GUIDANCE NOTE
INTEGRATED NATIONAL FINANCING FRAMEWORKS (INFF) FOR DISASTER RISK REDUCTION
JOINT UNDESA/UNDRR INPUT PAPER TO THE G20 DRRWG

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1. Introduction

An Integrated National Financing Framework (INFF) helps countries incorporate financing into national planning to achieve a country’s sustainable development priorities (see Box 1). It can help governments mobilize additional financing, enhance coherence across different financing policies and match different types of financing to their most appropriate use.

In 2022, governments, through the ECOSOC Forum on Financing for Development, committed to supporting the implementation of INFF to align financing policies and strategies with national investment priorities, legal frameworks, and disaster risk and sustainable development strategies consistent with the 2030 Agenda, the Sendai Framework, and the Paris Agreement’s long-term goals.¹

Box 1. What is an Integrated National Financing Framework (INFF)?

Integrated national financing frameworks (INFFs) help countries finance their national sustainable development objectives and the Sustainable Development Goals (SDGs).

Through INFFs, countries develop a strategy to mobilize and align financing with all dimensions of sustainability, broaden participation in the design, delivery and monitoring of financing policies, and manage risk.

INFFs are voluntary and country-led. They are embedded within plans and financing structures, enabling gradual improvements and driving innovation in policies, tools and instruments across domestic, international, public and private finance.

Figure 1: INFF Building Blocks

Four building blocks can support governments in putting this core approach into practice:

1. **Assessment and diagnostics** (to provide the basis for decision-making on financing – i.e., what are the needs, what financing is already available and how it is being used, what are the risks, and what are the underlying obstacles/binding constraints).
2. **Financing strategy** (to guide the design of integrated financing policies and reforms).
3. **Monitoring and review** (to bring together all relevant information, and facilitate transparency, accountability and learning on all things financing).
4. **Governance and coordination** (to ensure institutions and processes required to formulate and implement financing policies are in place and functional).

**Note:** Global guidance on each building block can be found at inff.org.

¹ Economic and Social Council forum on financing for development follow-up, ECOSOC, 2022
In this context, this note provides guidance on leveraging INFFs to align financing policies and strategies with Disaster Risk Reduction (DRR) goals as presented in the Sendai Framework. As such, it addresses the following questions:

1. How can INFFs help finance a country’s DRR goals?
2. How can INFFs help enhance consistency and alignment of all financing in support of a country’s DRR goals?
3. How can INFFs help bring together DRR, national development, and financing actors?

Disasters can wipe out development gains and significantly affect a country’s ability to finance sustainable development outcomes. Preventing disasters is better than recovering from them. Although hazards are unavoidable, whether these hazards materialize into disasters depends greatly on how well a country is prepared and whether risks have been reduced through resilience-building investment and policies.

This draws attention to the importance of:

- **Properly assessing financial and non-financial risk and using this assessment to inform finance-related decisions.** Bringing a DRR perspective to INFF is critical to ensure that a wide range of risks are properly considered (see Building Block 1 in Box 1 above). This requires building on disaster risk knowledge capacity and data on exposure to hazards, as well as information on loss from previous disasters. It could also necessitate the assessment of the potential fiscal risk that can result from disaster-induced damages. Similarly, assessing financing needs would require properly accounting for the required investment for achieving disaster resilience.

- **Ensuring that financial policies and instruments contribute to reducing disaster risks.** As disaster risks are diverse and complex, multiple financial instruments and policies are needed to comprehensively finance DRR goals, making it essential to develop DRR financing approaches, either as a separate strategy or as explicit and prominent part of a broader financing strategy, that integrate diverse financing instruments and policies. Without a proper strategy in place, public and private financial flows might also go into potentially maladapted investments due to a lack of clarity on which actions improve resilience, making it even more pressing to align finance towards resilience goals.

INFFs provide an opportunity to ensure that otherwise scattered resources are directed to DRR and that new financial resources are secured, while also advancing financing policies that can help advance DRR objectives. As such, applying an INFF approach to DRR contributes to the priority issue number 3 highlighted by the G20 DRR Working Group (i.e., Stronger National Financing Frameworks for DRR) and the Priority 3 of the Sendai Framework “investing in disaster risk reduction for resilience”. Indeed, INFFs provide a framework for country authorities to assess the current gaps and identify opportunities to reorient financial flows in support of national objectives, including DRR-related ones. At the same time, a DRR-informed approach to INFF will highlight opportunities for the public and private sectors to de-risk investments.

The next section provides an overview of DRR financing, highlighting its challenges and opportunities, while Section 3 discusses implementing INFFs for DRR and Section 4 provides an overview of the financial mechanisms and policies that countries can use to finance DRR. Finally, Section 5 indicates the next steps forward.

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2 Different data sources can be leveraged for this purpose, including INFORM, RiX, ThinkHazard, EM-DAT, Global Resilience Index Initiative
3 Disaster Risk Financing: Main Concepts & Evidence from EU Member States. European Commission, 2021
2. Overview of DRR financing

Strengthening resilience is critical to long-term sustainable development as it protects development gains. However, resilient investments tend to be less visible than investing in other development goals. This often translates into underinvestment in DRR, despite its well-documented benefits in terms of lives saved, losses avoided, and sustainable development.

The Sendai Framework for Disaster Risk Reduction identifies investing in DRR as one of its four priority actions. A whole mindset shift is needed across the financial system moving from a short-term outlook, which under-prioritizes investment in DRR, to promoting a ‘Think Resilience’ approach in all public and private sector investments, as reflected in the Bali Action Agenda.  

DRR is also essential to achieve the Paris Agreement adaptation goal of “enhancing adaptive capacity, strengthening resilience and reducing vulnerability to climate change”. Directing financial flows towards risk reductions would contribute to the goals of the Sendai Framework for Disaster Risk Reduction, the Paris Agreement, and the Sustainable Development Goals more broadly.

DRR aims at preventing new and reducing existing disaster risks and managing residual risk. In this way, DRR contributes to strengthening resilience and achieving sustainable development. Reducing disaster risk is particularly relevant as current trends indicate an increase of 40 per cent in the number of disasters from 2015 to 2030, even before considering how climate change is accelerating the pace and severity of hazard events. The increase in disasters has translated in economic terms into more than doubling the average annual direct economic losses from disasters over the past three decades.

Yet, underinvestment in disaster risk reduction prevails worldwide, among other things, because of insufficient long-term focus within financial planning. More than 90% of disaster-related ODA is focused on emergency response while only 4.1% is allocated to DRR. This shows the need to shift towards a preventive mindset in the international development financial flows. Currently, the challenge of financing DRR falls heavily on national governments and domestic finances.

The Global Commission on Adaptation and the UNEP Finance Initiative identified 12 barriers to scaling up investment in adaptation and resilience by the financial system (see Table 1). These barriers are grouped into five broad categories: 1) inadequate support or incentives to act, 2) weak policies and conventions in the financial industry, 3) market barriers, 4) operational gaps at the institution level, and 5) low technical capacity for climate risk management. While these barriers focus on the financial system and private investment, they provide an indication of the wide range of barriers to DRR financing.

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5 Co-Chairs’ Summary: Bali Agenda for Resilience: From risk to resilience: Towards sustainable development for all in a COVID-19 transformed world, UNDRR, 2022  
6 Paris Agreement, Art. 7, UNFCCC, 2015  
7 Terminology, UNDRR  
8 Global Assessment Report on Disaster Risk Reduction 2022: Our World at Risk: Transforming Governance for a Resilient Future, UNDRR, 2022  
9 ibid  
10 Building Disaster Resilience: Think Resilience: Lessons from the Analysis of Shocks and Lending Streams, Economist Impact, UNDRR, 2022  
11 International Cooperation in Disaster Risk Reduction, UNDRR, 2021  
12 Driving Finance Today for the Climate Resilient Society of Tomorrow, Global Commission on Adaptation, UNEP Finance Initiative, 2019
Table 1. Barriers to scaling up financing for adaptation and resilience by the financial system.\textsuperscript{13}

<table>
<thead>
<tr>
<th>Barrier Categories</th>
<th>Barriers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inadequate Support for Action on Adaptation/Resilient Investment</td>
<td>1. Insufficient public financial support</td>
</tr>
<tr>
<td></td>
<td>2. Insufficient incentives for private finance to act</td>
</tr>
<tr>
<td></td>
<td>3. Moral hazard surrounding physical climate risks</td>
</tr>
<tr>
<td></td>
<td>5. Lack of meaningful disclosure of climate risks</td>
</tr>
<tr>
<td></td>
<td>6. Absence of harmonized and robust metrics and standards</td>
</tr>
<tr>
<td>Market Barriers</td>
<td>7. Perceived lack of profitable investments</td>
</tr>
<tr>
<td></td>
<td>8. Perceived low commercial readiness of adaptation and resilient solutions</td>
</tr>
<tr>
<td></td>
<td>10. Insufficient availability and adoption of climate risks data/tools</td>
</tr>
<tr>
<td>Low Capacity of Climate Risk Management</td>
<td>11. Low capacity within financial system governance bodies</td>
</tr>
<tr>
<td></td>
<td>12. Low capacity within financial actors</td>
</tr>
</tbody>
</table>

The barriers to private investment and limited international assistance for DRR, combined with constrained public investment and insufficient budget allocation, lead to significant underinvestment in DRR. The finance gap for climate adaptation in developing countries is estimated to be five to ten times greater than current international public adaptation flows.\textsuperscript{14} Alarmingly, this financial gap widens as adaptation costs and financial needs increase, but funding flows remain stable or decrease.\textsuperscript{15}

Investments in DRR make sense because beyond saving lives, it also saves resources and future-proofs development gains.\textsuperscript{16} DRR provides three types of benefits, the so-called triple dividend of resilience:

1. First, DRR provides benefits because of avoided losses. For example, a 24-hour advance warning of a coming storm or heatwave can cut 30% of the ensuing damage, with early warning systems saving lives and assets worth at least ten times their cost.\textsuperscript{17}
2. Second, DRR induces economic and development benefits. Research indicates that investments in resilient infrastructure in low- and middle-income countries, particularly in assets exposed to hazards, provide benefits four times their cost once climate change is considered.\textsuperscript{18}
3. Third, DRR benefits also provide social and environmental benefits. For example, besides the $80 billion per year in avoided losses from coastal flooding, mangrove forests contribute as much as $40-50 billion annually in non-market benefits associated with fisheries, forestry, and recreation.\textsuperscript{19}

By encouraging governments to take a forward-looking approach in financing policy making, INFF can help design and prioritize financing policies and instruments to unlock these benefits.

\textsuperscript{13} Taken from Driving Finance Today for the Climate Resilient Society of Tomorrow, Global Commission on Adaptation, UNEP Finance Initiative, 2019
\textsuperscript{14} Adaptation Gap Report 2021: The Gathering Storm - Adapting to Climate Change in a Post-Pandemic World, UNEP, 2021.
\textsuperscript{15} ibid
\textsuperscript{16} Business case for DRR, UNDRR
\textsuperscript{17} Adapt now: a global call for leadership on climate resilience, Global Center on Adaptation, 2019
\textsuperscript{18} Publication: Lifelines: The Resilient Infrastructure Opportunity, World Bank, 2019
\textsuperscript{19} Adapt now: a global call for leadership on climate resilience, Global Center on Adaptation, 2019
3. Implementing INFF for DRR

a) Key considerations

To implement the INFF building blocks (see Box 1), some important issues need to be considered, including:

- **Understand absorptive capacity and ensure knowledge transfer:** A core feature of the INFF is that it is country-led. Resources, especially personnel, should be prioritized and ready to engage and be actively involved in the process.

- **Ensure effective development cooperation:** Development partner fragmentation and lack of coordination are enduring issues for many developing countries. It is important that all relevant partners are engaged to avoid duplication and explore synergies with other partners’ initiatives. The INFF approach can enhance the coordination among development cooperation partners.

- **Be pragmatic:** Focusing on a few priorities and/or fostering a phased approach to implementing an INFF can prevent overwhelming government capacity. This would be particularly necessary for Least developed countries (LDCs) and post-conflict countries. Building on capacities that can be sustained and not attempting too much can also ensure country ownership.

- **Embedding INFFs into national development planning:** INFFs are often attached to national development plans or strategies; hence the priority/focus area is often dictated by these. Those plans tend to look across sectors and financing policy areas, thus calling for INFFs to be quite broad in scope. Countries with higher capacities may therefore consider pursuing more rapid and ambitious reforms.

Implementing INFFs in the DRR context should, thus, benefit from (i) building on existing systems; (ii) prioritization; and (iii) considering a phased approach.

**Build on existing systems and knowledge**

An INFF is based on the premise that countries do not start from scratch – all countries have policies and institutional financing arrangements in place. Many of the parts of the INFF would likely be done by some officials at some point in their own processes, albeit not in a systematic, cohesive, and integrated way, which is what the INFF aims to do. The key is identifying which part of the existing system would be the best to build on (see **INFF Governance and Coordination Building Block**) and avoiding creating a parallel process. This can be done in the Inception Phase of the INFF (see **INFF Inception Phase**).

**At the institutional level:** In most cases, ministries responsible for national planning and/or the national budget will play central roles in INFF implementation, especially if the focus is on the broad application of INFF or towards a specific financing strategy. To ensure that disaster risk is fully integrated into an INFF, ministries overseeing this area, such as national disaster management authorities, and stakeholders overseeing other relevant areas linked to DRR, such as climate actors and infrastructure-related ministries should be involved in these discussions. DRR stakeholders’ engagement is essential whether the INFF focuses on public finance, private finance or both. This will allow DRR issues to be properly reflected in financing-related decisions and in the design of main financing policies, which may otherwise overlook DRR-related issues. Table 2 provides an indicative list of relevant stakeholders for developing INFFs that mainstream DRR goals. Strengthening institutional mechanisms, including cross-sectoral collaboration, can also be a co-benefit of developing INFFs.

**At the partnership level:** DRR financing is, in many cases, heavily dependent on ODA, particularly in LDCs and SIDS. The major partners on financing for development include major bilateral partners on relevant initiatives, multilateral institutions (e.g., IMF, World Bank), regional development banks (e.g., ADB, AfDB, EIB, EBRD, CAF, CDB, IADB and IsDB) and UN agencies. It will be important to build on these existing partnerships for INFF implementation for DRRs, including on related capacity-building initiatives. In most
cases, the INFF focus areas will relate to ongoing initiatives, so it would be good to leverage these partnerships and ongoing initiatives. Some of these key players to support DRR financing are also shown in the following table.

**Table 2. Indicative list of relevant actors for DRR**

<table>
<thead>
<tr>
<th>Actor</th>
<th>Potential role/contributions</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Government</strong></td>
<td></td>
</tr>
<tr>
<td>Head of State</td>
<td>Set national DRR, vision, priorities and strategy; ensures political buy-in for DRR; provides high-level political leadership</td>
</tr>
<tr>
<td>Parliament</td>
<td>Approve DRR budgets and disaster-related sovereign insurance and credit lines. Support the creation of suitable contingency funds</td>
</tr>
<tr>
<td>Ministry of Finance</td>
<td>Involved in policy and regulatory interventions to create an enabling environment to mobilize DRR financing; coordinate the process and efforts to channel resources into DRR</td>
</tr>
<tr>
<td>Relevant Infrastructure-related ministries</td>
<td>Develop and implement regulations in their sector according to the national DRR strategy, for instance to ensure that infrastructure systems are resilient to disasters.</td>
</tr>
<tr>
<td>Central Bank</td>
<td>Incorporate disaster-related consideration in their monetary policies to enhance financial resilience</td>
</tr>
<tr>
<td>Banking regulatory agencies</td>
<td>Assess risk exposure of the financial sector; encourage or mandate disaster-related disclosures; set disaster criteria standards for finance/lending by regulated banks</td>
</tr>
<tr>
<td>National Public Development Bank(s)</td>
<td>Incorporate DRR provisions in their infrastructure investments; Invest in DRR projects</td>
</tr>
<tr>
<td>Subnational governments</td>
<td>Identify, raise awareness, act and coordinate other stakeholders as necessary to address local disaster risks; set and enforce local DRR regulations.</td>
</tr>
<tr>
<td><strong>National Disaster Risk Management Authorities / National Sendai Framework Focal Points</strong></td>
<td>Articulate, coordinate and champion a national DRR strategy within the different levels and entities of the government; Ensure the INFF and related financing policies are risk-informed from a multi-hazard perspective</td>
</tr>
<tr>
<td><strong>Non-government</strong></td>
<td></td>
</tr>
<tr>
<td>Development Finance Institutions / Multilateral Development Banks</td>
<td>Provide resources, including technical assistance; help catalyse private investment in DRR-related actions; include DRR consideration in their investments</td>
</tr>
<tr>
<td>Private Sector</td>
<td>Contribute to domestic resources mobilization and investment; encouraged to share non-financial risk information to promote risk-informed investments.</td>
</tr>
<tr>
<td>(Re)Insurance Sector</td>
<td>Develop and offer insurance products to distribute risks in the private and public sectors.</td>
</tr>
<tr>
<td>Stock exchanges</td>
<td>Enable the circulation of disaster-related debt-based instruments such as resilience, climate and sustainability-linked bonds.</td>
</tr>
<tr>
<td>Civil society</td>
<td>Advocate for the needs of and potential impact on affected populations, and support behavioural changes at the community level</td>
</tr>
</tbody>
</table>
Prioritize

As resources for DRR are limited and stretched over many important and competing areas, at the Inception Phase, it would be important to prioritize the following:

- **The INFF focus area:** In identifying the focus area, in this case DRR, consideration should be given to the timeline of expected INFF implementation and whether it will be a new undertaking or part of the ongoing initiative(s). The complexity of the undertaking, the number of staff/ministries/agencies that would need to be involved, and the engagement of partners should also be assessed against existing priorities and capacity. The aim would be to focus on a strategic/key area that could be advanced through the INFF within the identified timeframe without overloading capacity. This could build political commitment for INFF expansion/deeper application, if successful.

- **The building blocks:** The INFF building blocks are not meant to be sequential or prescriptive. They can and should be tailored to the country’s context. For example, some aspects of the assessment and diagnostics building block can be data-intensive, and data needed may not be available or readily accessible. The alternative option to using modelled data may also not be feasible for low-capacity contexts. Authorities should then assess what the value added of having the data/analysis/costing exercise would be to INFF implementation and whether they should apply it or not. It may also be the case that governance and coordination issues are important to address first.

Proceed with a phased approach

Implementing an INFF in a phased approach can help better manage capacity constraints, especially the immediate demands of officials. It can also help INFF implementation through cycles of political instability and conflict. Implementing an INFF through phases could also better match resources/capacity with INFF objectives, cultivate a risk-appraisal culture and ensure knowledge transfer. A phased approach can help countries make incremental changes to move from an operational to a strategic focus, from static to dynamic processes and from basic to comprehensive systems. How these phases are structured depends on the maturity of current systems and will require careful sequencing (Figure 2).

![INFF phased approach diagram](source: DESA)
Embedding INFFs into national development planning

Embedding integrated policy choices in national development planning and financing cycles is critical to ensure that DRR investments are made in a coordinated and strategic manner (see box 2 below). By aligning DRR investments with national planning processes, governments can ensure that DRR is integrated into broader national development strategies. This can help to ensure that DRR investments are not made in isolation, but rather as part of a larger development agenda that is focused on achieving specific development goals and outcomes.

Box 2. Embedding INFFs in national development planning and financing policy cycles

INFFs bring together the sustainable development aspirations of national planning systems with the financing policies, regulations, instruments and partnerships that government uses to mobilise, align and create incentives for investment in sustainable development. National plans – whether long- or medium-term national development plans, SDG or NDC action plans, sectoral or thematic strategies – lay out what needs to be financed. Governments use INFFs to determine and deliver a strategy for how these priorities will be financed.

The INFF approach is most impactful if it is embedded within a country’s existing planning and financing policy systems and the institutions that manage them. Given the diversity of the architecture, systems and capacities of planning and financing policy institutions in different contexts, this may look quite different from one country to another.

The following questions can help governments consider how to do this, while at the same time informing the scope of the country’s INFF (1):

1. At which point of the planning cycle is the INFF being introduced? For example, as a plan is being developed, during implementation, or alongside a mid-term review.
2. Which processes are used to design, deliver, monitor, learn from and report on national plans, and how will the INFF approach be embedded at each stage in the process?
3. How is the financing aspect of the identified plan/strategy going to be strengthened? For example, is it lacking altogether? Is there limited/no understanding of financing needs? Is it focused on public finance alone, and requires more consideration of the roles that different sources of finance could play?
4. At which point of relevant financing policy development cycles is the INFF being introduced? For example, at the start of the national budget cycle, as an investment promotion policy is being articulated, during the review of a specific financing policy.
5. Which institutions (2) exist to lead and manage implementation and monitoring of the identified national plan? How will they need to evolve to implement the INFF? What capacities exist and may be needed as the INFF develops?
6. Which monitoring and review systems exist to track implementation of the identified national plan and ensure learning is fed back to policy design? How is financing treated?
7. What key outputs are produced throughout the cycle of planning and financing policies (e.g. annual statements, monitoring reports, open data initiatives) and how could INFF data be incorporated into them?

Note:
1. Scope refers to whether the INFF is going to focus on an entire national development plan or a particular objective/set of objectives therein, as well as whether it is going to focus on all financing policy areas (public, private, macroeconomic) or one/a subset of them.
2. In line with the global guidance on Building Block 4 Governance and Coordination, the term ‘institutions’ here is used in its broader sense, with an emphasis on institutional functions and the organisations, processes and coordinating mechanisms that are in place.
b) Building Block 1: Assessment and Diagnostics

The objective of building block 1 is to provide a comprehensive picture of the national financing needs, available financing sources, as well as an understanding of the constraints and risks.

**Build on existing systems and knowledge:** Immediate or short-term financing needs and sources of finance for DRR may be known, as reflected in the national budget or national DRR strategies. Binding constraints are also likely to be well understood by policymakers, many related to the unique characteristics of their administrative and political context as well as their fiscal constraints.

However, as DRR-related activities spread across several sectors and ministries, it is challenging for governments to identify, quantify and monitor public expenditures and budgetary commitments related to DRR. To address this, some governments are implementing DRR budget tagging and tracking systems to mainstream DRR in government processes and identify funding gaps. In the same vein, identifying and costing the necessary measures to reduce disaster risks is complex, albeit critical.

Similarly, there may be less attention given to risk assessments, especially beyond economic considerations, which is an area that should be developed (see [INFF Building Block 1](#)). A particular weakness, in many contexts, is on financing needs to achieve more medium to long-term resilience goals. There may also be less attention/awareness on non-traditional sources of financing, such as blended finance and other innovative financing options for DRR (see next chapter for a comprehensive overview of options). However, moving from an immediate/short-term/traditional focus to a medium/long-term/innovative focus cannot be done overnight. While these gaps may be filled by development partners, the approach should build on existing procedures or planning processes so that INFF assessments/reports can add value and do not add to “reporting fatigue” that plagues many developing countries. This support should be accompanied by knowledge transfer and capacity building on DRR assessments.

**Prioritization:** In most cases, attention is dedicated to responding to immediate challenges from various disasters or shocks. However, to build resilient systems, scarce resources and financing policies need to be prioritized for risk prevention and for reducing the impact of a wide range of hazards.

Here are a couple of steps to consider:

- Conduct a comprehensive risk assessment to identify the areas, assets, and communities that are most exposed and vulnerable to disaster risks. This can involve analysing historical data on disasters, projection of future weather conditions, possible cascading impacts of disasters, mapping out areas prone to natural hazards, and assessing the vulnerability of communities to these hazards.
- Identify critical infrastructure and assets that are most at risk from disasters, for instance through stress-testing. This can include hospitals, schools, bridges, power plants, and other essential facilities that are necessary for the functioning of communities.
- Using a multi-stakeholder approach is important to involve all stakeholders in the decision-making process when prioritizing financing for DRR. This can include government agencies, private sector organizations, civil society organizations, and local communities (see table 2 above).

**Phased approach:** Incorporating medium- and long-term assessments and diagnostics can be included over phases, depending on the maturity of country systems and resources/capacity available. The aim is to ensure that these assessments are done independently by country officials and included systematically for policy deliberation. Moving ahead too fast without understanding whether these assessments would add

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20 The number of countries with national DRR strategies increased from 55 in 2015 to 125 in 2021.

21 For more information, see Technical Guidance on Comprehensive Risk Assessment and Planning in the Context of Climate Change.
value to current processes risks them not being used effectively or at all. Relying predominantly on development partners to undertake these assessments without knowledge transfer and capacity building would also jeopardise country ownership and long-term viability of INFF application.

Table 3. Assessment & Diagnostics for DRR

<table>
<thead>
<tr>
<th>Building Block</th>
<th>Build on Existing Systems and Knowledge</th>
<th>Prioritization</th>
<th>Phased Approach</th>
</tr>
</thead>
</table>
| **Assessment & Diagnostics** | - Consider own national budget/sectoral/thematic risk assessments  
- Review past post-disaster needs assessment (PDNAs)  
- Identify DRR-related expenditures in budget  
  o Are financing needs, sources of finance, risks and binding constraints well understood for DRR? (see INFF Building Block 1).  
  o Is development partner support needed to supplement gaps? If needed, ensure knowledge transfer and capacity building. | - Consider the impact of any immediate challenges from hazards/shocks (e.g., hurricane, flooding etc).  
- Consider critical infrastructure and assets, and potential cascading risks  
- Focus on risk assessments (see INFF Building Block 1.3).  
- Involve risk-related stakeholders throughout the process. | - Consider whether a phased approach can help embed medium and long-term DRR assessments in national budget/sectoral/thematic assessments if not done already. |

**c) Building Block 2: Financing Strategy**

The objective of building block 2 is to provide a comprehensive overview of financing policies, instruments and regulatory frameworks that can be implemented for DRR.

**Build on existing systems and knowledge:** Policy mechanisms that mobilize all types of finance for DRR and align both public and private finance are needed. Chapter 4 below provides a comprehensive overview of DRR financing policy options. Most governments usually have in place processes for policy design, implementation and review related to financing. The public financial management (PFM) process is central to this architecture. As part of the PFM process, policies (e.g., on revenue, expenditure, investment, trade, and private sector development) are designed mainly with macroeconomic goals in mind (economic growth, employment, inflation).

During the Inception Phase, it would be important to link the objectives of the INFF focus area (in this case, DRR) with the PFM, or alternative financing policy-making, process and the broader national sustainable development goals, as well as national disaster risk reduction strategies and climate change adaptation plans. This will help embed the INFF approach in-country processes and enable coherence checks between different national objectives. For example, applying an INFF approach to DRR would mean checking whether this approach is consistent with debt sustainability targets (macro check), aligned with other
sustainable development goals (coherence check), and to what extent all types of risks, such as natural hazards and other disaster risks, are considered (risk check).

**Prioritization:** Immediate challenges should be considered in the policy prioritization process. For example, in the aftermath of a disaster, governments focus their efforts on relief measures and rebuilding. An INFF undertaken during this phase must link well with these efforts. Macroeconomic and coherence checks, resource requirements and political/institutional preconditions can help prioritise and sequence policies (see INFF Building Block 2 policy prioritization). Attention to climate change and disaster risk reduction strategies during policy prioritization is particularly relevant in SIDS and other vulnerable contexts.

**Phased approach:** Successful implementation of DRR financing strategies is dependent on an enabling environment that may require political will, legal frameworks, and institutional/resource capacity, among others. Given that financing systems and institutional structures in countries have varying levels of maturity, the DRR financing strategy may benefit from implementation over phases.

Table 4 - Financing Strategy for DRR

<table>
<thead>
<tr>
<th>Building Block</th>
<th>Build on Existing Systems and Knowledge</th>
<th>Prioritization</th>
<th>Phased Approach</th>
</tr>
</thead>
<tbody>
<tr>
<td>Financing Strategy</td>
<td>- Include DRR considerations in national planning/budget/sectoral financing strategies by exploring: &lt;br&gt; o What are the gaps in policies/strategies/frameworks, financing instruments/regulations, processes/systems? &lt;br&gt; o Are all relevant actors engaged? (see INFF Building Block 2 Step-by-Step Guidance).</td>
<td>- Consider the impact of immediate challenges on policy prioritization: &lt;br&gt; o Undertake macro, coherence and risk checks &lt;br&gt; o Assess pre-conditions and resource requirements (see INFF Building Block 2 policy prioritization).</td>
<td>- Consider implementing the financing strategy over phases depending on the maturity level of country systems.</td>
</tr>
</tbody>
</table>

**d) Building Block 3: Monitoring and Review**

The objective of building block 3 is to help monitor and review financing strategies to track progress and draw lessons from policy design and implementation. Monitoring and review consists of three layers (i) monitoring progress in different financing flows and policy areas, (ii) strengthening coherence among already existing tracking and monitoring systems and closing gaps in the architecture, and (iii) assessing whether the financing strategy itself is succeeding in increasing overall coherence and alignment of financing and related policies.

**Build on existing systems and knowledge:** Different countries can have various levels of monitoring and review processes in place; from a basic and high-level system to a more comprehensive and detailed one, whether at the national level (e.g., for the national disaster risk reduction plan), at the sector level (e.g., for climate or infrastructure), or at the organisational level (Ministry-, SOE-level). These would be ideal
places to start from or connect to. However, for many developing countries, data and statistics are an area of weakness. Monitoring and review systems can also be fragmented. These issues should be accounted for in establishing the baseline (see INFF Building Block 3). There are also existing or planned initiatives to support governments in strengthening existing DRR systems at different levels by various development partners. To avoid duplication, leveraging existing work and initiatives by development partners should also be considered.

**Prioritization:** To strengthen existing systems, the maturity of country data and statistical systems, as well as monitoring and review systems should be considered. Priority should be given to processes that enhance the financing policy design and implementation process (must-have) rather than those that may only have negligible added value vis-à-vis the resources needed to strengthen them (nice-to-have).

**Phased approach:** Plans to strengthen monitoring and review systems may have low priority against immediate challenges and limited resources. Adopting a phased and incremental approach to move from a basic to intermediate or advanced monitoring and review level (see illustrative levels in INFF Building Block 3) can help mitigate this. Concerning DRR infrastructure, the phased approach to monitoring and review should move risk monitoring from an asset-based approach towards a system-based approach that considers cascading risks between infrastructure sectors.

Table 5. Monitoring & Review for DRR

<table>
<thead>
<tr>
<th>Building Block</th>
<th>Build on Existing Systems and Knowledge</th>
<th>Prioritization</th>
<th>Phased Approach</th>
</tr>
</thead>
<tbody>
<tr>
<td>Monitoring &amp; Review</td>
<td>- Consider own national planning/budget/sectoral M&amp;E and statistical systems - Are there any existing or planned development partner initiatives to strengthen these areas?</td>
<td>- Identify monitoring &amp; review processes, that if strengthened, will enhance policy design and implementation. See INFF Building Block 3.</td>
<td>- Consider a phased approach to move from a basic to advanced level.</td>
</tr>
</tbody>
</table>

**e) Building Block 4: Governance and Coordination**

The objective of building block 4 is to provide governance and coordination mechanisms that guide the entire process of the INFF. They provide a range of tools, including safeguards, screening tools, coherence checks, mainstreaming and incentives for inter-ministerial coordination. These can help facilitate the coherence of financing policies and support effective delivery.

**Build on existing systems and knowledge:** Identifying existing institutions, policy processes and development partners that support DRR financing decisions should be a key part of the Inception Phase (see global guidance documents). Focussing on governance and coordination at the start helps with ensuring political backing and country ownership for a successful implementation of INFFs. In addition, engagement with the private sector, civil society and academia can help support the design and review of DRR financing policies, particularly for those most at risk. Countries have varying levels of engagement with these actors, which should be considered in assessing existing governance arrangements.

**Prioritization:** Peace and security, political stability and the rule of law are foundations for effective governance and coordination. INFF implementation will be hampered if countries are/have recently been in conflict or in a period of political instability. Lowering the ambition of an INFF and working on advancing core governance and coordination components that require incremental changes can also help in a period
of transition. Even in periods of stability, enhancing coherence of existing governance arrangements and closing gaps would likely be the most difficult part of an INFF without political commitment and leadership (see INFF Building Block 4).

**Phased approach:** Strengthening governance and coordination arrangements over phases can help with sustaining interest and buy-in, as well as mitigate capacity and resource limitations. There are likely to be several development partners supporting DRR on different aspects of governance and coordination. Sequencing and coordinating activities during the different phases will help with improving coherence.

### Table 6. Governance & Coordination for DRR

<table>
<thead>
<tr>
<th>Building Block</th>
<th>Build on Existing Systems and Knowledge</th>
<th>Prioritization</th>
<th>Phased Approach</th>
</tr>
</thead>
<tbody>
<tr>
<td>Governance &amp; Coordination</td>
<td>- Consider own institutional arrangements, policy processes and engagements with development partners, private sector, civil society and academia.</td>
<td>- Consider peace and security, political stability and rule of law conditions.</td>
<td>- Consider a phased approach to strengthen governance and coordination arrangements.</td>
</tr>
</tbody>
</table>

**4. Compendium of Policy Options for DRR Financing**

DRR is cross-cutting by nature. It involves many sectors and can be integrated and streamlined into existing financing policies. As outlined above, the INFF guidance on Building Block 2 can help strengthen the development and integration of DRR into policy choices, across public finance, private finance, and macroeconomic/systemic conditions in support of DRR.

Applying a DRR-lens to INFF helps connect the disaster risk profile and assessment of the country with suitable funding mechanisms, policies and regulations. It integrates multiple financial sources and mechanisms to achieve the DRR financial goals and defines responsibilities to achieve them. For example, an INFF can help a government better consider DRR when reviewing public finance policies and deciding on budget allocation.

Similarly, the INFF guides a government in its interaction with key finance stakeholders, such as businesses, financial market participants, insurance companies, and development partners. For example, DRR elements could be embedded through an INFF process in policies that regulate how the private sector and financial markets operate. It could also help identify ways for further engaging the insurance sector in support of national development objectives. In the same vein, the integration of DRR into INFF should inform discussions between a government and its development partners, while enabling synergies and maximizing development impacts.

The table below summarizes a variety of possible legal or regulatory measures, financing instruments, and processes that can support achieving identified DRR objectives, while linking these policy options with their targeted audience. These policy options are then further detailed in the rest of this section and structured around the chapter of the Addis Ababa Action Areas, which provides the global framework in terms of financing for development.
### Table 7. Indicative list of DRR-related financing policies and instruments by targeted audience

<table>
<thead>
<tr>
<th>PUBLIC Domestic Resources</th>
<th>PRIVATE SECTOR</th>
<th>INTERNATIONAL Community</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Businesses / Individuals</strong></td>
<td><strong>Financial Sector</strong></td>
<td><strong>Insurance</strong></td>
</tr>
<tr>
<td>Assign a minimum share of budgetary resources to DRR activities</td>
<td>Build regulatory frameworks that enhance resilience</td>
<td>Reduce the protection gaps through better insurance coverage</td>
</tr>
<tr>
<td>Create a budget tagging and tracking system for DRR-related expenditures</td>
<td>Use financial incentives for leveraging private investment into DRR</td>
<td>Shift the insurance’s mindset from protection to prevention</td>
</tr>
<tr>
<td>Mainstream DRR in infrastructure services planning and delivery</td>
<td>Review “Force Majeure” clauses in public-private partnerships</td>
<td>Support innovative risk transfer solutions for DRR</td>
</tr>
<tr>
<td>Add DRR criteria to public procurement selection</td>
<td>Request corporate disclosure on risk exposure and management</td>
<td>Embed DRR in development partners’ projects</td>
</tr>
<tr>
<td>Use national reserve (or contingency) fund for building back better</td>
<td>Address vulnerabilities from global value chains (concentration, overdependency, etc.)</td>
<td>Ring-fencing funds for DRR-related activities</td>
</tr>
<tr>
<td>Connect anticipatory finance with social protection systems</td>
<td></td>
<td>Pursue reforms of IMF, World Bank and other DFIs in relation to DRR</td>
</tr>
</tbody>
</table>

#### a) PUBLIC / Domestic Resources

Public resources are the main source of financing for DRR activities since resilience investments often do not generate a revenue stream, although they avoid future losses. Governments can consider the following options to increase the impact of domestic resources on DRR objectives.

**Assign a minimum share of budgetary resources to DRR activities**

Although risk reduction activities provide net economic benefits in the long term, policymakers may be tempted to direct scarce public resources to more immediate and visible priorities. To ensure enough resources are allocated to DRR activities appropriate to each sector, governments can decide to safeguard a certain percentage of their budget for this purpose.
**Pros:** This ensures that DRR activities are prioritized and that available resources are not diverted for other purposes.

**Cons:** Assigning budget resources to DRR interventions at all levels and in all sectors implies a trade-off with using these resources for other public objectives. Defining the exact percentage needed for DRR is challenging and creates rigidities in the budget.

**Example:** The government of India assigns 20% of its disaster-related budget to DRR activities, leaving the rest for disaster response (40%), recovery and reconstruction (30%), and preparedness and capacity building (10%).

*Create a budget tagging and tracking system for DRR-related expenditures*

Budget tagging and tracking systems help governments identify, quantify and monitor public expenditures and budgetary commitments to different national priorities, for example by assigning budget codes for specific socio-economic objectives. While progress has been made in advancing climate or ‘green’ budget tagging and tracking, these approaches have not captured the whole range of DRR-related activities beyond those related to climate change adaptation (CCA). Short of proper budget tagging and tracking, countries have done DRR-specific public expenditure reviews or budget circulars in which the Finance Ministry requests a report on expenditures related to a given theme (such as climate change adaptation).

**Pros:** A tagging and tracking system ensures the mainstreaming and institutionalizing of CCA and DRR in government processes. It helps uncover funding gaps by checking the adequacy of spending vis-à-vis country policy ambitions, improve spending effectiveness by monitoring performance, and facilitate prioritization of spending allocation.

**Cons:** To implement a budget tagging, policymakers need a taxonomy describing ‘eligible’ disaster-related activities. However, it can be challenging to precisely defined what are these activities. For example, some activities include disaster considerations, such as building infrastructure with resilience in mind, despite not being primarily about DRR. The complexity of the system could create an administrative burden challenging to overcome for some developing countries.

**Corrective actions:** A way to reduce the administrative burden and increase the system sustainability is to build on the existing public financial management framework rather than creating a separate system.

**Example:** UNDRR has developed a methodology, and taxonomy for conducting integrated DRR and CCA budget tagging and tracking systems, which include a review of country experiences with these systems.

*Mainstream DRR in infrastructure services planning and delivery*

Many DRR interventions are embedded in public infrastructure either by considering disaster resilience in their design or by building infrastructure specifically to reduce disaster risk (e.g., flood protection walls). Policy and institutional framework can ensure that infrastructure systems consider DRR in their planning, design and operation.

**Pros:** Incorporating DRR considerations into infrastructure provides a resilient dividend in the form of reduced lifecycle cost of infrastructure.

**Cons:** Mainstreaming DRR into infrastructure development requires significant coordination efforts and internal capacity.

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23 DRR Financing in Asia and Pacific, Scoping Study for the Sendai Framework Mid-term Review, UNDRR, 2023
24 See UNDRR and IIED publication on “Tracking the money for climate adaptation and disaster risk reduction"
Example: UNDRR has developed the Principles for Resilient Infrastructure,\textsuperscript{25} which can form the basis of planning and implementation of infrastructure projects with resilience as a core value, communicate the desired outcomes of national infrastructure systems to establish resilience of critical services, and assist in making risk-informed policy and investment decisions.

Add DRR criteria to public procurement selection

In addition to streamline DRR in the planning of public procurement, it is possible to revise procurement law to mandate risk prevention and disaster resilience in the criteria for selecting bidders. For example, public procurement rules could ask that suppliers demonstrate how their services will remain operational during a disaster and what measures they take to reduce disaster risks. Including risk reduction requirements in public-private partnerships is another way to use private funds to embed DRR in infrastructure development.\textsuperscript{26}

Pro: Given the amount at stake, integrating DRR considerations into public procurement can have a significant impact in reducing risk and improving the resilience and longevity of the services procured.

Con: Designing appropriate DRR-related selection criteria is complicated and those need to be balanced/weighted against other public objectives to lead to the best possible outcome.

Example: The government of Japan developed guidelines for risk allocation and contracting, and embedded DRM legislations in bidding documents and technical specifications to ensure the development of risk-informed infrastructure.\textsuperscript{27} Detailed DRM specifications are included in bidding documents and contracts according to each project’s characteristics and risks.

Use national reserve (or contingency) fund for building back better

Several countries have also set aside funds to be able to cover the costs of responding to a disaster. While these funds are created to enhance disaster response, they could be structured in a way to promote investment in future resilience by ensuring that part of these funds is used for building back better. In this context, UNDRR has been working on recommendations for scaling up DRR in humanitarian action.

Pro: Building up reserve funds gives countries resources to deal with post-disaster expenditures quickly, without putting national finances at risk, which is crucial for limiting the damages and long-term impact on development, especially if those funds are also used to prevent future crises. Reserve funds are particularly suited to deal with frequent but low-impact events.

Con: Setting aside funds for future disasters has a cost, as governments cannot use those resources to fund other current activities. It is not trivial to estimate the size of the resources assigned to these funds, nor the share that should be devoted to future risk reduction. If a fund is too small, it won't be able to protect the economy from financial risk; if it is too large, the fund will prevent the government from using resources in other activities. As disasters become more frequent and intense, replenishing such funds may also become challenging.

Example: Tonga established a National Emergency Fund (NEF) set up to 1% of the GDP.\textsuperscript{28} Funds can also be set up at a regional level to distribute the risk among a group of countries. An example is the EU Solidarity

\textsuperscript{25} Principles for Resilience Infrastructure, UNDRR, 2022.

\textsuperscript{26} Compilación y análisis de los instrumentos financieros para la gestión de riesgos de desastres disponibles en la región, incluyendo aquellos enfocados en la retención y transferencia de riesgos, acciones de reducción de riesgo, así como esquemas de donantes potenciales, UNDRR, 2022

\textsuperscript{27} Publication: Resilient Infrastructure Public-Private Partnerships: Contracts and Procurement – The Case of Japan, World Bank, 2017

\textsuperscript{28} Tonga Disaster Risk Financing Strategy, 2021-2025, Government of Tonga, 2021
Fund which provides aid upon request of the affected EU member in the event of a major nature-induced disaster to cover costs for emergency and recovered operations incurred by public authorities.29

Connect anticipatory finance with social protection systems

Anticipatory Finance uses forecast-based parametric triggers and pre-established financing to act earlier and at a larger scale (i.e. between when a disaster is forecasted and when it occurs). This allows the implementation of actions that reduce the disaster impact. Embedding anticipatory finance in social protection systems is a way to provide financial resources to individuals and communities when a disaster becomes imminent.

Pros: Integrating anticipatory finance into social protection systems can reduce disasters’ overall economic and social impacts and promote resilience. The pre-arranged financial mechanisms can be quickly activated when a disaster is forecasted, reducing delays in providing assistance and increasing the effectiveness of the response.

Cons: Anticipatory finance mechanisms often depend on external funding, which could make them subject to fluctuations and lack of continuity. Designing and implementing effective anticipatory finance measures requires accurate and up-to-date data on disaster risks and vulnerabilities, and coordination between multiple stakeholders, both of which can be challenging.

Example: The Productive Safety Nets Programs (PSNP)30, now in its 5th phase in Ethiopia provides cash and in-kind support to food-insecure families living in drought-prone areas in exchange for participating in activities improving the communities’ climate resilience.

b) PRIVATE SECTOR

The Sendai Framework acknowledges the need for the private sector to integrate disaster risk into their management practices and calls for disaster risk-informed private investments. There are multiple ways in which the government can incentivize businesses, financial markets and insurance companies to further contribute to DRR objectives, which could be considered as part of an INFF process:

i. Business/individual-related interventions

Build regulatory frameworks that enhance resilience

Private companies operate within the regulatory framework provided by public authorities, which could be designed to reduce the risk of disasters.

Pros: For example, policymakers can use land use procedures and building codes to ensure that real estate is not constructed in disaster-prone areas and meet appropriate design and construction standards. Similarly, health and safety laws, as well environmental laws, have a key role in reducing disaster risks linked to business activities.

Cons: Appropriate regulations and standards are necessary but not sufficient if not implemented nor properly enforced. For example, when building standards are set too high, it might be impossible for people to comply, hence the importance of reflecting local building practices and affordability into standards.

Use financial incentives for leveraging private investment into DRR

Governments can leverage private investments by offering subsidies to targeted, resilience-generating projects. They may also use price signals to encourage a more efficient use of scarce resources (e.g., pricing water for more efficient management of scarce resources). Policymakers can also use tax incentives to

29 Disaster Risk Financing: Main Concepts & Evidence from EU Member States. European Commission, 2021
30 Microinsurance and Social Protection, Ethiopia Country Case Study, WFP, 2022
encourage property owners to manage stormwater runoff on their properties (e.g., through green roofs, and permeable pavements) and/or harvest rainwater (e.g., water tanks).

**Pros:** Incentives and regulations, allow governments to align private investments with national resilient goals.

**Cons:** It is challenging to properly design incentives schemes that will maximize impact and limit cost for the public purse. Also, pricing mechanisms for infrastructure services can have negative impacts on the most vulnerable population facing affordability constraints.

**Example:** North Macedonia offers performance base payments to fund investments by SMEs in renewable energy and energy efficiency; these investments will reduce energy demand and hence increase the resilience of its infrastructure. Italy provides an example where fiscal incentives have been used to encourage investment in the seismic upgrading of private buildings (as part of Italy’s national plan for seismic risk prevention following the 2009 Abruzzo earthquake). On flood prevention, Washington D.C. uses stormwater fees, which are based on the total area of impervious surface on a property (e.g., roofs, driveways), to fund activities reducing sewer overflows.

**Review “Force Majeure” clauses in public-private partnerships (PPPs)**

Force majeure clauses tend to exonerate the private partner in a PPP contract of its liability in case of unforeseen events beyond its control, such as natural hazards, cause the interruption of services. However, natural hazards often do not have to turn into disasters and the private partner can take preventive and mitigation measures to reduce the risk of disasters.

**Pros:** The private partner will have an extra incentive to implement DRR measures if the “force majeure” clause does not entirely exonerate its responsibility in case of service disruption caused by hazards.

**Cons:** It is not easy to find the right balance as private partners might be reluctant to enter contracts that put them at risk in case of disasters and this would require defining what would be considered reasonable measures to reduce risks and service interruptions.

**Request corporate disclosure on risk exposure and management**

Companies need to be transparent about the risk they are facing and the actions they intend to take to prevent risks from materializing, for example in their annual reporting. Recognizing the importance of enhanced disclosure by corporates, regulators in around 80 countries have taken close to 200 measures to improve corporate sustainability disclosure since 2015 (with 60% calling for mandatory disclosure).

**Pros:** Enhanced transparency forces companies to assess risks and put in place measures to mitigate them (what gets measured, gets managed). Meanwhile, investors can use this information to guide their investment decisions and allocate capital away from companies not managing risk properly.

**Cons:** Additional reporting has a cost for companies (e.g., collecting data), which can be prohibitive for smaller companies and those in less advanced economies.

**Example:** New Zealand was one of the first country to announce in 2020 mandatory reporting for companies based on the recommendations from the Task Force on Climate-related Financial Disclosures (TCFD), before being followed quickly by several other countries. TCFD recommendations call for companies to be transparent on four themes: governance, strategy, risk management, and metrics and targets regarding the climate-related risks they are exposed to.

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31 North Macedonia’s Green Financing Facility selected among top ten SDG blended finance instruments in the world, to receive funding from the Joint SDG Fund, United Nations North Macedonia, 2022

32 Diapositiva 1 [undrr.org]

33 UN PRI Regulation Database (as of September 2021)
Address vulnerabilities from global value chains (concentration, overdependency, etc.)

Global value chains have both advantages and disadvantages when it comes to risk. On one hand, they can help diversify sources and create redundancy to prevent localized disruptions. However, as value chains become longer and more complex, they also increase the potential for risk exposure. This is especially true if the complexity of the value chain reduces transparency, making it difficult to identify vulnerabilities such as overdependence on key suppliers or concentrations of production in specific areas. Additionally, multiple value chains can overlap, creating an even more complex network which compounds with vulnerabilities particular to each industry. Therefore, it’s crucial to identify and address vulnerabilities in global value chains to ensure global stability.

Pros: By addressing vulnerabilities in specific parts of the value chain, broader benefits can be generated as the solutions may have an industry-wide effect. Additionally, making production decisions based on risk assessment can move away from a cost-based competition and promote more sustainable and resilient industries.

Cons: When assessing vulnerabilities that could pose a risk, it’s crucial to approach the matter with sound reasoning. Acting on perceived risks rather than actual ones when modifying global value chains may lead to unwarranted economic inefficiencies. It’s therefore imperative to ensure that proposed changes are based on factual evidence.

Example: The Covid-19 pandemic resulted in unexpected disruptions to both supply and demand, as well as temporary trade restrictions across a diversity of products. These disruptions had a significant impact on the global economy, highlighting vulnerabilities in production strategies and supply chains. As a result, companies began to re-evaluate their value chains, leading to increased domestic production, reduced reliance on a limited number of suppliers, and a rethinking of lean inventory and just-in-time replenishment strategies. This increased emphasis on risk-informed production decisions has made the global economy more stable and has created opportunities for innovative production methods.

ii. Financial sector-related interventions

Develop taxonomies for DRR investment

Taxonomies have been instrumental to the green bond market’s exponential growth and define eligible activities that can be financed by this type of financial instrument. Developing a dedicated taxonomies for DRR investment, for example identifying eligible risk reduction activities, should allow capital market to play a greater role through the emergence of DRR-dedicated financial products (e.g., resilience bonds, funds targeting companies providing solutions to resilience challenges).

Pros: DRR taxonomies provide standards and norms for capital market investors, while they help ensure the credibility of investment products branded as contributing positively to DRR.

Cons: Taxonomies must balance detail with clarity to be rigorous in assessing what constitutes resilience without becoming overly complex. Contextual factors might affect the contribution to resilience of a given activity making it difficult to create strict rules about what is taxonomy compliant and what is not.

Example: UNDRR is working with the Climate Bond Initiative on a Resilience Classification Framework that should serve as a standard for capital markets in this area. Another example is the Adaptation Solutions (ASAP) Taxonomy allows the identification of small and medium enterprises (SMEs) that offer adaptation

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34 Global Supply Chains in a Post-Pandemic World, Harvard Business Review, 2020
Introduce disaster-related clauses in sovereign debt instruments

Disaster-related clauses help governments free up cash flow in times of crisis by suspending debt repayment for a certain period (e.g., 1 or 2 years). The disaster-related clause must specify the type and magnitude of events that will trigger debt suspension (e.g., hurricane, pandemic).

Pros: Disaster-related clauses avoid that governments devote scarce public resources to repay debtors while they face a huge demand for relief and rebuilding purposes to protect their people. The clauses also reduce the risk of a costly sovereign default.

Cons: Disaster-related clauses do not provide ‘free’ resources for governments as they are currently designed as net present value (NPV) neutral. This means that the debt is simply deferred but will have to be repaid either during the remaining duration of the debt or through an extension of the debt maturity. It is also unclear whether governments may have to pay a premium for including a disaster-related clause in their debt instruments, for instance, due to the risk of a slightly delayed repayment schedule or lower liquidity of the debt instrument, although the NPV characteristic should provide comfort to investors and the clause could also be seen as improving the resilience of the borrowing country and reducing the risk of default following a disaster.

Example: Grenada and Barbados have pioneered disaster-related clauses, and Barbados also launched the first government bond with a pandemic clause. The Inter-American Development Bank (IDB) has also included a two-year debt suspension clause in its loans to Barbados in case of disasters triggered by natural hazards. Meanwhile, the international Capital Market Association (ICMA) published in 2022 a standardized term sheet for Climate Resilient Debt Clauses (CRDCs) to facilitate market adoption of these clauses. The UK Export Finance (UKEF) announced at COP27 that it will become the first export credit agency to incorporate CRDCs in its direct sovereign lending, allowing debt repayment to be deferred in case of climate change-related emergencies.

Issue resilience bonds and call for credit enhancement mechanisms

Resilience bonds are a sub-set of the fast-growing green bond market, for which the proceeds raised should be used to finance resilience-building projects and activities. While the green bond market has been able to rely on well-developed green taxonomies to identify eligible projects for financing, there is currently no direct equivalent in the resilience space, which is a gap the Climate Bond Initiative and UNDRR are currently working on to address (see section on taxonomies above).

Pros: By issuing this type of bond instrument, governments may be able to attract investors willing to align their investments with sustainable development objectives. Through this type of issuance, the country also signals its commitment to taking appropriate measures to reduce disaster risks. This should be perceived favourably by the market.

Cons: This type of bond requires governments to provide information on the use of proceeds, which involves some administrative costs. It is also unclear whether governments could benefit from cheaper financing costs through the issuance of a resilience bond compared to traditional borrowing, beyond possibly a few basis points due to higher demand from investors. However, the pricing could become much cheaper if resilience bonds are combined with credit-enhancing mechanisms, for example from development partners willing to support governments in this area.

35 Adaptation Solutions Taxonomy, Maria Margarita Cabrera (editor), 2020
**Example:** Although there is not yet an example of a resilience bond issued by a sovereign at the time of writing, the European Bank for Reconstruction and Development (EBRD) issued a resilience bond for $700 million in 2019, providing a proof of concept.\(^{37}\) Meanwhile, different initiatives have emerged to enhance the credit profile of green bonds, which could be extended to the resilience bond market to lower financing costs for countries. For example, the World Bank partially guaranteed the blue bond issued by Seychelles in 2019. A first credit loss tranche mechanism was also supported by multilateral development banks for the Amundi Planet Emerging Green One fund, which focuses on green bonds from emerging markets and includes a donor-funded Green Bond Technical Assistance Program. The Green Climate Fund also invested in the Green Guarantee Company, which is established to provide guarantees for climate bonds.\(^{38}\)

**Conduct disaster scenarios/stress testing to assess the country’s financial stability**

Disasters have significant economic consequences and can derail the financial stability of a country. Central banks and other financial regulators have an interest in better understanding the exposures of financial institutions to disaster risks. To this end, they can consider different disaster risk scenarios and assess their impact on the economy and financial systems. Such impact can have cascading effects and materialize through different transmission channels (e.g., property damages due to acute weather events, lower agriculture productivity due to slow onset events such as desertification, and stranded assets due to stricter regulations such as coal-fired power plants).

**Pros:** Scenarios are particularly important as historical losses are unlikely to be a good predictor of future losses in a changing environment and climate. Anticipating future losses allows the timely implementation of risk reduction actions.

**Cons:** Modelling the impact of disasters on financial institutions often rely on numerous assumptions and require data that might not be available in many countries. While central banks are starting to consider climate-related risks, they may ignore other types of hazards (e.g., technological and biological risks).

**Example:** The Network of Greening the Financial Systems (NGFS), gathering 100+ central banks and observers, develop climate scenarios to understand the range of plausible outcomes resulting from different climate policy choices (early action, delayed actions, actions in only some jurisdictions, etc.)

**Require commercial banks to include disaster risk assessment in credit allocation**

Financial regulators are responsible for ensuring financial stability and supervising domestic financial institutions. In line with their mandate, they could require banks to integrate disaster risk assessment into credit screening processes.

**Pros:** This type of regulation will force borrowers to evaluate existing and potential disaster risks to their projects, thereby prompting them to act to build resilience. In the same vein, countries could ask for international regulatory frameworks for banks, the so-called Basel norms, to penalize projects that do not properly mitigate disaster risks.

**Cons:** Not all projects are relevant for disaster risk assessment and such regulatory requirements add some operational burden to commercial banks.

**Example:** As of 2023, 139 financial institutions in 39 countries are members of the Equator Principles. These Principles requires the signatory financial institutions to conduct a climate change risk assessment, which will consider relevant physical risks, for all the projects they finance with potential significant adverse environmental and social risks.\(^{39}\)

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\(^{37}\) [World’s first dedicated climate resilience bond, for US$ 700m, is issued by EBRD, EBRD, 2019](https://www.ebrd.com/)

\(^{38}\) [The Green Guarantee Company welcomes the Green Climate Fund as founding equity shareholder, Cardano Development, 2022](https://www.cardano.com/)

\(^{39}\) [Equator Principles, EP4, July 20202](https://www.equatorprinciples.com/)
Advocate for lengthening the time horizon of Credit Rating Agencies

Credit Rating Agencies (CRAs) play an important role in capital markets. They inform investors about the creditworthiness of borrowers, including government entities. Their ratings are also used in many jurisdictions for regulatory purposes. CRAs typically base their assessment on financial and economic forecasts up to three years, which may overemphasize short-term considerations and not appropriately capture investment in long-term economic resilience.⁴⁰

**Pros**: Lengthening the CRA time horizon beyond the traditional three-year timeframe and creating long-term ratings is necessary to better account for risks and properly reward investment in resilience. For example, a country’s efforts to invest in climate adaptation should be viewed favourably in credit ratings as it should enhance a country’s economic resilience and a government’s ability to repay.

**Cons**: The opponents of long-term credit ratings typically argue that making predictions beyond the three-year timeframe is challenging and subjective, which can undermine the credibility of ratings.

**Example**: Revising CRA’s practices would require government and national regulators to engage in discussion with them as well as large investors advocating for changes, for instance through meetings such as the High-Level Meeting on the Role of CRAs in the implementation of the 2030 Agenda for Sustainable Development organized by UNDESA in 2022. Engagement with CRAs can also help countries better understand how DRR investment can improve their ratings.

iii. Insurance sector-related interventions

*Reduce the protection gaps through better insurance coverage*

Although disaster risk insurance is not sufficient on its own, it could be part of a larger disaster risk reduction strategy, especially for managing risks for high-impact, low-frequency events. However, it’s important to ensure that the natural hazards most relevant to a particular region are included in the coverage. One way to do this is making it mandatory for home or other insurance policies to include these hazards. By bundling different hazards together in one policy, insurance coverage can offer more comprehensive protection.

**Pros**: Policyholders can benefit from a more comprehensive coverage. This approach also allows the government to ensure that disaster risk insurance offers the appropriate protection in accordance with the country’s context.

**Cons**: When multiple risks are combined into one policy, cost may increase which could cause that some policyholders are unable to afford it or that insurance companies leave the market.

**Example**: The European Insurance and Occupational Pensions Authority (EIOPA) has created a dashboard that displays the factors contributing to the climate-related insurance protection gap.⁴¹ This tool helps identify measures to reduce losses in the event of natural disasters. By comparing the level of insurance protection to the estimated risk, it is possible to identify areas where the risk is high and insurance coverage is inadequate.

*Shift the insurance’s mindset from protection to prevention*

The insurance industry has been largely focused on protecting insurers against disaster risks. However, covering policyholders against potential damages does not reduce risk, but rather transfer it to an external party (i.e., the insurance company). Reducing risk requires implementing specific measures such as

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⁴⁰ [Credit rating agencies and sovereign debt: Four proposals to support achievement of the SDGs (Policy Brief No. 131), UNDESA, 2022](https://undesa.org/)

⁴¹ [Dashboard on insurance protection gap for natural catastrophes, EIOPA](https://www.eiopa.europa.eu/)

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installing fire extinguishing appliances, sprinklers, and security cameras. The insurance industry can incentivize policyholders to make DRR-related investments, for example, by applying variable pricing and offering discounts to those implementing DRR measures. The International Cooperative and Mutual Insurance Federation (ICMIF) and UNDRR have produced a joint report on shifting the focus of the insurance industry from protection to prevention, which identifies seven practical mechanisms for how the cooperative and mutual insurance sector can help drive prevention and disaster risk reduction.42

**Pros:** With the increasing frequency and severity of disasters, insurance could quickly become unaffordable. Preventing risks from happening can help mitigate future increases in insurance premium by reducing the number of claims and enhancing the financial sustainability of the industry.

**Cons:** Efforts to promote risk prevention should not result in excluding people from insurance protection by requiring difficult-to-meet DRR measures as prerequisites for insurance coverage.

**Example:** Climate Insurance Linked Resilient Infrastructure Financing (CILRIF)43 is an insurance solution developed by UNCDF that offers 10-20 year climate insurance to cities with pre-arranged premiums that decrease as the city invests in climate resiliency. As the city manage its risk by implementing the adaptation measures agreed on the insurance policy, the insurance premium will decrease to reflect the updated risk.

**Support innovative risk transfer solutions for DRR**

Digitalization and the growing availability of data is helping insurers better understand and price disaster risk, which has led to insurance products being offered in areas that were not covered before. Against this background, index insurance products and parametric insurance have emerged, which provide a pre-agreed sum in case specified parameters are met, such as drought. For example, these can be used to protect small-scale farmers against losses from extreme weather. Another risk transfer solution is catastrophe (cat) bonds, which allow the bond issuer to receive funding from capital market investors if certain conditions are met (e.g., hurricane) within the bond period (typically three to five years). In return, the issuer pays an interest rate to investors. Insurers have used cat bonds to lay off some of their risk through capital market instruments, thus freeing up capital for additional underwriting. A specific variation of catastrophe bonds includes a reduction in the coupon when pre-agreed risk-reducing actions are implemented.44

**Pros:** Index insurance products and cat bonds can be cheaper to operate as there is no need to estimate the actual loss and can lead to quick disbursement. They have also allowed the coverage of risks previously considered as uninsurable.

**Cons:** Setting the parameters correctly remains challenging and there are cases where policyholders are not covered during a catastrophic event because certain triggers are not activated. In addition, the products can be expensive and not well understood by consumers. As a result, their uptake has been slow, despite substantial public support.45 There is also a risk that with the growing frequency of hazards, as well as greater forecasting precision, regions and sectors most at risk will be priced out of insurance markets, and only those with low or moderate risk will be able to find coverage.

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42 From protection to prevention: The role of cooperative and mutual insurance in disaster risk reduction, ICMIF, UNDRR, 2021
43 Climate Insurance-Linked Resilient Infrastructure Financing (CILRIF), Global Innovation Lab for Climate Finance, 2022
44 Resilience Bond for risk reduction, CPIC
45 There have been approximately 150 donor-supported weather index insurance pilots alone, but there have not been many pilots maturing into sustainable programmes. What Can Index Insurance Offer to Development?, World Bank, 10 November 2016.
Example: UNDP is collaborating with the insurance sector through the Insurance Development Forum (IDF), and with funding from BMZ, to support the development of a portfolio of new insurance solutions for sovereigns. The goal is to deliver technical assistance and risk financing tools to 20 climate-vulnerable countries, providing $5bn of risk capacity between 2022 and 2025 (in line with the InsuResilience global partnership vision 2025). Another example is the Global Index Insurance Facility from the World Bank that facilitates catastrophic risk transfer solutions and index-based insurance to smallholder farmers, micro-entrepreneurs, and microfinance institutions in developing countries.

c) INTERNATIONAL

Disaster prevention and preparedness only account for a marginal fraction of international assistance despite its great benefits in terms of saving lives and reducing economic damages. Only 11% of Official Development Assistance (ODA) is related to disasters and the vast majority of this money flows to emergency response and reconstruction (96%). Yet, grants and other concessional financing are critical for mobilizing financial resources for DRR, including through blended instruments. Beneficiary countries and development partners could consider the following options to increase the role of international assistance for DRR as part of an INFF process.

Embed DRR in development partners’ projects

Development banks are a large source of financing for many countries. They could leverage their lending to promote DRR, for example by strengthening the way they embed disaster risks (natural-hazard induced or human-induced) in their project assessment, design, and monitoring.

Pros: This would create more risk-informed programmes while incentivizing resilience-building activities. Over time, increasing resilience also contributes to improving a country’s risk profile, which could facilitate its access to lower borrowing costs, creating a virtuous cycle.

Cons: Adding more elements to consider when deploying development finance can make the lending process heavier and possibly slower, although this does not need to be the case.

Example: The World Bank has created a Resilience Rating System to assess (i) the resilience of the project (i.e., whether the project has properly considered climate and disaster risks) and (ii) the resilience through the project (i.e., whether the project contributes to increasing climate resilience of the broader community). When launching the methodology in 2021, the Bank also announced that they were piloting it with 20 projects.

Ring-fence funds for DRR-related activities

Ring-fencing funds for DRR could mean that, by default, a certain percentage of every loan/grant must be spent on risk prevention and resilience. Similarly, humanitarian activities need to ensure that part of ‘disaster response’ funds are allocated for the prevention of future risks in order to build back better and break the cycle of ‘disaster-rebuild-repeat’.

Pros: Ring-fencing resources ensures that risk prevention is not overlooked and safeguarded, creating long-term benefits.

Cons: MDBs and other financial institutions that do not have an explicit DRR mandate might require internal reforms to mandate DRR in all their loans. Furthermore, the resources dedicated to DRR would

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46 Publication: Resilience Rating System: A Methodology for Building and Tracking Resilience to Climate Change, World Bank, 2021
reduce the available resources for other activities, so the need to increase the overall development assistance remains.

**Example:** The Global Environment Facility was the first global source of funds for climate adaptation and continues to play an important role through its Least Developed Countries Fund (LDCF) and the Special Climate Change Fund (SCCF).

**Pursue reforms of IMF, World Bank and other DFIs in relation to DRR**

Member States can further integrate DRR into IMF, World Bank and work and better use their balance sheets for this purpose.47

**Example:** In 2022, the IMF established the Resilience and Sustainability Trust (RST) to help low-income and vulnerable middle-income countries build resilience to external shocks and provide them with longer-term affordable financing to address longer-term structural challenges, including climate change and pandemic preparedness. RST resources are to be mobilized based on voluntary contributions from IMF members with strong external positions, including those wishing to channel Special Drawing Rights (SDRs).48

**Factor in country vulnerabilities for concessional finance eligibility**

To fully account for countries’ vulnerability, donors and DFIs should move beyond using simple indicators such as Gross National Income (GNI) to allocate their support. Composite risk index (such as GRAF, INFORM, GFDRR Disaster-FCV Vulnerability Index etc.) and even ad hoc composite index can better capture complex, cascading and systemic risk.

**Pros:** Composite risk indexes can include multiple dimensions improving the assessment of a country’s risk exposure.

**Cons:** Designing the adequate composite index is complex and the design choices can have significant impact on which countries will be eligible or not.

**Example:** The United Nations is working on the development – and implementation – of a Multidimensional Vulnerability Index (MVI).49 Despite a relatively high GNI per capita, SIDS represent two thirds of the countries with the highest relative losses from nature-induced disasters showing their vulnerability due to their reliance on the ocean for their economics.50 Using the MVI could increase SIDS eligibility to receive financing in more competitive terms to address their unique vulnerabilities.

**Create international pooling mechanisms to diversify risks**

Risk pooling facilities mutualize disaster risks across locations and types of events, making use of diversification for risk management. Risk pooling facilities have been developed nationally, such as the Philippine Catastrophe Insurance Facility (PCIF),51 or at a regional scale, such as the African Risk Capacity (ARC).52

**Pros:** Pooling risks might enhance the financial viability of insurance mechanisms due to diversification benefits and reduce premium paid by policyholders as a consequence.

**Cons:** Pooling risks from different countries is complex to structure.

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47 See for instance, the recommendations from G20 mandated report on “Boosting MDBs’ investing capacity: An Independent Review of Multilateral Development Banks’ Capital Adequacy Frameworks”.

48 Resilience and Sustainability Trust, IMF

49 Multidimensional Vulnerability Index, United Nations

50 Small Island Developing States – SIDS, OECD

51 Philippine Catastrophe Insurance Facility (PCIF) means less risk ceded to reinsurers (to begin). Artemis, 2021

52 African Risk Capacity, CPI
**Example:** The Caribbean Catastrophe Risk Insurance Facility (CCRIF) was established in 2007 as a first multi-country risk pool that provides parametric insurance to Caribbean and Central American countries against natural hazard event (e.g., tropical cyclones, earthquakes, and excess rainfall). Since its inception, CCRIF has made 54 payouts totalling $245 million to 16 countries (all within 14 days of the event). The grants provided by international partners support participation fees from members, insurance payouts, and technical assistance.

**Ensure sufficient access to emergency liquidity**

The economic loss associated with all disasters – geophysical, climate, and weather-related – has averaged approximately $170 billion per year over the past decade on a global level, creating significant financial challenges for countries hit by these disasters.

**Pros:** By securing access to emergency liquidity facilities, countries can quickly mobilize financial resources to respond to the urgent needs of their population, fast-track the rebuilding of their economy, and avoid costly defaults as well as a debt crisis. Countries should pre-emptively assess as part of an INFF process whether the size of facilities they have access to is likely to be sufficient to cope with the fallout of a disaster.

**Cons:** Emergency facility providers may require borrowers to implement certain reforms, which may be unpopular, the so-called conditionalities. In addition, the size of these facilities is often capped to a certain level, which may prove insufficient for countries to deal with a crisis. Countries may also be less inclined to take preventive measures if they know they have access to financing in times of crisis.

**Example:** IMF has established the Rapid Financing Instrument (RFI) and Rapid Credit Facility (RCF) to help countries address economic shocks, such as disasters caused by natural hazards. Compared to the RFI, the RCF is only available to low-income countries and has a lower interest rate and longer repayment period (10-25 years vs. 3-5 years) but includes policy conditionalities. The RCF provided, for example, over $40 million to Haiti following hurricane Matthew (category 4), which hit the country in 2016.

**Scale up the use of debt swaps for resilience investment**

Debt-for-climate swaps aims at providing debt relief to countries committed to invest in climate-related projects. This approach is designed to help governments prioritize climate resilience without putting their budgets at risk or neglecting other development needs. In this transaction, the debtor countries stop paying its external debt and instead use this money to finance climate projects domestically.

**Pros:** Under some circumstances, debt-for-climate swaps could be an efficient way to provide debt relief to countries while freeing resources to achieve climate goals.

**Cons:** Swap agreements can be complex to negotiate, and climate-related commitments may be vulnerable to political changes over time.

**Example:** Back in 2018, the Seychelles government collaborated with The Nature Conservancy (TNC) and other development partners to create a debt-for-nature swap. This involves TNC buying Seychelles external debt and having Seychelles repaying the debt to national trust fund that will finance marine protected areas.

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53 [The Caribbean Catastrophe Risk Insurance Facility (CCRIF)](https://www.ckif.org/)
5. Moving Forward

More than eighty-five countries are using INFFs to articulate ambitious financing agendas suited to their unique context and challenges, lay foundations for forward-looking policy-making, and exploit financing innovations. For example, among the G20 countries, Indonesia issued its INFF in September 2022, while Nigeria, one of the G20 invited countries this year, also launched an INFF in October 2022.57

With accelerated progress needed to reach the Sendai Framework objectives by 2030, now is the time to strengthen partnerships and leverage finance policies and instruments in support of DRR in order to turn ambitions into a reality.

Development partners can build on the growing momentum around INFFs - including the endorsement by G20 leaders of the G20 framework of voluntary support to INFFs, and the focus on INFFs in the UN Secretary General’s SDG Stimulus to Deliver Agenda 2030 - to channel their technical and financial assistance to contribute to the successful integration of DRR into INFF, and to support others in furthering their INFF journeys.

Countries interested in embarking on, or already implementing, INFFs can benefit from the technical guidance on applying an INFF to DRR co-authored by UNDESA and UNDRR, while the G20 could consider welcoming this technical guidance and encouraging relevant international organizations to build on this guidance to support countries in addressing DRR challenges.

57 INDONESIA INTEGRATED NATIONAL FINANCING FRAMEWORK (INFF) | United Nations Development Programme (undp.org)