Sendai Midterm Review 2022 - Norway

Implementation of the Sendai Framework for Disaster Risk Reduction in Norway

Norway has actively followed up the Sendai Framework for Disaster Risk Reduction 2015-2030 since it was adopted in 2015; and prior to this, the Hyogo Framework for Action (2005-2015). The National Platform for Disaster Risk Reduction was established in 2010 and its mandate was revised in 2016. It facilitates cooperation, exchange of information, joint projects etc.

The National Platform (website in Norwegian) was initially established as a cooperation forum for the prevention of natural hazards, including consequences of climate change. In 2016, it was developed with two other initiatives: the strengthening of cooperation and coordination according to a White Paper on floods and landslides, and as follow-up of a project on natural hazards and infrastructure (NIFS). The national platform is coordinated jointly by the Directorate for Civil Protection (DSB), the Water Resources and Energy Directorate (NVE) and the Norwegian Public Road Administration (NPRA). The national focal point for the Sendai framework is DSB.

The scope of our reporting for the Sendai Midterm review is defined by the National Platform's focus on natural hazards and climate change. The reporting of Norway has been prepared by the Secretariat of the National Platform and presented to its steering group members. However, we seek to find synergies with other frameworks (UN and others) and where relevant, include this in our reporting.

Disaster Risk Reduction in Norway

Civil protection work in Norway is based on the principles of equality, proximity, responsibility, and cooperation. This applies to both national and municipal emergency preparedness. The ten (10) county Governors and the Governor at Svalbard play a key role in monitoring and guiding the municipal/local level and ensure that plans and strategies take existing and future risks into consideration, including climate change. Disaster and climate risk management policies are being integrated into existing planning systems in all relevant sectors at local, regional, and national levels with particular focus on societal planning and land-use planning. Municipalities are conducting risk and vulnerability analyses on a regular basis, including present and future hazards (all-hazard approach).

The Planning and Building Act (2008) impose municipalities to ensure that risk and vulnerability analyses are carried out prior to development of new areas. The Civil Protection Act (2010) gives municipal level the responsibility to ensure that disaster risk is taken into consideration in all relevant sectors and areas, including existing buildings and infrastructure. National guidelines for integrating DRR into land-use planning is in place. Guiding manuals and planning tools are being developed and disseminated through county governors for use at municipal level. County governors monitor and guide municipalities in taking disaster risk into account in planning and strategy processes.

The 356 municipalities in Norway are the main fundament of national disaster risk reduction. The municipalities are responsible for the functioning of key public services and the coordination of these before, during and after emergencies (e.g., local infrastructure, health services, care for the elderly and other vulnerable populations, and information to the public). In accordance with the principles of responsibility and of proximity, the main responsibility for preventive planning and disaster management within their territorial borders lies with the municipalities. Risk- and vulnerability assessments, physical planning, emergency plans and exercises are the cornerstones of disaster risk
reduction at the local level. All municipalities are required to have an operational fire- and rescue service, and according to the Civil Protection Act they are required to establish systems for emergency prevention, preparedness, and response. According to the Planning and Building Act, they are required to carry out risk & vulnerability assessments in connection to land use planning and development. According to the Civil Protection Act, they are required to carry out overall risk & vulnerability assessments, covering both existing and future risks (including climate change impacts), and covering both existing and planned buildings, installations, and infrastructure.

Norway has a National Risk Analysis (NRA) coordinated by the Directorate for Civil Protection (DSB). NRA is used to support risk management decisions in a rapidly changing global risk landscape characterized by increasingly complex, interconnected societies and highly mobile people, information, and goods. The first NRA was carried out in 2010 (published 2011), and the latest NRA summary report (2019) includes analyses of 25 scenarios in three different categories: Natural hazards, technical hazards, and man-made disasters.

The Directorate for Civil Protection (DSB) published the report ‘Vital functions in society’ (Samfunnets kritiske funksjoner) in December 2016. The purpose of this report is to identify which functions are critical, and to define which functional capacity it is necessary to always maintain with the resilience of society in mind. Clarification of this could provide a better foundation for targeted disaster reduction efforts in society both across and within sectors.

Challenges
In 2022, the Office of the Auditor General of Norway investigated the government authorities' effort to adapt infrastructure and built-up areas to a changing climate. The investigation reveals that there are still challenges regarding how government authorities follow up climate change adaptation. The report presents several findings and recommendations for how to strengthen this work, including the overall coordination.

The report has been delivered to the Norwegian Parliament (Stortinget), and the Government will follow up with a white paper.

Commission findings – quick clay landslide 2020
After a major quick clay slide at Gjerdrum 30 Dec 2020 a Commission (“Gjerdrumutvalget”) was established by the Government for two purposes:

1) find the causes of the slide
2) suggest improvements in the management of such slides, and when relevant in general on the management of natural hazards

The Commission gave several recommendations in its paper (NOU 2022: 3):

1. Clearer responsibilities, a new act on protection against natural hazards is proposed with particular focus on responsibilities in already developed areas.
2. The need for more mapping and improved quality in the mapping
3. More protection in existing settlements is needed. Based on an analysis from 2021 (FOSS), the commission suggested to spend 45 billion kroner (approx 4.5 billion euros) over a 30-year period.
4. New development must be performed in a safe way. Improvements in guidance and regulations.
5. Monitoring of erosion and other changes in the terrain to identify critical areas
6. Develop knowledge and competence among all actors dealing with the risk. Strengthen education to increase the total capacity.

The National Platform – cooperation, experiences, benefits

The mandate for the Natural Hazards Forum (NHF), which is also the National platform (NP) for the Sendai frameworks, has the following main points:

- to facilitate cooperation between various national, regional, and local actors to reduce vulnerability to undesirable natural events, with emphasis on events and developments of a geological and hydrometeorological nature.
- exchange information and experiences through regular meetings, and initiate projects, working groups or the similar in areas where there are particularly cross-sectoral challenges.
- identify deficiencies or potential for improvement related to society's prevention and management of natural hazards and propose measures to address this.

The national platform (NP) conducted in 2021 a self-assessment among a variety of responders that have been or are involved with the NP. The self-assessment concluded that the NP is an important arena for actors with a particular responsibility and interest in the management of natural hazards. With climate change and increasing natural hazards, the NP is more important than ever. To succeed with the mandate, it is important to build on the strong foundation that has been laid. This is not least related to the fact that the partners in the forum represent a strong, common voice. At the same time, the forum can be strengthened in some areas, such as communication work and contact with external actors. A clearer understanding of the role and responsibility is needed. Hence, more concrete goals and plans are called for, both in the long and short term. Related to this is level of ambition and how to ensure and highlight concrete outcome and impact. It seems to be slightly different views between the informants on this topic. This is related to the issue of the forum to primarily be an arena for discussion and information exchange, or also work on specific with outcome and recommendations. The crux of this seems to lie in the issue of available funding.

The three main conclusions of the self-assessment are:
- everyone who participates in the NP agrees that this cooperation should continue and be further developed. There is consensus on the value of a common arena for the exchange of information and discussion on common issues.
- there are somewhat different views and approaches on how the work should be taken forward, including the role, working methods and, not least, funding in the future.
- the NP needs a stronger mandate in the respective participants' overall governing documents, and there is a need for a more long-term plan that can build up possible funding.

The self-assessment was followed up by the development of a new strategy for the NP which was adopted by the steering group in February 2022, and plan of action adopted in May 2022. The NHF adopted the following vision statement: **We work together for safety against natural hazards.** The NHF mission is to be the most important arena for cooperation for and among public entities for an overall understanding for the impact of natural hazards. This entails broad cooperation to improve society’s ability to prevent and manage natural hazards.

The expected outcomes of the NP work are:
- continue the work on data coordination and mapping of natural hazards.
- a consolidated understanding of the impact of climate change on the risk for natural hazards.
- assess the overall need for research and development.
- strengthen national implementation of the Sendai framework.
- a status report of natural hazards risk
• highlight which areas of natural hazards that are not addressed or should be strengthened.
• assess need for legislative changes and possible legal coordination within the natural hazard area.
• assess important premises and input to policy development in this area.
• contribute to strengthen the overall information work on natural hazards.
• strengthen understanding of the importance of the parties in the value chain that leads to society’s management of undesired natural hazard events.

Bank of Knowledge
Norway has developed an online 'Bank of Knowledge' (Kunnskapsbanken). This is a technical solution to make information about risk and vulnerability more easily accessible. The system collects, compiles, and visualizes data from various sources. It aims at improving overview and knowledge about disasters, to strengthen civil protection, to enhance disaster prevention, and reduce losses and damages. An important part of the system is the translation of data into a common language, which makes it easier to find data even if the sources use different terms. The system includes data from DSB, other national agencies, insurance companies, and municipalities. The system is designed for various users, especially at municipal level. The development of the system required changes in national legislation.

A study is to identify the main conditions required for the establishment of a new system, incorporated in the Knowledge Bank platform, for the sharing of loss data held by insurance companies that can be used by Norwegian municipalities was carried out by KLIMA 2050, May 2022. https://www.sintefbok.no/book/index/1330/insurance_loss_data_for_improved_climate_change_adaptation_conditions_for_data_sharing_and_utilization

International cooperation on DRR
Norway seeks to be an active partner in the implementation of the Sendai framework, also on the international scene. During Norway's presidency of the Council of Baltic Sea States (CBSS) 2020-21, DSB chaired the CBSS working group on civil protection. Focus was given to the Sendai Framework,
including valuable contributions of the UNDRR European office to online seminars as well as the annual 'Baltic Excellence Program', which gathered around 45 experts from all Baltic Sea states\(^1\). Further, the UNDRR European office also gave a presentation of current status as well as plans for the midterm review at the Secretaries General meeting of CBSS Civil protection authorities. In all cases, presentations of the UNDRR were supplemented by information from other international organizations and frameworks; especially the UNECE Convention on Transboundary Effects of Industrial Accidents.

Norway, together with Iceland and Liechtenstein, is donor country for the Norway/EEA Grants scheme. The Grants have two goals – to contribute to a more equal Europe, both socially and economically – and to strengthen the relations between Iceland, Liechtenstein and Norway, and the 15 Beneficiary States in Europe. Since 2014, 'Disaster Prevention and Preparedness' has been one of the program areas under the scheme, with programs and projects being implemented in Poland and Romania. The programme supports activities in areas, which supplements activities under the EU Union Civil Protection Mechanism (UCPM).

The programme includes activities such as:

- Mainstreaming of disaster risk management to support resilience investments
- Development and improvement of national acts and regulations based on international recommendations and commitments.
- Development of national, regional, and local risk assessment systems
- Cross-border cooperation on risk management policies and practices, and on disaster impacts
- Strengthening of chemical, biological, radiological, and nuclear safety and security

In January/February 2023, an international conference on 'innovations in disaster risk reduction' will be held in Krakow, Poland – jointly organized by the Government Security Centre in Poland, the Space Research Centre of Poland, and the Norwegian Directorate for Civil Protection. UNDRR is involved in the conference, which will highlight technical innovations and tools for disaster risk reduction. Target groups will be planners and decision-makers in the 15 beneficiary states of the EEA Grants Scheme. The conference also represents an opportunity to initiate activities under the next programme period of the EEA Grants scheme under the program area 'Disaster Prevention and Preparedness'.

\(^1\) The Russian Federation was excluded during Norway’s presidency due to Russia's war on Ukraine and later withdrew from CBSS.
Annex – answers to guiding questions

1. How have (development) decisions in public and private sectors, as well as civil society, been made more sustainable through implementation of the Sendai Framework?
   Regulations, dialogue, public-private cooperation etc. already well established, independent of Sendai. However, Sendai provides an important platform for cooperation. The National Platform for Disaster Risk Reduction (Naturfareforum) was established in 2010 and is mandated to facilitate cooperation, exchange of information, joint projects etc.

2. Are the root causes and underlying drivers of disaster risk better understood, and more systemically addressed across all sectors, scales and disciplines? When analysing trade-offs and co-benefits between development pathways, reflective of the interconnections across the Sustainable Development Goals, how is their impact on underlying disaster risk considered?
   N/A

3. What do governments and other stakeholders consider having been the major achievements, challenges and barriers to implementation of the Sendai Framework, and lessons identified?
   Major achievements have been better coordination on the prevention of natural and man-made disasters, and involvement of relevant sectors and government levels. Barriers: It is time consuming and require resources and commitment at all levels. Lessons identified: The necessity of coherence between Sendai and other international frameworks, regulations and conventions.

4. What have been the major changes to the contexts within which governments and other stakeholders have been implementing the Framework since 2015? What major changes / emerging issues / topics of concern are anticipated in the period to 2030 which will need to be considered in prioritizing, accelerating and amplifying action?
   Higher level of awareness at all levels regarding new and emerging risks, such as climate change, technological development, cyber etc.

5. What adjustments are required in policy, regulatory and legislative frameworks, strategy, epistemology, organization or investment to capitalize on opportunities or to mitigate new / emerging threats to the achievement of the expected outcome and goal of the Sendai Framework?
   This is an ongoing, continuous process. The Government has recently appointed a commission to assess the strengths and weaknesses of national civil and military preparedness systems, which may lead to new changes in legislation, institutions etc. The Government has also signalled a White Paper on climate change adaptation will be made. How the recommendations from “Gjerdrumutvalget” (NOU 2022: 3 will be met, has not yet been decided.

6. What deliverables would bring the greatest reduction in disaster risk and the greatest increase in the resilience of people, assets and ecosystems in the remaining period of the Sendai Framework and beyond 2030?
   New digital systems and tools will enable better planning at all levels, to consider disaster risks in all levels of planning. For Norway, the data platform ‘Knowledge Bank’ (DSB) compiles data from various sources, including the insurance sector. Further, new digital and advanced map systems from the Norwegian Water Resources and Energy Directorate have been developed in order to provide more reliable data for planning and decision-making.
Such tools are crucial for better land-use planning, as well as planning of disaster resilient infrastructure. Such tools will also enable better and more targeted security measures such as landslide or flood protection in exposed areas.

7. **Has there been a reduction of disaster risk and the impacts of natural- and man-made hazards on persons, businesses, communities, countries and ecosystems, as a result of actions taken and approaches adopted in implementing the Sendai Framework since 2015?**

Structural protection has been established in already developed areas. For example in 2021, NVE financed the protection of 1400 residential houses and 300 other buildings. New rules and guidance have been developed related to storm water management. Improved warning services for natural hazards.

Although risk awareness has improved, there are huge variations from north to south in terms of risk exposure. We see that risk increases due to climate change, especially in the High North. With global warming, temperature increases faster in the Arctic than in other parts of the world. In June 2022, the Norwegian Meteorological Institute published a report in Nature, showing that temperature at northeast Svalbard has increased by more than 5 degrees over just 20 years. This is more than twice as much as the rest of the Arctic region, and 5-7 times higher than the global average. This gives severe consequences for Svalbard; not only for wildlife, but also for buildings and infrastructure. With thawing permafrost, the ground becomes unstable, leading to damaged roads, houses etc. Further, with melting ice in the Arctic, new ship routes open between Europe and Asia. In case of accidents, there are few rescue capacities in the area, and the nature is vulnerable to oil spill etc.

8. **What is the trend for the achievement of the expected outcome of the Sendai Framework for the period to 2030?**

Most municipalities are up-to-date with their risk and vulnerability assessments, and there is a well-functioning system for follow up through the county governors.

In short, there is a positive trend. Protection measures will be established. However, climate change trends in the opposite direction. It is a great challenge to ensure that all new development take natural hazards properly into account.

9. **In respect of people and assets in your country, business, community or organisation, what progress has been made in: reducing exposure to hazards? Reducing their vulnerability and augmenting their capacity for risk reduction? Where relevant how have hazard, vulnerability or exposure characteristics been modified / their threat reduced (e.g. man-made hazards)?**

Norway is exposed to a number of natural hazards, and reducing exposure to all of them is not possible. National authorities prioritize their efforts due to the level of risk, consequences of exposure and potential damage to existing buildings and infrastructure as well as danger for life and health (cost-benefit). There is a strong focus on land-use planning and integration of risks in all phases of societal planning. Further, there is a strong focus on industrial safety and security and NATECH (special guidance and inspections). We also seek to strengthen the links between natural hazards and industrial accidents in international fora.

10. **What do governments and other stakeholders consider to have been the major achievements, challenges and lessons identified in: preventing the creation of new risk? reducing the existing stock of risk? strengthening resilience?**
The government presents a white paper on civil protection every four years, which enables constant reviewing and renewal of prevention and preparedness planning in the whole country. The latest white paper (2021) highlights disaster prevention and cooperation. The white paper is anchored both in the Government and the Parliament.

The Green paper NOU 2015:16 on storm water management presented challenges and proposals for improvements. Some new regulations provide legal tools for the municipalities. NVE was given a new task in developing the knowledge base and guide municipalities in land use planning. (The insurance payout for storm water exceeds the sum of all payout related to natural hazards)

11. What are the prospects for the achievement of the goal of the Sendai Framework by 2030 based on progress since 2015 and expectations for the period 2023 to 2030?
   This is a continuous work. Disaster risk reduction is embedded in national legislation, such as the Planning and Building Act. Municipalities play a key role in ensuring that risk and vulnerability is taken into account in local planning processes. However, new developments, urbanization and utilization of areas exposed to floods, landslides etc. implies that there will still be residual risks – also in newly developed areas which follow national regulations.

12. How have quantitative targets supported efforts to realise the goal and outcome of the Sendai Framework?
   The buildings code has quantitative demands for safety against floods, storm surge, landslides and avalanches. This is a very powerful tool to support the aims of the Sendai Framework.
   A recent commission on landslide risk suggests a ‘zero-vision’ strategy for landslides. This is still under consideration, and will – if decided – have an impact on planning systems, economy, legislation, institutions etc.

13. What have been your experiences and issues with reporting on the Global Targets, using the internationally agreed indicators?
   The Global Targets gives a good direction for the national work on DRR, but some of the indicators are poorly defined and are not customized to national context (i.e. the definition of a disaster). In Norwegian context, with a system of individual ministerial responsibility and principle of local self-government, data collection remains a challenge. To overcome this challenge, the DSB Knowledge bank has been established and work are ongoing to collect relevant data, primarily for domestic use, but also for reporting on the Sendai indicators.

14. How important has the establishment of national and local disaster risk reduction strategies and plans of action been to the realisation of the other targets, goal and expected outcome of the Sendai Framework? If yes, have these proved useful, and if not, why not? Have national custom indicators been established? And how are national and local strategies being integrated within plans and actions supporting the realization of the goals and targets of the 2030 Agenda for Sustainable Development and the Paris Agreement?
   The governments white paper on civil protection has status as national strategy for implementation of the Sendai framework. Policies, instruments and decisions in the white paper contributes to strengthening disaster risk reduction throughout society. The latest white paper (2021) highlights the responsibility for all levels and stakeholders to address these issues.

15. How has national and/or regional public policy, legislation, planning and organisation changed to align with the Sendai Framework? How must it change in the period to 2030?
No specific major changes.

16. How has the principle of shared responsibility between central and local authorities, sectors and stakeholders been applied? What measures have countries taken to enable integrated management of disaster risk across institutions, sectors, the private sector and other stakeholders?
Civil protection in Norway is based on the principles of responsibility, proximity, similarity, and 'samvirke' (collaboration and cooperation). Municipalities play a key role, and the county governors follow up the municipalities on behalf of DSB. DSB also carries out audits of civil protection in the ministries, to ensure that all sectors take their responsibility.

17. What enabling measures have been implemented to integrate disaster risk reduction and management with actions addressing climate change, sustainable development, biodiversity, and other relevant domains?
New digital tools have been developed over the past 5 years; including 'Babelfish' and new digital map systems (see pt. 6). Climate change adaptation and natural hazards management is well integrated in the work of governmental agencies and e.g. by SPR on climate change adaptation.

18. Since the adoption of the Sendai Framework, to what degree has understanding disaster risks, their root causes and their incorporation in public and private decision making and investment become a ‘due diligence’ requirement by law?
It has been a part of the planning process for new developments, infrastructure and investments since 2005, and is incorporated in the national Planning and Building Act. Awareness in the private sector has increased due to technical regulations (last revised 2017).

19. What progress has been made in approaches to pre-disaster risk assessment – for disaster risk prevention and mitigation, as well as for the development and implementation of appropriate preparedness and effective responses to disasters – that consider disaster risk in all its dimensions of vulnerability, capacity, exposure of persons and assets, hazard characteristics and the environment?
Our national survey on civil protection, targeted towards the municipalities, show that all municipalities fulfill their obligations to assess risk and vulnerability and incorporate the results of the assessments in planning processes as well as in disaster preparedness. However, the quality and scope of their assessments vary. Recent events have shown that there is strong collaboration between local and regional civil protection authorities as well as voluntary organizations. Together with our Nordic neighbours, as well as other countries especially in the Baltic Sea Region, we participate in international work to strengthen disaster preparedness and response such as the EU Union Civil Protection Mechanism UCPM.

20. What do governments and other stakeholders consider to have been the major achievements, challenges and lessons identified since 2015 in developing disaster risk governance mechanisms and approaches?
- Stronger international cooperation in the field of civil protection
- The importance of cooperation and coordination at national level has improved, especially during Covid-19 and the Russian war on Ukraine.
Experience from the 2011 terror attacks in Oslo/Utøya demonstrated the need for stronger cross-sectoral cooperation.

The Office of the Auditor General of Norway (2022) point at the need for stronger coordination at national level in climate change adaptation, with special emphasis on buildings and infrastructure. The investigation points at the severe consequences of climate change, and that national efforts to assess consequences of climate change are not sufficient. Knowledge from two independent commissions are important:

NOU 2015:16 (Overvannsutvalget) on storm water management presented challenges and proposals for improvements.

NOU 2022: 3 (Gjerdrumutvalget) on quick clay slide risks and management

21. **Given the systemic nature of risk, and experiences of the ongoing COVID-19 pandemic (including cascading, indirect impacts), what adjustments are required to existing disaster risk governance and management approaches at the national and local, international and regional levels?**

In general, sharing of information and exchange of knowledge is valuable, especially when it comes to practical measures and solutions. Experience from Covid-19 shows the necessity of cross-sectoral cooperation, since this quickly turned out to be far more than a health crisis. International cooperation and cooperation have been essential for the management of the pandemic. Both the pandemic, Russia’s war on Ukraine, and the heatwave in Europe 2022, have demonstrated the need for international cooperation in disaster management.

22. **Have increases been observed in investments in resilience since 2015, are investments by public and private sectors increasingly risk-informed, and if yes, by what measures? Are disaster risk reduction considerations and measures integrated in financial and fiscal instruments? Has there been an increase in guidance for risk-informed public and private investment?**

The Norwegian Natural Perils Pool (NNPP) was formed on January 1st, 1980. Its activities are governed by the Natural Perils Insurance Act and the Rules for the Norwegian Natural Perils Pool. Natural perils insurance is a compulsory cover linked to fire insurance in Norway. All insurers providing fire cover in Norway must be members of the Pool. The NNPP covers Natural Perils losses caused by landslide, storm, flood (fluvial), storm flood, earthquake, and volcanic eruption. Coverage under the Pool scheme does not include cover for contingent losses such as business interruption or motor hull. Coverage also excludes claims resulting from lightning, freeze, drought, rain (pluvial) or snow pressure under the NNPP scheme. These perils and contingent claims are covered directly by the individual insurance companies.

Loss and damage to nature and weather resulted in compensation of more than NOK 28 billion over the past ten years for buildings and contents in Norway. The extent of climate-related damage is increasing in Norway. Among other things, there are often damage from extreme precipitation, which is becoming more and more common in Norway. Damage caused by extreme precipitation accounts for around half of the compensation after all weather and natural disasters over the past 10 years.

On October 6, 2017, the Norwegian Government appointed an expert commission to assess climate-related risk factors and their significance for the Norwegian economy. The Commission submitted its report to the Ministry of Finance on December 12, 2018. The
commission concludes that Norway is well placed to manage climate and disaster risk, but the implications of major climate change are potentially severe and challenging to envisage. An ambitious and effective climate policy is the most important step the Norwegian authorities can take in response to such risk. In addition, the authorities should perform thorough analyses of climate risk, especially in the petroleum sector, and strengthen the resilience of society. The Commission is of the view that central government should establish, maintain, and publish a set of scenarios for oil prices, gas prices and CO₂ prices, including a scenario reflecting the ambitions under the Paris Agreement. This can lay the foundations for better risk assessment both at the national level and in individual sectors of the economy. The Commission has in this context highlighted the importance of thorough analyses of climate risk in the petroleum sector.

Some financial institutions have worked on identifying and managing climate risk both within its own organization and at its customers. The local government sector faces physical risks, such as surface runoff, floods, landslides, rising sea levels etc., which damage or destroy property; liability risk, which is the risk of being held liable for losses suffered by others as a result of climate change; and the transition risk associated with the transition to a low-carbon society, which can impact municipalities as a result of changes to political and regulatory framework conditions, developments in technology and changes to consumer behavior. One of the banks, have developed a web-based, freely accessible risk tool for the local government sector to promote the inclusion of disaster and climate risk into municipalities’ decision-making processes and investment plans. They are using a climate risk model in their credit assessment for green bonds.

23. How has the resilience of business and industry sectors to disaster risk, including from natural and man-made hazards, evolved since 2015? What further actions are required through to 2030?

In August 2021 the Ministry of Finance appointed an expert group to examine the implications of climate risk for the Government Pension Fund Global (the Oil Fund). The Financial Supervisory Authority of Norway published a report in December 2021 that analysed the possible impact on Norwegian banks of the transition to a low carbon society and concluded that the overall losses would be significant but would be manageable for Norwegian banks.

The European Union recently passed new regulations on sustainable finance, which includes overarching conditions that an economic activity must meet to qualify as environmentally sustainable. The Taxonomy Regulation establishes six environmental objectives, and climate change adaptation is one. As a result of the new regulations, companies in all industries are forced to be more sustainable to obtain financial funding. The regulations were implemented in Norwegian law on January 1, 2022. The implementation will be of great importance for companies operating in Norway.

24. How has preparedness for response, as well as preparedness for recovery, rehabilitation and recovery, improved or deteriorated since adoption of the Sendai Framework? And how has this manifested in terms of “Build Back Better”?

Recent events have over the past years contributed to strengthen disaster preparedness and response, especially coordination among local responders and civil protection authorities. There have also been changes in insurance legislation to cover relocation (cost of land
outside hazard areas) which was previously not covered by compensation schemes. The Ministry of Justice and Public Security will revise and update legislation to further improve prevention of natural hazards (started 2022).

25. **What partnerships and initiatives have proved most successful? How and why?**
The National Platform for Disaster Risk Reduction (Naturføreforum) is a network cooperation, including national authorities as well as local and regional authorities. The Forum shall identify shortcomings or potential for improvement in the society’s prevention and management of natural hazards and make proposals on how to meet these. The national platform initiates projects on relevant topics and areas such as landslide prevention, hazards and risk mapping, methodology development and competence building. One of the recommendations for the Forum is to explore a new financing mechanism for prevention measures similar to the model of Barnier Fund in France. The National Platform has also been involved in the development of the data platform "Knowledge Bank" – a digital system compiling data from various sources including the insurance sector.

26. **To what extent is the Sendai Framework known and being applied at sub-national and local levels?**
It is probably not very well known, except for the participants in the National Platform and some of the larger cities. However, legislation, directives, assessments and measures given at the national level are in line with the main principles and priority areas of the Sendai Framework.

27. **How has cooperation and collaboration in risk reduction across mechanisms and institutions in the implementation of relevant international instruments evolved since the adoption of the Sendai Framework?**
The National Platform was established before the Sendai Framework, but its activities have been updated and adjusted in line with the priorities of the Sendai Framework.

28. **How important have been regional and subregional disaster risk reduction strategies and plans in supporting national and local efforts to implement the Sendai Framework?**
The EU Civil Protection Mechanism (UCPM) is a strong driving force for strengthening disaster preparedness and response in Europe. Further, the Council of Baltic Sea States and the EU sub-regional strategy for the Baltic Sea region is important and have taken a leading role in the implementation of the Sendai Framework in the sub-region. We see a high potential in integrating the priorities of the Sendai in other regional and global conventions, such as the UNECE Convention of the Transboundary Effects of Industrial Accidents.

29. **What have been the trends in financial resources provided to developing countries for disaster risk reduction through international cooperation since 2015? Likewise technical cooperation, capacity building and technology transfer? Including through bilateral, multilateral, north-south, south-south, and triangular cooperation.**
The Norwegian Development Agency, Norad, signed a cooperation agreement with UNDRR in 2022, providing substantial funding for the work of the UN to strengthen disaster risk reduction in developing countries. Under the UNECE Convention of the Transboundary Effects of Industrial Accidents, several projects in Central Asia and ECCA states on industrial safety have received funding.