

## Leaving No One Behind. A Public Policy Perspective on Disability-Inclusive Disaster Risk Reduction

### No dejar a nadie atrás. Una perspectiva de política pública sobre la reducción del riesgo de desastres que incluya a las personas con discapacidad

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**ABSTRACT:** National and local Disaster Risk Reduction strategies struggle to include the voices of people with disabilities despite the disproportionate exposure of this community and the requirements of international legal frameworks. Multiple institutional and research papers have primarily focused on analysing field initiatives and technical tools developed to enhance disability inclusion in risk assessment and emergency planning processes. Instead, this essay examines the implementation gap through public policy lenses. The research is based on quantitative-qualitative policy analysis, supported by official reports and global tracking tools. Findings show an insufficient number of national and local policies and a limited level of inclusion along the formulation process. This paper also identifies possible drivers for adopting disability-inclusive Disaster Risk Reduction strategies. The suggested policy framework implies engaging all the relevant stakeholders (starting with persons with disabilities and their organisations) throughout the policy process, from agenda setting to policy formulation, supporting the process with a distributed governance model and inclusive budgeting, pursuing a cross-sector approach, and leveraging the enabling factors.

**KEYWORDS:** disaster risk reduction; disability; inclusion; public policy; sustainable development.

**RESUMEN:** Las estrategias nacionales y locales de Reducción del Riesgo de Desastres luchan por incluir las voces de las personas con discapacidad a pesar de la exposición desproporcionada de esta comunidad y los requisitos de los marcos legales internacionales. Múltiples artículos institucionales y de investigación se han centrado principalmente en analizar iniciativas de campo y herramientas técnicas desarrolladas para mejorar la inclusión de la discapacidad en los procesos de evaluación de riesgos y planificación de emergencias. En cambio, este ensayo examina la brecha de implementación a través de lentes de políticas públicas. La investigación se basa en análisis de políticas cuantitativos y cualitativos, respaldados por informes oficiales y herramientas de seguimiento global. Los hallazgos muestran un número insuficiente de políticas nacionales y locales y un nivel limitado de inclusión a lo largo del proceso de formulación. Este documento también identifica posibles impulsores para la adopción de estrategias de reducción del riesgo de desastres que incluyan a las personas con discapacidad. El marco de políticas sugerido implica involucrar a todas las partes interesadas relevantes (comenzando con las personas con discapacidad y sus organizaciones) a lo largo de todo el proceso de políticas, desde el establecimiento de la agenda hasta la formulación de políticas, apoyando el proceso con un modelo de gobernanza distribuida y un presupuesto inclusivo, siguiendo un enfoque intersectorial y aprovechando los factores propicios.

**PALABRAS CLAVE:** reducción de desastres; discapacidad; inclusión; política pública; desarrollo sostenible.

This paper investigates the implementation gap for adopting disability-inclusive Disaster Risk Reduction (DiDRR) strategies and explores viable solutions from a public policy perspective. The following lines explain the three main reasons why this issue is a relevant area of analysis, not only for the realisation of human rights of a highly exposed community but also for contributing to the achievement of the Sustainable Development Goals (SDGs).

First, according to estimates, around 16 % of the world's population (approximately 1.3 billion people) live with some impairment (WHO, 2022). This ratio is believed to increase in the upcoming years due to the ongoing demographic trends of population ageing and chronic disease prevalence (OECD, 2020). Disasters are another factor that can increase the number of persons with disabilities within the affected communities. For example, studies on the 2010 Haiti earthquake found that the disaster became the second leading cause of disability in the area, having estimated that around 200,000 people acquired new forms of impairments out of the 3 million Haitians impacted by the seism (Whittaker & Wood, 2022).

Secondly, natural hazards disproportionately affect persons with disabilities compared to the broader population. For instance, studies on the 2011 Japan earthquake and tsunami found that the mortality rate among persons with disabilities was two to four times higher than the broader population (UNESCAP, 2015). In addition, disability can be a multiplying factor of exposure as it might extend the event's impact on multiple people in the household, i.e., caretakers, caregivers, and other family members.

Finally, by zooming out into a global perspective, disability incidence and disasters appear to impact low-income countries unevenly. These countries are home to 80 % of persons with disabilities (WHO, 2022) and carry the highest consequences of natural hazards: 44 % of all significant recorded disasters and 68 % of disaster-related deaths (UNDRR, 2018).

As a result, the uncontested need for an inclusive approach to Disaster Risk Reduction (DRR) has led to the creation of a legal framework across jurisdictions, from international law to local regulation. This article focuses on the United Nations Sendai Framework for Disaster Risk Reduction 2015-2030 (SFDRR or "the Sendai Framework"), a 15-year agreement aimed at «the substantial reduction of disaster risk and losses in lives, livelihoods and health and the economic, physical, social, cultural and environmental assets of persons, businesses, communities and countries» (UNDRR, 2015). The SFDRR requires the implementation of disability-inclusive DRR policies, though voluntarily, due to the nature of the agreement.

Despite the reasons described above for adopting inclusive DRR strategies and the progress registered since 2015, the Midterm Review of the SFDRR report acknowledges that there is still work to do at the ground level (UNDRR, 2023a). Therefore, the paper explores the implementation gap for the Sendai Framework regarding DiDRR and outlines possible solutions from a public policy perspective.

The structure of the essay is as follows. The first chapter provides a background about the SFDRR and the relevance of the social model underneath for both DRR and disability agenda. The second chapter assesses the implementation gap from a quantitative and qualitative point of

view by analysing the Sendai Monitor indicators. The third and fourth chapters cover viable suggestions related to four main aspects of the proposed policy framework for DiDRR: policy adoption, policy formulation, budget and governance. Finally, the last chapter outlines a possible scope for further research.

### **From technical assistance to inclusion: How social models evolved the global agenda of disaster risk reduction and disability**

Although the United Nations has been committed to Disaster Risk Reduction for at least five decades, over time, the international framework has evolved from a pure assistance approach (1970s-1980s) to a global strategy connected with sustainable development and the SDGs (1990s-onward) (UNDRR, 2022a). The turning point coincided with adopting the Yokohama Strategy in 1994, which evolved the DRR paradigm. The focus shifted from scientific and technical aspects to socioeconomic factors, emphasising the crucial role of human actions in reducing vulnerability to natural hazards (UNDRR, 2019). This new mindset has led to a more complex definition of disasters, embedding human factors and a risk-based approach.

UN terminology defines a disaster as a

*serious disruption of the functioning of a community or a society at any scale due to hazardous events interacting with conditions of exposure, vulnerability and capacity, leading to one or more of the following: human, material, economic and environmental losses and impacts.* (UNGA, 2017)

Hazardous events are defined as the manifestation of a hazard, which can have different origins:

- natural or predominantly associated with natural processes and phenomena (geological, hydrometeorological and biological hazards);
- anthropogenic or induced by human processes (environmental degradation and technological hazards);
- socio-natural or associated with a combination of natural and anthropogenic factors, including environmental degradation and climate change.

The UN terminology does not establish a direct relationship between natural phenomena and disasters. The latter is determined by the interaction between hazardous events on one side and exposure, vulnerability, and capacity on the other. In this context, communities can play a crucial role in disaster mitigation by adopting measures to reduce risks (i.e., minimising exposure and targeting vulnerability) and building capacity.

Moreover, since disasters often have a large-scale and long-lasting impact, the coping capacity of local communities may be exceeded, triggering extensive assistance from other actors such as neighbouring jurisdictions, national governments, or international organisations. For this reason, a global strategy for DRR is relevant not just as a means of international cooperation but also because it can play a direct role in the livelihood of local communities.

Considering the above-stated background, the concepts of disability and disaster have shared the same type of bias over time. Like the early approach to Disaster Risk Reduction, understanding disability has predominantly focused on extraordinary frequency compared to general trends, externalities (the person's impairment) and assistance (medical treatment,

charity or social protection), disregarding social barriers.

However, since the 1970s, several academics and activists have criticised this so-called «medical approach», which defines the person by their disability, seen as «predominantly physical limitations or illnesses that needed to be treated at the individual level», thus encouraging isolation and stereotypes (Ayon & Dillon, 2021, pp. 174-184). Opposing this view, the social model has emerged by shifting the perspective from medical lenses to social barriers and prejudice, which are considered the factors turning impairments into disabilities.

The UN Convention on the Rights of Persons with Disabilities (or CRPD) has legitimised the new paradigm as the building block of a human rights-based approach toward disability (The Lancet, 2009). The CRPD aims to change attitudes toward persons with disabilities from «objects» to «subjects» with rights, capable of making decisions for their lives and being active members of society. Moreover, it obliges States to «take all necessary measures to ensure the protection and safety of persons with disabilities in situations of risk, including situations of armed conflict, humanitarian emergencies and the occurrence of natural disasters» (UN, 2006, p. 9).

Human factors and socio-economic aspects appear to be common criteria in determining disability and disasters. However, while the concepts of vulnerability, preparedness and disaster risk management have been legitimised since the Hyogo Framework Convention in 2005, it is only with the Sendai Framework that DiDRR was integrated into the global agenda.

### **A quantitative-qualitative analysis of the implementation status of the Sendai Framework**

The Sendai Framework was born under an inclusive star. Hundreds of people with disabilities and their organisations (or OPDs) participated in the 2015 Third UN World Conference on Disaster Risk Reduction in Sendai, Japan, which adopted the Framework. Conference works and documents were accessible to all participants (Stough & Kang, 2015).

In line with the principle of «nothing about us, without us», the Sendai Framework recognises persons with disabilities and their organisations as critical stakeholders. It also identifies governments as responsible for engaging them along the Disaster Risk Reduction process, particularly for enhancing preparedness.

This inclusive approach is relevant for several reasons. First, the Sendai Framework embodies the principle that involving people with disabilities and their organisations in the risk assessment can ensure that the output considers all the potential threats, including those targeting this specific group.

Secondly, involving persons with disabilities and their organisations in designing and implementing disaster plans is likely to increase the adoption of universally accessible measures designed to fit the requirements of people with and without disabilities, for example, by ensuring that recovery shelters are wheelchair accessible or that warning systems can reach people with visual or hearing impairments. The 2013 (and first-ever) UN global survey on how persons with disabilities cope with disasters confirmed the need for universal design and disability-inclusive preparedness. Only 20 % of the respondents said they could evacuate without difficulty in case of a

sudden event, 71 % had no personal preparedness plan for disasters and only 31 % always had someone to help evacuate. Additionally, only 17 % were aware of a DRM plan in their city, town or community and just 14 % were consulted on it (UNDRR, 2013).

Furthermore, at first glance, it might seem that the SFDRR considers persons with disabilities mere contributors to the DRR process. On the contrary, the Priorities for Action explicitly encourage them to play a leadership role in promoting universally accessible approaches within and across sectors and at local, national, regional and global levels.

Besides declaring principles, the Sendai Framework establishes seven measurable global targets, including «increasing the number of countries with national and local disaster risk reduction strategies by 2020» (target E). Following the principles summarised above, these strategies should be disability inclusive. Interestingly, on February 14, 2022, in the context of the Global Platform for Disaster Risk Reduction, the Special Representative of the UN Secretary-General for Disaster Risk Reduction, Ms. Mami

Mizutori, advised not to consider DiDRR as a tick marking exercise but to

*make sure that when we engage with persons with disabilities, they are heard, understood and that we follow up with action. (...) The failure to include their voices has dramatic consequences. The right interventions can truly be a matter of death for persons with disabilities - more so than for the average person. (UNDRR, 2022b)*

The midterm review of the Framework concluded last May at a high-level meeting of the General Assembly. Till then, states could self-assess their progress by entering information in the Sendai Framework Monitor (SFM) through their registered institutions (governmental bodies or partner organisations). The following lines provide an overview of the Status Report on Target E, covering progress from 2015 to 2022, as the last official source (UNDRR, 2023b).

The Status Report assesses a substantial increase in the number of National Disaster Risk Reduction strategies, from 55 in 2015 to 125 by 2022 (67 % of the total 187 countries that adopted the SFDRR), as summarised in the table below.

**Table 1.** Implementation of Target E. Based on the 2023 Status Report from UNDRR.

Target	Implementation Status (and variation since 2015) <sup>1</sup>
E-1: Number of countries that adopt and implement national disaster risk reduction strategies in line with the Sendai Framework for Disaster Risk Reduction 2015-2030.	<ul style="list-style-type: none"> <li>▪ 125 countries with national DRR strategies (+127 %).</li> <li>▪ 118 countries with DRR strategies promoting policy coherence and compliance with the SDGs and the Paris Agreement (+168 %).</li> <li>▪ 63 countries with DRR strategies following a comprehensive alignment with the SFDRR (+320 %).</li> </ul>
E-2: Percentage of local governments that adopt and implement local disaster risk reduction strategies in line with national strategies.	<ul style="list-style-type: none"> <li>▪ 91 countries with local DRR strategies (+78 %).</li> <li>▪ 70% is the average proportion of local governments with strategies (constant with significant fluctuations since 2015).</li> </ul>

However, zooming in on DiDDR policies depicts a less optimistic situation. The following quantitative analysis is based on the WRD Policy Tracker (the Tracker), a tool developed within the UN Women's Resilience to Disasters programme (UNW, 2023). The UN WRD monitors the progress of Disaster Risk Management frameworks from a gender-responsive and inclusive perspective.

First of all, according to the Tracker, only six frameworks report meaningful participation of persons with disabilities in developing Disaster Risk Reduction and/or Disaster Risk Management frameworks.

Another key finding is that most frameworks developed are plans rather than laws or policies. This distribution may indicate that the attention is more focused on the operational level than strategic action.

Moreover, almost all the reviewed inclusive frameworks have been developed for the national level, potentially leaving blind spots at a subnational stage.

Nevertheless, even when national and local governments adopt DiDDR policies, they often lack inclusion from a qualitative point of view. According to various sources from intergovernmental institutions (IGOs), international financial institutions, academia and non-governmental organisations (NGOs), numerous Disaster Risk Reduction strategies fail to address the following aspects:

- Involve people with disabilities and their organisations in risk assessment and policy formulation processes, thus recognising their role as stakeholders instead of perpetuating the stigma of victims of the events.
- Make disaster risk-related information

universally accessible, particularly regarding early warning and emergency plans.

- Address disability inclusion in all the public services policies that make up the building blocks of DRR (health, social services, education, infrastructure, etc.).
- Allocate ex-ante national and local budgets for funding disability-inclusive preparedness actions.
- Promote the development of expertise in the field of DiDDR across all sectors.
- Collect and exchange disability-disaggregated data that can help to accurately assess the differential impacts of disasters on persons with disabilities.

In the 2020 Status Report on target E, the UNDRR reflected on whether the data showed «a cup half empty or (...) half full». This paper suggests that the hundreds of thousands of people with disabilities living in disaster-vulnerable contexts, without accessible plans or excluded from policy-making, should be a constant reminder that every drop in the Disaster Risk Reduction cup is precious and necessary. In this context, setting for less should not be an option (UNDRR, 2020).

### **Bridging the implementation gap by strengthening the policy angle**

#### **Agenda-setting**

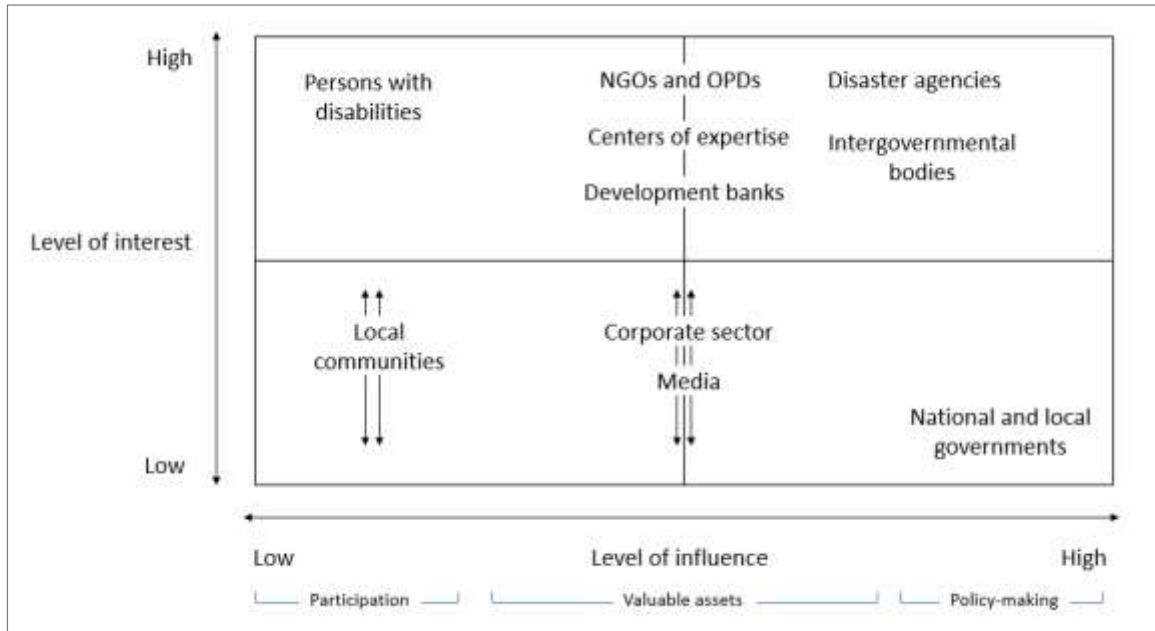
Given the limited level of adoption of DiDDR policies, this paragraph identifies possible drivers for agenda setting, starting with the analysis of the following stakeholders:

- Persons with disabilities;
- Government actors: national and local governments and disaster agencies;

- International actors, including intergovernmental organisations and development banks;
- Centres of expertise (i.e., academia, DRR experts, etc.);
- Civil society, including NGOs, OPDs, corporate

actors involved in the DRR process, media and local communities.

**Stakeholder analysis**

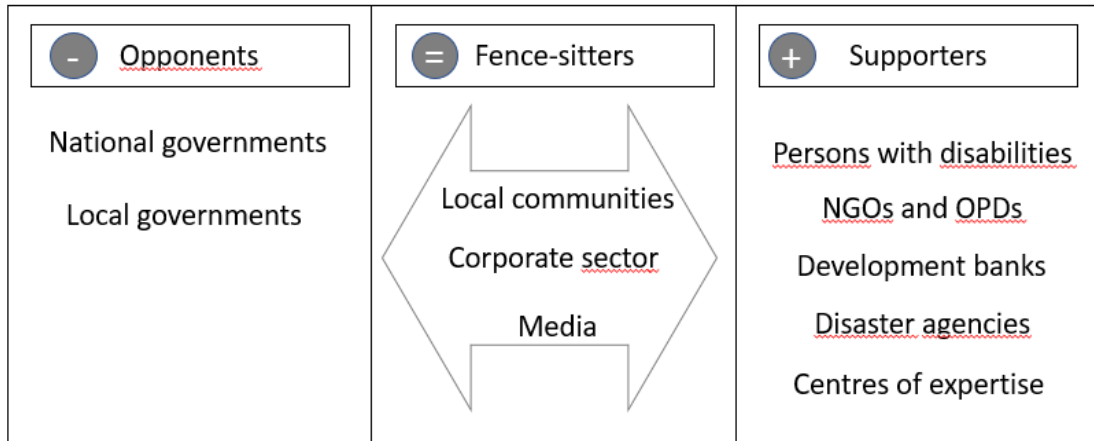


**Figure 1.** Stakeholder Matrix of DiDDR policies.

The Matrix above shows how DiDDR policy-making capability is concentrated among actors with low interest (national and local governments) or with high interest but lower influence in defining legislation (governmental disaster bodies) (Crow, 2018) or national agenda (intergovernmental bodies) (OECD, 2021).

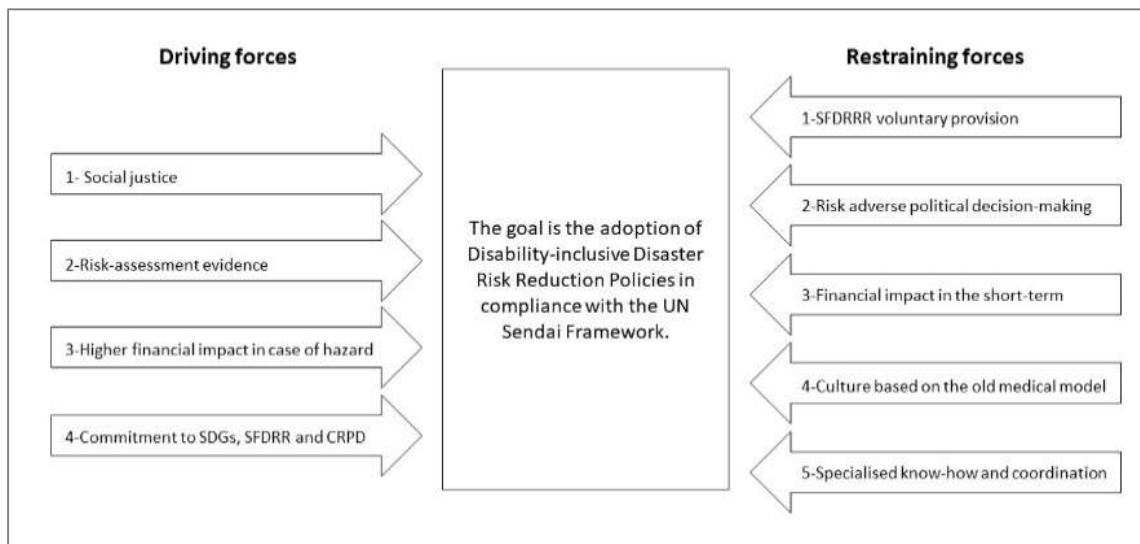
Furthermore, the Stakeholder Matrix below further points out additional supporters of adopting DiDDR policies, such as some areas of civil society (i.e., persons with disabilities and their organisations, NGOs and centres of expertise)

and development banks (World Bank, 2022). Meanwhile, some areas of civil society might be worried about potential DiDDR policies requiring further investments – either private contributions or state budget – or a higher regulatory burden on the corporate sector or the media (Romero-Fresco, 2021). Despite the worries, these stakeholders are likely to shift to the supporters’ side if aligned with shared interests (i.e., in case of tax reduction for investments in DiDDR or co-designing media guidelines, etc.).



**Figure 2.** Stakeholder Analysis of DiDDR Policies.

Finally, the Force Field analysis below might explain the resistance of policymakers to adopting DiDDR policies despite multiple supporters.



**Figure 3.** Force Field Analysis of DiDDR Policies.

The «supporters» share a view based on enforcing human rights, adopting a long-term risk approach and fulfilling the global agenda. Conversely, the «opposers» are entrenched

behind multiple forces beyond the Sendai Framework's non-binding nature. Other restraining factors are attributable to culture-biased and consensus-based decision-making.

### From «policy-waiting» to «policy-making»

Given the scenario described above, how can communities shift the political chessboard from «policy-waiters» to «policy-makers»? This paragraph outlines that, with adequate actions, vulnerability can become a driver of change.

First, this paper argues that it is necessary to evolve the mental lenses on disasters and disability from technical to social approaches. Persons with disabilities and their organisations have the potential to turn the table on this model by promoting advocacy and civic engagement initiatives in cooperation with other stakeholders.

However, given that a bottom-up approach is necessary but insufficient, a decision-making process based on data analysis can be another driver for agenda-setting. Policy-makers can gather all the relevant information with the help of centres of expertise to pave the way toward a data-driven and transparent policy action. In particular, sharing evidence on the impact of previous hazards and disaster-risk maps with public opinion might help build consensus and justify the budget allocation for DRR.

Moreover, DiDDR policies might open new opportunities for the corporate and tech sectors, especially for those companies willing to commit to the «S» in ESG with a holistic approach. Emphasising this aspect might drive some fence-sitters to the supporters' side.

In addition, development assistance might require countries to adopt DiDDR strategies when funding DRR initiatives (besides immediate relief funding). It might be objected that such a prerequisite can create obstacles to development programs. On the contrary, this commitment could be supported by the expertise of partner organisations reinforcing and complementing local and national responses.

A final reflection arises about the role of regional intergovernmental organisations. To date, there are numerous experiences of regional IGOs helping localise the enforcement of human rights thanks to a smaller and more cohesive dimension while giving the possibility to bring violations in front of a regional body (i.e., Council of Europe, etc.). Some researchers acknowledge that regional jurisdictions have increased the institutionalisation of human rights at the state level in specific contexts (Engstrom, 2010). Finally, although taking DiDDR to a regional level may not be sufficient to determine policy-making within the member states, it might accelerate agenda-setting.

At this point, it makes sense to ponder whether making the provisions of the Sendai Framework mandatory would increase the level of adoption of DiDDR strategies. Although the binding nature might seem like the easiest way to enforce an obligation, a deeper look can lead to two major objections. First, from a legal point of view, as stated by the Under-Secretary-General for Legal Affairs and United Nations Legal Counsel, Mr Miguel de Serpa Soares, «it is also unsatisfactory to categorise non-legally binding instruments as soft law, since political or moral commitments are not necessarily soft in nature, and are by definition unregulated by any regime of law» (COE, 2021). Secondly, from a policy analysis point of view, the formal establishment of an obligation does not ensure that it will be automatically fulfilled, particularly when it applies to states, as the multiple pending infringement procedures show.

### Policy formulation

As stated in the second chapter, the adoption of DiDDR policies is not sufficient to comply with the SFDRR. Governments should also involve

persons with disabilities and their organisations as relevant stakeholders and adhere to universal accessibility.

Given the participatory nature of Sendai-compliant DiDDR policy-making, the following paragraphs provide some suggestions on how actors can contribute to the formulation of DiDDR strategies. The main stakeholders are the following: NGOs (including OPDs), centres of expertise, national and local governments, and media and communication professionals.

While many papers organise their recommendations according to the different phases of the DDR process, this essay favours an actor-based classification to stress the accountability factor.

### **The role of national and local governments**

The SFDRR appoints governments responsible for implementing disability-inclusive disaster risk reduction strategies, being the protagonists of the policy-making process.

First, governments can formulate more inclusive policies by promoting co-design opportunities. Besides the participative approach involving experts and NGOs as social connectors, institutions can leverage digital technology to establish direct contact with persons with disabilities. For example, online consultation platforms can open a direct communication channel, leading to a more engaging risk mapping and policy design. It is then necessary that these platforms are universally accessible to ensure the full participation of people with disabilities (i.e., Easy Read fonts, captioned videos, etc.). Governments can also enhance inclusion through innovative participative initiatives, such as hackathons, in cooperation with players from the corporate and tech sectors. These events can

generate new policy ideas by leveraging innovation capacity and representation. An example is #HackEUREKA, a hackathon within the European University of Cyprus to improve community preparedness. The 2022 competition winner is a disability-inclusive conversational agent (chatbot) designed to guide the public before, during, and after emergencies and disasters (CERIDES, 2022).

Secondly, it is fundamental to coordinate DRR policies with all the other related strategies, such as infrastructure, climate adaptation and mitigation, education, digital transformation, transport, health, economic development, multilateral cooperation, regional affairs, etc. Since all these fields of public action are linked with DRR, it is crucial to ensure that the interconnections comply with universal accessibility as well. Some examples are introducing mandatory accessibility criteria for designing and adjusting critical infrastructures, demanding emergency response agencies consider disability-inclusive requirements in their training sessions, promoting disability-inclusive agenda in international DRR summits, etc.

Thirdly, this paper argues that policy adoption should be the final stage of data-driven decision-making. Governments should formulate DiDDR strategies based on accurate, relevant, updated, coherent and extensive data sets to ensure a multi-risk approach. To better understand universal design and disaster impact, data should also be disaggregated by disability status, as stated in nearly every comment on the implementation of the SFDRR. A possible solution to fill this gap might be creating working groups responsible for identifying the relevant indicators, mapping all the available data sets and data owners, elaborating a methodology for data

collection and implementing solutions to collect the missing data. Since data are distributed among different social silos, governments should engage all the stakeholders, including those who can bring implementation capacity, such as the corporate and technological sectors. A perplexity may arise about the access to personal data by multiple entities. Therefore, all data collection processes must be compliant with privacy regulations.

Finally, when approving post-disaster state aid, governments might require that the recovery process comply with the universal design principle. In this way, recovery can drive resilience to future hazards, in line with the concept of Building Back Better.

### **The role of NGOs and OPDs**

Thanks to their networking capability, NGOs and OPDs can play a fundamental role in including people with disabilities in risk assessment and policy formulation. It is no surprise that the Sendai Framework specifically mentions both «persons with disabilities and their organisations» in the stakeholder list.

It is then crucial that national and local governments promote the creation of frameworks and public forums to facilitate these organisations in leading advocacy, inclusion, and cross-sector collaboration for DiDDR processes.

At the international level, OPDs participate in intergovernmental works about DiDDR strategies, such as the SFDRR, UNFCCC, and other relevant global frameworks. On a local level, OPDs work closely with persons with disabilities and their families, with the opportunity to understand their potential, narrative and requirements. It is then necessary to ensure that OPDs have a seat at the policy-making table to guarantee the

representation of people with disabilities throughout the whole DRR process.

### **The role of Centres of Expertise**

Academia and disaster experts have the potential to catalyse know-how on DiDDR and put it at the service of multiple stakeholders involved in the risk assessment and policy-making processes. It is, then, essential for national and local governments to support these actors in developing DiDDR expertise, maintain special communication channels with academia and experts to facilitate timely updates on new requirements (or models) and translate them into policy action.

Moreover, centres of expertise can support policy-makers by developing DiDDR standards, which can be decisive in ensuring uniformity among sectors and local jurisdictions. They can also provide skills for the risk assessment process, which should not be approached only via technical panels. It is, then, evident that governments and experts should collaborate in involving all the relevant actors in the risk assessment phase through collaborative platforms, starting with people with disabilities and their organisations.

However, it is also essential that centres of expertise, NGOs and OPDs keep the discussion on DiDDR alive even without encouraging government action, for instance, through bottom-up advocacy actions.

### **The role of media and communication professionals**

As stated in the previous chapter, cultural change is a crucial success factor. Even a well-designed DiDDR policy might not produce the desired effects without an effective

communication plan and the engagement of public opinion.

According to UN sources, «persons with disabilities are seldom covered in the media, and when they are featured, they are often negatively stereotyped and not appropriately represented» (UNDESA, 2022). For example, the systemic use of an ableist narrative might decrease the level of conformity of the general community with measures mainly benefitting people with disabilities.

Media and communication players are essential in creating a disability-inclusive culture and can support the realisation of the DiDDR process in all stages, from policy adoption to emergency communication. They can also help shift to a more risk-sensitive culture by promoting the debate on adopting DRR policies and budget spending.

On a complementary side, governments and International Organisations can promote the development of disability-inclusive language. However, language alone is likely insufficient to ensure a change in the narrative.

It is, then, relevant to work on DiDDR communication protocols by bringing together communication professionals, people with disabilities and their organisations to share experiences and identify viable tools for accessibility improvement, for example, by promoting accessible social media content, providing communication support to advocacy campaigns, or embracing empowerment initiatives.

### Financial aspects

Formulating a DiDDR policy following an inclusive process that complies with the principle

of universal accessibility may not be sufficient without financial support.

First, even some of the measures listed in the previous paragraphs require an adequate budget. It is important that inclusive budgeting considers overall public funding to reinforce the DiDDR compliance level of other interconnected policies. For example, allocating a budget to make schools' evacuation plans universally accessible would impact the financial resources of the Education Policy.

From a consensus point of view, the need for public funding can be an obstacle to policy adoption, especially when dealing with preparedness and risk management, which have limited attractiveness for public opinion. However, opening the discussion on preventive budget allocation can encourage policymakers to reflect on the cost of disasters when mitigation is still an option (Phaup & Kirschner, 2010). Preparedness measures are also generally more cost-effective than recovery. According to estimates, for every dollar spent reducing disaster risk, seven dollars are saved from economic losses associated with recovery (UNDP, 2016). It is then fundamental that the budgeting process is as transparent as possible to align public opinion with preparedness goals.

Other financial measures can include lifting the fiscal pressure on private investments in the DiDDR field and easing the access of people with disabilities to financial DiDDR measures, such as insurance.

Regarding developing contexts, development banks can play an essential role in funding DiDDR-related measures and projects. Vice versa, adopting policy frameworks can help funding programmes be more effective.

**Governance**

The last recommendation for formulating DiDDR strategies implies identifying the ownership of all the policy measures and their respective fundings.

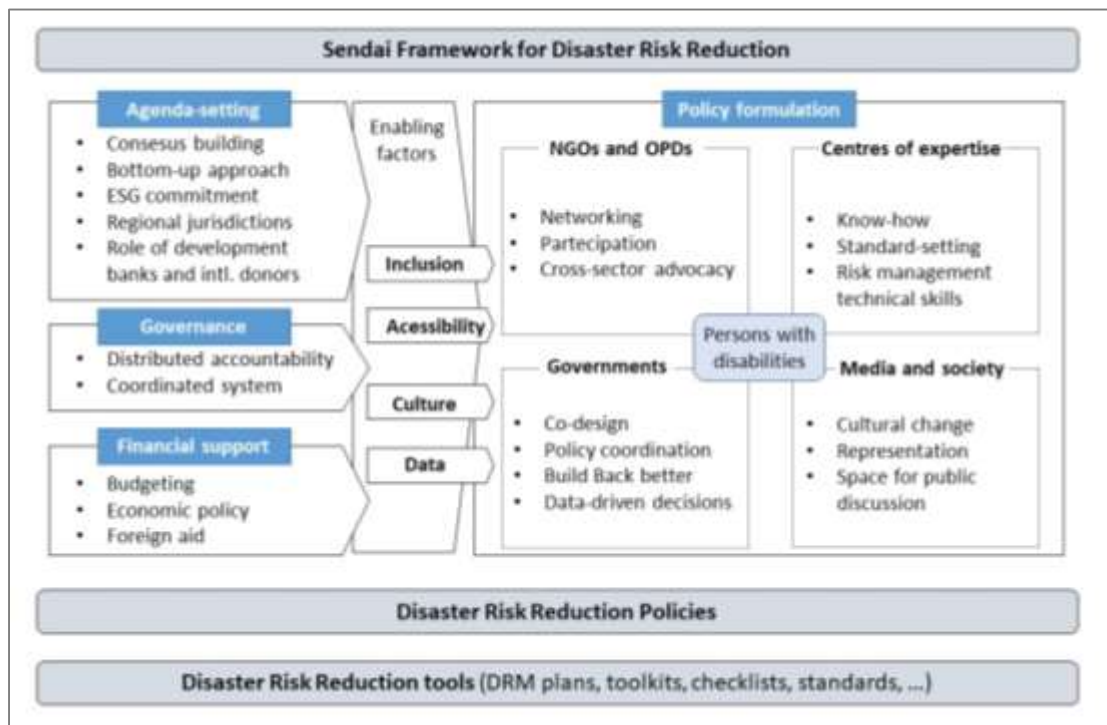
Previous paragraphs illustrate how an effective DiDDR policy requires the engagement of multiple stakeholders across all sectors, each of them being accountable for their respective fields of action. When dealing with a distributed system, the highest risk is the fragmentation of responsibilities, leading to possible conflicts. Therefore, it is important that the same DiDDR policies define the governance system regarding ownership, activities, resources and controls. They should also promote cooperation between the Department or Agency in charge of disaster

preparedness, the other governmental bodies involved in the disaster risk reduction process, and the representatives of all the relevant stakeholders, starting with OPDs.

Moreover, it is essential for governance itself to be inclusive. For example, creating a national or local DRR task force should contemplate including a disability focal point that can advocate for accessibility and facilitate interactions on disability-related topics.

**DiDDR policy perspective in a nutshell**

The following framework attempts to summarise the process of bridging the implementation gap of the SFDRR through a policy perspective, as described above.



**Figure 4.** Framework for the adoption of DiDRR policies.

### Suggestions for further research

Future research could fruitfully explore Disability Inclusive Disaster Risk Reduction in fragile and conflict-related contexts.

Among different definitions of fragile states adopted by international stakeholders, the OECD describes fragility as a «combination of exposure to risk and insufficient coping capacities of the state, system and/or communities to manage, absorb or mitigate those risks» (OECD, 2022, p. 17). The 2022 edition of the OECD States of Fragility identifies 60 countries or territories categorised between 15 extremely fragile and 45 other fragile contexts. It is important to note that 24 % of the world's population lives in these areas, including 73 % living in extreme poverty.

The Sendai Framework does not mention conflict or fragility. However, combining the OECD framework with a single-year record of the CRED EM-DAT Database leads to some interesting reflections. According to this analysis, 80 % of fragile contexts were hit by at least a nature-related disaster in 2022, some of them even multiple times (i.e., Afghanistan and Venezuela eight times). The overall 121 disasters affected over 150 million people living in fragile contexts and provoked over 10,000 deaths and nearly 70,000 injured people.

This paper does not analyse or state a correlation between disaster risk and conflict risk. Still, it points out that, without proper DiDRR action, people with disabilities living in fragile contexts risk being left even more behind. For example, floods following extreme weather events can be critical for displaced communities living in refugee camps and humanitarian operators working in the field, but even more dangerous for people with disabilities exposed to the same event in the same context. In these terms, the lack of

provisions for fragile contexts might be a blind spot of the Sendai framework.

Regarding conflict and violence-related situations, findings on the effect of disasters on institutions are still unclear. Literature includes evidence of disasters having either a negative or a positive relation with state-building and peacebuilding (Peters & Kelman, 2020). In this complex scenario, it is important that a global Disaster Risk Reduction framework like the SFDRR encourages further research on the disaster-conflict-peace nexus. It should also encourage adequate funding for DiDRR projects in fragile and conflict-related situations and for the development of fragile and conflict states-related data management processes that can support quantitative studies.

### Conclusions

In conclusion, despite international instruments and practical tools being available, there is still a gap in implementing disability-inclusive disaster risk strategies, which lies in the lack of policy adoption and the inadequacy of non-inclusive policy-making.

Overall, governments have the primary responsibility to establish DiDDR policy frameworks. Without the support of a national or subnational strategy, local projects and operational initiatives risk having a limited impact and scalability.

On the other hand, the policy dynamic outlined in this paper is not restricted to government action. This essay recommends developing a participatory multi-layered policy framework involving all the relevant stakeholders, starting from people with disabilities and their organisations, whose experience, narrative and requirements should be embedded in the process.

This paper also identifies those enabling factors that can facilitate the inclusion of people with disabilities in disaster risk-related policymaking, from accessibility to cultural change and data collection. It is suggested that this participatory approach can guide policymakers in the formulation process and the collateral phases of agenda-setting, governance definition and budgeting. Additionally, thanks to the interconnections with other strategies, adopting DiDDR policies can help spread an inclusive perspective across different sectors.

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#### Note

<sup>1</sup> In 2015, 55 countries had national DRR strategies, 44 countries had DRR strategies promoting policy coherence and compliance with the SDGs and the Paris Agreement, 15 countries had DRR strategies following a comprehensive alignment with the SFDRR and 51 countries had local DRR strategies (UNDRR, 2023b).

#### Conflict of interests

The author declares that there is no conflict of interest.