

**Concept Note on Indicators for Global Target F of the Sendai  
Framework for Disaster Risk Reduction**

10 December 2015

The United Nations Office for Disaster Risk Reduction

## A. Background

1. Requested by the Open-ended Intergovernmental Expert Working Group (OEIWG) on Indicators and Terminology related to Disaster Risk Reduction (DRR), the purpose of this paper is to support the OEIWG in its deliberations on indicators to monitor achievement of the global targets of the Sendai Framework for Disaster Risk Reduction 2015-2030 (A/RES/69/283) - with specific emphasis on *Target (f) Substantially enhance international cooperation to developing countries through adequate and sustainable support to complement their national actions for implementation of this framework by 2030.*
2. In its first formal session, the OEIWG deliberated on the measurement of progress in achieving Target (f) and discussed relevant text of the Sendai Framework in respect of the potential scope of international cooperation in supporting developing countries' implementation of the framework. Frequent references were made to the relevant paragraphs of the framework. The Chair of the OEIWG suggested that members orient discussions towards identifying the key issues and main indicators, with the view to providing indicated language or indicators.
3. The present paper considers the deliberations of the OEIWG in presenting the critical issues for further examination and in suggesting possible indicators. Issues discussed by the working group included: representing provider and the recipient perspectives in measurement; defining the scope of international cooperation; the quantification of resources provided and received; measuring the quality of support provided to developing countries; measurement of thematic aspects of international cooperation; capabilities for data collection, monitoring and reporting. This paper also takes into account the proposals made by members for specific indicators. Proposals that included metrics for measuring: the use of policy markers; mechanisms for national and regional exchange, including South-South cooperation; scientific and technological exchange; the volume of resources made available in support of disaster risk reduction (DRR); the quality or effectiveness of international cooperation.
4. As the work of the OEIWG is predicated on the principle of coherence with other relevant frameworks, agreements and international processes, this paper takes into account the relevant elements of the 2030 Agenda for Sustainable Development (A/RES/70/1) and adheres to the main principles applied in setting SDGs indicators – minimising the reporting burden, simple but outcome focused and with policy implications, and aligned with international standards. Many of the targets of the 2030 Agenda and the Sendai Framework are mutually supportive. In that it seeks to lay the foundation for global partnerships, allocate international and domestic resources effectively, and promote efforts to bring countries together - including through North-South, South-South and triangular cooperation - Sustainable Development Goal 17 is of foremost relevance to Target (f) of the Sendai Framework. The paper also takes into account the Addis Ababa Action Agenda of the Third International Conference on Financing for Development (A/RES/69/313) notably with respect to the modernisation of the measurement of Official Development Assistance (ODA), capturing data from both providers and recipients, and on the various forms of international and regional cooperation.
5. This paper also considers the relevant aspects of the Rio Conventions - notably the UN Framework Convention on Climate Change (UNFCCC) - as well as the SIDS Accelerated Modalities of Action (S.A.M.O.A.) Pathway (A/RES/69/15), and frameworks and approaches developed by inter alia the OECD, as well as UNESCO and UNCTAD, particularly in respect of technical assistance, financing and international and regional cooperation for science, technology and innovation.

## B. Critical issues in monitoring global target (f)

6. This section presents the critical issues to be addressed by the OEIWG in its deliberations on Target (f). Addressing issues of scope, categories of measurement, means of measurement (including quantification aspects), disaggregation of data, data sources, baselines and coherence. A number of these issues are addressed in more detail in the Annex.

### a. Scope of the indicators

7. Specific guidance in defining international cooperation is provided throughout the Sendai Framework – in the Guiding Principles, Paragraphs 19 (l) and (m); in Section VI – International Cooperation and Global Partnership which refers inter alia to resources, technology, and capacity; in Paragraph 47, the means of implementation; and in Paragraph 48, support from international organizations
8. Target (f) seeks to enhance international cooperation to developing countries, and Paragraph 47 (a) places particular emphasis on least developed countries, small island developing States, landlocked developing countries and African countries, as well as middle-income countries facing specific challenges.
9. The framework identifies the need for the “enhanced provision of coordinated, sustained and adequate international support for DRR”, through both bilateral and multilateral channels, and in Paragraph 44 identifies the need for strengthening North-South, South-South and triangular cooperation<sup>1</sup> in reducing disaster risk.

### b. Categories of measurement

10. The guiding principle of the Sendai Framework clarifies that “Developing countries...need adequate, sustainable and timely provision of support, including through finance, technology transfer and capacity building from developed countries and partners tailored to their needs and priorities, as identified by them” (Paragraph 19 (m)). In describing the means of implementation, Paragraph 47 describes the provision of “enhanced technical and financial support” and “technology transfer for the development and strengthening of capacities of developing countries”. The Paragraph also identifies the need to enhance “access of States, in particular developing countries, to finance, environmentally sound technology, science and inclusive innovation, as well as knowledge and information sharing”, including through the use and expansion of thematic platforms of cooperation. The incorporation of DRR measures into multilateral and bilateral development assistance programmes within and across all sectors is also identified as necessary.
11. Following both the text of the Sendai Framework and discussion at the first session of the OEIWG, it is suggested to develop indicators to measure Target (f) using three categories: 1) financial resources; 2) technology development and transfer; and 3) capacity building. This is consistent with the language established by the Technical Support Team (TST) in support of the United Nations General Assembly Open Working Group on the Sustainable Development Goals.

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<sup>1</sup> cooperation between countries from the south is also identified as important in the Istanbul Plan of Action 2011-2020, notably with regard to science and technology

### **c. Means of measurement**

12. Measurement presents particular methodological challenges (both quantitative and qualitative) for all the aforementioned categories. In examining indicators for Target (f), working group experts will need to strike the balance between developing metrics that provide an *adequate* means of measurement, that is consistent and commensurable, and availability of data and *feasibility* of measurement across all countries that is appropriate for an indicator of this global target.
13. The methodological challenges are particularly evident in respect of quantifying financial resources provided for reducing disaster risk. The Sendai Framework emphasises that for the outcome and goal of the framework to be achieved, investments must be risk-sensitive. Existing methodologies, however, are largely limited to quantifying stand-alone or incremental budgets, investment and expenditure for DRR, and so fail to capture integrated DRR and the wider co-benefits of risk-sensitive (sectoral) investment. This issue is discussed in detail in the Annex. A policy marker approach can provide a more inclusive perspective and gauge the level of integration of DRR within international and domestic investment. In the absence of more appropriate methodologies, and until such time as a more representative approach can be developed, this paper proposes the use of both incremental calculations and a marker in measuring international financial flows in support of Target (f). At the same time, the working group is encouraged to undertake work to improve on existing practice, and determine a means of measurement that is consistent with the framework's aspiration to promote risk-sensitive development.
14. Working group members may also wish to determine the degree to which indicators that measure this global target go beyond quantitative measurements, for example from volume of support or number of entities providing support, to a metric that can measure the degree to which support to developing countries via international cooperation is effective. Working group members have discussed for example, determining the means to measure how international cooperation in DRR:
  - supports respective national frameworks and priority actions,
  - is integrated in national legislation, or
  - amplifies countries' efforts in reducing risk.
15. The need to measure effectiveness is not a view held universally by all members of the working group. Some have suggested that reporting of this nature is the prerogative of countries themselves, and that in light of the methodological challenges of measurement and keeping with the principle of simplicity, emphasis should remain on quantitative measurement only.

### **d. Disaggregation of data**

16. In seeking to describe and understand both the nature (or typology) of assistance, as well as the entities to which support is provided, suggestions have been made to develop indicators relating to specific thematic areas within international cooperation. This requires further discussion by working group members, not least to address the methodological challenges of data capture, measurement and reporting.
17. The issue of data disaggregation has been discussed by working group members and experts in the context of disaster loss. The conclusion that a decision on disaggregation should be a national responsibility may also apply to the development of indicators for Target (f). Similarly, in that few countries currently collect relevant data disaggregated by age, sex and disability, the conclusion of the working group that it is unlikely that consistent global level, disaggregated data would be available in the short term to establish baselines to measure global targets, also holds.

18. It is recommended that the level of disaggregation and detail be informed by approaches agreed for other targets.

#### **e. Data sources**

19. The effective measurement of the global targets of the Sendai Framework and the 2030 Agenda for Sustainable Development (2030 Agenda), is contingent on the availability and quality of data ; aspects which vary considerably from country to country.

20. It is recommended that measurement and cross-verification of data should be undertaken by both providers and recipients, where relevant and feasible. One option would be to adopt a reporting modality that is structured thus:

- disaster risk reduction assistance received (reporting by recipient countries);
- disaster risk reduction assistance extended (reporting by provider countries); and
- disaster risk reduction assistance extended (reporting by multilateral and regional entities).

21. Data sources, both existing and under development, which could be considered appropriate in measuring international cooperation in support of DRR, include but are not restricted to: the Sendai Monitor (the successor to the Hyogo Framework for Action Monitor) ; national statistics; regional inter-governmental organizations and other regional cooperation mechanisms; tracking mechanisms for financial flows to sustainable development (provider and recipient, public and private) of the Organisation for Economic Co-operation and Development (OECD); data sets of the International Financial Institutions; reporting by agencies of the UN system contributing to the UN Plan of Action on Disaster Risk Reduction for Resilience, UN Development Assistance Framework (UNDAF) and annual reports of the UN Resident Coordinators; and global, regional and national platforms for DRR.

22. Relevant data generated by the private sector may potentially be of use in supporting the measurement of this target; this requires further examination by the OEIWG and other relevant stakeholders. In supporting the generation of data to measure the global targets of the Sendai Framework, working group members may also wish to consider the work of the Global Partnership for Sustainable Development Data (Global Data Partnership) launched at the 70<sup>th</sup> UN General Assembly.

#### **f. Baselines**

23. The working group has recognised that the development of baselines for monitoring progress in achieving global targets will vary from country to country, subject to selected time frames and data availability. Where data does not exist or has low visibility – for example, financial flows to/from the non-governmental organisations or the private sector – significant work will be required to establish workable baselines. This may include the determination of data collection methodologies and tools at the global and national levels respectively, and the development of capacities and competencies for countries where baselines do not exist.

## **g. Coherence**

24. Important links exist between the measurement of progress in achieving Target (f) and related processes and instruments of other frameworks, agreements and conventions. Some of these links, including those related to the work of the IAEG-SDGs, are discussed in this paper. The measurement of progress in implementing a number of these instruments will be informed by the Sendai Framework, and vice versa. In determining appropriate indicators to measure international support to developing countries to implement this framework and report on progress, it is recommended that additional work is undertaken to explore how initiatives of inter alia the 2030 Agenda, the Addis Ababa Action Agenda (AAAA) and the UN Framework Convention on Climate Change (UNFCCC) can support the measurement of progress in implementing the Sendai Framework. Such elements include, but are not restricted to:
- Total Official Support for Sustainable Development (OECD)
  - Technology Bank for the Least Developed Countries
  - Technology Facilitation Mechanism (TFM)
  - Technology Transfer Framework (UNFCCC)
  - Capacity building for the evaluation of development activities at the country level<sup>2</sup> (A/RES/69/237)
  - Bali Strategic Plan for Technology Support and Capacity-building (Rio+20 outcome document).
25. In support of the work of the Inter-agency and Expert group on Sustainable Development Goal Indicators (IAEG-SDG), UNISDR had submitted suggested DRR indicators that not only measured relevant SDGs targets but also promoted complementarity with the Sendai Framework and the work of the OEIWG. At its second meeting held in Bangkok on 26-28 October 2015, the IAEG reviewed the list of possible global indicators, and discussed the global indicator framework, interlinkages across targets and critical issues, including data disaggregation. The IAEG determined a categorisation of all proposed indicators according to the degree to which agreement had been reached. Suggested indicators are categorised as either green - generally agreed indicators; or grey - subject to other [intergovernmental] process, or less developed, lacking consensus, and requiring further consultation. In considering suggested DRR indicators, the IAEG deferred to the ongoing work of the OEIWG; DRR indicators are therefore currently listed in the grey group with the view to moving to green on the conclusion of the programme of work of the OEIWG. OEIWG members are encouraged to support the adoption of the suggested DRR indicators by the IAEG.

## **C. Suggested global indicators for monitoring Target (f) of the Sendai Framework**

26. This section lists suggested global indicators for consideration by the OEIWG, where relevant drawing on precedent in other conventions, agreements and frameworks. The context and rationale for the proposal are provided in the Annex. Where possible, the Annex also provides options for method of computation, source and data collection, disaggregation, comments and limitations and main linkage with the SDG targets. It does not propose the means of verification for each indicator; this will need to be addressed by OEIWG members in consultation with other stakeholders and experts.
27. Unlike the development of suggested indicators for Targets (a) – (e), and (g), the development of the suggested indicators for Target (f) have not, as yet, been informed by a process of expert consultation.

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<sup>2</sup> emphasizes the importance of building capacities for evaluation, inter alia as a tool that can strengthen and support development results

The suggested indicators have been developed by the UNISDR and are cognisant of the deliberations of the contributions of working group members in the first formal session of the OEIWG.

28. To the degree possible the following suggested indicators to measure Target (f) have been aligned with, or informed by, the work of the Inter-Agency and Expert Group on SDG Indicators (IAEG-SDGs). However, the IAEG has yet to agree upon indicators for a number of the key targets, including those related to technology transfer and capacity building. It is important therefore that close linkages are maintained between the deliberations of Member State Experts in the OEIWG and those participating in the IAEG. UNISDR continues to contribute to the work of the IAEG. The suggested indicators also take note of the relevant paragraphs of the S.A.M.O.A. Pathway, notably Paragraphs 51 and 52.

29. Suggested indicator list is as follows. Please see the Annex for details of each suggested indicator.

<b>(a) Financial resources</b>		<b>Annex pp.</b>
F-1	Net ODA for disaster risk reduction, total and to LDCs, as a percentage of total ODA.	v
F-2	Number of countries supported in implementing national DRR strategies by aligned programmes of entities of the UN System.	vii
F-3	Number of international (multilateral/bilateral) financial institutions that systematically integrate climate and disaster risk into the design, implementation and evaluation of Official Development Finance.	ix
<b>(b) Technology development and transfer</b>		<b>Annex pp.</b>
F-4	Number of countries with international and regional initiatives for the exchange of science, technology and innovation in disaster risk reduction.	xii
F-5	Total amount of funding within ODA to promote the development, transfer, dissemination and diffusion of DRR-related science, technology and innovation (STI).	xiv
<b>(c) Capacity building</b>		<b>Annex pp.</b>
F-6	Number of international and regional multi-stakeholder partnerships established to build individual, institutional and societal capacity for disaster risk reduction.	xv
F-7	Number of countries having participated in a voluntary and mutual review of progress in implementing respective national DRR strategies.	xvii
F-8	Financial and other resources made available to strengthen the statistical capacity of developing countries in collection, analysis, management and use of disaster risk information.	xviii
F-9	Number of voluntary commitments by international and regional organizations / initiatives related to DRR capacity building of developing countries.	xix

## Annex I. Suggested indicators for Target (f)

### (a) Financial Resources

#### *The challenge of tracking financial flows for DRR in domestic and international budgets*

30. The quantification of financial flows and budgetary allocations for DRR is complex, and only in a few cases has this been systematically recorded. In the past, DRR measures were commonly delivered through stand-alone projects and programmes. However in seeking an integrated approach to risk reduction, when implementing the HFA, a number of governments adapted development mechanisms and instruments designed to reduce risks and strengthen resilience, including through public investment planning<sup>3</sup>. At the national level, an increasing number of countries (over half) reported the systematic incorporation of risk reduction into national and sector-level public investment systems.
31. While progress has been made in the integration or embedding of DRR within (sectoral) development plans, countries have found it extremely challenging to effectively track DRR investments. For many, accounting for DRR investment is only possible with stand-alone disaster investments; common systems of classification, measurement and accounting of DRR in public investment have not emerged.
32. The same is true of measuring DRR investment integrated within broader financial flows supporting sustainable development. In the absence of standardized guidelines for recording DRR investment, studies that have explored the tracking of DRR investments have been challenged by the similar realities of a lack of adequate DRR classification and information.
33. Some donor countries responded to the call made at the 2<sup>nd</sup> Session of the Global Platform for Disaster Risk Reduction in 2009<sup>4</sup> - which invited the establishment of clear national and international financial commitments to DRR, including to allocate a minimum of 10% of all humanitarian and reconstruction funding, at least 1% of development funding, and at least 30% of climate change adaptation funding to DRR – by developing their own definitions / criteria for reporting. However, this approach has not been universally applied, and consequently aggregation or cross comparison and analysis has not been possible.

#### *Monitoring ODA - OECD mechanisms, in particular the proposal for a 'DRM Marker'*

34. The OECD Development Assistance Committee (DAC) Creditor Reporting System (CRS) provides comparable data that enables analysis on where aid goes, what purposes it serves and what policies it aims to implement. Official Development Assistance (ODA) and public investment are generally sector-focused, and so the Creditor Reporting System classifies aid activities by sector (purpose) codes, and data are collected on individual projects and programmes – the focus is on financial data, but some descriptive information is also made available.
35. Certain aspects of DRR can be captured through existing purpose codes (for example, specific activities for environmental policy and planning - 41010, flood prevention/control – 41050, or disaster prevention

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<sup>3</sup> The Global Assessment Report on Disaster Risk Reduction 2011 – *Revealing Risk, Redefining Development* (UNISDR).

<sup>4</sup> Proceedings of the Global Platform for Disaster Risk Reduction 2009

and preparedness - 74010<sup>5</sup>). However, code 74010 is classified under Humanitarian Aid (700) which, by its definition, does not cover the wide spectrum of disaster risk management (DRM) activities and considerations integrated into sectoral development aid, nor can it capture the wider co-benefits of integrated DRR to other economic sectors. This results in under-reporting of actual investments in DRR mainstreaming<sup>6</sup>. However, the limitations of sector classification - not least as activities across many economic sectors that contribute to policy objectives such as DRR, are not captured – are not limited to DRR, hence the policy marker approach was adopted by the OECD and its members.

36. Noting the limitations above of measurement using the OECD DAC sector classification (or purpose code), following the call at the 4<sup>th</sup> Global Platform for Disaster Risk Reduction 2013, a proposal for a DRR policy marker within the OECD DAC CRS was developed by a Technical Advisory Group comprising the World Bank, the UNISDR, and representatives of several DAC members<sup>7</sup>. This proposal was submitted for consideration by the OECD DAC Working Party on Development Finance Statistics (WP-STAT) in 2014. A decision as to its adoption was postponed until the conclusion of all post-2015 commitments.
37. The marker will assess the donors' "policy objectives" (or investment intent) in relation to DRM in each aid activity. Reporting countries are requested to indicate for each aid activity whether or not it includes DRM activities/considerations as a principal or significant objective. *Principal* policy objectives are those which can be identified as being fundamental to the design of the activity and which are an explicit objective of the activity. *Significant* policy objectives are those which, although important, are not one of the principal reasons for undertaking the activity. If the activity does not match any eligible DRM activity/consideration, it will be considered *Not targeted*. Policy markers cover all forms of aid (e.g. investment projects, technical co-operation), and both sector-allocable and non sector-allocable aid.
38. The application of a policy marker facilitates monitoring and coordination of activities in support of a specific policy objective and would address some of the challenges involved in accurately tracking DRR integration in development assistance. It would provide a reliable means of gauging the integration of DRR within development assistance, encourage the integration of DRR approaches into development planning, and, over time, provide an incentive to increase risk-informed development investments.
39. In addition to providing reliable tracking and reporting of the incorporation of DRR in development assistance, the guidelines and reporting directives developed for such a marker may also guide similar tracking and reporting of DRR-related initiatives/programming of non-DAC donors. It could also serve as a model for analysis of national budgetary systems of the recipient countries and foster risk-sensitive development planning over time. The marker has been tested in pilot developing countries to assist in the tracking of investment and expenditure within national budgets, as part of the risk-sensitive budget review (RSBR), see below.
40. It should be noted that while a marker can resolve several challenges associated with tracking and reporting of DRR approaches and investment, it will have inherent limitations. It will for example, not quantify the amount of aid specifically directed to DRR and disaster risk management actions. Policy marker data are descriptive rather than quantitative, identifying activities targeted to a policy objective

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<sup>5</sup> CRS Code 74010 covers "Disaster risk reduction activities (e.g. developing knowledge, natural risks cartography, legal norms for construction); early warning systems; emergency contingency stocks and contingency planning including preparations for forced displacement).

<sup>6</sup> For example an aid activity that has disaster-resistant elements, such as schools built to withstand seismic shocks or serve as emergency shelters, or agriculture programs that are drought resistant, will be captured under education and agriculture sector codes respectively, and their DRR co-benefits will go unreported.

<sup>7</sup> A Proposal to Establish a Policy Marker for Disaster Risk Management (DRM) in the OECD DAC Creditor Reporting System (CRS). DCD/DAC/STAT(2014)3. OECD Development Assistance Committee.

and giving information on the degree to which countries implement agreed policies in their programmes.

41. A comprehensive, detailed description of eligible activities for defining DRM integration is provided in the marker proposal<sup>7</sup>. The proposal for eligible activities is based on the available DAC sector codes at the time of submission in 2014. Listed eligible DRM activities/ considerations should be viewed as indicative since additional activities addressing DRM may exist within sectoral programs.

#### ***Rio Conventions – markers monitoring ODA for environment programming***

42. The working group may also wish to take note of the Rio markers, which were created to monitor external development finance for environmental purposes, and inform the policy considerations of developed countries' support to developing countries in their implementation of the conventions. Four markers allow for the identification of activities targeting the objectives of the three Rio Conventions<sup>8</sup>, and are applicable to ODA and other official flows (OOF) – e.g. non-concessional developmental flows, excluding export credits.
43. The most pertinent to the Sendai Framework is the climate change adaptation marker, developed to monitor relevant ODA and OOF in support of the Framework Convention on Climate Change. A measure is classified as targeting adaptation (principal or significant objective) using the Rio marker on 'climate change adaptation' if it intends to reduce the vulnerability of human or natural systems to the impacts of climate change and climate-related risks, by maintaining or increasing adaptive capacity and resilience. Eligible activities might include information and knowledge generation and capacity development.
44. Although many countries use the Rio markers to provide the basis for their reporting to the conventions on bilateral ODA, there have been challenges. For instance, reporting approaches can differ, including the introduction of coefficients to adjust financing percentages, to allow for an approximate quantification of financial flows.

#### ***A new framework for tracking sustainable development finance - total official support for sustainable development (TOSSD)***

45. The Addis Ababa Action Agenda (AAAA) calls for: an increase in efforts to manage and finance disaster risk as part of national sustainable development strategies; coherence of developmental and humanitarian finance to ensure timely, comprehensive, appropriate and cost-effective approaches to the management and mitigation of natural disasters and complex emergencies; and innovative financing mechanisms that allow countries to better prevent and manage risks and develop mitigation plans.
46. The complex financing packages that will be required to support the implementation of the AAAA and the 2030 Agenda, require mechanisms to track and measure support through an international statistical system. This has prompted a review of the mechanisms established by the OECD DAC for tracking sustainable development finance, including ODA, and other official flows. The OECD has subsequently developed a proposal for a new measurement framework with the working title total official support for

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<sup>8</sup> (1) UN Convention on Biological Diversity, UNCBD; UN Framework Convention on Climate Change, UNFCCC: (2) climate change mitigation and (3) climate change adaptation; and (4) UN Convention to Combat Desertification

sustainable development (TOSSD) and initiated a consultative process to examine which post-2015 commitments should be included in the framework, and how these could be measured.

47. It is proposed that TOSSD will cover the totality of international public finance extended to developing countries and multilateral institutions in support of sustainable development, regardless of the type of instrument used and the associated terms. It would also potentially cover domestic resource mobilization and private sector finance. The proposal includes inter alia support for providing global public goods and development enablers, and will capture both the provider and the recipient perspective in the measurement framework.
48. The consultative process is examining the possibility to record development cooperation both on the basis of a list of sector codes and policy markers, and classify and record contributions against different post-2015 commitments (including Sendai, the SDGs, UNFCCC, etc.). If approved, this would allow a calculation of TOSSD that contributes to commitments made at Sendai, as well as breaking it down by type of contribution (ODA, domestic resource mobilisation or private sector), and by country/region for example.
49. The ongoing consultative process will establish which post-2015 commitments will be included in the TOSSD measurement framework, and will examine methodologies. Working group members are urged to ensure that the Sendai Framework is included in TOSSD.
50. The AAAA outcome document acknowledged TOSSD as key to the modernization of the measurement of financial flows, and in support of the 2030 Agenda, a proposal has been submitted to the UN Statistical Commission for including TOSSD in the SDG monitoring framework.
51. TOSSD would therefore contribute to monitoring resources for financing the SDGs, and a policy marker for DRR could be envisaged within TOSSD if proposed and agreed. TOSSD has as an objective to start regular data collection on amounts mobilized, in 2017 on 2016 flows.

***Recipient perspective - ODA Marker pilot study for tracking DRR expenditure and investment in national public finance***

52. The DRR policy marker has been tested by UNISDR in developing countries as part of a risk-sensitive budget review (RSBR)<sup>9</sup>. A RSBR is a simple, systematic, quantitative analysis of a budget (or series of budgets) that enables countries to estimate and take credit for investment in DRM and DRR (the budget review methodology is described in Annex A of each National Report<sup>10</sup>). If the RSBR is conducted by a national government, the findings typically track public investment and can include inward financial flows. An RSBR conducted on a series of annual budgets allows for the identification and tracking of temporal trends. An RSBR that also categorizes components of risk management, can point to trends in focus (i.e. increasing investment in prevention and risk reduction, as opposed to repeated response to disasters).
53. The RSBR scrutinizes the budgets of key Ministries and Departments to identify those projects with a “significant” (but not main) objective of DRR, as well as those projects specifically addressing DRR that would not have been undertaken without the “principal” DRM objective. The approach is not without its limitations. Differences exist between countries in terms of: timeframes, types of budget (capital,

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<sup>9</sup> <http://www.preventionweb.net/english/professional/publications/v.php?id=43523>

<sup>10</sup> UNISDR working papers on public investment planning and financing strategy for disaster risk reduction: review of Mauritius. <http://www.unisdr.org/we/inform/publications/43525>

consumption, expenditure), levels (some included devolved budgets and donor funding), sectors/ministries (small countries included every budget, larger countries chose key sectoral budgets) and hazards. Thus global aggregation may be complex. It is of note that this review process is demanding in terms of time and resources; developing countries will require international support in implementation.

**Financial flows from the private sector**

- 54. Engagement and risk-sensitive investment by the private sector are identified throughout the Sendai Framework as fundamental to the successful achievement of its goal, outcome and targets. However, consistent methodologies and tools, both qualitative and quantitative, for the global measurement of support from the private sector to developing country efforts to reduce disaster risk are still to be developed. As the main United Nations initiative for engagement with the private sector and business, Paragraph 48 c) of the Sendai Framework identifies a role for the United Nations Global Compact.
- 55. As identified in the Monterrey Consensus<sup>11</sup>, foreign direct investment (FDI) also contributes toward financing sustained economic growth over the long term, and like trade, has a particularly important role in transferring knowledge and technology. The disaggregation of FDI statistics to provide relevant data to measure this Target is complex; this requires further investigation by working group members.

**Suggested Indicator F- 1: Net ODA for disaster risk reduction, total and to LDCs, as a percentage of total ODA.**

Definitions	<p><b>Net official development assistance (ODA):</b> Grants or loans to countries and territories on the DAC List of ODA Recipients (developing countries) and to multilateral agencies. In addition to financial flows, <u>technical co-operation is included</u> in aid. Grants, loans and credits for military purposes are excluded. Transfer payments to private individuals (e.g. pensions, reparations or insurance payouts) are in general not counted. Data are usually expressed in US dollars at the average annual exchange rate, or as a share of provider countries’ gross national income (GNI). (OECD)</p> <p><b>DAC list of recipients:</b> developing countries and territories eligible for receiving Official Development Assistance (ODA). Consists of all low and middle income countries based on gross national income (GNI) per capita as published by the World Bank, with the exception of G8 members, EU members, and countries with a firm date for entry into the EU. The list also includes all of the Least Developed Countries (LDCs). (OECD)</p> <p><b>LDCs:</b> The category of Least Developed Countries was officially established in 1971 by the UN General Assembly. The current list of LDCs includes 48 countries<sup>12</sup> (UN).</p> <p><b>Developing countries:</b> There is no established convention for the designation of</p>
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<sup>11</sup>In developing indicator(s) to measure financial flows for DRR, the working group may wish to examine the Report of the Intergovernmental Committee of Experts on Sustainable Development Financing (A/69/315\*). The report builds on the Monterrey Consensus – the outcome of the 2002 United Nations International Conference on Financing for Development – which launched the Financing for Development follow-up process and identified responsibilities for developed and developing countries in areas such as trade, aid, debt relief and institution building.

<sup>12</sup> [http://www.un.org/en/development/desa/policy/cdp/ldc2/ldc\\_countries.shtml](http://www.un.org/en/development/desa/policy/cdp/ldc2/ldc_countries.shtml)

	<p>“developing” countries or areas in the United Nations system. For the purposes of this indicator, developing countries are low, lower middle and upper middle income countries as classified by the World Bank according to GNI per capita.</p>
Method of computation	<p><b>ODA provider:</b>  Option 1: This indicator will be calculated using relevant OECD CRS sector codes.  Option 2: Use of ‘DRM Marker’ methodology.  Option 3: Use Rio Marker related to Climate Change Adaptation.  Or a combination of the above.</p> <p><b>ODA receiver:</b>  The use of ‘DRM Marker’ methodology</p>
Rationale and interpretation	<p>This indicator directly monitors Target (f).  ODA is the accepted measure of development co-operation, including both grants and soft loans provided by governments for development and welfare objectives in developing countries.  The Global Platform for Disaster Risk Reduction 2009 invited the establishment of clear national and international financial commitments to DRR, including to allocate a minimum of 10% of all humanitarian and reconstruction funding, at least 1% of development funding, and at least 30% of climate change adaptation funding to DRR.</p>
Source and data collection	<p><b>ODA provider:</b>  Data on ODA are compiled by the OECD from data submitted by its member countries and other aid providers.</p> <p><b>ODA receiver:</b>  National Progress Report of the Sendai Monitor, reported to UNISDR.</p>
	<p><i>Secondary source:</i>  Data pertaining to the ODA provider and receiver may ultimately be available through:</p> <ul style="list-style-type: none"> <li>▫ TOSSD framework.</li> <li>▫ RSBR using the ‘DRM Marker’ methodology</li> </ul>
Disaggregation	<p>The data are generally obtained on an activity level, and include numerous parameters. They can thus be disaggregated by provider and recipient country, by LDCs, LLDCs, SIDS, and African countries; and by sector assisted, by type of finance, and by type of resources provided.</p>

Comments and limitations	<p>While the Hyogo Framework for Action (HFA), the Global Platforms for Disaster Risk Reduction and the High Level Forum on Aid Effectiveness 2011 all called for increased investment in DRR measures, little analyses exists of such investments and their impacts.</p> <p>Because there is no specific data addressing this indicator at this moment, a baseline as of 2015 should be created through a questionnaire to providers and recipients.</p> <p>Existing sector (purpose) codes do not cover the totality of DRM activities and considerations integrated into sectoral development aid, nor do they capture the wider co-benefits of integrated DRR across multiple economic sectors. This results in under-reporting of actual investments in DRR mainstreaming.</p> <p>Data does not include non-ODA official (such as non-concessional official flows, FDI, bank lending) and private flows.</p>
Main linkage with SDGs targets	<p><b>Target 10.b</b> Encourage official development assistance and financial flows, including foreign direct investment, to States where the need is greatest, in particular least developed countries, African countries, small island developing States and landlocked developing countries, in accordance with their national plans and programmes</p> <p><b>Target 17.2</b> Developed countries to implement fully their official development assistance commitments, including the commitment by many developed countries to achieve the target of 0.7 per cent ODA/GNI to developing countries and 0.15 to 0.20 per cent of ODA/GNI to least developed countries; ODA providers are encouraged to consider setting a target to provide at least 0.20 per cent of ODA/GNI to least developed countries.</p> <p><b>Target 17.3</b> Mobilize additional financial resources for developing countries from multiple sources</p>

**Suggested Indicator F-2: Number of countries supported in implementing national DRR strategies by aligned programmes of entities of the UN System.**

Definitions	<p><b>National DRR Strategy:</b> national disaster risk reduction strategies and plans, across different timescales with targets, indicators and time frames, aimed at preventing the creation of risk, the reduction of existing risk and the strengthening of economic, social, health and environmental resilience (Sendai Framework, Paragraph 27(b)). In the Sendai Framework, link with DRR and climate change adaptation is strongly advocated.</p> <p><i>Note: DRR strategies need to be based on risk information and assessments.</i></p> <p><b>Aligned programmes:</b> DRR programmes of entities of the UN System are defined, developed, implemented and monitored in accordance with the goal(s) and objective(s) of national and local strategies for DRR, and their respective implementation plans.</p> <p><b>Entities of the UN System:</b> UN Resident Coordinator and the UN Country Team, Partners in the UN Plan of Action on Disaster Risk Reduction for Resilience, UN</p>
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	Regional Directors and their Teams, the International Financial Institutions.
Method of computation	Summation of data from National Progress Report of the Sendai Monitor, and reports of UN entities (including on the implementation of the UN Plan of Action on Disaster Risk Reduction for Resilience).
Rationale and interpretation	This indicator monitors Target (f). In Paragraph 48, the Sendai Framework makes explicit the request of the United Nations and other international and regional organizations, international and regional financial institutions. This indicator provides the multilateral aspect to international cooperation in support of national efforts to reduce disaster risk.
Source and data collection	National Progress Report of the Sendai Monitor, reported to UNISDR. Biennial report of the United Nations Plan of Action on Disaster Risk Reduction for Resilience.
	<i>Secondary source:</i> Annual reports of UN Resident Coordinators. Mid-term and Annual Reports of the UN Development Assistance Frameworks (UNDAF). Annual Reports of entities of the UN System. Quadrennial Comprehensive Policy Review (QCPR).
Disaggregation	By country, by organization
Comments and limitations	The indicator does not examine the efficacy nor the impact of UN support to country driven efforts to address disaster risk as part of broader, comprehensive resilience-building efforts, to address disaster risk and climate change impacts in the context of sustainable development. As many countries will not have been able to develop national DRR strategies that conform to the requirements of the Sendai Framework Paragraph 27 (b) as of 2015, it is almost impossible to develop a baseline. If the definition of national DRR strategy is relaxed, although difficult, it may be possible to collect data to produce a proxy in the interim. The Review of the United Nations Plan of Action on Disaster Risk Reduction for Resilience scheduled for March 2016 may also generate data to feed such a proxy baseline for 2015.
Main linkage with SDGs targets	<b>Target 17.16</b> Enhance the global partnership for sustainable development, complemented by multi-stakeholder partnerships that mobilize and share knowledge, expertise, technology and financial resources, to support the achievement of the sustainable development goals in all countries, in particular developing countries.

**Suggested Indicator F-3: Number of international (multilateral/bilateral) financial institutions that systematically integrate climate and disaster risk into the design, implementation and evaluation of Official Development Finance.**

Definitions	<p><b>International financial institutions (IFIs):</b> For the purposes of this indicator, the IFIs include: the multilateral development banks (MDB), including the regional and sub-regional development banks, and the bilateral development banks. The MDBs and the RDBs are defined as financial institutions providing financing and professional advice for economic and social development, and are formed by a group of countries, consisting of both donor and borrowing nations. The bilateral development banks are defined as a financial institutions established by one country for the purpose of financing development projects in a developing country and its emerging market.</p> <p><b>Official Development Finance:</b> Used in measuring the inflow of resources to recipient countries. Includes: (a) bilateral ODA, (b) grants and concessional and non-concessional development lending by multilateral financial institutions, and (c) Other Official Flows for development purposes (including refinancing loans) which have too low a grant element to qualify as ODA. (OECD)</p>
Method of computation	Summation of data from National Progress Report of the Sendai Monitor, and reports of IFIs.
Rationale and interpretation	<p>This indicator directly monitors Target (f).</p> <p>In calling for the optimum use of resources and support to developing countries, the OEIWG may wish to consider the development of indicators to measure progress in the degree to which DRR is integrated within financial support and loans provided by the international financial institutions, including the World Bank and regional development banks.</p> <p>This indicator responds to Paragraphs 31 (d) and 48 (d) of the Sendai Framework, and provides the aspect of multilateral and bilateral financial institutions in international cooperation in support of national efforts to reduce disaster risk</p>
Source and data collection	<p><b>IFI:</b> Annual reports of MDBs and bilateral development banks.</p> <p><b>Borrowing country:</b> National Progress Report of the Sendai Monitor, reported to UNISDR.</p> <p><i>Secondary source:</i> Data may ultimately be available through:</p> <ul style="list-style-type: none"> <li>▫ TOSSD framework.</li> <li>▫ Use of the ‘DRM Marker’ methodology.</li> </ul>
Disaggregation	By individual financial institution.
Comments and	MDBs have agreed a standard methodology measuring the incremental expenditure

limitations	<p>in development projects for climate change adaptation. Working group members are urged to encourage the MDBs to develop a similar methodology for incremental expenditure on DRR in development projects.</p> <p>The World Bank committed at the WCDRR to screen all of its projects for climate and disaster risk – working group members and other MDBs may wish to examine the methodology to be employed.</p>
Main linkage with SDGs targets	<p><b>Target 17.16</b> Enhance the global partnership for sustainable development, complemented by multi-stakeholder partnerships that mobilize and share knowledge, expertise, technology and financial resources, to support the achievement of the sustainable development goals in all countries, in particular developing countries.</p>

## (b) Technology Development and Transfer

56. Technology development and transfer is identified as pivotal to the successful implementation of the Sendai Framework and a pillar of the means of implementation of SDGs. The importance of the generation, exploitation and diffusion of knowledge as fundamental to economic growth and development is well recognized. As a result, there are well-established, internationally accepted methodologies for developing science, technology and innovation (STI)<sup>13</sup>. STI indicators that describe inputs (such as human capital and financial resources), outcomes and impact on social and economic development, are essential for effective policy formulation, implementation, monitoring and assessment<sup>14</sup>.
57. However, the lack of useful and reliable indicators for science, technology and innovation in many developing countries is a challenge. Developing countries have repeatedly called for the development of better indicators to promote and measure technology transfer<sup>15</sup>. Science, technology, knowledge and expertise are often transferred without much intervention, and the ways in which knowledge can travel to a broader audience are many<sup>16</sup>. Existing mechanisms for technology transfer are fragmented and often ad-hoc in terms of objective, content and country coverage. There is no global framework, agreement, or mechanism that is comprehensive and all-encompassing for STI capacity building in the least developed countries.
58. The Inter-Agency and Expert Group on SDG Indicators (IAEG-SDGs) is yet to define indicators for the measurement of the development, transfer, dissemination and diffusion of technologies. Similarly, additional work will be required by the OEIWG and other stakeholders to determine appropriate metrics for measuring technology transfer, development and cooperation.
59. One option is for measurement exercises to focus on the technology transfer process rather than its outputs and emphasize how efforts and knowledge are managed. The efforts made by governments, organizations and other stakeholders (in transfer and exchange activities) and capabilities (stocks and

<sup>13</sup> A Framework for Science, Technology and Innovation Policy Reviews. UNCTAD/DTL/STICT/2011/7

<sup>14</sup> UNESCO, Division of Statistics on Science and Technology, Office of Statistics ST-84/WS/12

<sup>15</sup> Technology and Innovation Report. UNCTAD/TIR/2012

<sup>16</sup> European Commission's Expert Group on Knowledge Transfer Indicators (2011)

flows) could be seen as equally or even more important to determine and analyse than the results (innovations). In this way, focus could be placed on the mechanisms and approaches available and employed to facilitate DRR technology transfer and cooperation – such as those for South-South cooperation (for example the Consortium on Science, Technology and Innovation), North-South cooperation (the Technology Facilitation Mechanism<sup>17</sup>) and triangular cooperation (such as the Technology Bank for LDCs or the UNFCCC Technology Mechanism), as well as the global, regional and national platforms for disaster risk reduction.

60. The Technology Bank for LDCs may prove to be an important mechanism in achieving Target (f), given that its purpose is to help build a robust STI base by improving access, acquisition and utilization of technology by LDCs, and in so doing, promote national actions by LDCs, mobilize international support and build on existing mechanisms. Similarly, the UNFCCC Technology Mechanism - an agreed instrument - seeks to promote technology transfer with the intent of building national innovation capacity and technological learning. In that the Technology Facilitation Mechanism – launched in September 2015 - should i) assist developing countries build or strengthen their capacity to prepare and implement technology projects and strategies that foster sustainable development; ii) stimulate technology cooperation; and iii) enhance the development and transfer of technologies, the inclusion of DRR in its programme of work could make an important contribution to the achievement of Target (f) of the Sendai Framework.
61. The UNISDR Science and Technology Conference on the Implementation of the Sendai Framework, which takes place from 27-29 January 2016 in Geneva, will see the launch of the UNISDR Science and Technology Partnership for the implementation of the Sendai Framework, and discuss and endorse the UNISDR Science and Technology road map to 2030. This roadmap is expected to define the expected outcomes of science and technology work under each of the four Sendai Framework priorities for action and identify the means to monitor progress and review emerging needs. Consequently, working group members may wish to explore how the work of the Partnership can support the achievement of Target (f).
62. Despite the many provisions governing the transfer of technology in international agreements, conventions and protocols, and accompanying arrangements and mechanisms, the methodological challenges to developing comprehensive and consistent metrics for measuring DRR technology transfer and cooperation, and enhanced capabilities in related science, technology and innovation are considerable.
63. Technology and knowledge transfer of DRR could be described as processes and activities that help DRR knowledge that is developed and held in one part of society become available for benefit of society at large. For the purposes of this category of suggested indicators, technology transfer refers to the transmittal of advanced technical knowledge to the developing world, from developed and developing countries. The working group may wish to take note that technology transfer can also be described as the process for facilitating the commercial application of applied science (adapted from the *UN Secretary-General's High-Level Panel on the Technology Bank for the Least Developed Countries, 2015*<sup>18</sup>).
64. The OEIWG will therefore need to define the scope of technology development and transfer in DRR; namely whether it should focus on support for technology development and transfer for use and

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<sup>17</sup> a multi-stakeholder collaboration between Member States, civil society, the private sector, the scientific community, UN entities and other stakeholders

<sup>18</sup> Feasibility Study for a United Nations Technology Bank for the Least Developed Countries. UN Secretary-General's High-Level Panel on the Technology Bank for the Least Developed Countries, 2015

enhancement of DRR-related science, technology and innovation capacities of public bodies of recipient countries; or for commercial use in recipient countries; or both.

**Suggested Indicator F-4: Number of countries with international and regional initiatives for the exchange of science, technology and innovation in disaster risk reduction.**

Definition	<p><b>Initiative:</b> a mechanism enabling improved DRR dialogue and cooperation among scientific and technical communities, the private sector and other relevant stakeholders and policy makers, in order to facilitate a science-policy interface for effective exchange with other countries.</p> <p><b>Science and technology:</b> systematic activities which are closely concerned with the generation, advancement, dissemination, and application of scientific and technical knowledge in all fields of science and technology. These include such activities as research and development (R&amp;D), scientific and technical education and training and the scientific and technological services. (UNESCO)</p> <p><b>Innovation:</b> can occur in any sector of the economy, including government services such as health or education. Principally concerns innovations in the business enterprise sector, including manufacturing, primary industries and the services sector (the Oslo Manual, OECD). More work is required to study innovation and develop a framework for the collection of innovation data in the public sector.</p>
Method of computation	Summation of data from National Progress Report of the Sendai Monitor.
Rationale and interpretation	<p>This indicator monitors Target (f), and indirectly Target (g).</p> <p>This indicator seeks to measure progress in cooperation in, and access to, science, technology and innovation in DRR to enhance knowledge and risk management practice in developing countries, building on progress made through implementing the HFA. It seeks to capture multiple forms of international cooperation, whether North-South, South-South or triangular regional and international cooperation.</p>
Source and data collection	<p>National Progress Report of the Sendai Monitor, reported to UNISDR.</p> <p>Proceedings of Regional Platforms for Disaster Risk Reduction, and the Global Platform for Disaster Risk Reduction.</p> <p>Periodic reports of the United Nations Office for Disaster Risk Reduction Scientific and Technical Advisory Group.</p> <p><i>Secondary source:</i></p> <p>UNESCO Science Report.</p> <p>World Intellectual Property Report (WIPO).</p> <p>Consortium on Science, Technology and Innovation for the South.</p>

	<p>Reports of the Technology Bank for LDCs.</p> <p>Reports of the UNFCCC Technology Mechanism.</p> <p>Reports of the Technology Facilitation Mechanism.</p>
Disaggregation	By country.
Comments and limitations	<p>Because there is no specific data addressing this indicator at this moment, a baseline as of 2015 should be created through a questionnaire to all countries.</p> <p>The indicator lacks an investigation of the effectiveness of the mechanism, for instance, the degree to which these platforms have the appropriate composition, or are effectively managed. Nor does it appraise the output, for instance has the mechanism successfully facilitated the development, transfer and application of appropriate DRR-related STI by decision-makers.</p>
Main linkage with SDGs targets	<p><b>Target 17.6</b> Enhance North-South, South-South and triangular regional and international cooperation on and access to science, technology and innovation and enhance knowledge sharing on mutually agreed terms, including through improved coordination among existing mechanisms, in particular at the United Nations level, and through a global technology facilitation mechanism</p> <p><b>Target 17.7</b> Promote the development, transfer, dissemination and diffusion of environmentally sound technologies to developing countries on favourable terms, including on concessional and preferential terms, as mutually agreed</p> <p><b>Target 17.8</b> Fully operationalize the technology bank and science, technology and innovation capacity-building mechanism for least developed countries by 2017 and enhance the use of enabling technology, in particular information and communications technology</p>

**Suggested Indicator F-5: Total amount of funding within ODA to promote the development, transfer, dissemination and diffusion of DRR-related science, technology and innovation (STI).**

Definitions	<b>DRR-related science, technology and innovation (STI):</b> entails activities of DRR research, technological development, knowledge and innovation in all aspects of disaster risk reduction. Working group members may wish to consider using the classification described in the proposed ‘DRM Marker’ as the basis for grouping DRR-related STI.
Method of computation	Summation of data from National Progress Report of the Sendai Monitor. Use ‘DRM Marker’ methodology.
Rationale and interpretation	This indicator directly monitors the Target (f), and indirectly monitors the Target g).
Source and data collection	National Progress Report of the Sendai Monitor, reported to UNISDR. World Bank Development Indicators.
	<i>Secondary source:</i> OECD DAC CRS, or TOSSD, and/or FDI. UNESCO Science Report. World Intellectual Property Report (WIPO). Consortium on Science, Technology and Innovation for the South. Reports of the Technology Bank for LDCs. Reports of the UNFCCC Technology Mechanism. Reports of the Technology Facilitation Mechanism. Global Partnership for Sustainable Development Data.
Disaggregation	By country.
Comments and limitations	Given the varying forms of cooperation in technology transfer, identifying a comprehensive and consistent methodology of computation may be challenging. Science, technology and innovation statistical systems are often weak in developing countries. This indicator may require the development of a classification of DRR-related STI, potentially based on the ‘DRM Marker’ disaggregation. Traditional public funding of R&D in developing countries is now complemented by funding from foundations, non-governmental organizations (NGOs) and especially foreign organizations and businesses. This presents challenges for data collection. Although the collection of primary data through direct surveys is encouraged, in developing countries, the use of secondary data from the national budget and the

	<p>budgetary records of public R&amp;D is a widely adopted practice for estimating R&amp;D expenditure, despite the risk of double counting<sup>19</sup>.</p> <p>The indicator lacks an investigation of the impact of funding, particularly with regard to decision-makers.</p>
Main linkage with SDGs targets	<p><b>Target 17.7</b> Promote the development, transfer, dissemination and diffusion of environmentally sound technologies to developing countries on favourable terms, including on concessional and preferential terms, as mutually agreed.</p>

### (c ) Capacity building

65. ECOSOC defines capacity building as the process by which individuals, organizations, institutions and societies develop abilities to perform functions, solve problems and set and achieve objectives; it also identified that this needs to be addressed at three inter-related levels: individual, institutional and societal. In its Capacity Measurement Framework (2015), UNDP goes one step further to identify the level of product / service.

66. Capacity building is a cross-cutting issue in all sustainable development policy documents, and as the TST<sup>20</sup> describes, is linked to funding, the science-policy-society interface, and monitoring and assessment. In respect of the last point, OEIWG members have already recognised the need for support to some States to develop the necessary rigour to report against the Framework's global indicators.

#### Suggested Indicator F-6: Number of international and regional multi-stakeholder partnerships established to build individual, institutional and societal capacity for disaster risk reduction.

Definitions	<p><b>Multi-stakeholder partnerships:</b> the association of two or more entities - that can be organisations, institutions, States or other - through a collective intent to realise shared DRR goal(s) and outcome(s).</p> <p><b>Capacity building:</b> is the process by which individuals, organizations, institutions and societies develop abilities to perform functions, solve problems and set and achieve objectives. It needs to be addressed at three inter-related levels: individual, institutional and societal. (Adapted from the definition of UN ECOSOC<sup>21</sup>).</p>
Method of computation	Summation of data from National Progress Report of the Sendai Monitor.
Rationale and interpretation	This indicator monitors Target (f).

<sup>19</sup> Measuring R&D: Challenges Faced by Developing Countries. UNESCO - Institute for Statistics (2010)

<sup>20</sup> Technical Support Team to the UN General Assembly Open Working Group on Sustainable Development Goals.

<sup>21</sup> UN ECOSOC, Definition of basic concepts and terminologies in governance and public administration, E/C.16/2006/4.

Source and data collection	<p>National Progress Report of the Sendai Monitor, reported to UNISDR.          Proceedings of Regional Platforms for Disaster Risk Reduction.          Global Platform for Disaster Risk Reduction.</p> <p><i>Secondary source:</i>          Periodic reports of the United Nations Office for Disaster Risk Reduction Scientific and Technical Advisory Group.          Reports of the Technology Mechanism of the UNFCCC for capacity-building on climate change technologies.          Reports of the Technology Facilitation Mechanism.          Reports of the Technology Bank for LDCs.</p>
Disaggregation	By country.
Comments and limitations	<p>Because there is no specific data addressing this indicator at this moment, a baseline as of 2015 should be created through a questionnaire to all countries in order to monitor both the Sendai Framework and the SDGs.</p> <p>The indicator lacks an investigation of the effectiveness of new partnerships, for instance, the degree to which these platforms have the appropriate composition, are effectively managed. Nor does it adequately appraise the output, for instance has the mechanism successfully enhanced the capacity of decision-makers at all levels to reduce disaster risk.</p> <p>A definition of a ‘partnership to build capacity’ may be required; in which case it may be necessary to target specific areas of capacity building, for example skills training for public officials to enact and coordinate DRR policies, or technical and vocational training for applied DRR design capabilities (including to, from and between private sector entities).</p>
Main linkage with SDGs targets	<p><b>Target 4.b</b> By 2020, substantially expand globally the number of scholarships available to developing countries, in particular least developed countries, small island developing States and African countries, for enrolment in higher education, including vocational training and information and communications technology, technical, engineering and scientific programmes, in developed countries and other developing countries.</p> <p><b>Target 17.18</b> By 2020, enhance capacity-building support to developing countries, including for least developed countries and small island developing States, to increase significantly the availability of high-quality, timely and reliable data disaggregated by income, gender, age, race, ethnicity, migratory status, disability, geographic location and other characteristics relevant in national contexts</p> <p><b>Target 17.19</b> By 2030, build on existing initiatives to develop measurements of progress on sustainable development that complement gross domestic product, and support statistical capacity-building in developing countries</p> <p><b>Target 17.9</b> Enhance international support for implementing effective and targeted capacity-building in developing countries to support national plans to implement all the sustainable development goals, including through North-South, South-South and triangular cooperation</p>

**Suggested Indicator F-7: Number of countries having participated in a voluntary and mutual review of progress in implementing respective national DRR strategies.**

Definitions	<p><b>Voluntary and mutual review:</b> an on-demand, self-determined exercise of appraisal and exchange to promote mutual learning and sharing of information and good practices through, inter alia, voluntary and self-initiated peer reviews among interested States.</p> <p><b>National DRR Strategy:</b> national disaster risk reduction strategies and plans, across different timescales with targets, indicators and time frames, aimed at preventing the creation of risk, the reduction of existing risk and the strengthening of economic, social, health and environmental resilience (Sendai Framework, Paragraph27(b)). In the Sendai Framework, link with DRR and climate change adaptation is strongly advocated.</p> <p><i>Note: DRR strategies need to be based on risk information and assessments.</i></p>
Method of computation	Summation of data from National and Regional Progress Report of the Sendai Monitor.
Rationale and interpretation	<p>This indicator monitors Target (f).</p> <p>The transparent sharing and exchange of policy, practice, knowledge, technology, through assessment and review can build sustained opportunities for solution-oriented collaboration and cooperation.</p>
Source and data collection	<p>National Progress Report of the Sendai Monitor, reported to UNISDR.</p> <p>Reports of Sendai Peer Reviews.</p> <p>Proceedings of Regional Platforms for Disaster Risk Reduction.</p>
Disaggregation	By country
Comments and limitations	<p>The indicator does not examine what the impact of a review exercise is on the country's ability to accelerate progress in implementing national strategies for DRR.</p> <p>Reviews can be as light or as in depth, as targeted or comprehensive, as the country that initiates the process requires. Comprehensive reviews can bear significant dividends and require a greater commitment of time and resources..</p>
Main linkage with SDGs targets	<p><b>Target 17.16</b> Enhance the global partnership for sustainable development, complemented by multi-stakeholder partnerships that mobilize and share knowledge, expertise, technology and financial resources, to support the achievement of the sustainable development goals in all countries, in particular developing countries.</p>

**Suggested Indicator F-8: Financial and other resources made available to strengthen the statistical capacity of developing countries in collection, analysis, management and use of disaster risk information.**

Definitions	<p><b>Capacity strengthening:</b> is the process by which individuals, organizations, institutions and societies develop abilities to perform functions, solve problems and set and achieve objectives. It needs to be addressed at three inter-related levels: individual, institutional and societal. (Adapted from the definition of UN ECOSOC<sup>22</sup>).</p> <p><b>Developing countries:</b> There is no established convention for the designation of “developing” countries or areas in the United Nations system. For the purposes of this indicator, developing countries are low, lower middle and upper middle income countries as classified by the World Bank according to GNI per capita.</p> <p><b>Disaster risk information:</b> pertaining to disaster risks, vulnerability, capacity, exposure, hazard characteristics and their possible sequential effects at the relevant social and spatial scale of ecosystems, risk maps, disaster losses and impacts, relevant data and practical information (Adapted from Paragraphs 24 (a), (b) (c) and (d) of the Sendai Framework)</p>
Method of computation	Summation of data reported from the national governments
Rationale and interpretation	<p>This indicator monitors Targets (f) and (g). Capacity building support for disaster loss database building is a precondition for monitoring targets (a) through (d).</p> <p>This indicator clearly identifies the specific capacity to be strengthened and supports implementation of the Sendai Framework, including ability to monitor other targets</p>
Source and data collection	Sendai Monitor national progress report
Disaggregation	By country, by supported activity (e.g. loss data, risk data, risk map)
Comments and limitations	This indicator provides information on the volume of resources made available, but it does not capture improvements in capacity, or the results thereof.
Main linkage with SDGs targets	<p><b>Target 17.18</b> By 2020, enhance capacity-building support to developing countries, including for least developed countries and small island developing States, to increase significantly the availability of high-quality, timely and reliable data disaggregated by income, gender, age, race, ethnicity, migratory status, disability, geographic location and other characteristics relevant in national contexts</p> <p><b>Target 17.19</b> By 2030, build on existing initiatives to develop measurements of progress on sustainable development that complement gross domestic product, and support statistical capacity-building in developing countries</p> <p><b>Target 17.16</b> Enhance the global partnership for sustainable development,</p>

22 UN ECOSOC, Definition of basic concepts and terminologies in governance and public administration, E/C.16/2006/4.

	<p>complemented by multi-stakeholder partnerships that mobilize and share knowledge, expertise, technology and financial resources, to support the achievement of the sustainable development goals in all countries, in particular developing countries.</p> <p><b>Target 17.9</b> Enhance international support for implementing effective and targeted capacity-building in developing countries to support national plans to implement all the sustainable development goals, including through North-South, South-South and triangular cooperation</p>
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**Suggested Indicator F-9: Number of voluntary commitments by international and regional organizations/initiatives related to DRR capacity building of developing countries**

Definitions	<p><b>Voluntary commitment:</b> Commitments by relevant stakeholders to identify modalities of cooperation and to implement the Sendai Framework. These commitments should be specific and time-bound in order to support the development of partnerships at local, national, regional and global levels and implementation of local and national DRR strategies and plans. (Para 37 of the Sendai Framework)</p> <p><b>Capacity building:</b> is the process by which individuals, organizations, institutions and societies develop abilities to perform functions, solve problems and set and achieve objectives. It needs to be addressed at three inter-related levels: individual, institutional and societal. (Adapted from the definition of UN ECOSOC<sup>23</sup>).</p> <p><b>Developing countries:</b> There is no established convention for the designation of “developing” countries or areas in the United Nations system. For the purposes of this indicator, developing countries are low, lower middle and upper middle income countries as classified by the World Bank according to GNI per capita.</p>
Method of computation	Summation of data in the voluntary commitment inventory, compiled by UNISDR.
Rationale and interpretation	This indicator monitors Target (f).
Source and data collection	UNISDR voluntary commitment inventory
Disaggregation	By activities if designed/analysed
Comments and limitations	A total of 670 commitments to reducing disaster risk were made before, during and since the Third UN World Conference on Disaster Risk Reduction (WCDR) in March

<sup>23</sup> UN ECOSOC, Definition of basic concepts and terminologies in governance and public administration, E/C.16/2006/4.

	<p>2015. National and local governments accounted for 134 commitments; the private sector made 37 individual commitments; entities of the UN System, international organizations, civil society organizations (CSOs), and non-governmental organizations (NGOs) collectively made 312 commitments; with a further 202 commitments made in high-level working sessions of the WCDR.</p> <p>The voluntary commitments seek to address the four Priorities of Action of the Sendai Framework. They vary in magnitude, type and administrative scale, but in most cases can be monitored against specific paragraphs of the Sendai Framework.</p> <p>The indicator does not examine what the impact of realizing such commitments will be on the country's ability to accelerate progress in implementing national strategies for DRR.</p>
<p>Main linkage with SDGs targets</p>	<p><b>Target 17.16</b> Enhance the global partnership for sustainable development, complemented by multi-stakeholder partnerships that mobilize and share knowledge, expertise, technology and financial resources, to support the achievement of the sustainable development goals in all countries, in particular developing countries.</p>