistics requires a coherent time series and depends on clear and well-structured statistical compilations. This context put an exceptionally high value for harmonizing of measurement for related statistics over time and, as much as feasible, across countries and regions.

Statistics on impacts of disasters are linked to uniquely identifiable disaster occurrences. Collections of these statistics need to be structured and documented in such a way as to maintain the links to relevant characteristics of the underlying disaster occurrence (e.g. timing, location, hazard type), while also remaining accessible to users as inputs for cross-disaster analyses, e.g. monitoring indicators over time or in models for predicting and minimizing disaster risk. Thus, a basic challenge in disaster-related statistics is to make statistics accessible for use in multiple forms and purposes of analyses, while maintaining harmonized and coherent compilations via structured use of metadata.

Disasters have the potential to affect all elements of society and they threaten sustainable development in many places around the world. However, disasters have also inspired international solidarity and have become a major component of international aid. International efforts to reduce disaster risk will be strengthened by improved statistics on the costs and the factors of risk associated with disasters. Better quality statistics leads to improved capacities for research, monitoring, and development of new evidence-based policies.

A core element for the statistical framework is measurement of factors of risk, i.e. probabilities associated with a hazard, exposure to the hazard, according to location of population and infrastructure, vulnerabilities and coping capacity. Disaster risk can be analysed at different scales – e.g. level of individuals or households, communities, regions, countries, and internationally. Therefore, this statistical framework is applicable at multiple scales, and can be applied flexibly, depending on the requirements of users of the statistics.

Understanding disaster risk involves an integration of statistics on the social, environmental and economic conditions of particularly defined geographic areas. The DRSF is not locked to any specific indicator or level of aggregation. On the other hand, there is also a need for consistency for analyses of time series, which depends on standardizing certain methodological elements over time, such as clear definitions for variables, groupings of variables, and rules for scope of measurement and disaggregation.

DRSF contains internally-coherent and internationally consistent guidance for utilizing existing data to produce information relevant to all the phases of disaster risk management, including for risk identification, prevention, and mitigation as well as for disaster preparedness, response and recovery. The process of development involved extensively studying current practices, pilot studies to test draft recommendations based on real compilations of data by official agencies, open consultations online, and a series of expert meetings, workshops and seminars.

Frameworks for official statistics have been developed for many other cross-cutting topics and fields of research, and the DRSF draws inspiration and its structure from the other similar types of guidance adopted by the United Nations Statistics Commission on other complex topics such as International Recommendations for Water Statistics and Tourism Statistics. A common objective from these and other examples of international recommendations for statistics is the need to develop a common baseline of information, or basic range of internationally-comparable statistics, collected from a diverse range of existing sources of data that are typically dispersed across multiple government agencies.

The main users of this framework are expected to be national disaster management agencies (NDMAs) and national statistics offices (NSOs), but there are a diverse range of other national stakeholders involved in collections of relevant data, such as ministries of environment, mapping agencies and land management authorities, ministries of finance, ministries of health, economic and social development policy makers, meteorological organizations, and so on.

The Expert Group process facilitated development of many important international partnerships for statistical development, including the Global Partnership for Disaster-related Statistics, founded by the United Nations Office for Disaster Risk Reduction (UNISDR), the Economic Commission for Europe (UNECE) and the UN Economic and Social Commission for Asia and the Pacific (ESCAP) at the First UN World Data Forum in January 2017.

People depend on their governments, which conduct, by law, many of the functions related to disaster risk management, particularly response and recovery and risk reduction. As a statistical framework, the DRSF only has bearing on production, dissemination and analyses of official statistics and does not influence national laws or policies for disaster risk management. Although legal contexts vary significantly among countries, a basic range of disaster-related statistics can be produced with reasonable international comparability. The objective of this international statistical framework is to harmonize, as much as feasible, across national statistics systems towards comparable measurements of disaster risk, disaster impacts, and risk reduction interventions.

Statistics provide the context and a broad vision for comparisons and for a deeper understanding of risk across individual and multiple hazards. Harmonized statistics are used to inform international support and boost solidarity, not only for responding to major disasters but also for addressing risks on a continuous basis, utilizing support from international cooperation.