

**INTERNATIONAL DAY
FOR DISASTER RISK REDUCTION**

International Cooperation in Disaster Risk Reduction

TARGET

F



#DRRDay #OnlyTogether



SENDAI FRAMEWORK
FOR DISASTER RISK REDUCTION 2015-2030



UNDRR
UN Office for Disaster Risk Reduction

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Foreword

There has probably never been a more appropriate moment in history to make the point that an investment in disaster risk reduction is an investment in the future safety and resilience of people.

COVID-19 has swept across the world, claiming over 4.5 million lives, wreaking havoc on the global economy and upending people's lives to an extent that could have been avoided if only we had acted on the repeated warnings of a coming pandemic.

An investment of billions would have saved trillions in economic losses and saved many lives in the process.

We all understand that now.

Nonetheless, as we examine the data collected on international cooperation with developing countries to support their efforts to reduce their disaster losses, we find that disaster risk reduction is very much the poor relation when it comes to overseas development assistance.

Target F of the Sendai Framework for Disaster Risk Reduction calls for enhanced international cooperation with developing countries for disaster risk reduction, and is the least reported among the seven targets agreed by UN Member States when they adopted the framework in 2015.

To date, just 79 countries – both recipient and donor countries – have reported on international cooperation, making it difficult to form a complete picture.

This report throws into stark relief how little investment

there is in disaster risk reduction against a backdrop of major planetary emergencies, including a doubling of major disaster events over the last 20 years.

The cost benefits of investing in prevention and resilience have been demonstrated time and time again, but for every US\$100 of disaster-related ODA, only 50 cents are invested in protecting development from the impact of disasters.

This is the equivalent of building a car and deciding not to install brakes.

Let us not wait until the car crashes before deciding to make that extra investment; in the case of disasters, it is often only after tragedy strikes that an effort is made to avoid a recurrence.

Data collection on investments in both disaster risk reduction and disaster losses is an ongoing challenge, which the UN Office for Disaster Risk Reduction seeks to address through the Sendai Framework Monitor and support to UN Member States for the development of national disaster loss databases.

It is my hope that the data will continue to improve and that will guide enhanced international cooperation with developing countries, which is UNDRR's focus on 13 October, International Day for Disaster Risk Reduction in 2021.



Mami Mizutori,

Special Representative of the UN Secretary-General
for Disaster Risk Reduction

Head of the UN Office for Disaster Risk Reduction

Headline messages

- **International financial commitments remain far from the intended target** – ODA disbursements have averaged at around 0.39 per cent of Gross National Income since 2010, against the committed target of 0.7 per cent.

- **For every US\$100 spent on disaster-related ODA, only 50 cents are invested in protecting development from the impact of disasters.**

- While ODA correlates well with disaster response and reconstruction needs, there is insufficient investment to prevent future disasters in areas where high mortality is likely. **ODA should be better targeted to address multi-dimensional vulnerability of populations.**

- **Disasters and extreme events stimulate enhanced international funding and cooperation for prevention and preparedness.** However, this funding is not consistent in most countries, making it more difficult to build long-term resilience.

- **Better and systematic tracking of financing for disaster risk reduction** is needed at national and international levels, including development budgets and investments focused on risk management.

- **Target F of the Sendai Framework for Disaster Risk Reduction** highlights the role of international cooperation in accelerating its implementation, and measures this cooperation through progress in **financing, technology transfer and capacity development**. Target F is the least reported among the Sendai Framework targets. Better tracking of international cooperation is critical to accelerate the implementation of the Sendai Framework.

- Despite limited reporting, **1,113 instances of technology transfer** and **2,203 examples of capacity development** demonstrate a significant level of international cooperation among countries.

I. Introduction

“Our agenda for global action is built on our commitment to international cooperation, multilateralism and an open, resilient, rules-based world order.”

CARBIS BAY, G7 SUMMIT COMMUNIQUÉ

Reducing mortality, and minimising the numbers of people injured, displaced and left without a livelihood has never been more challenging, especially given the scale of the COVID-19 pandemic.

Meanwhile, climate-related disasters have almost doubled over the last 20 years. This has increased inequalities within and between countries, with those contributing least to global emissions often experiencing the worst effects of the climate emergency. As highlighted by the recent IPCC WG-I report, human-induced climate change is intensifying weather and climate extremes in every region, while the average global temperature could rise by 1.5°C above the pre-industrial level by the early 2030s, much earlier than predicted.

Failure to address the increasingly complex and systemic nature of disaster risk is undermining efforts to achieve the overall 2030 Agenda for Sustainable Development, notably the eradication of poverty and hunger, as well as the rest of the SDGs.

At the current climate trajectory, global financing gaps will continue to increase. For instance, developing countries need an estimated US\$70 billion annually for adaptation, and this figure is expected to reach somewhere between US\$140 billion and US\$300 billion by 2030. Driven by climate and conflict, humanitarian needs are at their highest ever, with one in every 33 people globally in need of assistance and protection. Subsequent chapters look further into financing gaps for disaster risk reduction.

An international collective effort is critical to keep the rise in global average temperature within the 1.5°C safer limit outlined in the Paris Agreement, and to address some of the challenges also outlined there. International cooperation must be increased to support climate-affected countries in setting sustainable adaptation priorities that build resilience and reduce risk.

While financing is an important indicator of international cooperation, it is only one of its key elements. As outlined in the Target F indicators, technology transfer and capacity development are critical components in bolstering global efforts to build climate and disaster resilience.

Well-funded national and local strategies for disaster risk reduction are key to reducing mortality and the numbers of people affected by disaster.

These become important when considering the huge gaps in access to technology, and limited capacity, in developing countries. Only half of the 193 Members of the World Meteorological Organisation (WMO) have modern multi-hazard

early warning systems, which are vital to support adaptation and disaster risk reduction in climate-sensitive sectors such as health, water and agriculture. In particular, there are major gaps in weather-observation systems in Africa and small-island developing States.

Similarly, while 120 countries have reported that they have developed disaster risk reduction strategies at national and/or local levels, capacity gaps remain in translating them into action. Low- and middle-income countries will benefit from scaled-up international cooperation and support to implement these strategies – and this includes developing the appropriate data ecosystem, backed by robust statistics.

This report focuses on international cooperation in disaster risk reduction, in line with Target F of the Sendai Framework and SDG 17 on global partnership for sustainable development. It highlights the continued impact of disasters, and maps this against trends in international financing, to manage the risk of such disasters and to avert, minimize and address losses and damages. The report also analyses different forms and levels of international cooperation – international financing, technology transfer and capacity development – and makes recommendations to strengthen international cooperation.

The analysis and information provided in the report are based on data reported by Member States through the Sendai Framework Monitor. Other data sources support this when relevant, and are indicated.

Sendai Framework: Target F

The Sendai Framework for Disaster Risk Reduction 2015-2030 has seven strategic targets and 38 indicators for measuring progress on reducing disaster risk and losses. These indicators align implementation of the Sendai Framework with implementation of the SDGs and the Paris Agreement on climate change.

Target F of the Sendai Framework aims to:

Substantially enhance international cooperation to developing countries through adequate and sustainable support to complement their national actions for implementation of the present Framework by 2030.

UN Members States agreed the following indicators when it comes to measuring Target (F):

F-1 Total official international support, (official development assistance (ODA) plus other official flows), for national actions in disaster risk reduction.

F-2 Total official international support (ODA plus other official flows) for national actions in disaster risk reduction provided by multilateral agencies.

F-3 Total official international support (ODA plus other official flows) for national actions in disaster risk reduction provided bilaterally.

F-4 Total official international support (ODA plus other official flows) for the transfer and exchange of technology related to disaster risk reduction.

F-5 Number of international, regional and bilateral programmes and initiatives for the transfer and exchange of science, technology and innovation in disaster risk reduction for developing countries.

F-6 Total official international support (ODA plus other official flows) for building capacity in disaster risk reduction.

F-7 Number of international, regional and bilateral programmes and initiatives for building capacity in disaster risk reduction in developing countries.

F-8 Number of developing countries supported by international, regional and bilateral initiatives to strengthen their statistical capacity related to disaster risk reduction.

II. Human and economic cost of disasters

Disasters continue to take a heavy toll on life and assets, setting back the development gains of many countries. This is particularly obvious in the case of the COVID-19 pandemic, for which data has not yet been collected through the Sendai Framework Monitor. While the human impact of other major disasters related to natural hazards has declined considerably – especially when measured by disaster-related mortality – the economic costs have remained high and continue to increase. Further, the impact of high-frequency, low-impact events has also increased, often cumulatively exceeding the impact of single mega events.

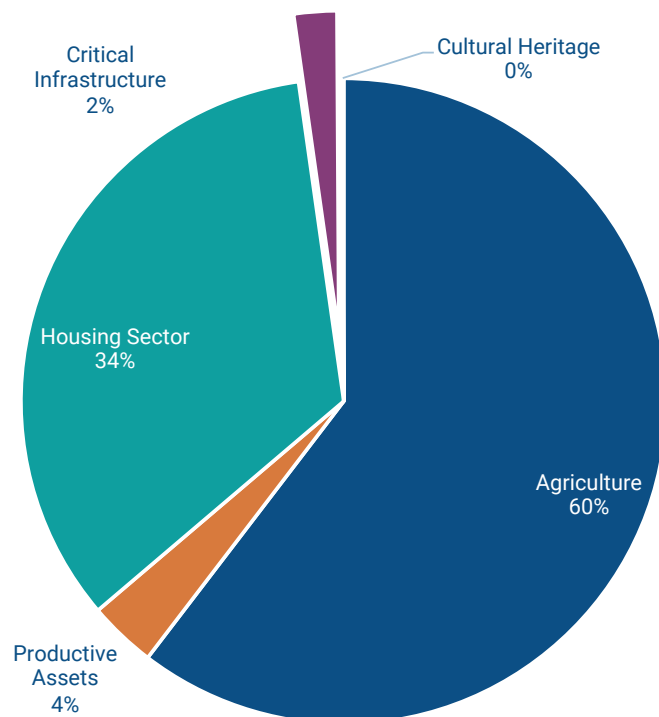
In the first five years of Sendai Framework implementation (2016-2020) a total of 328,867 disaster-related deaths (including missing persons) were reported by an average of 82 countries (Target A). Nonetheless, in the longer term, the average annual number of dead and missing persons in the event of disaster per 100,000 people has fallen from 1.98 during 2005-2014 to 1.32 during 2011-2020. When major events are compared across time at the same location, disasters of the same intensity are resulting in lower human mortality. For instance, in the Indian state of Odisha, the human mortality impact of tropical cyclones of similar intensities reduced from around 10,000 in 1999 to less than 100 in 2019.

However, the COVID-19 pandemic has already disrupted this progress in mortality reduction. It has reversed the positive trend, and clearly demonstrates the importance of taking a targeted approach to early warning and early action when it comes to disease outbreaks and pandemic preparedness, just as happens now in many countries with routine exposure to drought, floods, storms and tsunamis.

Further, during 2016-2020, an average of 77 countries reported a total of 774 million people affected by disasters (Target B – reducing numbers of people affected by disasters). The number affected by disasters per 100,000 per year has in fact grown from an average of 1,981 during 2005-2014 to 3,145 during 2011-2020. In 2020 alone, 40.5 million new internal displacements were recorded, of which over 75 per cent were displaced due to disasters.

Economic losses due to disasters are high, and there is an ongoing challenge of under-reporting and underestimation of losses. For instance, during 2016-2020, losses reported by an average of 62 countries total US\$293 billion. This is a severe underestimation due to incomplete reporting on loss and damage. The insurance sector estimates global disaster

Fig 2.1 Disaster-related Economic Losses by Sector 2019



Source: Sendai Framework Monitor

losses from natural hazards in 2020 alone to be US\$210 billion, which was over 25 per cent higher than in the previous year. In fact, over a four-decade period starting 1980, total losses due to such disasters have been estimated to be US\$5.2 trillion.

While it is evident that richer nations would face higher economic losses, the Least Developed Countries have reported 17 per cent of total economic losses during 2018-2020 on the Sendai Framework Monitor. The agriculture sector bears the brunt of economic losses, accounting for 60 per cent of recorded losses, followed by the housing infrastructure sector. The Food and Agriculture Organization (FAO) estimates that between 2008 and 2018, the impact of disasters cost the agricultural sectors of developing-country economies over US\$108 billion in damaged or lost crop and livestock production.

At a micro level, the World Bank estimates that extreme weather is responsible for annual consumption losses of US\$520 billion globally and (pre-COVID 19) pushed 26 million people into poverty every year. Meanwhile, the COVID-19

pandemic is estimated to have pushed an additional 97 million people into poverty in 2020, and – in combination with extreme weather events, including drought – is having devastating effects on global hunger and poverty.

Global warming remains unabated: the WMO estimates a 40 per cent chance of the annual average global temperature temporarily reaching 1.5°C above the pre-industrial level in at least one of the next five years. The recent IPCC WG-I report has further highlighted the already severe impact of the climate emergency. A warmer climate is expected to result in increased heat waves, longer warm seasons and shorter cold seasons. Countries will experience more-intense floods and droughts. With every additional increment of global warming, changes in extremes become larger: for each 1°C of global warming, extreme daily precipitation events may intensify by about 7 per cent.

Unless drastic steps are taken, the continued impact of the climate emergency is expected to outpace disaster risk reduction efforts, and reverse resilience gains. Without real action on climate in the next 10 years, extreme weather events will be overwhelming, especially for developing countries. A global effort is needed to meet these urgent needs – and this should be more than the sum total of national efforts.

Such a planetary emergency can only be adequately addressed through impartial and inclusive international

Disaster risk reduction is a good investment

Investing in risk reduction and building resilience saves more than lives and livelihoods – it also brings a good return on investment.

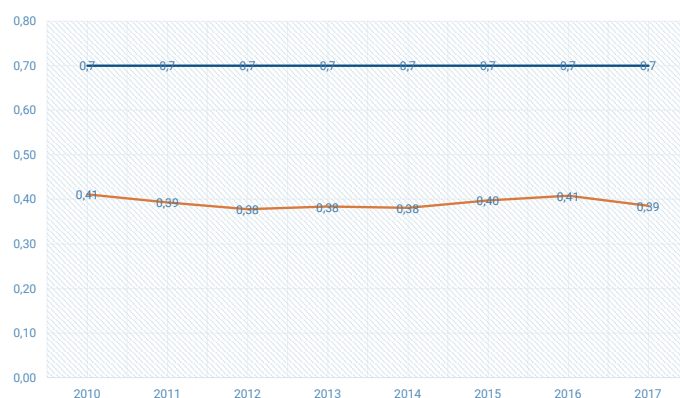
- Every US\$1 invested in risk reduction and prevention can save up to US\$15 in post-disaster recovery. (UNDRR)
- Every US\$1 invested in making infrastructure disaster-resilient saves US\$4 through fewer disruptions and reduced economic impacts. (World Bank)
- Spending US\$800 million on early-warning systems in developing countries would avoid losses of between US\$3 billion and US\$16 billion per year. (GCA)

cooperation on disaster risk management. A conjoined global effort for disaster risk reduction and risk-informed climate action is essential to eradicating poverty and hunger, and to reducing economic losses in developing countries.

III. International financing for disaster risk reduction

Official Development Assistance (ODA), aid intended to promote the economic development and welfare of developing countries, remains an important component of international financing for development, particularly for the poorest countries. The UN has set a target for countries to spend 0.7 per cent of their Gross National Income (GNI) on ODA. Unfortunately, this target has never been met at the global level, and overall ODA disbursements from OECD Development Assistance Committee (DAC) countries remain significantly below official commitments. Since 2010, ODA disbursements have averaged at around 0.39 per cent of GNI.

Fig 3.1: ODA as % share of OECD DAC Donors' GNI, 2010-2017

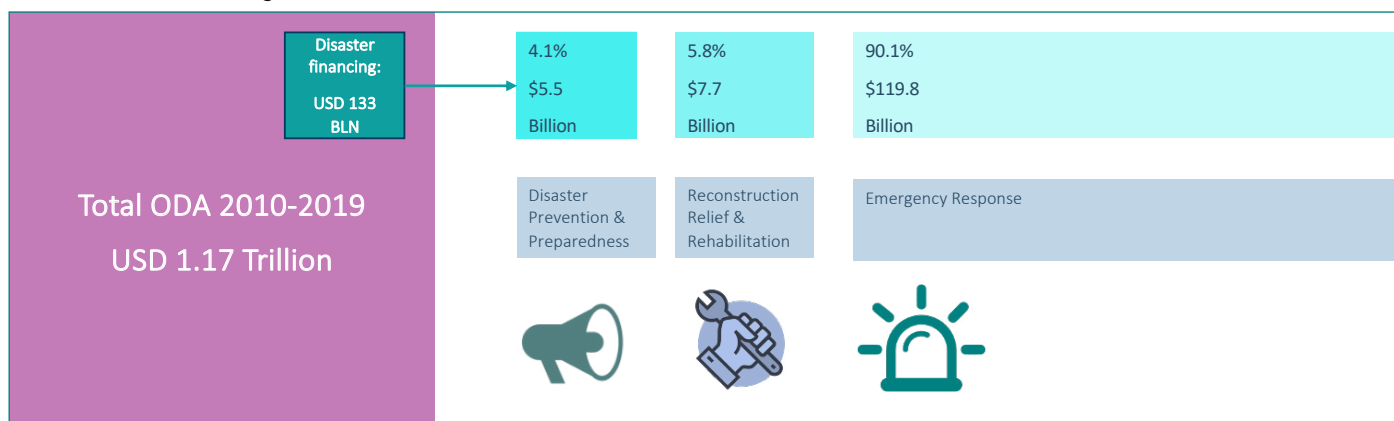


Source: SDG Online Database (SDG 17.2.1)

Disaster-related funding forms a small portion of the overall ODA. An analysis of OECD data in the last 10 years shows that, of a total of US\$1.17 trillion of overall aid between 2010 and 2019, only 11 per cent (US\$133 billion) was disaster related. Of this US\$ 133 billion, just US\$5.5 billion was allocated for disaster prevention and preparedness while US\$119.8 billion was earmarked for emergency/disaster response and US\$7.7

billion for reconstruction, relief and rehabilitation. Thus, of overall aid financing between 2010 and 2019, only 0.5 per cent of the total amount was spent on disaster risk reduction measures before the disaster strikes. This amounts to only 50 cents on pre-emptive actions for every US\$100 spent on development aid.

International financing for disaster risk reduction



Source: OECD

This percentage spend on disaster risk reduction against the overall ODA volume shows only a marginal improvement since the last such analysis carried out for a 20-year period (1991-2010), which found the proportion to be 0.4 per cent – or 40 cents on disaster risk reduction for every US\$100 spent on development aid.¹⁴

Better and systematic tracking of financing for disaster risk reduction is needed at national and international levels.

The trend for disaster-related financing has been on the increase since 2010. However, it is largely devoted to responding to, and recovering from, disasters (Fig 3.2).

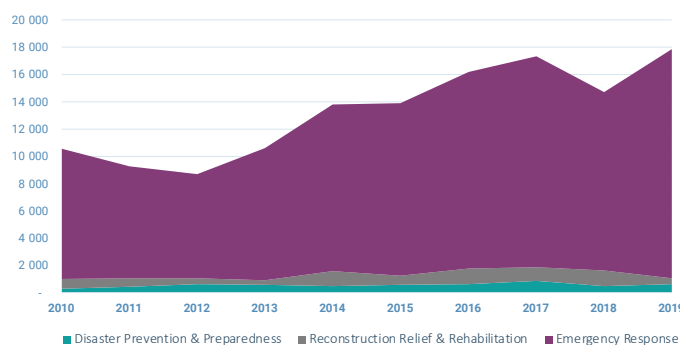
In fact, the proportion of funding for emergency response has far exceeded those of reconstruction, relief and rehabilitation, and disaster prevention and preparedness.

The lower proportion of funding for disaster risk reduction is due largely to recent increases in the frequency and magnitude of disasters, including those due to climate extremes. But it is also due to the inadequacy of data available to track the funding. This applies at both international (ODA) and national (public financing) levels. Mechanisms to systematically record financing for disaster risk reduction are limited,

especially when this is being increasingly integrated in development planning processes, as demonstrated by risk-sensitive budget reviews.¹⁵

Nonetheless, even if we take the existing understanding of international funding for disaster risk reduction as a conservative estimate, it compares very poorly with the level of economic losses countries are experiencing – and this highlights the need to generate greater political accountability for what happens when there is inadequate investment in risk management. Needless to say, disaster risk reduction enhances the efficiency of development aid and national investments, as it prevents or mitigates future losses.

Fig 3.2: Disaster-related financing, 2010-2019, US\$ Million



Source: OECD

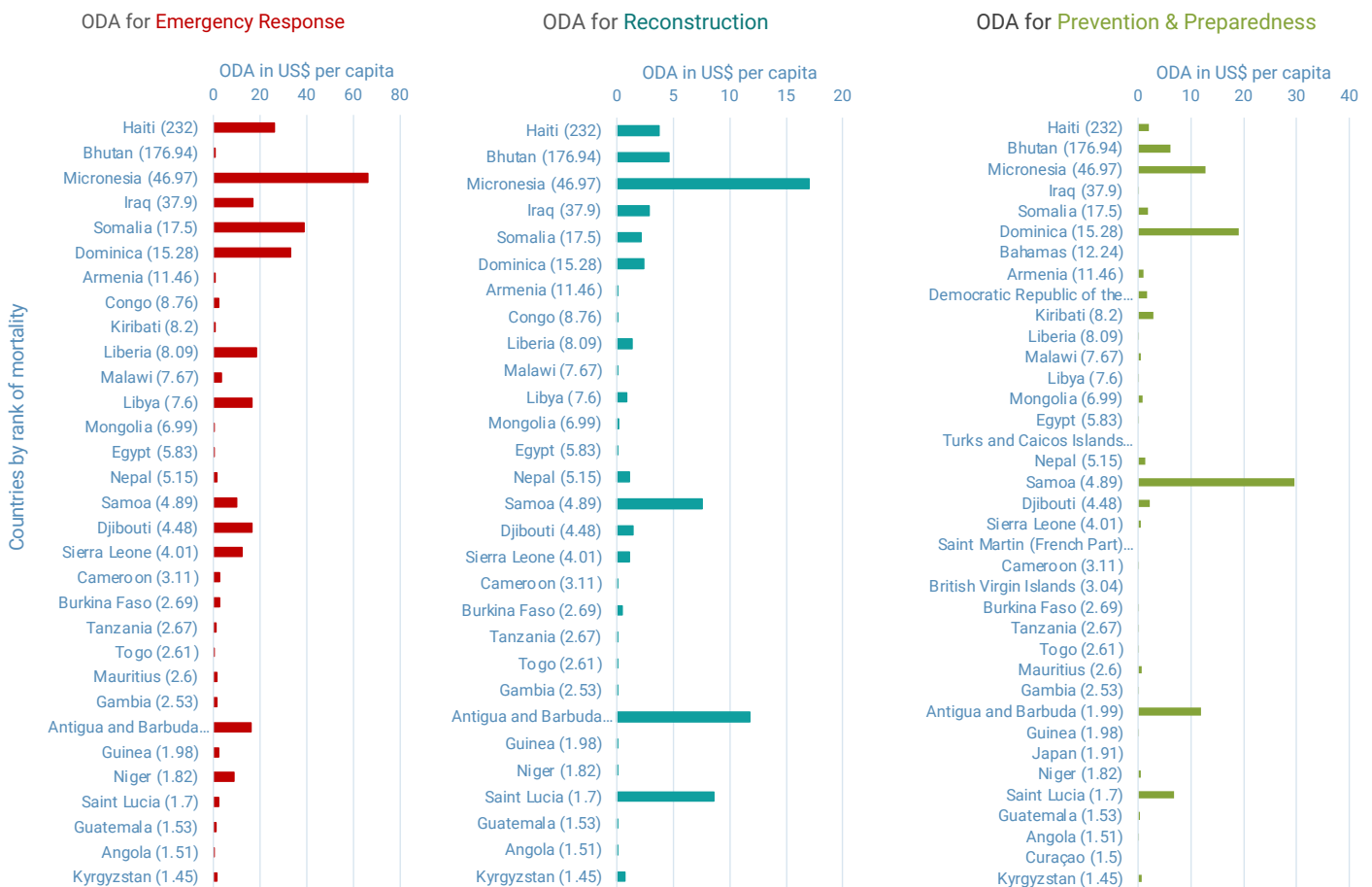
Financing for disaster risk reduction is limited, but is it well targeted?

While ODA responds well to disasters and reconstruction needs, there is insufficient investment to prevent future disasters in areas of high mortality.

Further analysis of disaster-related financing shows that even the limited ODA for disaster risk reduction may not be well targeted. The targeting of international financing can be analysed by comparing the volume of aid with the impact and risk of disasters across countries.

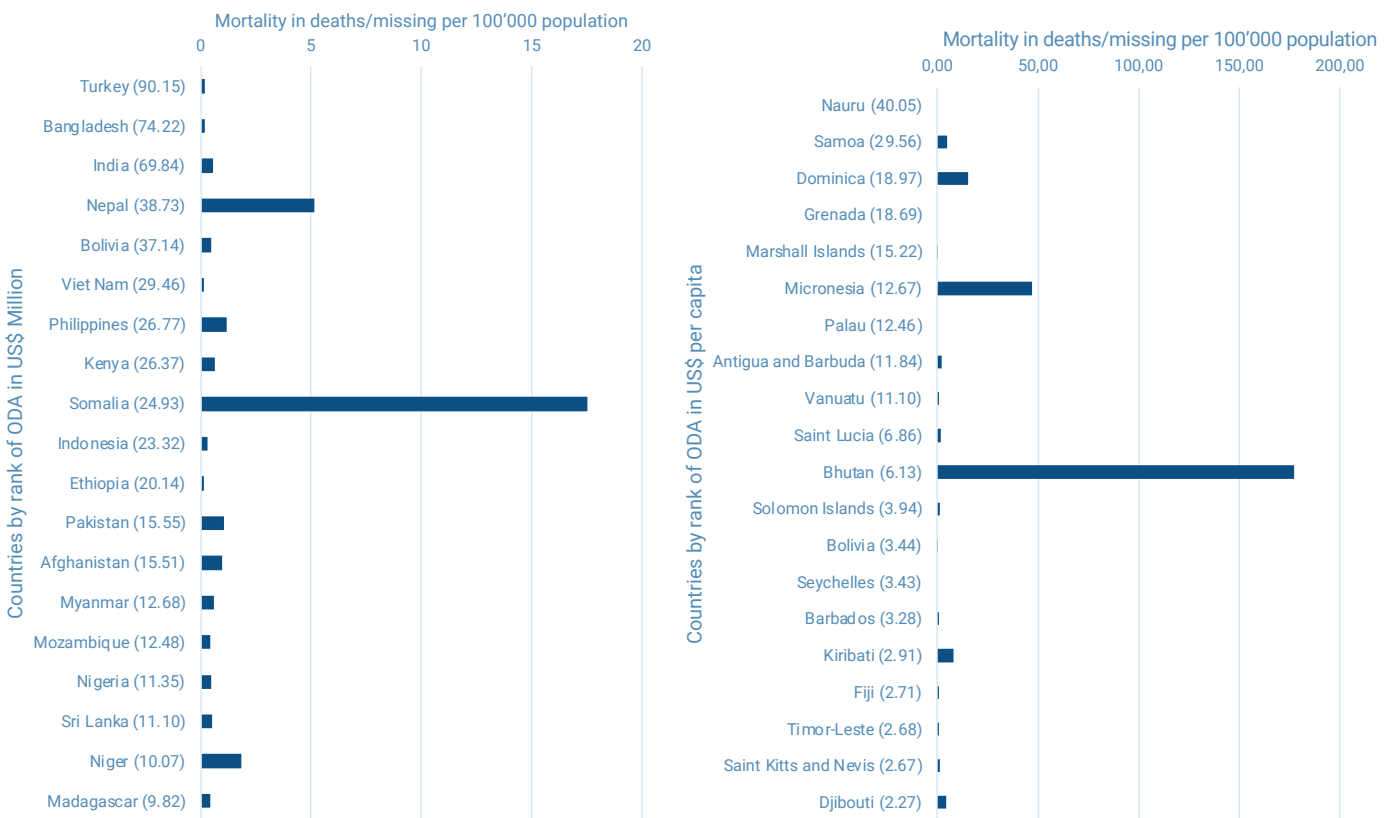
A comparison of disaster-related ODA and disaster-related mortality (Fig 3.3) shows that, while there seems to be a clear association between mortality levels and international financing dedicated to emergency response and reconstruction, there is no clear association between mortality levels and financing for disaster prevention and preparedness. Countries at high mortality levels do not receive the most ODA for preventing future disasters. In fact, with few exceptions, many countries with high disaster-induced mortality receive negligible levels of financing for prevention and preparedness.

Fig 3.3: Comparison of ODA against mortality, 2010-2019



Source: ODA: OECD; Population: WB; Disaster mortality: Sendai Framework Monitor, DesInventar and EMDAT/CRED

Fig 3.4: Top 20 Recipients of ODA for Disaster Prevention & Preparedness vs Mortality 2010-2019



Source: ODA: OECD; Population: WB; Disaster mortality: Sendai Framework Monitor, DesInventar and EM DAT/CRED

Overall disaster-related ODA for prevention and preparedness may not be tailored according to needs, and disaster-related international financing is predominantly biased towards responding to disasters.

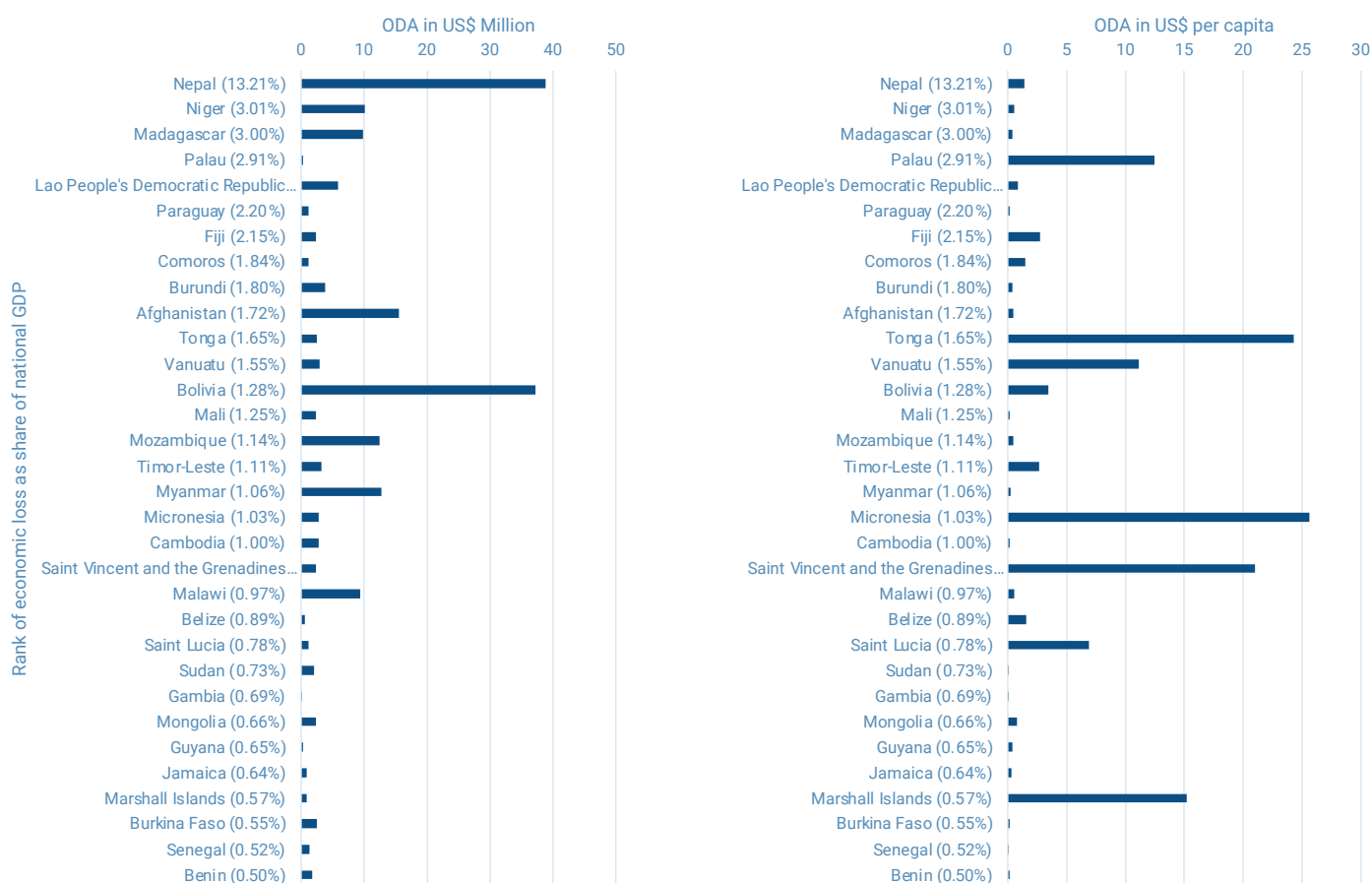
The targeting of international disaster-related financing can also be assessed by reviewing the levels of disaster mortality in countries that receive high ODA (Fig. 3.4). While some countries with high mortality rates (death or missing per 100,000 population), such as Haiti¹⁶, Nepal and Somalia (ODA in absolute terms) and Bhutan and Micronesia (ODA per head), have received relatively high funding for prevention and preparedness (compared to other countries), for most others there appears to be no clear association between the aid provided and the human cost of disasters.

Interestingly, funding for disaster prevention and preparedness, when compared to disaster-related economic losses (Fig 3.5), seems to have a greater alignment with needs, as compared to mortality-related losses, even though the level of funding still remains low. LDCs, LLDCs and SIDS with higher levels of economic losses (as a percentage of GDP) receive higher levels of ODA for disaster prevention and preparedness. Hence, there appears to be some indication

that financing for prevention is more likely where economies are at risk (Fig 3.5), but there does not appear to be any clear association between financing for prevention and risks to population (Fig 3.3 and 3.4)¹⁷. ODA should, therefore, be better targeted to address multi-dimensional vulnerability of populations highly exposed to hazards.

An analysis of ODA trends shows that the occurrence of major disasters triggers funding for both post-disaster response and recovery and prevention and preparedness. For instance, the average ODA for prevention and preparedness in Nepal increased from an average of US\$7 million during 2010-2014 to US\$70.5 million during 2015-2019 (that is, before and after the 2015 Gorkha earthquake). However, the disbursement of this funding, geared towards the ongoing management of risk rather than management of disasters, remains inconsistent. For instance, in Haiti, the ODA for disaster prevention and preparedness at the time of the major earthquake in 2010 (US\$36.13 million) far exceeds the average of US\$20.9 million in subsequent years during 2011-2019. Similarly, the ODA for prevention and preparedness received in Thailand in the year of the massive floods in 2012 comprised nearly two-thirds of the total ODA received for this purpose over the whole decade of 2010-2019.

Fig 3.5: Comparison of ODA on disaster prevention and preparedness against economic losses



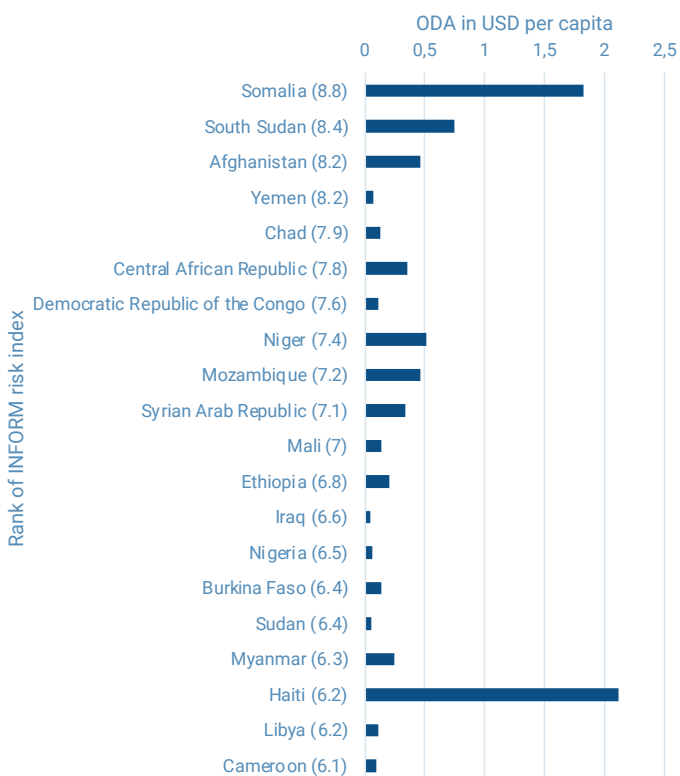
Source: ODA: OECD; Economic losses from Sendai Framework Monitor and DesInventar

Disasters and extreme events stimulate enhanced international funding and cooperation for prevention and preparedness. Such ODA increased by 10 times before and after the 2015 earthquake in Nepal. However, this funding is not consistent in most countries, making it more difficult to build long-term resilience.

Another analysis of ODA flow for prevention and preparedness in countries with a high INFORM risk index¹⁸ shows some positive association. Some countries with a high-risk index do receive commensurate levels of prevention and preparedness funding, while several others do not.

Thus, while ODA is a critical funding instrument for countries at risk, the funding level itself needs to be made more suitable to the need, hence ensuring the best use of limited resources. Financial assistance needs to be further complemented by technology transfer and capacity development to enhance sustainability in recipient countries.

Fig 3.6: Comparison of ODA on disaster prevention and preparedness against INFORM Index



IV. The level of international cooperation in disaster risk reduction

While outlining the means of implementation and the role of different actors and stakeholders, the Sendai Framework emphasizes that ‘developing countries require an enhanced provision of means of implementation, including adequate, sustainable and timely resources, through international cooperation and global partnerships for development, and continued international support, so as to strengthen their efforts to reduce disaster risk.’

There is an urgent need to strengthen international cooperation to (i) make the best use of limited resources, and (ii) provide more technical assistance for self-reliance.

As a result, Target F of the Sendai Framework has highlighted the role of international cooperation in accelerating its implementation. Importantly, Target F does not limit international cooperation to financing, but also features core components of technology transfer and

capacity development. This section analyses each of these three components using reported data from the Member States on the Sendai Framework Monitor. In spite of data limitations, the analyses provide good insights into the level of international cooperation in disaster risk reduction.

Financing

The majority of international financing for disaster risk reduction has come from multilateral sources.

Countries have reported on receiving international disaster-related funding from both multilateral (Indicator F2) and bilateral (Indicator F3) sources. In the last 15 years, starting from the Hyogo Framework for Action (2005-2015) and during the first five years of the Sendai Framework (2016-2020), a total of 26 countries have reported receiving **US\$5.02 billion** through multilateral sources and 19 countries have reported receiving **US\$566.92 million** bilaterally.

As not every country has given details of the purpose of these funding streams, it is difficult to ascertain the proportion earmarked for disaster risk reduction, and it is not feasible to compare it to the ODA levels as analysed in Section III.

An analysis of countries that have provided information on the use of international funding suggests that aid for disaster risk reduction has been provided mostly for the agricultural sector (40 per cent), which faces the highest disaster-induced losses. Other social infrastructure and services have also received a reasonable share (Fig 4.1). Countries have also reported that most of the support (49 per cent) has been received for integrating disaster risk reduction into development policies, planning and legislation (Fig 4.2).

Target F of the Sendai Framework

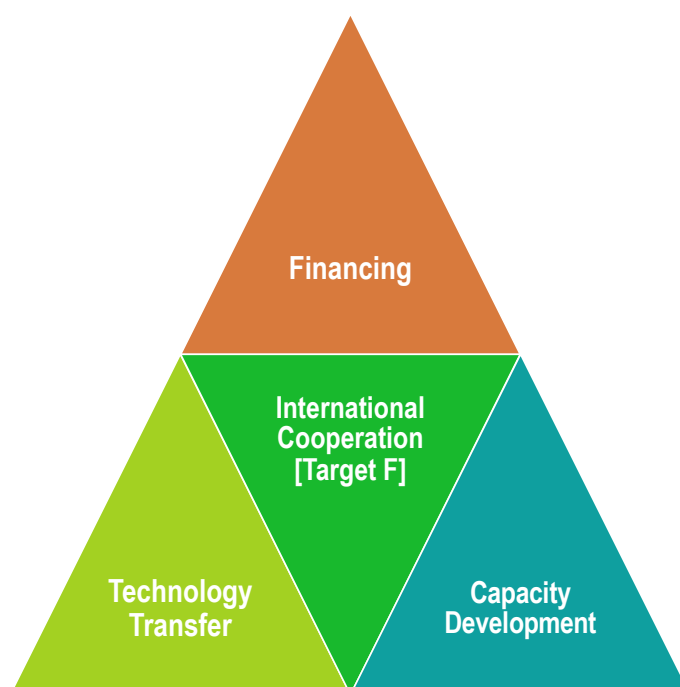
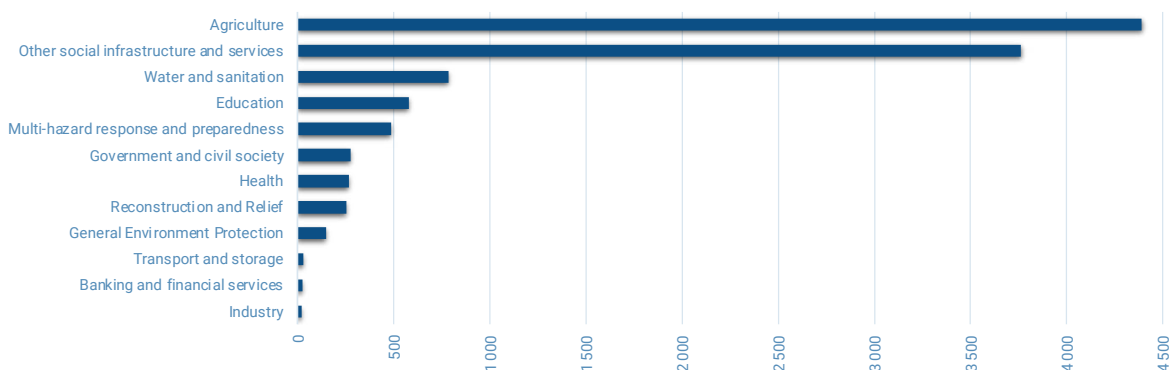
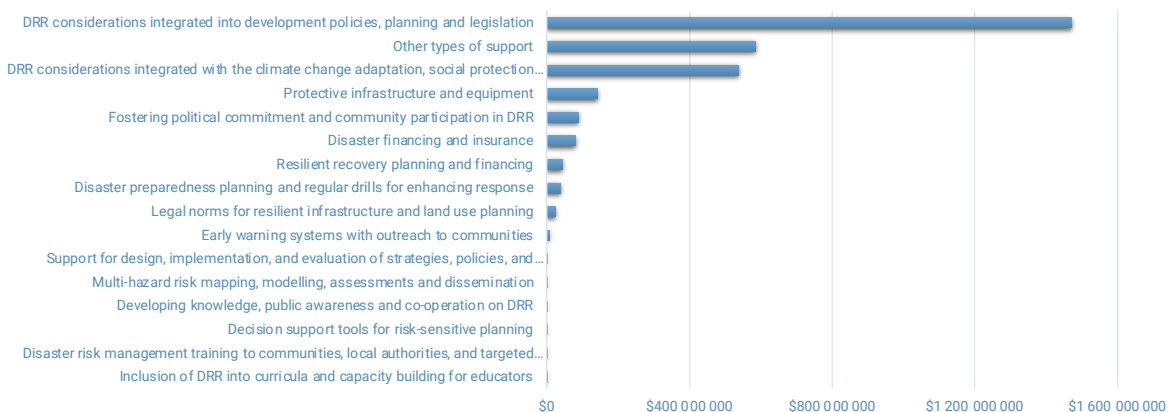


Fig 4.1: Sectoral targeting of aid 2005-2020



Source: Sendai Framework Monitor, Target F

Fig 4.1: Sectoral targeting of aid 2005-2020



Source: Sendai Framework Monitor, Target F

Technology transfer

International cooperation through ODA and other official flows to developing countries boosts global immunity to disaster risk.

In addressing economic disparity – and disparity in technological innovation and research capacity – among countries, it is crucial to enhance technology transfer. This involves facilitating flows of skill, knowledge, ideas and technology from developed to developing countries to support the implementation of the Sendai Framework.

During 2005-2020, Member States reported a total of **1,113 programmes** and initiatives on science, technology and innovation (STI). This is a very conservative estimate, aggregated from the reports of 12 countries only. Of these, seven countries reported a contribution of **US\$394 million** towards technology transfer during this period. Also, 20 countries have reported benefiting from **395 such programmes related to STI**.

Instances of routing technology transfer through universities and research organisations have been reported, pointing to the need to further strengthen science-policy interface in some countries.

Countries reporting Technology Transfer (Indicators F4 and F5)

Providers

1. Czechia
2. Estonia
3. France
4. Japan
5. Kazakhstan
6. Republic of Korea
7. Slovenia
8. Sweden
9. Switzerland

Recipients

1. Afghanistan
2. Albania
3. Armenia
4. Cameroon
5. Chile
6. Eswatini
7. Georgia
8. Indonesia
9. Iraq
10. Jordan
11. Kyrgyzstan
12. Peru
13. State of Palestine
14. Sudan
15. Trinidad and Tobago
16. Ukraine
17. United Republic of Tanzania

Both Providers and Recipients

1. Bhutan
2. Colombia
3. Mexico

Source: Sendai Framework Monitor, Target F

Capacity development

During 2005-2020, a total of **2,203 instances of capacity development** on disaster risk reduction were reported. Again, this is a very conservative estimate, as it comes from just 15 countries. Of these, 10 have reported providing **US\$648.9 million** in capacity development support for disaster risk reduction. Further, 19 countries have reported benefiting from 287 such programmes and initiatives, including four countries that also offered such support.

Capacity development is an integral component of assistance in disaster risk reduction, enhancing the self-reliance of developing countries. Examples of meteorological capacity development have been reported. In addition, targeted capacity development has been provided for statistical capacity in disaster risk reduction. To date, eight countries have reported providing 686 such initiatives, and six countries have reported benefiting from 39 such initiatives during 2005 -2020.

We cannot manage disaster risk if we cannot measure it; strengthening DRR-related statistical capacity is an important part of international cooperation to developing countries.

Target F is the least reported among the targets of the Sendai Framework. Nonetheless, the analyses so far point to the fact that, while severe gaps in financing remain, a good level of international cooperation is taking place in disaster risk reduction. This is encouraging, and needs to be further tracked and analysed to provide a better overview and understanding of gaps in financing, technology transfer and capacity development.

An increase in reporting on Target F will also help us understand the gap between the provision and receipt of international cooperation – and this understanding will enable us to map the flow of assistance, and so develop a better understanding of north-south, south-south and triangular cooperation.

Countries reporting Capacity Development (Indicators F6 and F7)

Providers

1. Argentina
2. Bulgaria
3. Czechia
4. Estonia
5. Ireland
6. Japan
7. Kazakhstan
8. New Zealand
9. Republic of Korea
10. Slovenia
11. Sweden

Both Providers and Recipients

1. Bhutan
2. Chile
3. Colombia
4. Mexico

Recipients

1. Afghanistan
2. Albania
3. Armenia
4. Eswatini
5. Guatemala
6. Indonesia
7. Jordan
8. Kyrgyzstan
9. Peru
10. State of Palestine
11. Sudan
12. Trinidad and Tobago
13. Ukraine
14. United Republic of Tanzania
15. Uzbekistan

Source: Sendai Framework Monitor, Target F

Despite limited reporting, 1,113 instances of technology transfer and 2,203 examples of capacity development show the level of international cooperation among countries. Mapping of such cooperation gives a clear indication of the level of north-south, south-south and triangular cooperation in the implementation of the Sendai Framework.

V. A call for action on international cooperation for disaster risk reduction

- **Meet ODA commitments:** The international community needs to meet the target of 0.7 per cent of GNI for ODA that was originally conceived as a minimum commitment to developing countries.
- **Balance the composition of assistance:** While increasing ODA commitments, it is important to ensure financing is spread evenly across the spectrum from development to disaster response and prevention. An international financing system that allocates only 0.5 per cent of the total aid volume to prevention and preparedness is not realizing the cost benefits that flow from investing in disaster risk reduction – benefits such as saving lives, reducing the numbers of disaster-affected people, reducing damage to critical infrastructure, and reducing direct economic losses; all key targets of the Sendai Framework.
- **Increase and sustain funding for prevention:** Consistency in funding for risk prevention is crucial to building long-term resilience in the face of major planetary emergencies, including the COVID-19 pandemic, the climate emergency and wholesale destruction of the environment. To preserve development gains, international cooperation should acknowledge this.
- **Improve understanding of national financing for disaster risk reduction:** We need a better understanding of national financing for disaster risk reduction, and of the interplay between national and international sources. Strengthening budgetary tagging and tracking will help us do this.
- **Contextualize international cooperation:** The future is not just about more money from donors, but about better investments in reducing risk. This requires a balanced combination of funding, technology transfer and capacity development, underscored by south-south and triangular cooperation.
- **Focus on Target F:** Significant improvements are urgently needed in the availability, quality and reliability of data to track international cooperation in disaster risk reduction. Target F is the least reported of the Sendai Framework targets (only 79 countries as of April 2021). Better tracking of international cooperation is critical to accelerate efforts for Sendai Framework implementation.

References and notes

¹ <https://www.ipcc.ch/report/ar6/wg1/>

² United Nations Environment Programme (2021). Adaptation Gap Report 2020. Nairobi

³ UNDRR (2021), Policy brief: Disaster risk reduction and climate change,

⁴ IDMC (2021) Global Report on Internal Displacement, Internal Displacement Monitoring Centre

⁵ <https://www.munichre.com/en/company/media-relations/media-information-and-corporate-news/media-information/2021/2020-natural-disasters-balance.html>

⁶ <https://www.munichre.com/en/risks/natural-disasters-losses-are-trending-upwards.html>

⁷ FAO. 2021. The impact of disasters and crises on agriculture and food security: 2021. Rome.

⁸ Hallegatte, Stephane; Vogt-Schilb, Adrien; Bangalore, Mook; Rozenberg, Julie. 2017. Unbreakable : Building the Resilience of the Poor in the Face of Natural Disasters. Climate Change and Development;. Washington, DC: World Bank

⁹ <https://blogs.worldbank.org/opendata/updated-estimates-impact-covid-19-global-poverty-turning-corner-pandemic-2021>

¹⁰ WMO (2021) Global Annual to Decadal Climate Update

¹¹ United Nations (1970), "International Development Strategy for the Second United Nations Development Decade", UN General Assembly Resolution 2626 (XXV), 24 October 1970, paragraph 43.

¹² The World Bank's global disaster financing amounts to US\$33.6 billion during the Sendai Framework implementation period, 2015-2021. This covers multilateral funding for disaster prevention, preparedness, response, recovery and reconstruction.

¹³ OECD markers used: 1,000: All sectors; 740: VIII.3. Disaster Prevention & Preparedness, Total; VIII.2. Reconstruction Relief and Rehabilitation, Total; VIII.1. Emergency Response, Total

¹⁴ GFDRR and ODI (2013), Financing Disaster Risk Reduction: A 20 year story of international aid. It should be noted the GFDRR-ODI study used the Disaster Aid Tracking (DAT) database developed by the Global Facility for Disaster Reduction and Recovery (GFDRR) and Development Gateway, while the present study uses the OECD data. However, the results are similar and comparable over time in proportionate terms.

¹⁵ UNDRR has completed risk-sensitive budget reviews (RSBR) in multiple countries in Asia and Africa. This has been done using OECD-DAC's disaster risk reduction policy marker. Several other organisations have also done similar Public Expenditure and Institutional Reviews (PIER). See <https://www.undrr.org/news/decoding-public-finance-disaster-risk-reduction-and-climate-investments>

¹⁶ Haiti has not been reflected in the graph due to a very high mortality rate (deaths per 100,000 population) that masks the figures for other countries.

¹⁷ This finding is in line with the GFDRR and ODI (2013) report (ibid). While the 2013 report used UNDRR's mortality risk index, the present report uses the actual reported mortality data.

¹⁸ <https://drmkc.jrc.ec.europa.eu/inform-index/INFORM-Risk>