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RESEARCH/STUDY

Sweden and the Sendai Framework for Disaster Risk Reduction 2015-2030

A Gap Analysis



**Sweden and the Sendai Framework for Disaster Risk Reduction 2015-2030:
A Gap Analysis**

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Robust Society and Geographic Information Section

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Preface

Sweden and the Sendai Framework for Disaster Risk Reduction 2015-2030: A Gap Analysis

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In 2020, the Swedish Civil Contingencies Agency commissioned the University of Reading to conduct this study for the purpose of using the results to develop a national action plan for disaster risk reduction. The primary purpose of the study is to analyse the extent to which Sweden has implemented the Sendai Framework for Disaster Risk Reduction 2015-2030's fifty-nine measures for the national and local levels, and which measures should be developed to strengthen Sweden's ability to meet the global targets.

Karlstad, 26/04/2021

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Sammanfattning

Det är numera välkänt att katastrofer, inklusive de som utlöses av 'naturliga' händelser, såsom stormar och översvämningar, är socialt och politiskt producerade till en stor utsträckning. Att se katastrofer som en produkt av samspelet mellan händelser och mänskliga handlingar, och därmed avvisa katastrofers 'naturlighet', är en central aspekt av FNs Sendairamverk för katastrofriskreducering, som efterlyser en större förståelse för katastrofrisk i alla dess dimensioner. Jämfört med sin föregångare, Hyogoramverket 2005-2015, innebär Sendairamverket ett skifte mot ökat fokus på förebyggande av katastrofrisker, och inkluderar risker utlösta av naturliga händelser, såväl som miljö-, teknologiska-, och biologiska faror och risker. Sendairamverket betonar också vikten av att arbetet med katastrofriskreducering är multirisk and multisektoriskt, såväl som tillgängligt och inkluderande.

MSB har beställt denna studie i syfte att använda resultaten för att utveckla en nationell handlingsplan för katastrofriskreducering i enlighet med Sendairamverkets mål E. Studiens främsta syfte är att analysera i vilken utsträckning Sverige har implementerat Sendairamverkets femtionio åtgärder för nationell och lokal nivå, och vilka åtgärder som bör utvecklas för att stärka Sveriges förmåga att nå de globala målen. Studien reflekterar också över förhållandet mellan katastrofriskreducering, Agenda 2030 och klimatanpassning.

Resultaten visar att även om betydande framsteg har gjorts som förstärker Sveriges katastrofriskreduceringsinsatser, problem kvarstår som negativt påverkar Sveriges resultat i förhållande till majoriteten av åtgärderna. Viktiga förbättringsområden inkluderar en mer omfattande förståelse för risker; ökad tillsyn och tydlighet; ökad finansiering för aktörer med betydande ansvar, inklusive kommuner; inkludering av utsatta och marginaliserade grupper i beslutsprocesser; och bättre integrering av katastrofriskreducering och klimatanpassning i det pågående arbetet med Agenda 2030.

Summary

It is now well recognised that disasters, including those triggered by ‘natural’ hazards, such as storms, wildfires, and floods, are largely socially produced and constructed. Acknowledging that all disasters are a product of the interaction of hazards and human agency, and thus rejecting the ‘naturalness’ of disasters, is central to the UN Sendai Framework for Disaster Risk Reduction 2015-2030, which calls for a greater understanding of disaster risk in all its dimensions. Compared with its predecessor, the Hyogo Framework for Action 2005-2015, the Sendai Framework signified a shift towards greater focus on prevention and mitigation of disaster risk. The Sendai Framework has a wide scope and applies ‘to the risk of small-scale and large-scale, frequent and infrequent, sudden and slow-onset disasters, caused by natural or manmade hazards as well as related environmental, technological and biological hazards and risks’. It also stresses the importance of ‘multi-hazard and multisectoral, inclusive and accessible’ disaster risk reduction (DRR) practices.

The Swedish Civil Contingencies Agency (MSB) has commissioned this study for the purpose of using the results to develop a national action plan for DRR. The primary purpose of the study is to analyse the extent to which Sweden has implemented the Sendai Framework for Disaster Risk Reduction 2015-2030’s fifty-nine measures for the national and local levels, and which measures, or parts thereof, should be developed to strengthen Sweden’s ability to meet the global targets. The study also reflects upon the relationship between DRR, Agenda 2030, and Climate Change Adaptation (CCA).

It is found that, while significant progress has been made which enhances Sweden’s DRR efforts, challenges persist which negatively affect Sweden’s performance in relation to the majority of the measures. Important areas for improvement include a more comprehensive understanding of risk; increased oversight, clarity and coherence; increased funding for actors with significant responsibilities, including municipalities; the inclusion of vulnerable and marginalised groups into DRR policies and decision making processes; and further integration of DRR and CCA into the ongoing work on Agenda 2030.

I Introduction and methodology

The purpose of this gap analysis is to analyse the extent to which Sweden has implemented the Sendai Framework for Disaster Risk Reduction 2015-2030¹'s fifty-nine measures for the national and local levels, and which other measures should be developed to strengthen Sweden's ability to meet the global targets.

The gap analysis primarily reviews existing laws, policies and guidance published by government authorities. In addition, semi-structured interviews were conducted with representatives for different national and local authorities in the autumn of 2020. It should be noted that the analysis is limited to governmental actors and does not include interviews with representatives from civil society, non-governmental organisations, the private sector, or researchers. The scope of the analysis was further limited by the allocated time (seven weeks). Following a list provided by the Swedish Civil Contingencies Agency (MSB), thirty representatives were invited for the interview, whereof eleven either rejected to participate or did not respond, and one cancelled a scheduled interview and did not respond to follow-up emails. Two responding representatives were unable to arrange a time for an interview, but still completed the questionnaire. Thus, eighteen questionnaires were completed whereof sixteen were completed during semi-structured interviews, lasting about fifty to seventy minutes and conducted using video conferencing software.

While some of the Sendai Framework's measures are more relevant for the Swedish context than others, none are completely without relevance. Indeed, the Framework highlights the importance of all measures in its wording 'to achieve this, it is important to' in paragraphs 24, 27, 30, and 33, which set out the national and local level measures for each or the four priorities. Therefore, this report covers all of the suggested fifty-nine measures for the national and local level. The analysis identifies the aspects that are considered most relevant to the Swedish context and highlights particular strengths and weaknesses within each measure as appropriate.

II The Sendai Framework for DRR 2015-2030

It is by now well recognised that disasters, including those triggered by 'natural' hazards, are caused by a combination of hazards and vulnerability and are thus largely socially produced and constructed.² The rejection of the 'naturalness' of disasters³ is fundamental

¹ UN, Sendai Framework for Disaster Risk Reduction 2015–2030 (18 March 2015) A/ CONF.224/ CRP.1. Adopted by the United Nations General Assembly (UNGA) in Resolution 69/ 283, Sendai Framework for Disaster Risk Reduction 2015– 2030 (23 June 2015) A/ RES/ 69/ 283 (Sendai Framework).

² See, e.g. E.L. Quarantelli (ed.), *What is a Disaster?: Perspectives on the Question* (Routledge, 1998); J. Lewis, *Development in disaster-prone places: Studies of vulnerability* (Intermediate Technology Publications, 1999) B. Wisner et al. (eds), *At Risk: Natural Hazards, People's Vulnerability, and Disasters* (2nd edn, Routledge, 2004); A. Oliver-Smith, 'Anthropology and the political economy of disasters', in E.C. Jones, and A.D. Murphy (eds) *The Political economy of hazards and disasters* (AltaMira Press, 2009) 11–28; B. Wisner, J.C. Gaillard and I. Kelman (eds.), *The Routledge Handbook of Hazards and Disaster Risk Reduction* (Routledge, 2012); M. Aronsson-Storrier, 'Beyond early warning systems: Querying the relationship between international law and disaster risk (reduction)' (2019) 1 *Yearbook of International Disaster Law* 51–69.

³ See, eg, P. O'Keefe, K. Westgate and B Wisner, 'Taking the Naturalness out of Natural Disasters' (1976) 260 *Nature* 566–567; UNDRR, *2019 Global Assessment Report on Disaster Risk Reduction* (2019) 165. See also

to understanding disaster risk, and is clearly reflected in the Sendai Framework,⁴ which calls for a greater understanding of disaster risk in all its dimensions.⁵ Understanding disaster risk requires UN Member States, local governments, and other stakeholders not only to understand how to avoid or minimize impact from various hazards, but also to examine the economic and political structures that regulate the vulnerability to hazards, as well as in many cases their creation, intensification, and interrelationship. It is important to note that the UN Office for Disaster Risk Reduction (UNDRR) has moved away from a hazard-by-hazard approach in favour of a focus on cascading and systemic risks.⁶

More ambitious than its predecessor, the Hyogo Framework for action 2005-2015⁷, the Sendai Framework signified a shift towards greater focus on prevention and mitigation of disaster risk. The Sendai Framework has a wide scope and applies 'to the risk of small-scale and large-scale, frequent and infrequent, sudden and slow-onset disasters, caused by natural or manmade hazards as well as related environmental, technological and biological hazards and risks. It aims to guide the multi-hazard management of disaster risk in development at all levels as well as within and across all sectors.'⁸ It also stresses the importance of 'multi-hazard and multisectoral, inclusive and accessible' DRR practices.⁹

The Sendai Frameworks is centred around seven global targets,¹⁰ which are to be achieved through actions positioned under four priorities for action:

Priority 1: Understanding disaster risk;

the campaign 'No Natural Disasters' available at <https://www.nonaturaldisasters.com/> (accessed 26 February 2021).

⁴ Although some still consider the SFDRR to be too focused on hazards and favour a stronger focus on vulnerability. See, eg, I. Kelman, 'Climate change and the Sendai framework for disaster risk reduction' (2015) 6(2) *International Journal of Disaster Risk Science* 117-127.

⁵ Sendai Framework, para 20, priority 1.

⁶ See UNDRR, *2019 Global Assessment Report on Disaster Risk Reduction* (2019): '[t]he era of hazard-by-hazard risk reduction is over; present and future approaches to managing risk require an understanding of the systemic nature of risk', at iv.

⁷ Hyogo Framework for Action 2005-2015: Building the Resilience of Nations and Communities to Disasters (22 January 2005) UN Doc. A/CONF.206/ 6.

⁸ Sendai Framework, para 15.

⁹ Sendai Framework, para 7.

¹⁰ Sendai Framework, para 18. The seven global targets are:

(a) Substantially reduce global disaster mortality by 2030

(b) Substantially reduce the number of affected people globally by 2030

(c) Reduce direct disaster economic loss in relation to global gross domestic product (GDP) by 2030.

(d) Substantially reduce disaster damage to critical infrastructure and disruption of basic services, among them health and educational facilities, including through developing their resilience by 2030.

(e) Substantially increase the number of countries with national and local disaster risk reduction strategies by 2020.

(f) Substantially enhance international cooperation to developing countries through adequate and sustainable support to complement their national actions for implementation of this framework by 2030.

(g) Substantially increase the availability of and access to multi-hazard early warning systems and disaster risk information and assessments to the people by 2030.

Priority 2: Strengthening disaster risk governance to manage disaster risk;
Priority 3: Investing in disaster risk reduction for resilience;
Priority 4: Enhancing disaster preparedness for effective response, and to “Build Back Better” in recovery, rehabilitation and reconstruction.¹¹

Under each priority, the Framework sets out specific actions to be taken on national and local, as well as global and regional levels. The fifty-nine measures around which this gap analysis is centred are actions to be taken on national and local level in order to reach the seven global targets.

In addition, the importance of national and local disaster risk reduction strategies is highlighted in Target E. In accordance with the UNDRR Technical guidance for monitoring and reporting on progress in achieving the global targets of the Sendai Framework for Disaster Risk Reduction, DRR strategies are to:

- i. Have different timescales, with targets, indicators and timeframes
- ii. Have aims at preventing the creation of risk
- iii. Have aims at reducing existing risk
- iv. Have aims at strengthening economic, social, health and environmental resilience
- v. Address the recommendations of Priority 1, Understanding disaster risk: Based on risk knowledge and assessments to identify risks at the local and national levels of the technical, financial and administrative disaster risk management capacity
- vi. Address the recommendations of Priority 2, Strengthening disaster risk governance to manage disaster risk: Mainstream and integrate DRR within and across all sectors with defining roles and responsibilities
- vii. Address the recommendations of Priority 3, Investing in disaster risk reduction for resilience: Guide to allocation of the necessary resources at all levels of administration for the development and the implementation of DRR strategies in all relevant sectors
- viii. Address the recommendations of Priority 4, Enhancing disaster preparedness for effective response and to “Build Back Better” in recovery, rehabilitation and reconstruction: Strengthen disaster preparedness for response and integrate DRR response preparedness and development measures to make nations and communities resilient to disasters
- ix. Promote policy coherence relevant to disaster risk reduction such as sustainable development, poverty eradication, and climate change, notably with the SDGs and the Paris Agreement
- x. Have mechanisms to follow-up, periodically assess and publicly report on progress.¹²

It is clear from this analysis that Sweden would benefit from a national strategy on DRR that includes all ten points, and that it would also be valuable to consider the establishment of local strategies on DRR which complement the national strategy.

¹¹ Sendai Framework, para 20.

¹² UNDRR, *Technical guidance for monitoring and reporting on progress in achieving the global targets of the Sendai Framework for Disaster Risk Reduction* (2018) 115–116.

III Sweden and the Sendai Framework

Sweden is engaging more and more with various aspects of the Sendai Framework, and – as can be seen in section IV, many of the measures outlined in the Sendai Framework are fulfilled to a significant extent. However, there are several areas for improvement, including a more comprehensive understanding of risk, increased oversight, clarity and coherence, increased funding for actors with significant responsibilities, the inclusion of vulnerable and marginalised groups into DRR policies and decision making processes, and the integration of DRR and CCA into ongoing work on Agenda 2030.

First of all, although important work and research relating to a holistic understanding of risk is undertaken and regulated in several sectors, in particular as relates to CBRNE,¹³ it is clear that Sweden’s overarching disaster risk management system is predominantly focused on preparedness and response, with prevention, mitigation, risk creation, and recovery being areas for significant development. In addition, the language used on governmental level is mainly focused on ‘crisis management’, and language used in relevant legislation and policy documents such as ‘accidents’ and ‘extraordinary events’ favour sudden-onset events while also steering focus away from the processes through which disaster risk is produced.

On an overarching level, and of relevance for the very understanding of disaster risk (priority 1), the Swedish definitions stand in contrast to those of the UNDRR Open-ended Expert Working Group on Indicators and Terminology Relating to Disaster Risk Reduction’s terminology.¹⁴ The UNDRR terminology defines ‘prevention’ as ‘[a]ctivities and measures to avoid existing and new disaster risks’; ‘mitigation’ as ‘[t]he lessening or minimizing of the adverse impacts of a hazardous event’, and preparedness as “[t]he knowledge and capacities developed by governments, response and recovery organizations, communities and individuals to effectively anticipate, respond to and recover from the impacts of likely, imminent or current disasters’. At the same time, in the Swedish context ‘crisis preparedness’ expressly includes element of prevention and mitigation as defined, for example, in the Ordinance on Emergency Preparedness and Heightened Alert (although the provisions in the Ordinance still have a strong focus on crisis preparedness and response as defined by the UNDRR).¹⁵ Although the drawing of clear distinctions between these different ‘phases’ of disaster risk management as set out in the UNDRR’s terminology often mask significant complexities,¹⁶ it is important to note the different scope of the concepts when working with the SFDRR, as they are used to identify the measures for action. Therefore, unless stated otherwise, this report will use the UNDRR terminology.

¹³ See, eg, MSB, *Det svenska arbetet inom CBRNE/farliga ämnen: Årsrapport 2019* (2020).

¹⁴ See UNGA, *Report of the open-ended intergovernmental expert working group on indicators and terminology relating to disaster risk reduction* (1 December 2016) UN Doc. A/ 71/ 644.

¹⁵ Ordinance on Emergency Preparedness and Heightened Alert – Förordning om krisberedskap och bevakningsansvariga myndigheters åtgärder vid höjd beredskap (SFS 2015:1052) §4.

¹⁶ M. Aronsson-Storrier, ‘Exploring the Foundations: The Principles of Prevention, Mitigation, and Preparedness in International Law’, in K. Samuel, M. Aronsson-Storrier and K. Nakjavani Bookmiller (eds), *Cambridge Handbook of Disaster Risk Reduction and International Law* (CUP, 2019) 52.

In the interviews conducted for this gap analysis, a high number of comments involved the need for further oversight and clarity as to scope of responsibilities. Some of these issues have begun to be addressed, including through recent changes in Civil Protection Act (LSO)¹⁷, but more work is needed to provide a clear national vision and strategy.

There is also a clear need for clarification of responsibilities. For example, municipalities have certain obligations under LSO, as relates to ‘accidents’, and yet other responsibilities under the Act on Municipal and County Council Measures prior to and during Extraordinary Events in Peacetime and during Periods of Heightened Alert (LEH),¹⁸ but the relationship between ‘accidents’ and ‘extreme events’ is not clarified.¹⁹ Similar challenges can be seen in many of the sectoral laws, which can create unnecessary confusion.

The systemic shortcomings affect a large number of measures and will need to be addressed. In terms of oversight and clarification of responsibilities, these are examined as part of a restructuring of civil defence. However, while the new system could have the potential of clarifying questions around preparedness and response, is not yet clear whether this will include prevention, mitigation, recovery and reconstruction, which are all important aspects of DRR.

A final point which will need to be addressed as a matter of urgency is that of inclusion. The Sendai Framework highlights the importance of inclusive DRR. Paragraph 7 stresses the need for Governments to engage with relevant stakeholders, including women, children and youth, persons with disabilities, poor people, migrants, indigenous peoples, volunteers, the community of practitioners and older persons in the design and implementation of policies, plans and standards’. Although Sweden generally performs well on gender due to a large number of women in leadership positions in relevant agencies, there is little evidence of other groups being represented or actively invited to participate in the design or implementation of DRR policies beyond the standard referral rounds for proposed legislation. The shortcoming is visible in existing DRR laws and policies. In late 2020, the UN Women policy tracker of inclusive DRR identified Sweden as one of the minority of states which do not mention any of the marginalised groups mentioned in the Sendai Framework in its existing DRR laws and policies.²⁰ This must be remedied as a matter of priority and should be central to the national action plan for DRR.

¹⁷ Civil Protection Act – Lag om skydd mot olyckor (SFS 2003:778) (most recent changes made in 2020, through SFS 2020:882).

¹⁸ Act on Municipal and County Council Measures prior to and during Extraordinary Events in Peacetime and during Periods of Heightened Alert – Lag om kommuners och landstings åtgärder inför och vid extraordinära händelser i fredstid och höjd beredskap (SFS 2006:544).

The definition of ‘extraordinary event’ is provided in chapter 1 § 4: ‘Med extraordinär händelse avses i denna lag en sådan händelse som avviker från det normala, innebär en allvarlig störning eller överhängande risk för en allvarlig störning i viktiga samhällsfunktioner och kräver skyndsamma insatser av en kommun eller en region.’

¹⁹ At the same time, Prop 2019/20:176 (En effektivare kommunal räddningstjänst) states that the municipal rescue services are important actors in relation to ‘accidents’, ‘serious events’, ‘crises’, and ‘heightened state of alert’, thus suggesting that these are separate, but not explaining the difference and relationship between ‘accidents’ and ‘serious events’. See Prop 2019/20:176, 15.

²⁰ UN Women, *Policy tracker of inclusive disaster risk reduction*, available at <https://www.preventionweb.net/wrd/tracker/> (last accessed 1 February 2021). It should be noted that equality perspectives are included in other related instruments, such as Sweden’s National Security Strategy

IV Assessment of the gaps according to Sendai Framework's measures for national and local level

The below is a gap analysis of Sweden's performance under the 59 measures for national and local levels, with brief comments.²¹ Where appropriate, the text of the measure has been shortened, with the full text included in a footnote.

Sweden's performance in accordance with the measures are assessed three levels, which have been agreed with MSB:

- Level 1 - Work with this measure is ongoing and beneficial for achieving the SFDRR global targets (limited or no further action needed).
- Level 2 - Measure is partially fulfilled, but more work in this area could strengthen Sweden's ability to meet the SFDRR global targets.
- Level 3 - Measure is relevant for Sweden, but not yet fulfilled. Significant action needed.

As can be seen below, nine measures are assessed at Level 1, forty at Level 2, and ten at Level 3.

IV.A Priority 1 – Understanding Disaster Risk²²

There is significant ongoing work in relation to various dimensions of risk. The risk and vulnerability (R&V) analyses regularly conducted by all authorities and municipalities are very important in this regard, as are the analysis and synthetisation of submitted analyses by MSB (and the National Board of Health and Welfare) which illuminate areas of risk in various sectors and regions, in relation to a multitude of hazards.

Still, the main focus remains on disaster (or, rather, 'crisis') preparedness, rather than as an all- encompassing understanding of disaster risk in all its dimensions, with preventative measures being significantly limited and fragmented. There are examples of preventative measures, including with a view to land use, however such measures are generally focused on climate change related hazards and CBRNE rather than the multi-hazard approach adopted in the Sendai Framework. While it is clear that relevant actors engage with these analyses, interviews suggested limited follow-up, and limited resources to fully engage with all aspects of risks. One representative from a national agency, stressed the need to clarify the scope and focus of the R&V analyses, and a government department representative also stressed the limited engagement with CCA in considering risks, as compared to historically more significant risks such as nuclear risks.

2017 (at 6, 8, 14 and 21); Prop 2019/20:188 on Sweden's implementation of Agenda 2030 (chapter 5.3); and Ordinance with instruction for MSB (SFS 2008:1002) (§13 and §13a).

²¹ For a table overview, see Annex I.

²² Sendai Framework, para 23. The paragraph reads in full: 'Policies and practices for disaster risk management should be based on an understanding of disaster risk in all its dimensions of vulnerability, capacity, exposure of persons and assets, hazard characteristics and the environment. Such knowledge can be leveraged for the purpose of pre-disaster risk assessment, for prevention and mitigation and for the development and implementation of appropriate preparedness and effective response to disasters'.

It should be noted that the language of ‘risk and vulnerability’ is not in line with contemporary literature or the UNDRR terminology, where vulnerability is a considered a fundamental aspect of, rather than separate from, disaster risk.²³

IV.A.1 Priority 1’s Measures on National and Local Level

*24(a) Promote the collection, analysis, management and use of relevant data and practical information.*²⁴ (Level 2)

- Relevant data collection is under way, as are important research projects, including in collaborations with MSB and SMHI. Significant amounts of data exist, but it is clear that dissemination and communication could be improved. Existing systems are generally inclusive and account for different categories of users, but there is room for improvement, (especially as concerns short-term communication).
- The collection of data is relatively strong, although as discussed in the previous section, there needs to be further clarity and harmonisation – in collaboration with a range of different actors, stakeholders and experts, as to what is to be measured and collected. It is clear that collected data is analysed to significant extent by relevant authorities. In particular, R&V assessments are being reported to MSB, which synthesises the information provided. The National Board of Health and Welfare is responsible for R&V analyses for all regions, and produces a summary that identifies the top ten to fifteen largest (internal and external) risks.
- Weaknesses predominantly lie in the limitations concerning the understanding of risk, which in turn informs the data collection. It is further unclear how the data is used to inform action.
- Consider also collection of data in relation to climate change and vulnerability, which is currently separate from the R&V analysis. It could be worth considering consolidating the two.

*24(b) Encourage the use of and strengthening of baseline and periodically assess disaster risks, vulnerability, capacity, exposure, hazard characteristics and effects.*²⁵ (Level 1)

- This measure ties back to a holistic understanding of risk in all its dimensions and adds the importance of periodic assessment. Keeping in mind the shortcomings discussed above, Sweden still has good routines for regular R&V analyses according to Swedish legislation, and does well in periodically assessing risks through R&V analyses, as well as the biannual National Risk and Capability

²³ The UNDRR terminology defines risk as: ‘The potential loss of life, injury, or destroyed or damaged assets which could occur to a system, society or a community in a specific period of time, determined probabilistically as a function of hazard, exposure, vulnerability and capacity.’ See UNGA, ‘Report of the open-ended intergovernmental expert working group on indicators and terminology relating to disaster risk reduction’ (1 December 2016) UN Doc A/ 71/ 644.

²⁴ The paragraph reads in full: ‘Promote the collection, analysis, management and use of relevant data and practical information. Ensure its dissemination, taking into account the needs of different categories of users, as appropriate’.

²⁵ The paragraph reads in full: ‘Encourage the use of and strengthening of baseline and periodically assess disaster risks, vulnerability, capacity, exposure, hazard characteristics and their possible sequential effects at the relevant social and spatial scale on ecosystems in line with national circumstances’.

Assessment produced by MSB in accordance with the EU Union Civil Protection Mechanism.²⁶

- However, the establishment of clearer baselines would be beneficial, as would harmonisation of what is to be measured and reported.

*24(c) Develop, update periodically and disseminate, as appropriate, location - based disaster risk information.*²⁷ (Level 2)

- This measure includes, first of all, the development of location-based disaster risk information; secondly, the periodic update of such information; and finally, the dissemination of location-based disaster risk information.
- Local-based risk information is developed on different scales and the involvement of different actors. Maps are developed by Lantmäteriet and MSB in cooperation with other agencies, and some risk assessments are also done one local level within municipalities or in cooperation with regional authorities. Risk maps are developed for various 'natural' hazards, including flooding, landslides, sea level rise, as well as for CBRNE risks.
- There are some examples of excellent communication provided, primarily by MSB and SMHI. SMHI's forthcoming consequence-based warning system will likely assist in enhancing Sweden's performance under this measure. Furthermore, Lantmäteriet freely shares data with relevant national agencies. It would be beneficial if this also would apply to local authorities (and, ideally, also the other stakeholders and persons living in the relevant areas). It is problematic that municipalities (and the public) need to pay for risk information, including some long-term prognoses and risk assessments, which will likely hamper local prevention and mitigation efforts, as well as lead to incomplete R&V analyses.
- Further, there is a trend to increasingly consider CBRNE risk information to be sensitive and thus not publicly available.
- It is important also to reflect on how to balance interests in public risk information against effects on, for example, the housing market in areas with heightened risk. It is clear that some information is not being shared due to risks of impact on the market and individual property owners. It would be beneficial to consider how such tensions can be resolved.

*24 (d) Systematically evaluate, record, share and publicly account for disaster losses and understand the economic, social, health, education, environmental and cultural heritage impacts.*²⁸ (Level 3)

²⁶ Decision No 1313/2013/EU of the European Parliament and of the Council of 17 December 2013 on a Union Civil Protection Mechanism, article 6.

²⁷ The paragraph reads in full: 'Develop, update periodically and disseminate, as appropriate, location - based disaster risk information, including risk maps, to decision makers, the general public and communities at risk to disaster in an appropriate format by using, as applicable, geospatial information technology'.

²⁸ The paragraph reads in full: 'Systematically evaluate, record, share and publicly account for disaster losses and understand the economic, social, health, education, environmental and cultural heritage impacts, as appropriate, in the context of event -specific hazard exposure and vulnerability information'.

- This measure stresses the importance of recording disaster losses; evaluate such losses; as well as share and publicly account for losses. In relation to loss of life, the system works well. National Board of Health and Welfare is responsible for death register, and makes sure that every person is getting a diagnosis/cause of death. The shortcomings are seen in relation to other types of losses, which are calculated on a very limited basis, often focused on direct costs associated with response. In addition, there is no evidence of systematic recording of losses for slow- onset and/or small-scale events.
- Follow-up reports do not generally engage with affected population, both are rather focused on the experiences of responding authorities. See also discussion regarding follow-up mechanisms (27(g)).
- Evaluations of specific disasters, as well as annual reports are openly available.
- In terms of deaths and the causes thereof, such data is not openly available, but it is possible to request specific information from the National Board of Health and Welfare.

24(e) Make non-sensitive hazard exposure, vulnerability, risk, disasters and loss disaggregated information freely available and accessible, as appropriate. (Level 1)

- This measure is closely tied to 24(c) on dissemination of local risk assessments and 24(d) (regarding dissemination). The measure requires information for be both freely available (i.e. at no cost) and accessible. Municipalities used to make all R&V analysis available, but not anymore.
- In relation to availability, MSB, including through 'Krisinformation.se', is a good resource in terms of providing free information. Other agencies also provide helpful information on their webpages. Of particular note is SMHI, which provides open data on their website, as well as via an app where people can also get warnings and easily spread information to others. One representative from a national agency highlighted the trend of expanding on what is considered sensitive information, especially in relation to CBRNE risks. See also comments regarding the use of Lantmäteriet's information in 24(c).
- In terms of accessibility, the work of MSB, including through 'Krisinformation.se', should again be highlighted. It provides information on a range of languages (however the full set of information is only available in Swedish), as well as a 'listening' option. It is clear that other authorities hold MSB's communication mechanisms in high regard, and that they work carefully to feed into this communication. This is beneficial, as it helps not just the quality of the information provided, but also helps streamline information.
- Although other agencies also provide information in different languages, not all use the relevant language in the link, which makes it difficult for non-Swedish speaking users to find the right information. This could and should be very quickly remedied.
- A more coherent communication strategy would be beneficial.

24(f) Promote real-time access to reliable data.²⁹ (Level 1)

- This is a strength for Sweden, which is especially strong on weather data (SMHI) and in relation to specific incidents (WIS, including Raket). On dissemination of data, see 24(c) and (e).
- In terms of improvement, there is a need to develop systems for multi-hazard early warning systems (as opposed to several separate systems for different hazards) and consider how to improve systems in light of 'systemic risk'.

24(g) Build the knowledge of government officials at all levels, civil society, communities and volunteers, as well as the private sector.³⁰ (Level 2)

- This measure goes straight to the heart of SFDRRs 'all of society' approach.³¹ Important work is ongoing, especially by MSB. Various coordination forums also play a role in enhancing knowledge.
- However, there are clear limitations as relates to knowledge of DRR as a concept (including the Sendai Framework) and how it fits within existing work.
- There is, in particular, significant room to improve the knowledge of the private sector, including in how a well-functioning DRR and DRM can benefit them. Increased knowledge is an important aspect of involving the private sector.

24(h) Promote and improve dialogue and cooperation among scientific and technological communities, other relevant stakeholders and policymakers.³² (Level 2)

- Important work and research is currently conducted, and is supported by MSB, SMHI, and other agencies. However, more work is needed to engage with policymakers and consider DRR/DRM beyond CCA.
- MSB has suggested the establishment of a discussion forum for cooperation with actors from all of society including, authorities, private sector, researchers, and civil society actors on local, regional, and central levels.³³ Such a discussion forum would go a significant way towards improving Sweden's work under this measure. This could also aid in enhancing knowledge as set out in 24(g).

24(i) Ensure the use of traditional, indigenous and local knowledge and practices, as appropriate, to complement scientific knowledge.³⁴ (Level 2)

²⁹ The paragraph reads in full: 'Promote real-time access to reliable data, make use of space and in situ information, including geographic information systems (GIS), and use information and communications technology innovations to enhance measurement tools and the collection, analysis and dissemination of data'.

³⁰ The paragraph reads in full: 'Build the knowledge of government officials at all levels, civil society, communities and volunteers, as well as the private sector, through sharing experiences, lessons learned, good practices and training and education on disaster risk reduction, including the use of existing training and education mechanisms and peer learning'.

³¹ Sendai Framework, para 7.

³² The paragraph reads in full: 'Promote and improve dialogue and cooperation among scientific and technological communities, other relevant stakeholders and policymakers in order to facilitate a science-policy interface for effective decision-making in disaster risk management'.

³³ MSB, *Synopsis om hur MSB (KC-GS) främjar utvecklingen av ett säkert och hållbart samhälle* (2019).

³⁴ The paragraph reads in full: 'Ensure the use of traditional, indigenous and local knowledge and practices, as appropriate, to complement scientific knowledge in disaster risk assessment and the development and

- The significant role of municipalities helps to ensure that local knowledge is taken into account, and the principle of proximity ensures solutions tailored to the local context.
- One representative from a national agency highlighted the need to engage with the people who deal with risk every day. At the same time, a representative from the Rescue Services mentioned that local knowledge is taken into account to the extent that it is provided by the local planning office, but that 'it is not something they go searching for'. The involvement of local communities will likely be enhanced in relation to weather related risks following the forthcoming launch of the consequence-based analysis system developed by SMHI.
- However, much more can be done to ensure the use of indigenous knowledge. It is clear from interviews that although the Sami Parliament is invited to provide its views on climate change and the development of sustainable energy from the Sami perspective, this is not considered as 'knowledge', which is instead limited to scientific evidence provided by, primarily the Intergovernmental Panel on Climate Change. It would be valuable to consider ways in which the relationship can be further developed in order to ensure that indigenous knowledge, including in relation to, for example, land use and the protection of ecosystems, is fully appreciated.

24(j) Strengthen technical and scientific capacity to capitalize on and consolidate existing knowledge, and to develop and apply methodologies and models to assess disaster risks, vulnerabilities and exposure to all hazards. (Level 1)

- There is significant ongoing work on this (although see comments regarding budgets and funding below).
- This measure ties into many others and would, in particular, be aided through a discussion forum (discussed above, 24(g) and 24(h)).

24(k) Promote investments in innovation and technology development in long -term, multi-hazard and solution-driven research.³⁵ (Level 2)

- Important work is ongoing. The Centre for Natural Hazards and Disaster Science (CNDS) does fantastic work in this regard, as does SMHI including through its Knowledge Centre (Kunskapscentrum). Other agencies are working with universities on this and are funding research including through MSB 'Anslag 2:4'.
- However, it is clear that annually changing budgets for key authorities make it difficult to conduct long-term projects, and that the funding for municipalities must be reconsidered to better support their fulfilment of their responsibilities in relation to DRR.
- More work could be done to include the private sector in DRR efforts, including through enhanced knowledge and incentives (24(g) and 27(a)).

implementation of policies, strategies, plans and programmes of specific sectors, with a cross-sectoral approach, which should be tailored to localities and to the context'.

³⁵ The paragraph reads in full: 'Promote investments in innovation and technology development in long -term, multi-hazard and solution-driven research in disaster risk management to address gaps, obstacles, interdependencies and social, economic, educational and environmental challenges and disaster risks'.

*24(l) Promote the incorporation of disaster risk knowledge...in formal and non-formal education.*³⁶ (Level 3)

- Much more work is needed in this area. It is clear that DRR education (and awareness) is limited on all levels, although there are some examples of good practice. MSB has developed a flood risk model in Lego that can be used for schools, and other actors, and has developed educational material for different risks that are targeted for use in schools. It would, in particular, be valuable to consider how disaster risk could be incorporated into formal education to a greater extent. (See also 24(g) and 24(m)).

*24(m) Promote national strategies to strengthen public education and awareness in disaster risk reduction.*³⁷ (Level 2)

- Work is ongoing (krisinformation.se is a great resource here, as is 'Krisberedskapsveckan' and the advice and information published by various agencies in their areas of responsibility), but a national communication strategy for DRR is missing.
- The current system is fragmented, with different authorities are under obligation to communicate about different risks (in line with the principle of responsibility). At the same time is clear that different authorities have different capacities and priorities in terms of public education and awareness.
- It is also important to make sure that communications reach *all* members of society. It is clear that communicating in different languages, and to include accessible versions for persons with disability are priorities, although it was expressed by a national agency that while they are doing "as best as we can", there is "always a lag", which needs to be addressed.

24(n) Apply risk information in all its dimensions of vulnerability, capacity and exposure of persons, communities, countries and assets, as well as hazard characteristics, to develop and implement disaster risk reduction policies. (Level 2)

- This measure cannot be fully completed until risk is understood in all its dimensions.
- Taken together, all aspects are covered by one or more authorities. However, systemic fragmentation is hindering the full potential. This measure will need to be central focus of a national action plan on DRR.

24(o) Enhance collaboration among people at the local level to disseminate disaster risk information through the involvement of community-based organizations and non-governmental organizations. (Level 2)

³⁶ The paragraph reads in full: 'Promote the incorporation of disaster risk knowledge, including disaster prevention, mitigation, preparedness, response, recovery and rehabilitation, in formal and non-formal education, as well as in civic education at all levels, as well as in professional education and training'.

³⁷ The paragraph reads in full: 'Promote national strategies to strengthen public education and awareness in disaster risk reduction, including disaster risk information and knowledge, through campaigns, social media and community mobilization, taking into account specific audiences and their needs'.

- There is clear evidence of some authorities doing this well (including the Board of Agriculture, the Swedish Food Agency, and MSB), but there is clearly room for improvement and a more holistic approach. Current efforts are generally focused on preparedness and response rather than prevention.

IV.B Priority 2: Strengthening disaster risk governance to manage disaster risk³⁸

This is a clear area for improvement for Sweden, as there is a lack of clear vision, targets, indicators and time frames. In order for actions under this measure to be comprehensive and productive, it is essential also to enhance the understanding of disaster risk as set out under Priority 1. As discussed with regard to Priority 1, the strong focus on preparedness and response, as opposed to a more comprehensive understanding of disaster risk in all its dimensions, is hampering Sweden's ability to perform well under this measure. The shortcomings under this measure were also seen in the interviews, where one representative stated that 'a national picture is lacking', with another stating that Sweden has an 'ambitious system, but too many pitfalls', with relevant research and products being produced without generating the intended impact, and a third stressing that implementation significantly 'varies across the country'. Add to this also the issues around definitions and clarity of scope of responsibilities. The principles of proximity and responsibility are certainly not without value, but the decentralised system needs to be coupled with further coherence and oversight. A national action plan will need to address this as matter of priority.

IV.B.1 Priority 2's National and local measures

27(a) Mainstream and integrate disaster risk reduction within and across all sectors.³⁹ (Level 2)

- It is clear that DRR as an approach in itself is not integrated into all sectors. However, at the same time, 'risk' is clearly addressed.

³⁸ Sendai Framework, para 26. The paragraph reads in full: 'Disaster risk governance at the national, regional and global levels is of great importance for an effective and efficient management of disaster risk. Clear vision, plans, competence, guidance and coordination within and across sectors, as well as participation of relevant stakeholders, are needed. Strengthening disaster risk governance for prevention, mitigation, preparedness, response, recovery and rehabilitation is therefore necessary and fosters collaboration and partnership across mechanisms and institutions for the implementation of instruments relevant to disaster risk reduction and sustainable development.'

³⁹ The paragraph reads in full: 'Mainstream and integrate disaster risk reduction within and across all sectors. Review and promote the coherence and further development, as appropriate, of national and local frameworks of laws, regulations and public policies, which, by defining roles and responsibilities, guide the public and private sectors to:

- (i) address disaster risk in publically owned, managed or regulated services and infrastructures;
- (ii) promote and provide incentives, as relevant, for actions by persons, households, communities and businesses;
- (iii) enhance relevant mechanisms and initiatives for disaster risk transparency, which may include financial incentives, public awareness-raising and training initiatives, reporting requirements and legal and administrative measures; and
- (iv) put in place coordination and organizational structures'.

- On (i): Risk assessments, as well as the addressing of risk, are demanded by providers and/or responsible agencies for critical infrastructure (such as energy supply, water supply, transport, and information and communication) through MSB's ordinances, as well as sectoral laws.⁴⁰
- On (ii): While many other gaps require structural changes, this measure could rather easily be addressed through initiating various incentive programmes, including certifications, for persons, households, communities and businesses. This is also closely connected with 27(j).
- On (iii): More awareness raising would be helpful, as would increased oversight over actual steps taken to reduce and prevent the creation of disaster risk following R&V analyses.
- On (iv): coordination and organisational structures exist but could be clarified and improved.

27(b) Adopt and implement national and local disaster risk reduction strategies and plans, across different timescales with targets, indicators and time frames⁴¹ (Level 3)

- This is highly relevant for Sweden. First of all, a national action plan on DRR will need to be adopted, with different timescales, clear targets, indicators and time frames. It is important to note that such an instrument does not only need to focus on a reduction of existing (and expected) risk, but also be aimed at preventing the creation of new risks, including but not limited to climate change related risks (and the strengthening of economic, social, health and environmental resilience). Land use planning and the precautionary principle should be highlighted as essential aspects of DRR.
- The National Strategy on CCA⁴² covers part of this ground, but it must be noted that while the overlaps are significant and more integration between CCA and DRR would be highly beneficial, there are significant aspects of DRR which are not covered by CCA.
- In addition, interviews demonstrated how resources were a recurring problem in terms of the implementation of existing plans, including one national agency representative stating outright that that 'sometimes we feel that we lack resources and time to implement all strategies in a satisfactory way'. This, in turn, highlights the importance of streamlining efforts and reporting mechanisms where possible.

27(c) Carry out an assessment of the technical, financial and administrative disaster risk management capacity to deal with the identified risks at local and national level. (Level 2)

⁴⁰ See, eg, Swedish Civil Contingencies Agency's ordinance on governmental authorities' risk and vulnerability assessments – Myndigheten för samhällsskydd och beredskaps föreskrifter om statliga myndigheters risk- och sårbarhetsanalyser (MSBFS 2016:7); Swedish Civil Contingencies Agency's ordinance on municipal risk and vulnerability assessments – Myndigheten för samhällsskydd och beredskaps föreskrifter om kommuners risk- och sårbarhetsanalyser (MSBFS 2015:5); and Electricity Preparedness Act – Elberedskapslag (SFS 1997:288).

⁴¹ The paragraph reads in full: 'Adopt and implement national and local disaster risk reduction strategies and plans, across different timescales with targets, indicators and time frames, aimed at preventing the creation of risk, the reduction of existing risk and the strengthening of economic, social, health and environmental resilience'.

⁴² National Strategy for Climate Change Adaptation – Nationell strategi för klimatanpassning (Prop. 2017/18:163).

- MSB does a great job in this area, and R&V analyses and existing laws for authorities and municipalities are relevant, but municipalities need further support to carry out their significant duties.
- There is a need for further clarity as to the exact duties of various actors in order to clarify where the capacity should be assessed (see 24(b)).

*27(d) Encourage the establishment of necessary mechanisms and incentives to ensure high levels of compliance with existing safety-enhancing provisions of sectoral laws and regulations.*⁴³ (Level 2)

- Sweden performs relatively well in terms of sectoral laws.
- However, further follow-up mechanisms and oversight needed.
- In addition, municipalities need further support and incentives.

*27(e) Develop and strengthen, as appropriate, mechanisms to follow-up, periodically assess and publicly report on progress on national and local plans.*⁴⁴ (Level 2)

- Reporting mechanisms exist (in particular through the R&V analyses and annual reports) but follow-up, and public reporting on progress varies across different agencies. More coherent follow-up systems would be beneficial, including further engagement with the public. It is also important to ensure that any follow-up mechanisms and invitations to public scrutiny are inclusive and accessible.
- Follow-up reports etc but they are primarily focused on officials and generally do not engage with the public.

*27(f) Assign, as appropriate, clear roles and tasks to community representatives within disaster risk management institutions and processes and decision-making through relevant legal frameworks.*⁴⁵ (Level 3)

- There is limited evidence of involvement by communities.
- Clarity of roles and responsibilities is being sought by numerous actors. Local municipalities should be encouraged and supported in their work on this.

27(g) Establish and strengthen government coordination forums composed of relevant stakeholders at national and local levels, such as national and local platforms for disaster

⁴³ The paragraph reads in full: 'Encourage the establishment of necessary mechanisms and incentives to ensure high levels of compliance with existing safety-enhancing provisions of sectoral laws and regulations, including those addressing land use and urban planning, building codes, environmental and resource management and health and safety standards, and update them, where needed, to ensure an adequate focus on disaster risk management'.

⁴⁴ The paragraph reads in full: 'Develop and strengthen, as appropriate, mechanisms to follow-up, periodically assess and publicly report on progress on national and local plans. Promote public scrutiny and encourage institutional debates, including by parliamentarians and other relevant officials, on progress reports of local and national plans for disaster risk reduction'.

⁴⁵ The paragraph reads in full: 'Assign, as appropriate, clear roles and tasks to community representatives within disaster risk management institutions and processes and decision-making through relevant legal frameworks. Undertake comprehensive public and community consultations during the development of such laws and regulations to support their implementation'.

*risk reduction, and a designated national focal point for implementing the post-2015 framework.*⁴⁶ (Level 2)

- This measure calls for the establishment and strengthening of government coordination forums. The membership of the forums must be composed of relevant stakeholders at national and local levels.
- Coordination and cooperation forums exist on sectoral levels (either concerning specific hazards, or activities positioned under specific ministries), but what is needed is a more holistic, multi-hazard, multi-sectoral coordination mechanism. One representative stated that it is ‘a pity that we don’t have a national platform that we had before’.
- The measure requires a designated national focal point for implementing the Sendai Framework, which already exists within MSB. MSB also has a leading role as a coordinator, and cooperate with other national authorities, county administrator boards, municipalities and research councils. Its leadership of the co-operation group for natural hazards, which included fifteen different national authorities, county administrative boards and the Swedish Association of Local Authorities and Regions should be highlighted. It would be helpful with guidelines for how cooperation forums should be organised at local level, while also taking allowing enough flexibility to account for local contexts.
- MSB’s suggestion of establishing a discussion forum for cooperation with actors from all of society including, authorities, private sector, researchers, and civil society actors on local, regional, and central levels would go a significant way towards improving Sweden’s work under this measure.

27(h) Empower local authorities, as appropriate, through regulatory and financial means to work and coordinate with civil society, communities and indigenous peoples and migrants in disaster risk management at the local level. (Level 3)

- Some agencies, but far from all, work well with civil societies. Communities need to be more involved in follow up mechanisms that are currently strongly focused on agency officials (see 27(e)).
- Further work is needed in order to include indigenous peoples and migrants. Migrants seem to be large missing from the picture as participants, but are notably considered in many aspects regarding translations and informal networks to provide risk communication.

⁴⁶ The paragraph reads in full: ‘Establish and strengthen government coordination forums composed of relevant stakeholders at national and local levels, such as national and local platforms for disaster risk reduction, and a designated national focal point for implementing the post-2015 framework. It is necessary for such mechanisms to have a strong foundation in national institutional frameworks with clearly assigned responsibilities and authority to, inter alia, identify sectoral and multisectoral disaster risk, build awareness and knowledge of disaster risk through sharing and dissemination of non-sensitive disaster risk information and data, contribute to and coordinate reports on local and national disaster risk, coordinate public awareness campaigns on disaster risk, facilitate and support local multi-sectoral cooperation (e.g. among local governments), contribute to the determination of and reporting on national and local disaster risk management plans and all policies relevant for disaster risk management. These responsibilities should be established through laws, regulations, standards and procedures’.

27(i) Encourage parliamentarians to support the implementation of disaster risk reduction through developing new or amending relevant legislation and setting budget allocations (Level 1)

- Significant work is being conducted in this regard through authorities' budget proposals. The amount of engagement with government departments should also be noted.
- However, more could be done in terms of promoting further the need for DRR measures and to increase the political appetite for measures beyond CCA and civil defence and crisis preparedness into more holistic prevention and mitigation of risk.

27(j) Promote the development of quality standards, such as certifications and awards for disaster risk management⁴⁷ (Level 3)

- This opportunity could (and should) be embraced and advanced. It would also be a great way of incorporating DRR into the work of various sectors and actors, and furthering awareness.

27(k) Formulate public policies, where applicable, aimed at addressing the issues of prevention or relocation, where possible, of human settlements in disaster risk zones, subject to national law and legal systems. (Level 2)

- This measure is predominantly addressed at the local level. It is partially regulated in PBL⁴⁸ (in terms of new settlements) but could certainly be improved in terms of scope and powers of relevant authorities. PBL requires municipalities to make overview plans, however, a holistic view on risk assessments in the PBL has been rejected in favour of a limitation to climate related risks as set out in chapter 3 §5(4).
- The National Board of Housing, Building and Planning provides additional regulations and recommendations, including specific guidance for hazards. This is helpful, but could be further incorporated into DRR strategies and R&V analyses.
- It is clear that developments are still taking place in risk areas, especially in areas prone to flooding. It is a particular challenge that developments are built in risk areas without comprehensive risk reduction plans for the area. Rather, protective measures are limited to specific properties. A wider risk creation perspective is needed, where developments contributing to risk must be coupled with preventive measures. This is an area where regulation exists (with the caveats above), but further implementation and oversight is needed.
- Relocation policies are currently missing.

⁴⁷ The paragraph reads in full: 'Promote the development of quality standards, such as certifications and awards for disaster risk management, with the participation of the private sector, civil society, professional associations, scientific organizations and the United Nations'.

⁴⁸ Planning and Building Act – Plan- och Bygglagen (SFS 2010:900).

IV.C Priority 3 – Investing in disaster risk reduction for resilience⁴⁹

Sweden's performance under this measure stems from limited definitions and understandings of disaster risk in relevant laws, policies, and strategies. Financing is primarily channelled towards crisis preparedness and civil defence (and, to a lesser extent, CCA). In order to perform well under this measure, a more holistic appreciation of disaster risk is needed which includes prevention of the creation of new risks, as well as prevention and mitigation of harm stemming from existing risks.

The measure ties back to the lack of existing information on disaster losses (see 24(d)). Comprehensive evaluations of the financial impacts of disasters are needed, as are evaluations of the savings made through measures taken. This will need to include all costs relating adverse effects of hazards, including disruption in infrastructure (such as electricity, public transport, traffic, and so on). This, in turn, will be helpful in providing knowledge and building political capital for investment in risk reduction measures. If used to inform a national strategy and action plan, it will also be helpful in ensuring that measures are relevant in order to reduce disaster risk and thus avoiding unnecessary financial expenses.

The measure is also connected with the importance of providing adequate financial and other support to any actors that are tasked by undertaking DRR measures (see 30(a)), and the importance of cooperation between actors across sectors on all levels (see especially 27(g)).

IV.C.1 Priority 3's Measures for national and local levels

30(a) Allocate the necessary resources, including finance and logistics, as appropriate, at all levels of administration for the development and the implementation of disaster risk reduction strategies policies, plans, laws and regulations in all relevant sectors. (Level 2)

- In terms of actions, resources must be allocated to promote a comprehensive understanding of risk, including funding for long-term research projects.
- It is further essential that regions and municipalities are provided with the resources necessary to carry out their extensive duties. It would be beneficial for municipalities to have access to all relevant risk assessments and prognoses developed by other authorities without cost. This is an important step towards identifying and understanding risk.
- Smaller municipalities struggle to apply for funding for specific projects as they are lacking resources to conduct initial risk assessments and/or write applications for additional funding. It is clear that a lack of resources (in addition to a lack of clarity

⁴⁹ Sendai Framework, para 29. The paragraph reads in full: 'Public and private investment in disaster risk prevention and reduction through structural and non-structural measures are essential to enhance the economic, social, health and cultural resilience of persons, communities, countries and their assets, as well as the environment. These can be drivers of innovation, growth and job creation. Such measures are cost-effective and instrumental to save lives, prevent and reduce losses and ensure effective recovery and rehabilitation'.

and oversight) is limiting the capacity of municipalities to comprehensively identify and address risks.

*30(b) Promote mechanisms for disaster risk transfer and insurance, risk sharing and retention and financial protection.*⁵⁰ (Level 2)

- Important cooperation is ongoing between insurance companies and authorities, but this is an area which would be beneficial to explore further. See also 24(d) regarding the importance to more fully account for costs relating to hazardous processes and events.

*30(c) Strengthen, as appropriate, disaster resilient public and private investments, particularly through: structural, non-structural and functional disaster risk prevention and reduction measures in critical facilities.*⁵¹ (Level 2)

- There is significant work ongoing in terms of strengthening the resilience of critical infrastructure, with MSB as a leading agency. In addition, “Building better from the start” is progressing, and important work is being conducted as concerns rural and urban planning as set out in PBL and the land use regulations established in chapter 3 of the Environmental Code.⁵²
- There is a clear need for private actors (including, but certainly not limited to insurance, and critical infrastructure providers) to be involved in DRR, and held responsible for bearing the cost of risk created through their projects.
- In addition, the tension between relaxed building standards and the municipalities’ preventative measures under PBL will need to be addressed.⁵³

30(d) Protect or support the protection of cultural and collecting institutions and other sites of historical, cultural heritage and religious interest. (Level 2)

- Some important work underway, including by the National Heritage Board and municipalities (although care needs to be taken to include religious interests beyond the Swedish Church), and there is increasing acknowledgment of climate related risks to coastal communities, many of which are of historical and cultural importance. Still, focus is predominately on the protection of “critical national infrastructure” (CNI).

⁵⁰ The paragraph reads in full: ‘Promote mechanisms for disaster risk transfer and insurance, risk sharing and retention and financial protection, as appropriate, for both public and private investment in order to reduce the financial impact of disasters on governments and societies, in urban and rural areas’.

⁵¹ The paragraph reads in full: ‘Strengthen, as appropriate, disaster resilient public and private investments, particularly through: structural, non-structural and functional disaster risk prevention and reduction measures in critical facilities, in particular schools and hospitals and physical infrastructures; building better from the start to withstand hazards through proper design and construction, including the use of the principles of universal design and the standardization of building materials; retrofitting and rebuilding; nurturing a culture of maintenance; and taking into account economic, social, structural, technological and environmental impact assessments’.

⁵² Environmental Code (Miljöbalk) (SFS 1998:808).

⁵³ For specific comments see, eg, Lindholmen Science Park, *Security Arena Lindholmen: Beslutsstöd I Realtid för samhällets kritiska flöden* (Rapport - Version 1.0). The tension between the need for housing and the prevention of (climate related) risks is also visible in relation to municipal planning in Planning and Building Act – Plan- och Bygglagen (SFS 2010:900) chapter 3 §5(1) and (4).

30(e) Promote the disaster risk resilience of work places through structural and non-structural measures. (Level 1)

- MSB conducts work on contingency planning primarily focused on the public sector, much of which also translates to the private sector. Some additional support has been offered in terms of reducing transmission of Covid-19 in workplaces, but this has been done as a response to an ongoing pandemic, rather than as a systematic way of making workplaces more resilient to hazards.
- It would be helpful to consider this measure together with enhanced knowledge (24(g)) and incentives such as DRR certificates for employers.

30(f) Promote the mainstreaming of disaster risk assessments into land-use policy development and implementation.⁵⁴ (Level 2)

- Significant progress has been made in this regard, including recent changes to PBL, especially as concerns climate related risks. All of them are responsibilities of local municipalities, but are supported by the work of authorities including MSB, Lantmäteriet, and the National Board of Housing, Building and Planning.
- A more holistic approach is needed in accordance with a more comprehensive understanding of risk, with clarification of the roles and responsibilities of different authorities. A national action plan should aim to increase coherence in relation to this measure.

30(g) Promote the mainstreaming of disaster risk assessment, mapping and management into rural development planning and management of...areas prone to droughts and flooding.⁵⁵ (Level 2)

- This measure is closely tied to 24(c) and 30(f). See comments above. Coordination mechanisms exist, but could be improved, including oversight and clarification of roles.

30(h) Encourage the revision of existing or the development of new building codes, standards, rehabilitation and reconstruction practices at the national or local levels.⁵⁶ (Level 2)

⁵⁴ The paragraph reads in full: 'Promote the mainstreaming of disaster risk assessments into land -use policy development and implementation, including urban planning, land degradation assessments and informal and non-permanent housing, and the use of guidelines and follow-up tools informed by anticipated demographic and environmental changes'.

⁵⁵ The paragraph reads in full: 'Promote the mainstreaming of disaster risk assessment, mapping and management into rural development planning and management of, inter alia, mountains, rivers, coastal flood plain areas, drylands, wetlands and all other areas prone to droughts and flooding, including through the identification of areas that are safe for human settlement and at the same time preserving ecosystem functions that help reduce risks'.

⁵⁶ The paragraph reads in full: 'Encourage the revision of existing or the development of new building codes, standards, rehabilitation and reconstruction practices at the national or local levels, as appropriate, with the aim of making them more applicable in the local context, particularly in informal and marginal human settlements, and reinforce the capacity to implement, survey and enforce such codes, through an appropriate approach, with a view to fostering disaster-resistant structures'.

- Actions under this measure are partially regulated through PBL and further guidance is provided, in particular by National Board of Housing, Building and Planning), but there is room for improvement including a more comprehensive understanding of risk.
- There is a need to consider the extent to which developers should bear the cost of risk created through their projects.
- It would also be worth considering the development of alternative arrangements or codes for informal, short-term settlements.

30(i) Enhance the resilience of national health systems, including by integrating disaster risk management into primary, secondary and tertiary health care, especially at the local level.⁵⁷ (Level 2)

- Important work being done in this area by the Public Health Agency and the National Board of Health and Welfare, as well as on regional level, although it is challenging for small regions to deal with all aspects of DRR.
- The National Board of Health and Welfare's Regulations and General Guidance on Disaster Medicine Preparedness⁵⁸ (the Regulations) are important for this measure, but could be improved, especially their follow-up mechanisms. It should be noted also that 'disaster medicine preparedness' in these Regulations refers to the ability to conduct health care services at times of a 'serious event'. A 'serious event', in turn, is an event of such a magnitude that it requires special organisation, leadership, and use of resources. This should be contrasted with 'extreme events' in LEH.⁵⁹ While it is helpful to streamline reports as is the case in chapter 4 §2 of the Regulations, the use of 'serious event' for in terms of the actual capacity in chapter 4 §1, as well as the reference to 'extreme events' with reference to LEH in chapter 4 §2 raises questions as to the scope of that obligation.

30(j) Strengthen the design and implementation of inclusive policies and social safety-net mechanisms... to find durable solutions in the post-disaster phase and to empower and assist people disproportionately affected by disasters.⁶⁰ (Level 2)

⁵⁷ The paragraph reads in full: 'Enhance the resilience of national health systems, including by integrating disaster risk management into primary, secondary and tertiary health care, especially at the local level; developing the capacity of health workers in understanding disaster risk and applying and implementing disaster risk reduction approaches in health work; and promoting and enhancing the training capacities in the field of disaster medicine; and supporting and training community health groups in disaster risk reduction approaches in health programmes, in collaboration with other sectors, as well as in the implementation of the International Health Regulations (2005) of the World Health Organization'.

⁵⁸ Regulations and General Guidance on Disaster Medicine Preparedness (National Board of Health and Welfare) – Socialstyrelsens föreskrifter och allmänna råd om katastrofmedicinsk beredskap (SOSFS 2013:22).

⁵⁹ Act on Municipal and County Council Measures prior to and during Extraordinary Events in Peacetime and during Periods of Heightened Alert – Lag om kommuners och landstings åtgärder inför och vid extraordinära händelser i fredstid och höjd beredskap (SFS 2006:544). Extreme events are defined in chapter 1 §4.

⁶⁰ The paragraph reads in full: 'Strengthen the design and implementation of inclusive policies and social safety-net mechanisms, including through community involvement, integrated with livelihood enhancement programmes, and access to basic health care services, including maternal, newborn and child health, sexual and reproductive health, food security and nutrition, housing and education, towards the eradication of poverty, to find durable solutions in the post-disaster phase and to empower and assist people disproportionately affected by disasters'.

- Sweden generally does well in relation to this measure. However, much responsibility is left to regions and municipalities, and the lack of resources (especially for less populated regions) and productive follow-up mechanisms can provide challenges.
- As discussed under 27(g), there is a need for further involvement of communities and inclusive public consultations and follow-up mechanisms. Existing evaluations of recent disasters have primarily been focused on the viewpoint of involved officials and have not engaged sufficiently with the experience of affected population.

30(k) People with life threatening and chronic disease, due to their particular needs, should be included in the design of policies and plans to manage their risks before, during and after disasters, including having access to life-saving services. (Level 3)

- Limited evidence of inclusion of this group of people into any policy making processes (although FHM collects opinions from different groups of specialists on chronic disease). One representative from a national agency stated that it is 'difficult to map' persons living with chronic disease, as many live at home. This is notably also an issue for the rescue services, as they need to know where and how oxygen supplies are stored, and is something which will need to be addressed.

30(l) Encourage the adoption of policies and programmes addressing disaster induced human mobility to strengthen the resilience of affected people and that of host communities as per national laws and circumstances. (Level 2)

- Sweden has limited experience of disaster induced human mobility, and it is not one of the most pressing areas for concern or action for the Swedish context. However, it is widely acknowledged that disaster and climate induced displacement is, and will continue to, increase so it is important to have policies and programmes in place. This is clearly an area which would benefit from deep integration between CCA and DRR.

30(m) Promote, as appropriate, the integration of disaster risk reduction considerations and measures in financial and fiscal instruments. (Level 2)

- There could be improvement in terms of fiscal instruments that prioritise DRR including allowance for long-term planning and projects.

30(n) Strengthen the sustainable use and management of ecosystems and implement integrated environmental and natural resource management approaches that incorporate disaster risk reduction. (Level 2)

- A number of authorities on all levels (from the Ministry of the Environment and SMHI to municipalities) work with this in productive ways through, for example, urban planning and the promotion of biodiversity.

- From the interviews it is clear that while much work is taking place and can be beneficial for DRR, there is room for further integration of DRR. Responsibilities are fragmented with different agencies being responsible for various aspects, and further coherence and oversight would be beneficial.

*30(o) Increase business resilience and protection of livelihoods and productive assets throughout the supply chains.*⁶¹ (Level 2)

- More work is needed in this area as evidenced by, for example, lack of personal protective equipment during spring 2020. This ties into the need for stronger awareness of DRR and the need for wider understanding and acknowledgment that disruptions not connected with preparedness for war are not only possible, but increasingly likely.
- Good examples of cooperation in this area can be seen in the work of Swedish Food Agency, and their cooperation forums for food and water supply.

30(p) Strengthen the protection of livelihoods and productive assets, including livestock, working animals, tools and seeds. (Level 1)

- This measure relates to the protection of critical infrastructure (see 33(c)). The Board of Agriculture is engaging well with DRR.

30(q) Promote and integrate disaster risk management approaches throughout the tourism industry, given the often heavy reliance on tourism as a key economic driver. (Level 2)

- It is important to consider tourism (including increased number of people) in relation to health care systems and evacuation plans, especially considering increasing risk to coastal areas (already considered to some extent regarding CCA). It would be worth exploring ways in which this can be tied to DRR incentives and certificates.

⁶¹ The paragraph reads in full: 'Increase business resilience and protection of livelihoods and productive assets throughout the supply chains. Ensure continuity of services and integrate disaster risk management into business models and practices'.

IV.D Priority 4: Enhancing disaster preparedness for effective response and to “Build Back Better” in recovery, rehabilitation and reconstruction⁶²

Sweden is increasingly strengthening its position in terms of preparedness, and it is clear that ongoing work on civil defence also includes disaster preparedness measures, even though DRR as encapsulating also prevention, mitigation, recovery and rehabilitation is currently underdeveloped.

In terms of ‘empowering women and persons with disabilities to publicly lead and promote gender equitable and universally accessible response, recovery rehabilitation and reconstruction approaches’, Sweden generally performs well on gender, including women in leadership positions, although there is no evidence of active work to empower persons with disabilities to publicly lead policy development and decision making on DRR. Indeed, of the representatives interviewed, none could think of a single example of positive actions or incentives in this regard with one representative stating that ‘If they have a role to play, they are invited on the same conditions as others’. This is a significant shortcoming and, therefore, must be addressed with urgency. Sweden does relatively well in terms of accessible provision of information, but it is clear that the value of including persons with disabilities in decision making is not yet (fully) appreciated.

Authorities are instructed to consider how their decisions *affect* persons with disabilities, children, youth, old people, women, and migrants,⁶³ and representatives from civil society can participate in decision making through referral rounds with regard to changes in laws (and sometimes policy). However, this is different from actively inviting women and persons with disabilities to *publicly lead and participate* in the development of disaster risk reduction policies.

Turning to the preparation for ‘recovery, rehabilitation and reconstruction ahead of the disaster, including plans to build back better’, this is an area where there is a lot of work to be done. The current framework is largely focused on preparedness and response⁶⁴. This is further an area where more comprehensive integration between Agenda 2030 and DRR would be highly beneficial.

⁶² Sendai Framework, para 32. The paragraph reads in full: ‘The steady growth of disaster risk, including the increase of people and assets exposure, combined with the lessons learned from past disasters, indicates the need to further strengthen disaster preparedness for response, take action in anticipation of events, integrate disaster risk reduction in response preparedness and ensure that capacities are in place for effective response and recovery at all levels. Empowering women and persons with disabilities to publicly lead and promote gender equitable and universally accessible response, recovery, rehabilitation and reconstruction approaches is key. Disasters have demonstrated that the recovery, rehabilitation and reconstruction phase, which needs to be prepared ahead of a disaster, is a critical opportunity to “Build Back Better”, including through integrating disaster risk reduction into development measures, making nations and communities resilient to disasters’.

⁶³ Ordinance with Instruction for the the National Board of Housing, Building and Planning – Förordning med instruktion för Boverket (SFS 2012:546).

⁶⁴ The Civil Protection Act – Lag om skydd mot olyckor (SFS 2003:778), although the National Strategy for the Protection of Vital and Social Functions and Critical Infrastructure does mention reconstruction (see National Strategy for the Protection of Vital and Social Functions and Critical Infrastructure: A Functioning Society in a Changing World (MSB, 2011) p. 26).

IV.D.1 Priority 4's Measures on national and local levels

*33(a) Prepare or review and periodically update disaster preparedness and contingency policies, plans and programmes with the involvement of the relevant institutions.*⁶⁵ (Level 2)

- This measure is closely tied to Priority 2. (See comments under IV.B, and IV.B.1 paragraph 27(b))
- Sweden generally does well in relation to preparedness and is increasingly also taking climate change risks into account. Laws exist and MSB provides further guidance as do the relevant authorities. Preparedness plans in R&V assessments are being collected and aggregated. Still, it would be beneficial with a more coherent and streamlined framework that helped clarify relevant roles and responsibilities.
- It is clear from interviews that there has been some improvement recently and that work is ongoing. In terms of involvement of stakeholders, the referral rounds in the preparation for new legislation, or updates or current legislation, provide stakeholders with the possibility to provide feedback on draft legislation.
- However, there is room for improvement and as discussed above, primary increased coherence, oversight, clarity of roles, and follow-up mechanisms.

*33(b) Invest in, develop, maintain and strengthen people-centred multi-hazard, multisectoral forecasting and early warning systems, disaster risk and emergency communications mechanisms, social technologies and hazard-monitoring telecommunications systems.*⁶⁶ (Level 2)

- Existing warning systems are generally sectoral, rather than multi-sectoral, and more work needed in terms of tailoring early warning systems to different users, and to ensure inclusive and participatory processes in the development of EWS.
- Work on this is underway, including through SMHI's forthcoming consequence-based warning system, which has been developed in cooperation with a number of other authorities with the aim of being people centered, multi-hazard and multi-sectoral, and one representative for a national agency stressed that there is a 'positive trajectory' in relation to the development of multisectoral EWS.
- Current warning system ('Hesa Fredrik') does not cover the whole country.
- Krisinformation.se is a great resource, but might not reach all affected persons. In terms of reaching people who do not speak Swedish (or English), some materials are translated to some languages, but there is occasionally strong reliance on informal networks. One representative from a national agency stated

⁶⁵ The paragraph reads in full: 'Prepare or review and periodically update disaster preparedness and contingency policies, plans and programmes with the involvement of the relevant institutions, considering climate change scenarios and their impact on disaster risk, and facilitating, as appropriate, the participation of all sectors and relevant stakeholders'.

⁶⁶ The paragraph reads in full: 'Invest in, develop, maintain and strengthen people-centred multi-hazard, multisectoral forecasting and early warning systems, disaster risk and emergency communications mechanisms, social technologies and hazard-monitoring telecommunications systems. Develop such systems through a participatory process. Tailor them to the needs of users, including social and cultural requirements, in particular gender. Promote the application of simple and low-cost early warning equipment and facilities and broaden release channels for natural disaster early warning information'.

that ‘the closer to an emergency we are, the less diverse the communication gets’. See also comments concerning accessible and inclusive communication above under 24(e) and 24(m).

*33(c) Promote the resilience of new and existing critical infrastructure ... to ensure that they remain safe, effective and operational during and after disasters.*⁶⁷ (Level 2)

- MSB actively works on critical infrastructure protection. The National Strategy for the Protection of Vital Societal Functions and Critical Infrastructure⁶⁸ sets out obligations for public and private actors that operate or have an effect on vital societal functions.
- In general, this is an area of decentralised responsibility, with specific requirements set out in sectoral laws. Regulations exist, but a fragmented picture appears, with many public and private actors involved. Further oversight and clarification of roles and responsibilities would be beneficial. It is also important to consider the timeframe in which critical facilities, including hospitals would remain fully functioning in case of, for example, a power outage lasting for several days.
- Municipalities include critical infrastructure in their city-planning and risk analyses, but the way in which various providers are engaged in the process seem to differ. It would be helpful to set clear targets for risk assessments and timeframes for critical infrastructure.

33(d) Establish community centres for the promotion of public awareness and the stockpiling of necessary materials to implement rescue and relief activities. (Level 3)

- A number of authorities consider this an area of responsibility for municipalities although from interviews it is clear that some municipalities consider it to be outside of the scope of their work. A clarification of roles and responsibilities is needed. Municipalities are obligated to inform about the coordination of risk information in relation to extraordinary events,⁶⁹ but the scope of municipalities’ obligations to inform about risk could be clarified.
- One representative from a national agency mentioned that ‘stockpiling [is] a big issue’, with another stating that there is ‘very little stockpiling in general in Sweden’.
- Community centres seem to be a rare occurrence, and is an area for development. Rather than referring to municipalities, in engaging with local population, two representatives from different national authorities highlighted the role of NGOs in raising public awareness. One representative also stressed the need to work with

⁶⁷ The paragraph reads in full: ‘Promote the resilience of new and existing critical infrastructure, including water, transportation and telecommunications infrastructure, educational facilities, hospitals and other health facilities, to ensure that they remain safe, effective and operational during and after disasters in order to provide live -saving and essential services’.

⁶⁸ National Strategy for the Protection of Vital and Social Functions and Critical Infrastructure: A Functioning Society in a Changing World (MSB, 2011).

⁶⁹ Act on Municipal and County Council Measures prior to and during Extraordinary Events in Peacetime and during Periods of Heightened Alert – Lag om kommuners och landstings åtgärder inför och vid extraordinära händelser i fredstid och höjd beredskap (SFS 2006:544) (chapter 2 §7(3)).

NGOs as there is a need to 'offer food and shelter to be heard' as persons in need of information otherwise do not seek it.

*33(e) Adopt public policies and actions that support the role of public service workers.*⁷⁰ (Level 3)

- This measure ties into several others, including preparedness plans, training and evacuation exercises, and support for local authorities. Sweden performs low on this measure since there is very little evidence that recovery and reconstruction are considered. Further, as discussed above, fragmentation and lack of integration of DRR hinders existing efforts from being as effective as possible.

33(f) Train the existing workforce and voluntary workers in disaster response and strengthen technical and logistical capacities to ensure better response in emergencies. (Level 2)

- A number of authorities lead, or participate in, relevant trainings and exercises.
- However, it is clear that more work needs to be done on the local level. Municipalities have obligation to provide training in accordance with LEH chapter 2 §8,⁷¹ but they must be supported by the national government in doing so. See also comments below, 33(h), on the importance of inclusive exercises, and follow-up mechanisms for such exercises.
- In terms of strengthening technical and logistical capacities, Sweden generally performs well.

33(g) Ensure the continuity of operations and planning, including social and economic recovery, and the provision of basic services in the post-disaster phase. (Level 2)

- Work is underway in this area and regulations exist in relation to preparedness and response, but could be more articulated in relation to recovery. Benchmarks for basic services – ie respectable levels of provision of food and drinking water in case of emergency and in the post-disaster phase need to be more clearly established.

*33(h) Promote regular disaster preparedness, response and recovery exercises.*⁷² (Level 2)

- A significant number of important exercises taking place with the involvement of a large number of authorities on different levels, from government down to local

⁷⁰ The paragraph reads in full: 'Adopt public policies and actions that support the role of public service workers to establish or strengthen coordination and funding mechanisms and procedures for relief assistance and to plan and prepare for post-disaster recovery and reconstruction'.

⁷¹ Act on Municipal and County Council Measures prior to and during Extraordinary Events in Peacetime and during Periods of Heightened Alert – Lag om kommuners och landstings åtgärder inför och vid extraordinära händelser i fredstid och höjd beredskap (SFS 2006:544).

⁷² The paragraph reads in full: 'Promote regular disaster preparedness, response and recovery exercises, including evacuation drills, training and the establishment of area -based support systems, with a view to ensuring rapid and effective response to disasters and related displacement, including access to safe shelter, essential food and non -food relief supplies, as appropriate to local needs'.

authorities, and also international cooperation. National agencies are required to inform MSB about their exercises, in order to avoid overlaps.⁷³

- Follow-up mechanisms and lessons learned could be more thorough and should be acted upon.
- In terms of evacuation, two representatives (one from a national agency and one from the local rescue services) stressed that evacuation is the obligation of the Police Department. However, in accordance with LSO⁷⁴ chapter 6 §2 and §3, the police do not decide upon evacuations, but rather have a supporting role. This is one example of the need for further clarification of roles and responsibilities.

*33(i) Promote the cooperation of diverse institutions, multiple authorities and related stakeholders at all levels.*⁷⁵ (Level 2)

- MSB is a clear leader in this area, and there exist various different relevant formal and informal coordination mechanisms and forums.
- It would be beneficial for post-disaster assessments to include affected population (in addition to involved authorities) to a larger extent. Post-disaster reconstruction should be discussed as part of the discussion forum (see above, 27(g)).

*33(j) Promote the incorporation of disaster risk management into post-disaster recovery and rehabilitation processes, facilitate the link between relief, rehabilitation and development.*⁷⁶ (Level 2)

- Work is needed in this area, which is likely, at least partially, due to Sweden's limited experience of disasters. It is important to take an inclusive approach to post-disaster assessments and reports, and also make sure that identified issues are addressed and acted upon. This can be considered in the rehabilitation of areas and communities affected by forest fires and the pandemic, as well as being considered for smaller scale events such as local flooding and so on.
- This is an area for further integration with Agenda 2030 and CCA.

*33(k) Develop guidance for preparedness for disaster reconstruction, such as on land use planning and structural standards improvement.*⁷⁷ (Level 2)

⁷³ Ordinance on Emergency Preparedness and Heightened Alert – Förordning om krisberedskap och bevakningsansvariga myndigheters åtgärder vid höjd beredskap (SFS 2015:1052) §10(7).

⁷⁴ Civil Protection Act – Lag om skydd mot olyckor (SFS 2003:778)

⁷⁵ The paragraph reads in full: 'Promote the cooperation of diverse institutions, multiple authorities and related stakeholders at all levels, including affected communities and business, in view of the complex and costly nature of post-disaster reconstruction, under the coordination of national authorities'.

⁷⁶ The paragraph reads in full: 'Promote the incorporation of disaster risk management into post-disaster recovery and rehabilitation processes, facilitate the link between relief, rehabilitation and development. Use opportunities during the recovery phase to develop capacities that reduce disaster risk in the short, medium and long term, including through the development of measures such as land use planning, structural standards improvement and the sharing of expertise, knowledge, post -disaster reviews and lessons learned. Integrate post-disaster reconstruction into the economic and social sustainable development of affected areas. This should also apply to temporary settlements for persons displaced by disaster'.

⁷⁷ The paragraph reads in full: 'Develop guidance for preparedness for disaster reconstruction, such as on land use planning and structural standards improvement, including by learning from the recovery and reconstruction programmes over the decade since the adoption of the Hyogo Framework for Action, and exchanging experiences, knowledge and lessons learned'.

- Regarding improvement of land use planning and structural standards, see 30(c). Recovery and reconstruction are areas for development.

33(l) Consider the relocation of public facilities and infrastructures to areas outside the risk range.⁷⁸

(Level 2)

- Sweden has limited experience of post-disaster reconstruction, but performs relatively well in relation to the protection of critical infrastructure (see 33(c)).

33(m) To strengthen the capacity of local authorities to evacuate persons living in disaster-prone areas. (Level 3)

- Work is needed with regard to this measure. It is clear that municipalities need evacuation plans in case of, for example, flooding and wildfires, but it is not clear that such plans exist. In addition, it is clear from interviews that there is confusion as to the responsibilities of the rescue services and the police in relation to evacuation. In relation to risks covered by LSO⁷⁹, chapter 6 §2 states that it is the rescue leader who has the right to make decisions of evacuation and that the Police Department shall provide necessary support in accordance with chapter 6 §3. Further clarity is needed.

33(n) Establish a mechanism of case registry and a database of mortality caused by disaster in order to improve the prevention of morbidity and mortality. (Level 1)

- Strong mechanisms exist for death registration, including cause of death.

33(o) To enhance recovery schemes to provide psychosocial support and mental health services for all people in need. (Level 2)

- This seems to be a marginalised area (perhaps due to limited experience of disasters), but one that is increasingly being taken seriously.
- The measure will likely be important moving forward and should be included in the national action plan for DRR.

33(p) Review and strengthen, as appropriate, national laws and procedures on international cooperation.⁸⁰ (Level 1)

- A lot of productive work being done on international cooperation more generally, including within the EU, UN, as well as with the Nordic and Baltic countries in

⁷⁸ The paragraph reads in full: 'Consider the relocation of public facilities and infrastructures to areas outside the risk range, wherever possible, in the post-disaster reconstruction process, in consultation with the people concerned, as appropriate'.

⁷⁹ Civil Protection Act – Lag om skydd mot olyckor (SFS 2003:778).

⁸⁰ The paragraph reads in full: 'Review and strengthen, as appropriate, national laws and procedures on international cooperation, based on the Guidelines for the domestic facilitation and regulation of international disaster relief and initial recovery assistance'.

various areas (although could be strengthened by specifically referring to the Guidelines for the Domestic Facilitation and Regulation of International Disaster Relief and Initial Recovery Assistance).⁸¹

IV.E Summary

In summary, while Sweden performs well in relation to many aspects of the Sendai Framework's fifty-nine measures, there is a need of a clear national vision, coherence, and oversight, and further engagement with communities and persons adversely affected by hazards. In developing a national action plan for DRR, it is, therefore, important that the process is inclusive and involves actors on all levels as well as civil society, NGOs and researchers. Attention should also be paid to the inclusion of vulnerable and marginalised groups to ensure to bring in diverse perspectives on DRR and disaster risk management.

V. Findings relating to the Sendai Framework, Agenda 2030 and Climate Change Adaption

The need to integrate DRR with Agenda 2030⁸², and climate change mitigation (CCM) and CCA) is well acknowledged in international policy instruments. The link between DRR and development was acknowledged already in the 1994 Yokohama Strategy for a Safer World: Guidelines for Natural Disaster Prevention, Preparedness and Mitigation and Plan of Action.⁸³ Adopted two years after the 1992 Rio Declaration on the Environment and Development⁸⁴, the Yokohama Strategy stated that 'disaster prevention, mitigation, preparedness and relief are four elements which contribute to and gain from the implementation of sustainable development' (Yokohama Message, para 2). The successor of the Yokohama Strategy. The Hyogo Framework for Action, further called for 'more effective integration of disaster risk considerations into sustainable development policies, planning and programming at all levels, with a special emphasis on disaster prevention, mitigation, preparedness and vulnerability reduction'.⁸⁵

The Sendai Framework states that 'Disaster risk reduction is essential to achieve sustainable development'.⁸⁶ In other words, it is not considered possible to achieve sustainable development without disaster risk reduction. 'Reducing disaster risk and

⁸¹ International Federation of the Red Cross and Red Crescent Societies, Guidelines for the Domestic Facilitation and Regulation of International Disaster Relief and Initial Recovery Assistance (2007).

⁸² UNGA, Transforming our World: the 2030 Agenda for Sustainable Development (21 October 2015) UN Doc. A/RES/70/.

⁸³ Yokohama Strategy and Plan of Action for a Safer World: Guidelines for Natural Disaster Prevention, Preparedness and Mitigation (27 May 1994).

⁸⁴ UNGA, *Report of the United Nations Conference on Environment and Development* (Rio de Janeiro, 3– 14 June 1992) (12 August 1992) UN Doc. A/ CONF.151/ 26 (Vol. I), Annex 1: 'Rio Declaration on Environment and Development'.

⁸⁵ Hyogo Framework for Action, para 12(a).

⁸⁶ Sendai Framework, para 19(h).

building resilience' is also one of the 10 priorities of the decade of action for the Sustainable Development Goals, as adopted by the UN General Assembly in 2019.⁸⁷

This view is also reflected in scholarship on the relationship between DRR and sustainable development, with leading scholars of DRR considering DRR to be part of sustainable development, and CCA to be part of DRR (although in some cases also involving aspects which are not risk focused).⁸⁸ It is suggested here that this is the most productive way forward. In other words, DRR should be considered an essential part of the work on Agenda 2030 that requires specific expertise and resources.

The separation of DRR, Sustainable Development Goals (SDGs) and CCM/A into separate institutional framework is a challenge on the international as well as local level, however progress is visible. In particular, there is cross reporting for the following targets: SGD 1, target 1.5; SDG 11, targets 11.5 and 11.b; and goal 13, target 13.1. Notably, these goals also include aspects of CCA. Goal 11, target 11.b calls on states to: 'substantially increase the number of cities and human settlements adopting and implementing integrated policies and plans towards inclusion, resource efficiency, mitigation and adaptation to climate change, resilience to disasters, and develop and implement, in line with the Sendai Framework for Disaster Risk Reduction 2015–2030, holistic disaster risk management at all levels'. Goal 13, target 13.1, calls for the strengthening of 'resilience and adaptive capacity to climate-related hazards and natural disasters in all countries'.

Despite the acknowledgements of the integral role of DRR and CCA in achieving sustainable development, many hurdles remain to incorporate this into practice. On the international level, sustainable development, CCA and DRR have developed as related, but separate, areas of law, policy, and practice. Despite acknowledged overlaps, they have been developed in silos and driven and monitored by separate institutions, which in turn creates hurdles for integration.⁸⁹ In terms of Sweden, it is clear that much work remains to be done to integrate CCA and DRR into ongoing projects and conversations relating to sustainable development and Agenda 30. While it was clear that all representatives interviewed have high awareness of Agenda 2030 as well as CCA it was highlighted how a clear language around integration between DRR, CCA, and Agenda 2030 is missing, and how aspects relating to DRR, CCA and Agenda 2030 are often handled by different teams even within agencies. It should also be noted that local authorities and national agencies are obligated to conduct 'climate and vulnerability' analyses separate from their R&V analyses, which further contributes to a separation between DRR and CCA.

The increasing focus on improving 'crisis preparedness' through enhanced civil defence, while not without value, risk inserting further hurdles into the integration between DRR, CCA, and Agenda 2030. It is important to bring together leading actors working on DRR, CCA and Agenda 2030, to consider how best to streamline efforts, including how best to integrate various reporting systems to avoid unnecessary overlap of efforts and resources.

⁸⁷ UNGA, *Political declaration of the high-level political forum on sustainable development convened under the auspices of the General Assembly* (21 October 2019) UN Doc. A/RES/74/4, para 27(f).

⁸⁸ See, eg. I. Kelman, J. Mercer, and J.C. Gaillard, 'Why Act on Disaster Risk Reduction Including Climate Change Adaptation', in I. Kelman, J. Mercer, and J.C. Gaillard (eds.), *The Routledge Handbook of Disaster Risk Reduction Including Climate Change Adaptation* (Routledge, 2017) 3.

⁸⁹ Aronsson-Storrier (n 16).

VI Reflections on the research process

Overall, this was a highly interesting and engaging research experience, which provided great insights into the ways in which national agencies and local authorities work with DRR.

The main challenge in working with these measures is that many of them contain several different aspects (for example, the collection, analysis and dissemination of data), which can be the work of different agencies. This led to particular challenges when writing the questions for the questionnaire. Because the instruction was to shorten and clarify the measures as well as limit the number of questions asked, it was necessary to draft questions covering several measures where possible. It was also necessary to focus the questionnaire on measures where feedback from agency representatives would be the most beneficial. Therefore, research was undertaken in advance of the formulation of the questionnaire in order to understand what measures might be considered together in the Swedish context, as well as what measures were the most important to focus on and which ones could be more easily answered through an assessment of relevant legislation, policy documents, and reports. It should be noted that the outcome of such an exercise is contextual and could differ significantly for other states. In order to avoid inserting my own interpretations into the wording of the measures, the language of the questions was kept as close as possible to that of the Sendai Framework. In general, this worked well, and any questions about the meaning of specific terms was clarified in the interviews.

Using a 1–5 scale for some of the questions was helpful in order to contextualise the comment provided, however, the numbers would not be a suitable foundation for a quantitative analysis on their own (nor was this the intention). This is especially so as they do not clearly account for levels of certainty as to the answers, the position of the interviewees within their agencies, or their knowledge of relevant work of other actors.

Asking all interviewees the same questions, rather than targeting the questions to the activities of the specific agency or municipality, led to interesting conversations about the responsibilities of how the representative considered the work and responsibilities of other (state and non-state) actors within DRR, and helped illuminate areas where there is confusion as to the responsibilities of different actors. In addition, although the majority of questions were directed to the work of the specific authority, some questions (12, 22, 23, 24, 31, and 36) specifically invited reflections on the work on national level. As a result, all interviewees provided insights not only into the work on of their own authority, but also into Sweden's work on DRR on a national level.

Overall, in assessing Sweden's work in accordance with the Sendai Framework, the responses to the questionnaire and the additional comments provided during the interviews were very helpful in terms of to bringing life and context to the work of existing laws and policies in practice.

Assessing the measures in relation to three levels (a fourth level of 'not relevant for Sweden' was ultimately removed following an assessment that all measures were of some

relevance), was suitable as it highlights where the clear weaknesses and strengths are. Level one suggests that the measure is fulfilled, or nearly fulfilled; level two signifies that change is needed, but that important work is underway and that some aspects of the measures are already fulfilled or about to be fulfilled; and level three signifies areas which have thus far largely been ignored or marginalised in relation to Sweden's work on DRR.

One noteworthy outcome from conducting a gap analysis through the focus on the fifty-nine measures is that it clearly illustrates the importance of addressing overarching structural and organisational problems in order for ongoing work to lead to effective disaster risk reduction and management. Indeed, under many of the measures assessed as 'Level 2', highly relevant work is conducted on behalf of different agencies or municipalities, but the overarching challenges relating to, for example, the fragmented structure of the allocation of responsibilities and funding, limit the positive effects of the work conducted.

The method of this study, as set out by MSB, was very well suited for this gap analysis, which relates to the work of various authorities on national and local level. In order to provide a more comprehensive analysis of a state's performance in accordance with the fifty-nine measures, it would be helpful to combine a study of the work of national and local agencies, with that of other stakeholders, including NGOs, private actors, researchers and civil society.

VII Summary of findings and recommendations

Sweden is engaging more and more with various aspects of the Sendai Framework, and many of the measures outlined in the Sendai Framework are fulfilled to a significant extent. However, while important progress has been made which enhances Sweden's DRR efforts, significant challenges persist which negatively affect Sweden's performance in relation to the majority of the measures. Critical areas for improvement include a more comprehensive understanding of risk; increased oversight, clarity and coherence; increased funding for actors with significant responsibilities, including municipalities; the inclusion of vulnerable and marginalised groups into DRR policies and decision making processes; and the integration of DRR and climate change adaptation (CCA) into the ongoing work on Agenda 2030.

The strong focus on preparedness and response within Sweden's overarching disaster risk management system leaves aside areas such as prevention, mitigation, risk creation, and recovery which are, therefore, areas for significant development. While some of these shortcomings are partially mitigated through sectoral laws and policies, there is a clear need to integrate them into the overarching disaster risk management system. In terms of oversight and clarification of responsibilities, these are examined as part of a restructuring of civil defence at the time of writing. However, while the new system could have the potential of clarifying questions around preparedness and response, it is not yet clear whether this will include prevention, mitigation, recovery and reconstruction, which are all important aspects of DRR. With regard to inclusion, Sweden generally performs well on gender, but there is little evidence of other groups being represented or actively invited to participate in the design or implementation of DRR policies beyond the standard referral rounds for proposed legislation. This should be addressed in order to make sure that relevant knowledge and perspectives are accounted for.

Despite the acknowledgements of the integral role of DRR and CCA in achieving sustainable development, many hurdles remain to incorporate this into practice. Much work remains to be done to integrate CCA and DRR into ongoing projects and conversations relating to sustainable development and Agenda 30; a clear language around integration between DRR, CCA, and Agenda 2030 is missing, and aspects relating to DRR, CCA and Agenda 2030 are often handled by different teams even within agencies.

Moving forward, there is need for a clear national vision, coherence, and oversight, and further engagement with communities and persons adversely affected by hazards. In developing a national action plan for DRR, it is, therefore, important that the process is inclusive and involves actors on all levels as well as civil society, NGOs and researchers. It is important to bring together leading actors working on DRR, CCA and Agenda 2030, to consider how best to streamline efforts, including how best to integrate various reporting systems to avoid unnecessary overlap of efforts and resources. Attention should also be paid to the inclusion of vulnerable and marginalised groups to ensure diverse perspectives on DRR and disaster risk management.

ANNEX I – Gap analysis of Sweden’s work in accordance with the Sendai Framework’s measures for national and local levels (Table)

Measure	Level 1 Work with this measure is ongoing and beneficial for achieving the SFDRR global targets (limited or no further action needed)	Level 2 Measure is partially fulfilled, but more work in this area could strengthen Sweden’s ability to meet the SFDRR global targets	Level 3 Measure is relevant for Sweden, but not yet fulfilled. Significant action needed.
Priority 1: Understanding disaster risk			
23. Base policies and practices for disaster risk management on an understanding of disaster risk in all its dimensions of vulnerability, capacity, exposure of persons and assets, hazard characteristics and the environment.			
24.			
(a) Promote the collection, analysis, management and use of relevant data and practical information and ensure its dissemination.		X	
(b) Encourage the use of and strengthening of baselines and periodically assess disaster risks.	X		
(c) Develop, periodically update and disseminate, location-based disaster risk Information.		X	
(d) Systematically evaluate, record, share and publicly account for disaster losses.			X

(e) Make non-sensitive hazard-exposure, vulnerability, risk, disaster and loss-disaggregated information freely available and accessible.	X		
(f) Promote real time access to reliable data, make use of space and in situ information, including geographic information systems.	X		
(g) Build the knowledge of government officials at all levels, civil society, communities and volunteers, as well as the private sector.		X	
(h) Promote and improve dialogue and cooperation among scientific and technological communities, other relevant stakeholders and policymakers.		X	
(i) Ensure the use of traditional, indigenous and local knowledge and practices to complement scientific knowledge in disaster risk assessment.		X	
(j) Strengthen technical and scientific capacity to capitalize on and consolidate existing knowledge and to develop and apply methodologies and models to assess disaster risks, vulnerabilities and exposure to all hazards.	X		
(k) Promote investments in innovation and technology development in long-term, multihazard and solution-driven research in disaster risk management.		X	
(l) Promote the incorporation of disaster risk knowledge in formal and non-formal education.			X
(m) Promote national strategies to strengthen public education and awareness in disaster risk reduction.		X	

(n) Apply risk information in all its dimensions, to develop and implement disaster risk reduction policies.		X	
(o) Enhance collaboration among people at the local level to disseminate disaster risk information.		X	
Priority 2: Strengthening disaster risk governance to manage disaster risk			
26. Strengthening disaster risk governance for prevention, mitigation, preparedness, response, recovery and rehabilitation.			
27.			
(a) Mainstream and integrate disaster risk reduction within and across all sectors and review and promote the coherence and further development, as appropriate, of national and local frameworks of laws, regulations and public policies.		X	
(b) Adopt and implement national and local disaster risk reduction strategies and plans, across different timescales, with targets, indicators and time frames.			X
(c) Carry out an assessment of the technical, financial and administrative disaster risk management capacity.		X	
(d) Encourage the establishment of necessary mechanisms and incentives to ensure high levels of compliance with the existing safety-enhancing provisions.		X	
(e) Develop and strengthen mechanisms to follow up, periodically assess and publicly report on progress on national and local plans,		X	

(f) Assign clear roles and tasks to community representatives within disaster risk management institutions.			X
(g) Establish and strengthen government coordination forums composed of relevant stakeholders at the national and local levels.		X	
(h) Empower local authorities to work and coordinate with civil society, communities and indigenous peoples and migrants.			X
(i) Encourage parliamentarians to support the implementation of disaster risk reduction.	X		
(j) Promote the development of quality standards, such as certifications and awards for disaster risk management.			X
(k) Formulate public policies aimed at addressing the issues of prevention or relocation of human settlements.		X	
Priority 3: Investing in disaster risk reduction for resilience			
29. Public and private investment in disaster risk prevention and reduction through structural and non-structural measures.			
30.			
(a) Allocate the necessary resources, including finance and logistics, as appropriate, at all levels of administration.		X	
(b) Promote mechanisms for disaster risk transfer and insurance, risk-sharing and retention and financial protection.		X	
(c) Strengthen, as appropriate, disaster-resilient public and private investments.		X	

(d) Protect or support the protection of sites of historical, cultural heritage and religious interest.		X	
(e) Promote the disaster risk resilience of workplaces.	X		
(f) Promote the mainstreaming of disaster risk assessments into land-use policy development and implementation.		X	
(g) Promote the mainstreaming of disaster risk assessment, mapping and management into rural development planning and management.		X	
(h) Encourage the revision of existing or the development of new building codes and standards.		X	
(i) Enhance the resilience of national health systems.		X	
(j) Strengthen the design and implementation of inclusive policies and social safety-net mechanisms.		X	
(k) Include people with life-threatening and chronic disease, in the design of policies and plans.			X
(l) Encourage the adoption of policies and programmes addressing disaster-induced human mobility.		X	
(m) Promote the integration of disaster risk reduction considerations and measures in financial and fiscal instruments.		X	
(n) Strengthen the sustainable use and management of ecosystems.		X	
(o) Increase business resilience and protection of livelihoods and		X	

productive assets throughout the supply chains.			
(p) Strengthen the protection of livelihoods and productive assets.	X		
(q) Promote and integrate disaster risk management approaches throughout the tourism industry.		X	
Priority 4: Enhancing disaster preparedness for effective response and to “Build Back Better” in recovery, rehabilitation and reconstruction			
32. Strengthen disaster preparedness for response, take action in anticipation of events, integrate disaster risk reduction in response preparedness and ensure that capacities are in place for effective response and recovery at all levels.			
33.			
(a) Prepare or review and periodically update disaster preparedness and contingency policies, plans and programmes.		X	
(b) Invest in, develop, maintain and strengthen people-centred multi-hazard, multisectoral forecasting and early warning systems		X	
(c) Promote the resilience of new and existing critical infrastructure.		X	
(d) Establish community centres.			X
(e) Public policies and actions that support the role of public service workers.			X
(f) Train the existing workforce and voluntary workers in disaster response and strengthen technical and logistical capacities.		X	
(g) Ensure the continuity of operations and planning.		X	

(h) Promote regular disaster preparedness, response and recovery exercises.		X	
(i) Promote the cooperation of diverse institutions, multiple authorities and related stakeholders at all levels.		X	
(j) Promote the incorporation of disaster risk management into post-disaster recovery and rehabilitation processes.		X	
(k) Guidance for preparedness for disaster reconstruction		X	
(l) Relocation of public facilities and infrastructures		X	
(m) Capacity of local authorities to evacuate persons living in disaster-prone areas.			X
(n) Mechanism for case registry and a database of mortality caused by disaster.	X		
(o) Psychosocial support and mental health services		X	
(p) National laws and procedures on international cooperation.	X		

Annex II: Interview questions⁹⁰

As discussed in Section VI, the questions in the questionnaire below were designed to draw out key aspects of the Sendai Frameworks five priorities of relevance for Sweden, when also focusing on issues of particular relevance for the Swedish context. While some questions are matched clearly to a specific measure, many of the questions relate to several measures. Questions 33–35 were added to invite reflections on the relationship between DRR and sustainable development, CCA and human rights, whereas question 36 encouraged interviewees to reflect more broadly on their experiences of Sweden’s work with DRR.

MSB gap analysis of the Sendai Framework for Disaster Risk Reduction 2015-2030: Questionnaire

*Please complete the questionnaire to the best of your knowledge. If a question or statement is not applicable to you or the Authority where you work, please select ‘N/A’.
Thank you!*

1 The Authority’s policies and practices for disaster risk management are based on an understanding of disaster risk in all its dimensions (including vulnerability, capacity, exposure of persons and assets, hazard characteristics and the environment).

1	2	3	4	5	N/A
Strongly disagree				Strongly agree	

Additional comments (optional):

2 The Authority assesses the technical, financial and administrative capacity (of the country or municipality as relevant) to deal with the identified risks on a regular basis.

1	2	3	4	5	N/A
Strongly disagree				Strongly agree	

3(a) The Authority promotes the collection, analysis, management and use of relevant data and practical information.

⁹⁰ Representatives from the following authorities were interviewed: The Department of the Environment, MSB, Swedish Meteorological and Hydrological Institute (SMHI), Swedish Food Agency, Board of Agriculture, Public Health Authority, Rescue Services; four different Municipalities (Gothenburg, Jönköping, Jokkmokk, and Karlstad (questionnaire only), National Board of Housing, Building and Planning, National Board of Health and Welfare, Civil Aviation Administration, Swedish Transport Administration (questionnaire only), and Lantmäteriet.

1	2	3	4	5	N/A
Strongly disagree				Strongly agree	

3(b) Please comment on the extent to which this includes location-based disaster risk information (such as risk maps) and what technology is used to deal with such data.

4(a) The Authority works to invest in, develop, maintain and strengthen forecasting and early warning systems.

1	2	3	4	5	N/A
Strongly disagree				Strongly agree	

4(b) Please comment on the extent to which existing forecasting and early warning systems.

Are people-centred, multi-hazard, and/or multisectoral.

5(a) The Authority works to make non-sensitive hazard exposure, vulnerability, risk, disasters and loss disaggregated information freely available and accessible to the public.

1	2	3	4	5	N/A
Strongly disagree				Strongly agree	

5(b) Does this include real-time access?

YES NO N/A

6(a) Is the Authority involved in the provision of emergency communications mechanisms?

YES NO N/A

6(b) If yes, please comment on how such systems are tailored to the needs of different users, including social, and cultural requirements as well as impairments.

7(a) Does the Authority have a strategy to strengthen public education and awareness of disaster risk information and knowledge relevant to disaster risk reduction?

YES NO N/A

7(b) Please comment on what ways are the needs of specific audiences accounted for in this strategy, including means of communication:

8 The Authority collaborates well with community-based organizations and non-governmental organizations in order to disseminate disaster risk information.

1 2 3 4 5 N/A
Strongly disagree Strongly agree

9(a) Does the Authority have a system to evaluate and record disaster losses?

YES NO N/A

If yes, please add any available details:

9(b) Are such records publicly shared and accounted for?

YES NO N/A

Additional comments (optional):

10(a) The Authority analyses hazard exposure and vulnerability information in the context of economic, social, health, education, environmental and cultural heritage impacts.

1 2 3 4 5 N/A
Strongly disagree Strongly agree

10(b) Please provide examples on (a):

11(a) In the work of the Authority, scientific knowledge relating to disaster risk is complemented by traditional, indigenous and local knowledge.

1 2 3 4 5 N/A
Strongly disagree Strongly agree

11(b) Please provide examples on (a):

12 Existing national and local disaster risk reduction strategies (as broadly conceived) are implemented in a satisfactory manner.

1	2	3	4	5	N/A
Strongly disagree				Strongly agree	

Additional comments (optional):

13(a) The Authority has, or participates in, follow-up mechanisms to evaluate progress on national and local plans relating to the reduction of disaster risk.

1	2	3	4	5	N/A
Strongly disagree				Strongly agree	

13(b) Please comment on what measures are taken to ensure participation of women, persons with disabilities and indigenous communities within such mechanisms.

14(a) Does the Authority publicly report progress made on national and local plans, or contribute to such reports?

YES	NO	N/A
-----	----	-----

14(b) Relevant reports are debated within the Authority.

1	2	3	4	5	N/A
Strongly disagree				Strongly agree	

15 The Authority works to strengthen the sustainable use and management of ecosystems.

1	2	3	4	5	N/A
Strongly disagree				Strongly agree	

16 The Authority incorporates DRR in existing environmental and natural resource management efforts.

1	2	3	4	5	N/A
Strongly disagree				Strongly agree	

17 The Authority is promoting gender equitable and universally accessible response, recovery rehabilitation and reconstruction approaches.

1	2	3	4	5	N/A
Strongly disagree				Strongly agree	

18(a) Women and persons with disabilities are invited to publicly lead and participate in the development of disaster risk reduction policies and plans within the Authority.

1	2	3	4	5	N/A
Strongly disagree				Strongly agree	

18(b) The Authority actively includes persons with life threatening and chronic disease are included in the design of policies and plans, in order to manage their risks.

1	2	3	4	5	N/A
Strongly disagree				Strongly agree	

18(c) Please comment on details relating to 18(a) and (b), including how their participation is supported.

19 What relevant measures (including but not limited to location and building standards), if any, are you aware of within the Authority that aims to strengthen the resilience of critical facilities such as schools, hospitals and physical infrastructures including water, transportation and telecommunications? Please provide details below.

20 The Authority encourages parliamentarians to support the implementation of disaster risk reduction, including through legislative measures and budget allocations.

1	2	3	4	5	N/A
Strongly disagree				Strongly agree	

21(a) The Authority cooperates with other stakeholders on issues relating to DRR.

1	2	3	4	5	N/A
Strongly disagree				Strongly agree	

21(b) Please comment on the nature of such cooperation, including identifying the specific actors and any legal basis (where available).

22 Disaster preparedness and contingency policies, plans and programmes, are prepared and periodically updated with the involvement of the relevant institutions.

1	2	3	4	5	N/A
Strongly disagree				Strongly agree	

Additional comments (optional):

23 National laws and procedures on international cooperation are reviewed and updated as appropriate.

1	2	3	4	5	N/A
Strongly disagree				Strongly agree	

Additional comments (optional):

24 National and local disaster risk reduction strategies and plans exist relating to land use and the prevention (or relocation) of human settlements in risk areas.

1	2	3	4	5	N/A
Strongly disagree				Strongly agree	

25(a) The Authority promotes the mainstreaming of disaster risk assessments into land-use policy development and implementation.

1	2	3	4	5	N/A
Strongly disagree				Strongly agree	

25(b) Please comment on the type of assessments made and the aims thereof (such as urban planning, land degradation assessments and informal and non-permanent housing):

26 The Authority conducts regular disaster preparedness, response and recovery exercises, including evacuation drills and training.

1	2	3	4	5	N/A
---	---	---	---	---	-----

Strongly disagree

Strongly agree

27 The Authority promotes the establishment of area-based support systems including access to safe shelter, essential food and non-food relief supplies, as appropriate to local needs.

1 2 3 4 5 N/A
Strongly disagree Strongly agree

Additional comments (optional):

28 The Authority works to strengthen technical and logistical capacities to ensure better response in emergencies.

1 2 3 4 5 N/A
Strongly disagree Strongly agree

29(a) The Authority promotes disaster risk resilience of work places and business resilience.

1 2 3 4 5 N/A
Strongly disagree Strongly agree

29(b) Please comment on any specific work in this regard, especially in relation to the protection of livelihoods and productive assets throughout the supply chains.

30 The Authority works to protect cultural and collecting institutions and other sites of historical, cultural heritage and religious interest.

1 2 3 4 5 N/A
Strongly disagree Strongly agree

Please provide examples (if available):

31 Community centres exist for the promotion of public awareness and the stockpiling of necessary materials.

1 2 3 4 5 N/A
Strongly disagree Strongly agree

32(a) The Authority works to support the role of public service workers to establish or strengthen coordination and funding mechanisms for relief assistance and post-disaster recovery and reconstruction.

1	2	3	4	5	N/A
Strongly disagree				Strongly agree	

32(b) Please comment on such measures and any adopted public policies and actions:

33 Agenda 2030 is integrated into the Authority’s risk reduction policies and practice.

1	2	3	4	5	N/A
Strongly disagree				Strongly agree	

Additional comments (optional):

34 Climate change adaptation is integrated into the Authority’s risk reduction policies and practice.

1	2	3	4	5	N/A
Strongly disagree				Strongly agree	

Additional comments (optional):

35 Human rights are integrated into the Authority’s risk reduction policies and practice.

1	2	3	4	5	N/A
Strongly disagree				Strongly agree	

Additional comments (optional):

36 Do you have any additional comments or suggestions for the future? If so, please share them below.

Annex III: References and Additional Materials

Laws and policies of relevance for DRR

- Road Act - Vägslag (SFS 1971:948)
- Act on Rationing – Ransoneringslagen – (1978:268)
- Electricity Preparedness Act – Elberedskapslag (1997:288)
- Environmental Code – Miljöbalk (SFS 1998:808)
- Security in a New Time – Säkerhet i en ny tid (SOU 2001:41)
- The three principles for crisis management: responsibility, proximity and parity (Government bill 2002)
- Civil Protection Act – Lag om skydd mot olyckor (SFS 2003:778)
- Road and railroad code – Järnvägslag (SFS 2004:519)
- Public Water Services Act – Lag om allmänna vattentjänster (SFS 2006:412)
- Act on Municipal and County Council Measures prior to and during Extraordinary Events in Peacetime and during Periods of Heightened Alert – Lag om kommuners och landstings åtgärder inför och vid extraordinära händelser i fredstid och höjd beredskap (SFS 2006:544)
- Ordinance on Municipal and County Council Measures prior to and during Extraordinary Events in Peacetime and during Periods of Heightened Alert Förordning om kommuners och landstings åtgärder inför och vid extraordinära händelser i fredstid och höjd beredskap (SFS 2006:637)
- Planning and Building Act – Plan- och Bygglagen (SFS 2010:900)
- Ordinance for the planning of the prioritization of vital societal electricity users – Förordning om planering för prioritering av samhällsviktiga elanvändare (SFS 2011:931)
- National Strategy for the Protection of Vital and Social Functions and Critical Infrastructure: A Functioning Society in a Changing World – Ett fungerande samhälle i en föränderlig värld: Nationell strategi för skydd av samhällsviktig verksamhet (MSB, 2011)
- Ordinance with Instruction for the the National Board of Housing, Building and Planning – Förordning med instruktion för Boverket (SFS 2012:546)
- Action Plan for Protection of Vital and Social Functions and Critical Infrastructure – Handlingsplan för skydd av samhällsviktig verksamhet (MSB, 2013)
- Regulations and General Guidance on Disaster Medicine Preparedness (National Board of Health and Welfare) – Socialstyrelsens föreskrifter och allmänna råd om katastrofmedicinsk beredskap (SOSFS 2013:22)
- Swedish Civil Contingencies Agency’s ordinance on municipal risk and vulnerability assessments – Myndigheten för samhällsskydd och beredskaps föreskrifter om kommuners risk- och sårbarhetsanalyser (MSBFS 2015:5)
- Ordinance on Emergency Preparedness and Heightened Alert – Förordning om krisberedskap och bevakningsansvariga myndigheters åtgärder vid höjd beredskap (SFS 2015:1052)
- Swedish Civil Contingencies Agency’s ordinance on governmental authorities’ risk and vulnerability assessments – Myndigheten för samhällsskydd och beredskaps föreskrifter om statliga myndigheters risk- och sårbarhetsanalyser (MSBFS 2016:7)

- National Energy Agreement 2016 – Energiöverenskommelsen (Energy agreement 2016).
- National Strategy for Climate Change Adaptation – Nationell strategi för klimatanpassning (prop. 2017/18:163) (Government bill 2017).
- Climate Law - Klimatlag (SFS 2017:720).
- Local Government Act – Kommunallag (SFS 2017: 725)
- Swedish Administrative Procedures Act – Förvaltningslagen (SFS 2017:900)
- National Security Strategy – Sveriges nationella säkerhetsstrategi (Government Offices of Sweden 2017)
- Agenda 2030 National Action Plan – Handlingsplan Agenda 2030, 2018–2020 (Regeringskansliet 2018)
- Common Guidelines for Command and Control – Gemensamma grunder för samverkan och ledning vid samhällsstörningar (MSB 2018)
- The Climate Adaptation Ordinance – Förordning om myndigheters klimatanpassningsarbete (SFS 2018:1428)
- The National Risk and Capability Assessment – Nationell risk och förmågebedömning (MSB, 2019)
- A More Effective Municipal Rescue Service – En effektivare kommunal räddningstjänst (Prop 2019/20:176)
- Act on Specific Restrictions to Prevent the Spread of Covid-19 – Lag om särskilda begränsningar för att förhindra spridning av sjukdomen covid-19 (SFS 2021:4)
- Ordinance on Specific Restrictions to Prevent the Spread of Covid-19 – Författning om särskilda begränsningar för att förhindra spridning av sjukdomen covid-19 (SFS 2021:8)
- Regulations on Specific Restrictions to Prevent the Spread of Covid-19 (Public Health Agency) – Folkhälsomyndighetens föreskrifter och allmänna råd om särskilda begränsningar för att förhindra spridning av sjukdomen covid-19 (HSLF-FS 2021:2)

International Instruments

- Yokohama Strategy and Plan of Action for a Safer World: Guidelines for Natural Disaster Prevention, Preparedness and Mitigation, 27 May 1994.
- Hyogo Framework for Action 2005– 2015: Building the Resilience of Nations and Communities to Disasters (22 January 2005) UN Doc. A/CONF.206/ 6
- International Federation of the Red Cross and Red Crescent Societies, Guidelines for the Domestic Facilitation and Regulation of International Disaster Relief and Initial Recovery Assistance (2007)
- Sendai Framework for Disaster Risk Reduction 2015–2030 (18 March 2015) UN Doc. A/ CONF.224/ CRP.1. Adopted by the UNGA in Resolution 69/ 283 (23 June 2015) UN Doc. A/ RES/ 69/ 283
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