



Sweden

National progress report on the implementation of the Hyogo Framework for Action (2013-2015)

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Outcomes

Strategic Outcome For Goal 1

Outcomes Statement

The national reporting explains Sweden's work carried out in line with the Hyogo Framework for Action and consists not only of the cooperative efforts of the national platform, but also covers the disaster risk reduction work of a wider range of agencies and stakeholders. However, the main focus in the reporting is on the work carried out by the 20 agencies/organisations represented in the national platform.

Sweden aims to build stronger resilience to disasters by continuing to integrate climate change adaption and disaster risk reduction (DRR) into policy and practices. Progress has been made towards increasing the awareness at all levels of the need for sustainable development, disaster risk reduction and climate adaptation policies. Climate change adaptation is a topic openly discussed by many sectors with more funding for research, seminars, reports and action plans developed. A milestone in Sweden was the 2007 government commissioned report "Sweden Facing Climate Change: Threats and Opportunities". This became the basis for the climate and energy proposition in 2009, serving to some degree as Sweden's national policy for climate change adaptation. Sweden welcomes the 2013 communication on An EU Strategy on adaptation to climate change and the Council Conclusions on An EU strategy for adaptation to climate change.

Guidance documents have been written for climate change adaptation including a number of handbooks such as Building for tomorrow's climate. The multi-sector climate adaptation portal, under the management of the Swedish Meteorological and Hydrological Institute, continues to be updated with new information and has a broad user group.

The focus on climate adaptation was strengthened from 2009 with the governmental allocation of several million Swedish kronor for climate issues - such as the information portal above, adaptation guidance, research, investigations, the implementation of EU directives such as the water frame directive and floods directive, governmental commissions to several agencies and employment of climate change adaptation coordinators at each of the County Administrative Boards in the country. The County Administrative Boards were also given the responsibility to produce county specific climate adaptation action plans by June 2014. It will contribute to the 2015 national checkpoint on climate mitigation and adaptation.

There are also regular calls for research proposals related to climate change and its connection to disasters as well as adaptation methods.

MSB and the Swedish National Platform for Disaster Risk Reduction organized two national consultation meetings (in 2012 and in 2014) to obtain viewpoints on the Post 2015 framework for disaster risk reduction. Representatives from different sectors in society attended including representatives from the Ministries of the Swedish Government, authorities in the Swedish National Platform for Disaster Risk

Reduction, municipalities, the private sector, NGO's and researchers. A summary report for each of the meetings was written to contribute to the international process that leads to a new or improved framework to be adopted at the 3rd World Conference on Disaster Risk Reduction in March 2015.

There is increasing awareness of disaster risk reduction due to flooding events and storms that have occurred in Sweden in the last few years. The Swedish Planning and Building Act that went into effect in 2011, requires climate change adaptation in the building and planning process. This provides a basis for building back better after natural disasters such as focusing on techniques for protection of the critical infrastructure. The national work with the EU Floods Directive has accelerated and it is also a national priority to be engaged in EU work related to civil protection, assessment of risk management capability critical infrastructure protection and environment protection.

The national elevation database, generated from high resolution aerial scanning, is used in a number of ways for risk management. It provides very detailed topographic data, with more accurate modelling possibilities for GIS analyses than before. These investigations provide essential information that can lead to better decisions for disaster risk reduction. It covers today (June 2014) almost the whole country.

Sweden's various national strategies also help to increase the capacities at all levels to build resilience against disaster. An example is: A functioning society in a changing world: MSB's report on a Unified National Strategy for the Protection of Vital Societal Functions. The strategy was produced in 2011 in collaboration with numerous stakeholders. The strategy is part of Sweden's emergency preparedness structure and is based on an all hazard approach and the fundamental principles for Swedish emergency preparedness: the responsibility, equality and proximity principles. The strategy's purpose is to guarantee the functionality of society. MSB was 2012 tasked by the Government to further develop the work of protection of societal vital functions and to develop an action plan based on the strategy. The goal of the action plan, adopted in December 2013, is to promote systematic safety work by 2020 for all bodies responsible for maintaining one or more vital societal functions.

The Swedish Government has a national strategy for sustainable development and a communication Strategic Challenges - A further development of Swedish Strategy for Sustainable Development .This strategy and the communication covers economic, social and environmental aspects and sets a vision for sustainable development in a long-term perspective. Furthermore, the strategy states that sustainable development in Sweden can only be achieved in the context of global and regional cooperation. Sustainable development must be integrated into all policies. Additional efforts are needed to safeguard critical resources that form the basis for sustainable development in a long-term perspective.

The Swedish Government hosted the international conference Stockholm +40: Partnership Forum for Sustainable Development. This conference brought together international stakeholders for a dialogue on sustainable development and its challenges. The outcome from Stockholm +40 provided input to the Rio +20 UN Conference on Sustainable Development held June 2012.

The Swedish Policy for Global Development was adopted by Riksdagen (the Swedish Parliament) in 2004. It serves as the framework for development policies and activities of the Swedish International Development Cooperation Agency's (Sida) humanitarian work throughout the world.

Strategic Outcome For Goal 2

Outcomes Statement

Assistance is provided to municipalities from the national and county level so that they can raise their capacity for disaster risk reduction. Risk and vulnerability assessments are required by law at the national, county and local level and regulations have been written by MSB (revised in 2014 and in force from January 2015). Guidance, training and numerous seminars and workshops have been conducted in order to support municipalities and provincial governments in identifying specific risks and to investigate the impacts of natural hazards and climate change. Swedish municipalities are active in their work to produce risk and vulnerability analyses. These will be evaluated through coming regulations targeted for these analyses.

The Swedish government finances risk mapping initiatives to assist municipalities in familiarizing themselves with their risks and to take actions to prevent and mitigate them. Financial assistance, amounting to approximately 25 million SEK per year as of 2013, is granted for municipalities to undertake permanent measures to reduce vulnerability especially for landslides and flooding. Of this amount 6.5 million goes directly to the County Administration Boards for their work according to the EU Floods Directive.

The National Government has through MSB and the Swedish National Platform for Disaster Risk Reduction provided support to municipalities to join and participate in the UNISDR's world-wide campaign Making Cities Resilient. During the campaign Swedish role model cities such as Karlstad, Kristianstad, Gothenburg, Jönköping, Malmö, and Arvika have presented their disaster risk reduction work during national, Nordic and international conferences. The municipalities Ängelholm and Jokkmokk also participate in the campaign.

Teams of risk experts have participated in study trips or international exchanges with other cities that have the same types of risks. One or more Swedish cities in the campaign have made exchanges with the cities of Lienz, Ancona, Amadora, Lisbon, Hall, York, London, Prague and Hoboken. These exchanges have been custom-designed by MSB based on the wishes and needs of the participating cities. A few exchanges have been financed by the European Union through funds such as the Civil Protection Mechanism's Exchange of Experts Programme. Others have been funded by the national or city government. These interactions have good results such as learning about methods for risk assessments or how to put natural hazards on the local political agenda. It allows experts to enhance their knowledge and to compare prevention measures.

Four municipalities in the campaign (Arvika, Gothenburg, Jönköping and Karlstad) use UNISDR's Local Government Self-Assessment Tool (LGSAT) and have expressed that they find it useful for assessing their accomplishments and challenges in implementing the HFA at the local level.

The Swedish cities in the campaign established in 2012, a national Making Cities Resilient network. They meet two times a year to discuss mutual challenges and take field trips in the host city to look at applied disaster risk reduction measures. Copenhagen has hosted one of the network meetings and Oslo has participated in the network.

Agencies within the Swedish National Platform for Disaster Risk Reduction and research institutions have promoted increased research, investigations and methods to assist municipalities to build resilience to disasters. Education, publications, mapping and decision support tools have been made available for use at national, county and local level.

Sweden promotes disaster prevention at the European Union level, through active work on such topics as good practices, national risk assessments, capacity assessments, civil protection and risk management plans according to the EU Floods Directive. Sweden also assists in the strengthening of institutions, mechanisms and capacities for disaster prevention with countries in Africa, Asia, and the Americas through humanitarian aid capacity development projects and educational programmes.

Educational programmes at the university level have increased the knowledge and capabilities within Sweden and for international partners. An institute for natural disaster science, Centre for Natural Disaster Science (CNDS), at Uppsala University was established in 2009. The research conducted at CNDS contribute to improving the ability to prevent and deal with risks in society by raising awareness of the dynamics and consequences of natural hazards, considering the issue of vulnerability in Sweden, as well as discussing crisis management.

CNDS researchers are affiliated with ten different departments at Uppsala University as well as the Swedish National Defence College and the University of Karlstad. Together they have useful experiences and knowledge about natural disasters and societal security. CNDS is partly financed by MSB and cooperates with the national platform for DRR and together they arrange seminars.

Karlstad University's Centre for Climate and Safety (CCS) (established in 2007) seeks to find management solutions for risks such as extreme weather events (rainstorms, floods and windstorms.). This is done through research and cooperative projects. The primary aim is to assess the vulnerability of society and its ability to cope with the potential risks. CCS links research to municipal and regional practice. Cooperative projects are typically conducted in cooperation with scientists from various disciplines and various research organizations.

The Swedish Meteorological and Hydrological Institute (SMHI) has the responsibility (since 2012) to establish and maintain the Swedish National Knowledge Centre for Climate Change Adaptation and the web-based climate change adaptation portal Klimatanpassning.se. The Centre is a Government initiative that aims to function as a

node where knowledge is gathered, processed and communicated to different parts of society. The Centre collects, synthesizes and distributes regional, national and international information about climate change adaptation and promotes the exchange of knowledge and good examples. The Centre promotes dialogue with stakeholders and works together with relevant national authorities as well as with the County Administrative Boards who already today coordinate issues regarding climate change adaptation at the regional level.

Strategic Outcome For Goal 3

Outcomes Statement

Government agencies continue to work towards the systematic incorporation of risk reduction approaches into the design and implementation of emergency preparedness, response and recovery programmes for affected communities. Over and above the normal level of emergency preparedness at the local and county level, additional programmes aimed at the individual's awareness and ability to react during and after an emergency have been established. Efforts continue towards enhancement of strategic planning at all levels to promote resilience to disasters after events but even in the normal course of city planning.

The Swedish Ordinance SFS 2009:957 regulates the national distribution of tasks according to the Floods Directive 2007/60/EG. Eighteen areas in Sweden have been identified by MSB as having a severe flood risk (Areas of Potential Flood Risk). Several of the municipalities within these 18 areas have already identified flood risk as a severe natural hazard that could have damaging effects on the society and vital societal functions. The local level awareness of natural hazards in general and specifically concerning flood risk is rather high and is considered in land use plans, emergency response plans and in the vast majority of the municipalities' comprehensive risk analysis. During 2014 and 2015 the County Administrative Boards, that have jurisdiction in one or more of the identified 18 areas, are developing risk management plans in close cooperation with the municipalities.

Preparedness and response procedures have improved over the years and ecological methods are used to protect the environment. Swedish partners for humanitarian operations are not merely responding after a natural disaster but work to reduce consequences from the event. This is done by acting quickly, and having the right methods and equipment to protect the environment.

Strategic goals

Strategic Goal Area 1

The 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.

Strategic Goal Statement 2013-2015

Sweden has not developed a single, unified national strategy for disaster risk reduction. DRR aspects are dealt with as part of government bills and policy initiatives in different areas.

A recent government bill from 2014, on teams of explosives and accounting crisis management development, contains various elements of relevance for the development of DRR activities. It focuses on issues such as the individual's role in emergency preparedness and the development of risk and vulnerability analysis and performance targets. The government also reports on the efforts to improve conditions for giving and receiving international assistance during crises, and recent progress in the field of civil protection.

According to the Swedish system for civil contingency management responsibility for DRR is divided across ministries and between different government agencies. The agencies have a high degree of autonomy but receive general instructions from government and they may also be given special government commissioned assignments. Disaster risks are managed throughout the entire spectrum including prevention, mitigation, vulnerability reduction, sustainable development, disaster preparedness, and response. One of the core tasks of MSB is to support the coordination of relevant stakeholders with responsibilities for DRR. To this end, MSB has developed a range of various coordination tools and platforms. The HFA national platform for DRR is an example of such a coordination platform hosted by MSB. Through its multi-stakeholder design it provides an important added value and constitutes a forum for discussing the government assignments of the various agencies and it also assists in spreading knowledge about performed activities and their results.

A major step was taken when more than 320 million SEK was allocated for climate change adaptation from 2010-2012. The Swedish Meteorological and Hydrological Institute, a member agency in the national platform will in 2014 compile the third report on information about of all of the assignments that government agencies have received related to climate change adaptation. One example is that in 2012 the Swedish Geotechnical Institute (SGI) fulfilled its mandate to improve the state of knowledge of landslide risk along the Göta River.

Beginning on July 2014 new regulations will be adopted for dam safety as part of the

Environmental Protection Act. The new legislation will include a classification system for dams that is based on estimated consequences of dam failure.

Strategic Goal Area 2

The development and strengthening of institutions, mechanisms and capacities at all levels, in particular at the community level, that can systematically contribute to building resilience to hazards.

Strategic Goal Statement 2013-2015

Swedish civil contingency management . It stipulates that the authority that is responsible for an operation during normal circumstances retains that responsibility also in an emergency situation and a crisis. For serious crises that affect large parts of society, civil contingency management at the central government level may need to be coordinated. MSB supports this coordination by providing methods and networks for the competent authorities during extraordinary events. MSB also supports the Swedish government offices with documentation and information in the event of serious crises or disasters and promote coordinated decision-making between competent actors during a crisis.

MSB provides methods for risk and crisis communication and the coordination of information to the public. Individuals can choose among web applications, social media (twitter, face book, blogs, instagram) and through web sites such as "dinsäkerhet.se", "säkerhetspolitik.se" and "krisinformation.se". Information and advice is available to individuals on issues related to prevention and management of accidents and emergencies. Information is also provided on current conflicts in the world as well as reports on a range of issues relating to security.

MSB also supports various non-governmental organizations (NGO's) through information and education to build and strengthen the individual's ability when it comes to taking responsibility for their own safety.

Regionally compiled climate information is provided by the Swedish Meteorological and Hydrological Institute and targeted for decision-makers in a position to implement risk reducing measures. The County Administrative Boards have a role in the dissemination and development of information and knowledge about climate change adaptation and in providing support to the local level through their climate change adaptation coordinators (one employed at each County Administrative Board). Within the municipalities prevention work, there is a strong element of disaster risk reduction for all hazards that is usually integrated into other aspects of the municipalities' works.

Sweden also promotes disaster management at the European Union level and for example, in ISO standardization in the field of Societal Security. Swedish experts are active members of working groups for different aspects of disaster prevention, preparedness and operations.

Strategic Goal Area 3



The systematic incorporation of risk reduction approaches into the design and implementation of emergency preparedness, response and recovery programmes in the reconstruction of affected communities.

Strategic Goal Statement 2013-2015

impact from any major disaster requiring substantive reconstruction efforts. Some municipalities have however been affected by natural events of a lesser magnitude (storms, floods, erosions, landslides or forest fires) that have affected buildings, infrastructure, environment etc. giving rise to operational and recovery measures. Municipalities are continually improving their ability to implement emergency preparedness, response and recovery programmes.

A national exercise strategy has been developed by MSB for cross-sector civil protection and emergency preparedness exercises at national and regional level. The strategy outlines the general pre-conditions and procedures for exercises. Moreover, it is intended to function as a unifying concept within which strategies for sector exercises can be accommodated. The strategy aims to facilitate the direction and coordination of larger national and international exercises in order to enhance societal emergency preparedness. It also provides an opportunity to direct and coordinate the participation of Swedish public authorities in EU and international exercises. The strategy has no ending date but is updated annually to reflect preparedness capabilities.

During major disasters the government can support municipalities with specific extra resources (via MSB) such as flood barriers, pumps, and forest fire equipment. These resources can also be available for support to other countries in the European Union and worldwide.

A municipality that has incurred extensive costs during an emergency operation has the right to claim compensation from government (via MSB) for that amount of the cost that exceeds the municipality's insurance deductible. In order to avoid accruing damages from natural events, several municipalities are implementing action plans. On the county level, river coordination groups, coordinated by the County Administrative Boards are working as forums for collaboration and coordination of concerned public and private stakeholders in the drainage basin area of a river. These forums (26 to date) increase knowledge about which coordinated actions will be taken to prevent, mitigate, warn and respond to disasters and who is responsible for the different tasks.

Several County Administrative Boards and municipalities have decided limitations and safety levels for building in flood prone areas. In 2014 MSB published a report on Flood Risk Mapping of Waterways. It includes descriptions of methods, inspiring examples and suggestions about how to select experts that can do the mapping. Flood risk maps can be done for both the current climate and for the anticipated climate in the future.

Priority for Action 1

Ensure that disaster risk reduction is a national and a local priority with a strong institutional basis for implementation.

Core indicator 1

National policy and legal framework for disaster risk reduction exists with decentralised responsibilities and capacities at all levels.

Level of Progress achieved? 4

Substantial achievement attained but with recognized limitations in key aspects, such as financial resources and/ or operational capacities.

Key Questions and Means of Verification

Is disaster risk taken into account in public investment and planning decisions? Yes

National development plan	Yes
Sector strategies and plans	Yes
Climate change policy and strategy	Yes
Poverty reduction strategy papers	Yes
CCA/ UNDAF (Common Country Assessment/ UN Development Assistance Framework)	No
Civil defence policy, strategy and contingency planning	Yes

Have legislative and/or regulatory provisions been made for managing disaster risk?
Yes

**Provide description and constraints for the overall core indicator
(not only the means of verification).**

Please describe some of the key contextual reasons for the country's ranking/ assessment for the indicated level of progress.

The Swedish Civil Protection Act (2003:778) provides for equal, satisfactory and comprehensive civil protection for the whole country with responsibility given to local authorities. The law promotes protection of life, health, property and the environment from all types of incidents, accidents, emergencies, crises and disasters.

According to the national law covering extraordinary events, the 21 County Administrative Boards have a responsibility for disaster risk reduction within their geographical regions. The County Administrative Boards are responsible for acting as a coordinator with regards to disaster risk reduction within their geographical area. Each County Administrative Board is also responsible for performing a regional risk and vulnerability assessment each year and a climate change adaptation strategy in 2014. The County Administrative Boards are responsible for assuring that national priorities for city planning are carried out at the local level.

The Geological Survey of Sweden (SGU) is responsible for assuring good quality groundwater as one of the sixteen environmental quality objectives put forth by the Swedish Parliament. Agencies cooperate to assure that groundwater is safe and that there is a sustainable supply of drinking water and viable habitats for plants and animals in lakes and watercourses. The Swedish Food Administration works together with SGU to assure the good quality and distribution of the drinking water even during and after a disaster.

As for the availability of energy during and after a disaster, the Energy Agency has analyzed the vulnerabilities of the energy supply. This is the basis for emergency exercises, information and other tools with which the Swedish Energy Agency has or will develop.

Since 2011 there is a system, called Styrel. This is a national system for the prioritization of vital societal electricity consumers in the event of power shortage. The Swedish Energy Agency has been responsible for developing and implementing the planning system. During 2014-15 the next planning round will be carried out by the municipalities, county councils, county administrative boards, national authorities and private sector operators. The Swedish National Grid has the authority to order disconnection of parts of the power grid in such a situation in order to reduce consumption.

Due to its civil contingencies responsibilities, MSB takes part in the Styrel work and has produced a strategy and an action plan for protection of vital societal functions and critical infrastructure(described earlier in this report).

Lantmäteriet - The Swedish Mapping, Cadastral and Land Registration Authority is the national coordinator for geodata and implementation of the EU INSPIRE directive. This authority has developed the Geodata Portal in response to this directive. It is easy to search for, examine and download geodata. Over 100 Swedish central agencies, county administrations and local authorities have signed an agreement on cooperation regarding the Geodata Portal. The Swedish Mapping, Cadastral and Land Registration Authority co-ordinates a Nordic authority network on spatial information for risk and crisis management.

The Swedish Meteorological and Hydrological Institute (SMHI) is responsible for the national forecast and warning service (rain, heat, snow fall, wind storms, thunder, fire risk, high river discharge, high /low sea level along the coast, ice accretion on ships).

SMHI also has a responsibility to gather and communicate information about climate change adaptation to all stakeholders and to act as a contact point for tsunamis, nuclear preparedness etc. SMHI describes the meteorological, hydrological and oceanographic situation and provides an infrastructure for measurements, data collection and analysis.

The National Knowledge Centre for Climate Change Adaptation, coordinated by SMHI (and described earlier in this report) collects and disseminates updated information about vulnerability and climate change adaptation. One important aspect is to provide good examples and, thereby, make it easier to put adaptation measure to practice at the local and regional levels.

The Swedish National Transportation Plan for 2014-2025 includes goals for robust transport systems in which climate change adaptation is a part.

Since 2010 the National Food Agency has received government assignments to coordinate on the national level, emergency preparedness for the country's drinking water. In order to fulfil this, the National Network for Emergency Preparedness for the Protection of Drinking Water, in 2014, developed the Swedish National Strategy 2014-2020 for Drinking Water Supplies during Short-term Crises - Planning and Development. This strategy serves as a guide for further work that should be carried out by several government agencies, organisations, the national network, as well as regional and local authorities.

Provide an explanation of some of the key contextual reasons for the country's ranking assessment at the indicated level. In particular, highlight key challenges encountered by the country/ national authorities and partner agencies; and recommendations on how these can/ will be overcome in the future.

Sweden has not yet developed a national strategic plan for climate change adaptation that brings all the sectors together on this issue. However, in accordance with Council Conclusion on An EU Strategy for Climate Adaptation, Sweden will prepare a plan by 2017 as requested by the European Commission.

The Climate change policy and strategy box has been checked Yes, since there are plans and strategies at the county or municipal level.

And the Swedish Government passed the Climate and Energy Proposition in 2009.

Core indicator 2

Dedicated and adequate resources are available to implement disaster risk reduction plans and activities at all administrative levels

Level of Progress achieved? 4

Substantial achievement attained but with recognized limitations in key aspects, such as financial resources and/ or operational capacities.

Key Questions and Means of Verification

What is the ratio of the budget allocation to risk reduction versus disaster relief and reconstruction?

	Risk reduction / prevention (%)	Relief and reconstruction (%)
National budget	N/A	N/A
Decentralised / sub-national budget	N/A	
USD allocated to hazard proofing sectoral development investments (e.g transport, agriculture, infrastructure)		N/A

Provide description and constraints for the overall core indicator (not only the means of verification).

Please describe some of the key contextual reasons for the country's ranking/ assessment for the indicated level of progress.

There is no national budget specifically earmarked for disaster risk reduction. However, many national agencies have funds allocated to activities that can be classified as DRR.

Within the national budget, funds are allocated to municipalities and to the County Administrative Boards for emergency preparedness according to the appropriations bill 2:4. The funds to the municipalities are allocated through an agreement between the Swedish Civil Contingencies Agency (MSB) and the Swedish Association of Local Authorities and Regions (SKL) revised in 2014.

The County Administrative Boards can and have received funding from the National Heritage Board to inventory and restore archeological sites where storm damage has incurred. Sites on the steep river banks that are at risk of being damaged by landslide, such as along Ångerman River, have been inventoried.

There are resources for health and welfare both at the national and county level that assure that laws are followed and that the necessary plans are written and implemented in hospitals, schools etc.

Only if local resources are insufficient, is the management of the disaster taken over at the county or national level. It is, therefore, the municipalities themselves that are responsible for prevention, preparedness, response and information.

The ratio of the budget has not been estimated. However, one example of a study on

costs is a report that was commissioned by MSB in 2013 and which provides some estimates on by the total cost to society of preventing and mitigating the impact from floods. The study suggests that the costs would be somewhere between SEK 462 million and SEK 975 million.

Provide an explanation of some of the key contextual reasons for the country's ranking assessment at the indicated level. In particular, highlight key challenges encountered by the country/ national authorities and partner agencies; and recommendations on how these can/ will be overcome in the future.

It is a challenge to verify that the actions taken to adapt to climate change are sufficient and cost effective and decisions have to be taken based on a certain degree of uncertainty when it comes to future climate effects.

Generally the disaster risk reduction measures that have been identified at the national, county and local levels exceed the available personnel and budget.

Core indicator 3

Community Participation and decentralisation is ensured through the delegation of authority and resources to local levels

Level of Progress achieved? 4

Substantial achievement attained but with recognized limitations in key aspects, such as financial resources and/ or operational capacities.

Key Questions and Means of Verification

Do local governments have legal responsibility and regular / systematic budget allocations for DRR? Yes

Legislation (Is there a specific legislation for local governments with a mandate for DRR?)	Yes
Regular budget allocations for DRR to local government	No
Estimated % of local budget allocation assigned to DRR	No estimate has been made.

Provide description and constraints for the overall core indicator (not only the means of verification).



Please describe some of the key contextual reasons for the country's ranking/ assessment for the indicated level of progress.

Decentralization is regulated by Swedish laws. According to the Swedish Civil Protection Act, municipalities need to write local action plans for preparing for disasters but also to identify, assess and mitigate risks, including risks related to critical infrastructure. Municipalities and County Administrative Boards also make risk and vulnerability analysis and assess their ability to cope with disasters and crisis in accordance with the Act on Municipal and County Council Measures Prior to and during Extraordinary Events in Peacetime and during Periods of Heightened Alert (2006:544).

As directed in the Swedish Planning and Building Act, municipalities are responsible for taking into consideration climate change adaptation when planning. The authority and resources are delegated to local levels through legislation and budget allocations. The budget for these plans and activities is decided by the City Council. The County Councils also have budgets for civil protection, rescue services and disaster management at local level.

Provide an explanation of some of the key contextual reasons for the country's ranking assessment at the indicated level. In particular, highlight key challenges encountered by the country/ national authorities and partner agencies; and recommendations on how these can/ will be overcome in the future.

There is a system for governmental supervision, that assists all municipalities in Sweden to identify their risks and vulnerabilities and encourage them to undertake adequate measures towards prevention, mitigation and preparedness.

Core indicator 4

A national multi sectoral platform for disaster risk reduction is functioning.

Level of Progress achieved? 4

Substantial achievement attained but with recognized limitations in key aspects, such as financial resources and/ or operational capacities.

Key Questions and Means of Verification

Are civil society organizations, national finance and planning institutions, key economic and development sector organizations represented in the national platform? No

civil society members (specify absolute number)	0
national finance and planning institutions (specify absolute number)	0
sectoral organisations (specify absolute number)	20
private sector (specify absolute number)	0
science and academic institutions (specify absolute number)	0
women's organisations participating in national platform (specify absolute number)	0
other (please specify)	0

Where is the coordinating lead institution for disaster risk reduction located?

In the Prime Minister's/President's Office	No
In a central planning and/or coordinating unit	No
In a civil protection department	Yes
In an environmental planning ministry	No
In the Ministry of Finance	No
Other (Please specify)	0

Provide description and constraints for the overall core indicator (not only the means of verification).

Please describe some of the key contextual reasons for the country's ranking/ assessment for the indicated level of progress.

In the appropriation for 2013, the Government has issued MSB the following assignment:

"The Swedish Civil Contingencies Agency shall be the national focal point for Sweden's commitment in the Hyogo Declaration and the Hyogo Framework for Action 2005–2015. The Agency shall also coordinate the national effort through a national platform for work with natural hazards."

MSB represents Sweden in the European and Nordic networks of platforms and focal points. With regards to Sweden's policy work under the HFA, the Ministry for Foreign Affairs (UD) is the focal point.

MSB has a HFA Focal Point and secretariat for the national platform. Sweden's National Platform, established in 2007, consists today of 20 authorities and organisations. Collaboration with other actors in society takes place through primarily reference and working groups. MSB finances the platform secretariat and the costs resulting from serving as a HFA focal point.

In 2014 the national platform revised its procedures and governing documents. The Agency Network, a body of the platform, up until this date, meets between 4 times per year to discuss, agree upon and disseminate the results of the various platform activities. Every year the network conducts a field trip to learn and exchange knowledge about disaster risk situations. There is a steering group for the Platform that is made up of the Director Generals or the equivalent of the 20 member agencies and organisations. This decision-making body meets once each year to approve the action plan including national and international activities. Among the 20 members there are representatives from governmental agencies, including representative from the County Administrative Boards and from the Swedish Association of Local Authorities and Regions (SKL).

Additional stakeholders became part of the national platform in 2011, 2012, and 2014 since they have responsibilities of relevance for different aspects of prevention, preparedness or response when it comes to disaster risk reduction. These are the Swedish National Heritage Board, the Swedish Board of Agriculture, the Swedish Agency for Marine and Water Management and the Swedish Marine Administration. Since the latest Swedish HFA report two agencies have joined the national platform. The Swedish Agency for Marine and Water Management is a government agency established in July 2011 for the protection and sustainable use of oceans, lakes and streams. The agency is responsible for marine and water planning, supervision and regulation.

The Swedish Maritime Administration is a governmental agency within the transport sector and is responsible for a wide range of services including pilotage, fairway service, maritime traffic information, icebreaking, maritime and aeronautical search and rescue and also hydrographic services. Even though several of their services are related to disaster risk reduction, the main reason for joining the national platform was the role as national coordinator for hydrographic services, which includes hydrographic surveying and charting of Swedish waters.

The Action Plan 2014-2015 is the steering document for the national platform and describes the background, purpose, goals, structure, members and areas of focus. The plan also includes all the common activities undertaken by the platform's Agency Network. These activities follow the 5 HFA priorities and have led to more integration between DRR and climate change adaptation. The Agency Network arranges a special planning meeting, including a field visit, every year to review the activities and add new ones. During the year the group leader for each activity presents the status of the activity.

In 2013 a Communication Plan was developed and adopted. The plan and the communication activities are supported by a new design manual and new

presentation material about the national platform. The strategy for communication is to focus on the results of the activities in the national platform.

Cooperation between the national platform and universities has improved. One example is the collaboration between the national platform and the Centre for Natural Disaster Science, CNDS, at Uppsala University in collaboration with Karlstad University and the National Defense College, to arrange the Forum for Natural Disasters in 2012, 2013 and 2014. The forum is a yearly conference for researchers and practitioners at the local, regional and national level.

Provide an explanation of some of the key contextual reasons for the country's ranking assessment at the indicated level. In particular, highlight key challenges encountered by the country/ national authorities and partner agencies; and recommendations on how these can/ will be overcome in the future.

No identified constraints.

Priority for Action 2

Identify, assess and monitor disaster risks and enhance early warning

Core indicator 1

National and local risk assessments based on hazard data and vulnerability information are available and include risk assessments for key sectors.

Level of Progress achieved? 4

Substantial achievement attained but with recognized limitations in key aspects, such as financial resources and/ or operational capacities.

Key Questions and Means of Verification

Is there a national multi-hazard risk assessment with a common methodology available to inform planning and development decisions? Yes

Multi-hazard risk assessment	Yes
% of schools and hospitals assessed	N/A
schools not safe from disasters (specify absolute number)	Schools and hospitals in Sweden are not assessed collectively and, therefore,,there is no percent provided.
Gender disaggregated vulnerability and capacity assessments	No
Agreed national standards for multi hazard risk assessments	Yes
Risk assessment held by a central repository (lead institution)	Yes
Common format for risk assessment	No
Risk assessment format customised by user	No
Is future/probable risk assessed?	Yes
Please list the sectors that have already used	not identified

**disaster risk assessment as a precondition for
sectoral development planning and
programming.**

**Provide description and constraints for the overall core indicator
(not only the means of verification).**

Please describe some of the key contextual reasons for the country's ranking/ assessment for the indicated level of progress.

The EU Civil Protection Act (Decision on a Union Civil Protection Mechanism) was enacted on the 17th of December 2013. According to this law, all EU countries need to "develop risk assessments at national or appropriate sub-national level and make available to the Commission a summary of the relevant elements thereof by 22 December 2015 and every three years thereafter."

MSB in cooperation with diverse stakeholders took the first step towards a national risk assessment in 2012, in accordance with EU guidelines, by a national risk inventory in which 24 nationally significant risks were identified. These risks include natural hazards but also other events such as disturbances in electrical power production or distribution, cyber-attacks and a dam failure. MSB works systematically together with other agencies, regions, municipalities and the private sector to develop the national risk assessment required by the European Commission.

The national risk and capability assessment is published annually (from 2013). It is based to some extent on the County Administrative Boards risk- and vulnerability analyzes, which in turn takes into account local risk and vulnerability analyses.

The European Commission has produced an EU Overview of Risks 2014 based on these national assessments. The report clearly shows that natural hazards constitute a major risk in Europe.

Svenska kraftnät, the National Grid, is a national government enterprise whose primary mission is to operate and manage the electrical power grid. Another role is to avoid but also be prepared for disturbances in electricity flow throughout the country. This authority contributes 250 million Swedish kronor annually to other companies in the electricity supply network to enable them to improve their robustness against disturbances in electricity supply.

The Swedish National Grid also provides regulatory guidance related to dam safety in the country and supports the County Administrative Boards and dam owners in their efforts to maintain safe conditions.

The County Administrative Boards develop regional risk and vulnerability analyses in accordance with the law. These can be used as a basis for their own and other players' prevention, mitigation and emergency preparedness measures. On the local level risk and vulnerability analysis are also required in accordance with law.

The risk and vulnerability analyses that are carried out by all the Swedish municipalities have the purpose of reducing societalvulnerability and increasing the ability to handle crises. These risk and vulnerability analyses also include an

assessment of local drinking water supplies. The County Administrative Boards have worked systematically not only to help municipalities identify risks and vulnerabilities but also to take climate change into consideration.

Between 2013 - 2015 the Ministry of Agriculture, Food and Fisheries is conducting an investigation about the management of all drinking water where the Swedish Food Agency takes part as a member in the expert group and in the reference groups. The investigation includes an assessment of overall risks and vulnerabilities based on climate change and the need for emergency preparedness to assure good quality and a sufficient supply of drinking water even during an emergency situation. In addition, the local level needs to prepare their own risk and vulnerability analysis in accordance with the law.

The County Administrative Boards that include water authorities have a database to support the work carried out in line with the Water Frame Directive, which can be used for national and local risk assessments. This data includes physical, chemical, and biological data from observations, inventories of contaminated land as well as inventories of dams, environmentally hazardous activities conducted and regulated by permit, and documentation of experience from crisis events.

Inventory and mapping of various natural disasters, such as landslides, slope failures and flooding is carried out. The Geological Survey of Sweden (SGU) maintains a database containing landslides, ravines, steep sandy river banks and active erosion. The database has been systematically upgraded, mainly using the new digital elevation model, for areas that are naturally sensitive to erosion. SGU coordinates a national groundwater monitoring network. The Swedish Geotechnical Institute (SGI) runs a database on erosion along the Swedish coast and in rivers and lakes, as well as an updated database on landslides. SGI is also developing a vulnerability mapping method for mapping erosion along the coast, and in rivers and lakes.

The Swedish Maritime Administration is coordinating a study in 2014 about methods for efficient measurement techniques in shallow, shoreline waters. Results from the study will provide an important contribution to further improve on efforts to reduce disaster risks including the risk for erosion along coasts and rivers.

SGU has performed detailed geological and marine geological investigations along the coast of southernmost Sweden. The investigations resulted in a geological database showing areas of active erosion.

SGU has performed marine geological investigations in coastal areas with the purpose to map the distribution of polluted sediments in coastal areas, sensitive to erosion and slides.

The Swedish National Board of Health and Welfare has studied the effects of climate variability, including natural disasters, on health. In 2011 the Board conducted a project and published a report on The Effects of Heat Waves and the Need for Preparedness in Sweden. The Swedish Meteorological and Hydrological Institute developed a warning service for high temperatures in Sweden that has been in operation since 2013.

Studies on future health risks of climate-related disasters are carried out. These studies are based on known relationships between climate and disease, together with projections of local vulnerability factors.

Swedish Meteorological and Hydrological Institute (SMHI) is the contact point for information from the International Panel on Climate Change (IPCC). As a national platform activity, SMHI chaired a national seminar that summarized the working

group II report on Impact, Vulnerability and Adaptation and provided an opportunity for discussion. An analysis was also made by MSB on the IPCC report from a civil protection viewpoint. SMHI is also the contact point for the work at EU level on climate change adaptation.

MSB has financed studies on heat waves which is considered to be an emerging risk due to climate change. These reports provide information on vulnerabilities including effects on technical systems and critical infrastructure.

Provide an explanation of some of the key contextual reasons for the country's ranking assessment at the indicated level. In particular, highlight key challenges encountered by the country/ national authorities and partner agencies; and recommendations on how these can/ will be overcome in the future.

There is an identified absence of responsibility and resources for a national inventory on erosion risks along coasts and rivers as is done for landslide, slope failure and flood prone areas.

Core indicator 2

Systems are in place to monitor, archive and disseminate data on key hazards and vulnerabilities

Level of Progress achieved? 4

Substantial achievement attained but with recognized limitations in key aspects, such as financial resources and/ or operational capacities.

Key Questions and Means of Verification

Are disaster losses and hazards systematically reported, monitored and analyzed?
Yes

Disaster loss databases exist and are regularly updated	Yes
Reports generated and used in planning by finance, planning and sectoral line ministries (from the disaster databases/ information systems)	Yes
Hazards are consistently monitored across localities and territorial boundaries	Yes

Provide description and constraints for the overall core indicator (not only the means of verification).

Please describe some of the key contextual reasons for the country's ranking/ assessment for the indicated level of progress.

occurred. Statistics are compiled for each municipality in the country and comparisons are made in the form of graphs and tables. The compilation of this data comprises the national emergency services statistics which is published every year. There is also a database where information about injuries is registered. The Civil Protection Act requires that investigations are conducted after emergencies. As a result of these investigations there is data about the types and causes of accidents and emergencies as well as how they can be handled. In addition MSB has developed and updated a national natural hazards database which can be accessed from the UNISDR's Prevention Web site. The Swedish Geotechnical Institute (SGI) maintains a database on identified and reported mass movement such as landslides, rock falls, erosion etc. A special database has been built up within the governmental risk assessment in the Göta River valley.

The Swedish Forest Agency has decided on a national standard preparedness procedure for events that can cause extensive damage to forests. The agency has also developed a standard procedure for an indicator system designed to capture trends in biological injury in the forest.

MSB has developed a national information system called, Fire risk – Forest and Land, for municipal fire brigades, County Administrative Boards, private companies and others. This system is used to assess the risk of vegetation fires and is available on the Internet. It contains, for example, information about how the weather can affect the risk level for vegetation fires. The system provides basic data for prevention work and can also assist in decision-making during emergency response operations.

The Swedish Meteorological and Hydrological Institute collects observational data nationally from the atmosphere, rivers and surrounding seas. These data are quality controlled and used in weather forecasting, climate modeling and assessments. Lantmäteriet, the Swedish Mapping, Cadastral and Land Registration Authority, has developed a new national elevation database based on laser scanning. There has been a need for better elevation data than that produced by photogrammetric methods. Based on a recommendation made by the Commission on Climate and Vulnerability in their report from 2007, the Swedish Government commissioned Lantmäteriet to produce a new national elevation model.

The Swedish Maritime Administration is responsible for the national sea depth database. The sea depth database is based on data collected from the late 1800s and up to today's modern measurements. Today, about 45% of Swedish navigable waters have been surveyed by modern methods. However, the data on coastal and shallow waters is out-of-date and of inferior quality. This deficiency was recognized by the Swedish National Platform for Disaster Risk Reduction. There is a need to connect the new digital elevation model for land surfaces in Sweden with the digital model of the adjoining seas. A seamless database would allow for reliable flood risk

modeling along coasts and lakeshores and could lead to useful information for climate change adaptation. Therefore in 2013, the National Platform initiated a study aiming to choose or develop suitable methods for measuring the shallow water areas in a cost effective manner and that also meets the current quality requirements. The study will also develop a proposal for a national measurement plan for these areas. The final report will be written in 2015.

Central data collection is implemented on drinking water quality and can be the basis for the analysis of extreme weather events and vulnerabilities. At SGU is also a water source archives with data collection. There are flaws in the reporting and the possibilities of using the data hosted.

The Swedish National Platform for Disaster Risk Reduction has carried out several development projects since 2010 that are based on the new national elevation model. This model is used for detailed and accurate assessments and management of such risks as flooding, landslide, sea level rising, and erosion, all with very promising results. An inventory of how the model has been used for a variety of applications (more than 100 projects) was compiled by the Swedish National Platform for DRR. The results from these studies have been published in several reports and been presented in conferences and workshops for a wider audience.

The Geological Survey of Sweden (SGU) has focused upgrading and quality improvements of geological data to areas covered with the detailed national elevation model. SGU has a database showing areas sensitive to ground instability which is intended to identify areas where further investigations of erosion risk are needed.

The Swedish Geotechnical Institute (SGI) is developing methods for mapping areas vulnerability to erosion.

MSB has developed a tool (IDA) that presents accident and crisis statistics. The statistics are collected from the local fire and rescue services departments, and also from databases from the Swedish Transport Administration. Injury statistics from Swedish National Board of Health and Welfare are presented. The data system enables comparisons between different municipalities and for different types of emergencies and shows overviews for the national as a whole. There are also cost benefit analyses. Natural disasters are also a part of the database.

Provide an explanation of some of the key contextual reasons for the country's ranking assessment at the indicated level. In particular, highlight key challenges encountered by the country/ national authorities and partner agencies; and recommendations on how these can/ will be overcome in the future.

Limited resources are available for monitoring systems, archives, and dissemination of data.

Core indicator 3



Early warning systems are in place for all major hazards, with outreach to communities.

Level of Progress achieved? 4

Substantial achievement attained but with recognized limitations in key aspects, such as financial resources and/ or operational capacities.

Key Questions and Means of Verification

Do risk prone communities receive timely and understandable warnings of impending hazard events? Yes

Early warnings acted on effectively	Yes
Local level preparedness	Yes
Communication systems and protocols used and applied	Yes
Active involvement of media in early warning dissemination	Yes

Provide description and constraints for the overall core indicator (not only the means of verification).

Please describe some of the key contextual reasons for the country's ranking/ assessment for the indicated level of progress.

The Swedish Meteorological and Hydrological Institute provides of early warnings of hazardous meteorological, hydrological and oceanographic events. The warnings are distributed to the general public through radio, smartphones and web, and further communicated to all other organisations and parties that need the warnings. SGU provides regular service of groundwater levels. The information is widely spread to the public and media through a newsletter and web pages.

Sweden has several systems for informing and alerting the public. The two most important ones are the IPA system (Important Public Announcement), and in regions with a nuclear power plant, a system for nuclear alerts. MSB has developed and supports a digital radio communications system, RAKEL, used by public policy, public security any public health entities. MSB is also the focal point for coordinating Swedish national security information which includes the preparedness of media in order to assure societal safety.

The National Grid works towards reducing the risk of a serious disturbance in society due to dam failure or high flow discharges, and to make sure that the responsible parties at the dams maintain preparedness for prompt and effective emergency

management and information to affected parties. During 2013, the National Grid coordinated and practiced contingency planning for dam failure and high flows in the country's twelve largest power plant rivers. In 2013, a working group with representatives from the National Grid, dam owners, municipalities and county councils was appointed to address the issue of warning systems including warning via fixed and mobile telephone devices. The National Grid has also assisted SOS Alarm in planning a test of the warning system for a hypothetical dam failure scenario.

The County Administrative Boards, as well all the authorities listed in the crisis management legislation, have a duty officer 24 hours, 7 days a week, to support the municipalities, organisations and citizens in disasters or crisis. The 26 river groups in the country have network meetings and there are municipal preparedness coordinators.

In the field of early warnings at the national level, there has been a development of the ability to detect unusual pathogens in food and drinking water linked to climate change (i.e. floods) and antagonistic threats. There is also a systematic effort to identify and evaluate risks, development of early warning systems, etc. for new hazards that can affect drinking water and foods.

Local level preparedness to safe drinking water is ongoing, including education, information and exercises at the regional and local level. This contributes to improved crisis management and prevention capabilities.

The National Food Agency conducts several projects to identify microbiological water quality and methods to track sources of pollution. The results will be used to prevent crises. One project involves evaluating the health effects related to drinking water consumption. The results will be used to prioritise measures to maintain safe drinking water supplies. Another project develops rapid methods that water utilities themselves can use for early detection of algal toxins in drinking water. The National Food Agency will also participate in projects relating to chemical contamination.

The National Food Agency and Public Health Agency of Sweden improves the capacity to handle larger outbreak situations by extensive sampling and analysis of food as well as potable and raw water. Several large drinking water producers have warning systems upstream in the water supplies, including changes in water quality which may be an impact of natural disasters (landslides, floods).

The Swedish Meteorological and Hydrological Institute has a warning service (Marsuno) in case of storm, high water flow, flooding and excessive rainfall, available to municipalities, sent at the interval they request. Several large drinking water producers have warning systems upstream which alert about changes in water quality in drinking water supplies which may be impacted due to natural disasters such as landslides or floods.

The Intergovernmental Oceanographic Commission, a sub-organization of UNESCO, promotes development and use of tsunami warning systems. Sweden participates in the work and has a designated Tsunami National Contact Point at MSB. Since the risk of a tsunami in Sweden is extremely low, MSB's focus is to reduce the risks and consequences for Swedish citizens who are in the tsunami risk areas abroad.

Since 2013, MSB has arranged national coordination meetings to discuss e.g. current weather patterns that might require warnings. Each week national agencies

highlight what possible events could occur and the effects that should be anticipated. They also discuss the type and their level of preparedness.

Provide an explanation of some of the key contextual reasons for the country's ranking assessment at the indicated level. In particular, highlight key challenges encountered by the country/ national authorities and partner agencies; and recommendations on how these can/ will be overcome in the future.

Sweden has so far not suffered from severe heat waves but it is identified in our national risk assessment as a hazard and the risk is likely to increase due to a changing climate.

Core indicator 4

National and local risk assessments take account of regional / trans boundary risks, with a view to regional cooperation on risk reduction.

Level of Progress achieved? 4

Substantial achievement attained but with recognized limitations in key aspects, such as financial resources and/ or operational capacities.

Key Questions and Means of Verification

Does your country participate in regional or sub-regional actions to reduce disaster risk? Yes

Establishing and maintaining regional hazard monitoring	Yes
Regional or sub-regional risk assessment	Yes
Regional or sub-regional early warning	Yes
Establishing and implementing protocols for transboundary information sharing	Yes
Establishing and resourcing regional and sub-regional strategies and frameworks	Yes

Provide description and constraints for the overall core indicator (not only the means of verification).

Please describe some of the key contextual reasons for the country's ranking/ assessment for the indicated level of progress.

Lantmäteriet, the Mapping, Cadastral and Land Registration Authority, continues to work together with a Nordic network for geodata for risk and crisis management. Their work facilitates access to geodata across borders in the Nordic countries.

There is a strong interest by the drinking water producers in both Norway and Denmark for Nordic collaboration on emergency management for drinking water. The Haga Nordic agreement from 2009, further developed by Haga II in 2013, has provided increased political attention to Nordic cross-border cooperation in the area of civil contingency management and societal security..

The responsible Nordic civil contingency agencies are widening their cooperation in areas such as disaster risk management and mutual support in emergencies and crises. In 2013 an inter-agency working group was formed to strengthen collaboration with regard to national risk assessments and long-term strategic foresight. Along with colleagues from the UK, Ireland, Germany and the Netherlands, they also form the Nordic Risk Assessment Group, a wider network that organized a joint seminar on volcanic hazards and severe space weather in 2013 and plan for a 2014 follow up on, among other things, cross-border consequences of disasters and climate change in Northern Europe.

A regional EU funded project, called VISK, for reducing virus contamination through water sources in a changing climate was completed in 2012. The project created networks, identified risk management measures and has led to the development of better methods for analysis and capture. Information on risk and safety has been disseminated. VISK also gave rise to cooperation within the regions of Öresund, Kattegat and Skagerrak. It involves 18 partners from the national, county, local levels as well as researchers in Sweden, Norway and Denmark. The work continues through the National Food Agency's project on microbiologic risks for drinking water.

The National Food Agency has measured the extent of drinking water related issues and scenarios that are included in the county risk and vulnerability assessments in 2013. There was clear improvement since 2010 since drinking water issues are addressed to a large extent.

The Swedish Geotechnical Institute (SGI) is involved in a European project funded by Conference of European Directors of Roads (CEDR), related to risks and hazards threatening the TEN-T road infrastructure. The project is called Roads for today, adapted for tomorrow (ROADAPT).

SGU has participated in a European Union pilot project Marsuno Maritime Surveillance in the Northern Sea Basins with twenty-four agencies from 10 countries including Sweden. It supports the policy-making process of the EU to create a common information sharing environment for the EU maritime domain. The project aims to achieve better communication and collaboration between agencies and

countries for monitoring of maritime activities in the Baltic and North Sea.

There is a Nordic rescue agreement, international Barents Rescue drills, and a Baltic Sea Strategy (which has been agreed upon by all 10 countries with a border along the Baltic Sea). Since 2013 there is also a Baltadapt Strategy on Adaptation to Climate Change in the Baltic Sea Region and an accompanying Action Plan. SMHI has been deeply involved in this work.

There is ongoing cooperation and informal network with HFA Focal Points and national platforms in Norway, Finland and Sweden. Estonia and Denmark participated once to hear about how the Nordic countries are dealing with HFA issues and responsibilities. Iceland has been invited to participate.

Cross-border dimensions of risks are identified as an important area of development but have so far not been included in the National Risk and Capability Assessment.

Sweden was one of ten partners in an EU funded project on macro-regional risk assessment in the Baltic Sea Region 2012-2013. The project which was coordinated by the Council of Baltic Sea States dealt with, *inter alia*, cross-border dimensions of hazards.

During 2014-2015, Sweden (MSB) will participate in an EU funded project ("BaltPrevResilience") that aims to improve the prerequisites for collection and analysis of impact and response data at local level, in respect to both man-made and natural disasters, thereby enabling the use of common evidence based knowledge and accident profiles in risk assessments and as decision support at local, national or EU interstate level, specifically the Baltic Sea Region. The project will contribute to the implementation of the Priority Area Secure of the EU BSRS Action Plan and the EU HNS Guidelines to enhance protection from emergencies and accidents on land in accordance with the UN HFA.

Sweden participates in the EU Civil protection mechanism (ERCC) with MSB as the contact point. As part of this cooperation MSB has developed specific civil protection modules which can be used for emergency situations within and outside Europe.

Provide an explanation of some of the key contextual reasons for the country's ranking assessment at the indicated level. In particular, highlight key challenges encountered by the country/ national authorities and partner agencies; and recommendations on how these can/ will be overcome in the future.

Not all sectors are involved in such trans-boundary cooperation as described above. Some sectors in Sweden are more active than others.

Priority for Action 3

Use knowledge, innovation and education to build a culture of safety and resilience at all levels

Core indicator 1

Relevant information on disasters is available and accessible at all levels, to all stakeholders (through networks, development of information sharing systems etc)

Level of Progress achieved? 4

Substantial achievement attained but with recognized limitations in key aspects, such as financial resources and/ or operational capacities.

Key Questions and Means of Verification

Is there a national disaster information system publicly available? Yes

Information is proactively disseminated	Yes
Established mechanisms for access / dissemination (internet, public information broadcasts - radio, TV,)	Yes
Information is provided with proactive guidance to manage disaster risk	Yes

Provide description and constraints for the overall core indicator (not only the means of verification).

Please describe some of the key contextual reasons for the country's ranking/ assessment for the indicated level of progress.

The Internet site www.dinsakerhet.se has been further developed by MSB to provide information about risks that are created by humans, mainly in the home and the leisure environment. It has a section about the individual's safety and security including DRR. Individuals can find out what they can do, where to turn for help, how to react to different events (before, during, after) and what areas in Sweden are most vulnerable or are at high risk.

The public can gain access to landslide or flood risk maps on MSB's web site. The web site "krisinformation.se" assists individuals to understand about crises and includes information on what they need to do in the case of a crisis.

The information that is developed by the Swedish Delegation of Landslides and the Government Network on Coastal Erosion both led by the Swedish Geotechnical Institute (SGI) is available to the public.

National authorities, County Administrative Boards and the municipalities have the responsibility to keep both the public and media informed.

There is a national, Internet-based information system, called WIS, created to facilitate information sharing between entities working with one or more phases of emergency management. Information for the system is derived from a network of agencies, municipalities and private companies.

The National Food Agency has for over ten years informed, practiced, and supported risk and vulnerability analysis, etc. to enhance local and regional knowledge, skills and abilities. Today there is an ongoing large project to share data at the national level about zoonotic agents of contamination.

The Swedish Natural Hazards Information System provides historical data since 1950 for major disasters that have occurred in Sweden. Documents have been gathered from public authorities and organizations. MSB has made a compilation of data about the causes of accidents and events, possible preparedness measures, impacts and lessons learned, where this information is available. The database is publicly available on the Internet and updated annually. Some of the data is in English and can be accessed through UNISDR's PreventionWeb.

The Swedish Meteorological and Hydrological Institute (SMHI) issues public warnings and information about climate and weather on the website. MSB and SMHI work together to provide the national forecast service for forest and vegetation fires.

In 2012 MSB introduced a forest fire risk application (app) that uses meteorological data for forecasting. The information is conveyed via the Internet and provides a forecast for the six days including general digital maps. From March to June there is a forecast for grass fire risk and during the period April-September there is a forecast for the risk of ignition and spread of fire. In addition MSB has developed films on fire safety in the forest and open lands.

The Geological Survey of Sweden (SGU) provides a free of charge mobile app called ACCSESS that provides geological and hydrogeological information.

Several agencies collaborate to provide information and tools that can be disseminated through the national climate change adaptation portal. The purpose of the climate change adaptation portal is to disseminate knowledge and information on climate adaptation. The portal maintains information about how climate change affects different sectors of society and examples of adaptation measures.

The RIB Integrated Decision Support System created in the 1990's by the Swedish Rescue Services Agency and maintained by MSB for prevention and emergency management, includes an extensive library, a chemical database with dispersion models, risk management tools and a command and control system.

Provide an explanation of some of the key contextual reasons for the country's ranking assessment at the indicated level. In particular, highlight key challenges encountered by the country/ national authorities and partner agencies; and recommendations on how these can/ will be overcome in the future.

No constraints identified. National and county authorities continually provide information about risks. Agencies are working together to coordinate information to the public in the event of emergencies.

Core indicator 2

School curricula , education material and relevant trainings include disaster risk reduction and recovery concepts and practices.

Level of Progress achieved? 4

Substantial achievement attained but with recognized limitations in key aspects, such as financial resources and/ or operational capacities.

Key Questions and Means of Verification

Is DRR included in the national educational curriculum? Yes

primary school curriculum	No
secondary school curriculum	No
university curriculum	Yes
professional DRR education programmes	Yes

Provide description and constraints for the overall core indicator (not only the means of verification).

Please describe some of the key contextual reasons for the country's ranking/ assessment for the indicated level of progress.

Training at all levels, as indicated above, is a critical instrument in order to enhance a society's coordinated capacity to respond to accidents and crisis. The Swedish Civil Contingencies Agency (MSB) has received the task from the government to ensure that training for crisis/ emergency/ disaster preparedness is available to all relevant actors within the national crisis management system.

Lantmäteriet: The Mapping, Cadastral and Land Registration Authority of Sweden offer educational courses to define the need for geographic data during a crisis. MSB publishes and distributes educational materials about accidents for children between the ages of 6-11 For children between the ages of 12-19 educational school materials include information about natural disasters such as floods.

As support to teachers there is a teacher's manual for all the educational materials. This manual contains suggestions for discussions, group work and other activities. A

continuation course is offered for teachers on themes such as crisis preparedness, safety and security politics and threats to security. There is no law or policy in Sweden which requires that disaster risk reduction issues should be included in the curriculum of all education at any level. However, there are specific university and higher education programmes in which these issues are included. There are courses in risk management at universities in Sweden and a few programmes at Master's level. Lund University provides a Master's Degree in capacity development and climate change adaptation. There is a 2-year course (Master's degree) in societal risk management at Karlstad University, where natural hazards management is one of two focal areas. There are several courses in crisis management at Master's level at different universities in Sweden. In primary and secondary schools risks are discussed in geography classes, but DRR is not generally part of the curriculum. In 2009 the Centre for Natural Disaster Science (CNDS) was established. CNDS gathers around 40 senior researchers and is the base for a national research school. Since 2012, nineteen PhD students have taken part in interdisciplinary projects covering fields such as communication of risks, effective collaboration, information gathering, early warning and protection of critical infrastructure.

MSB has a broad mandate which also includes the provision of international assistance within the fields of humanitarian operations, civilian crisis management, early recovery, disaster risk reduction, and mine action under the umbrellas of the EU, UN as well as other organisations. MSB also provides pre-deployment training courses from a basic level up to a highly specialised level, within all the fields listed above. The theme of disaster risk reduction is included in all of these courses. MSB is responsible for the two-year accident prevention training course (SMO) which is the relevant training to become a fireman. There is also training for Emergency response operations for future part-time firemen, Incident Commanders and Inspectors.

MSB also arranges specific training for the fire brigades and other local and county actors in the field of flooding, forest fires and chemical accidents. MSB is also organizing trainings and networks on how to investigate, draw lessons and learn from accidents and disasters.

There are specific courses in catastrophes, crisis management and protective measures regarding drinking water including risks in connection to floods, high water, extreme rainfall, landslides and forest fires. These have been conducted at the county and municipal level and many diverse stakeholders from different disciplines are invited.

Since 2009, MSB has organized a special disaster risk reduction training course every year for operational personnel to prepare for international operations. This course increases knowledge in disaster risk reduction for MSB and its staff and help disseminate knowledge in disaster risk reduction both nationally and internationally. In 2014, MSB developed DRR modules, to be used in other courses, where some aspects of DRR will be highlighted.

Future City is a social science competition arranged by the National Food Agency for junior high pupils to address drinking water safety issues.

For the professional sector, several training courses and seminars are offered on a regular basis including an annual coastal conference on erosion and flooding.

Seminars on climate adaptation have been arranged by the Swedish Geotechnical

Institute (SGI) and the Swedish Meteorological and Hydrological Institute (SMHI). The Geological Survey of Sweden and MSB collaborate with the training/education of local emergency services on groundwater vulnerability.

Provide an explanation of some of the key contextual reasons for the country's ranking assessment at the indicated level. In particular, highlight key challenges encountered by the country/ national authorities and partner agencies; and recommendations on how these can/ will be overcome in the future.

Education directed at younger ages is primarily a responsibility for schools to carry out. The probability of large life-threatening disasters in Sweden is low but it is increasingly common for Swedish families to travel to other geographic regions and, therefore, they should also know about risks in other parts of the world.

Core indicator 3

Research methods and tools for multi-risk assessments and cost benefit analysis are developed and strengthened.

Level of Progress achieved? 4

Substantial achievement attained but with recognized limitations in key aspects, such as financial resources and/ or operational capacities.

Key Questions and Means of Verification

Is DRR included in the national scientific applied-research agenda/budget? Yes

Research programmes and projects	Yes
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Research outputs, products or studies are applied / used by public and private institutions	Yes
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Studies on the economic costs and benefits of DRR	Yes
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Provide description and constraints for the overall core indicator (not only the means of verification).

Please describe some of the key contextual reasons for the country's ranking/ assessment for the indicated level of progress.

Several national authorities finance research projects related to natural disasters, climate adaptation and DRR.

MSB and the County Administrative Board of Värmland partially finance activities at the Centre for Climate and Safety (CCS) at the University of Karlstad.

The Centre for Natural Disaster Science (CNDS), financially supported by government and MSB, involves relevant organisations at Uppsala University, Karlstad University and the Swedish National Defence College.

There are also other universities and institutes involved in research on DRR, for example, the universities of Gothenburg, Stockholm, Umeå, Lund and the Mid Sweden University. Research is also conducted by scientists employed at the Swedish Geotechnical Institute (SGI), the Swedish Meteorological and Hydrological Institute, Swedish Defence Research Agency (FOI) and the Swedish Environmental Research Institute, IVL.

The Swedish Geotechnical Institute (SGI), is developing tools for landslide risk assessment (based on the Götaälvs investigation), for use in river areas in Sweden. The aim is to provide planning authorities a GIS-based tool focused on landslides, erosion and climate adaptation.

The Swedish International Development Cooperation Agency (Sida) funds research on natural disasters. Sida has also supported regional research cooperation for the prevention of natural disasters in Central America.

MSB allocates funding for a call for research in the field of Natural Hazards and the Negative Consequences to Society in Today's and Tomorrow's Climate 2012-2016. Five projects on heavy precipitation, rising sea levels, design of a changing landscape, future flooding and forest fire behavior in a changed climate are running. MSB published a research strategy for 2014 - 2018 "Research for a safer society – New knowledge for the challenges of tomorrow" with a focus on issues such as climate change, interdependencies across sectors and society's increasing reliance on "critical flows".

MSB has also signed an agreement in 2013 with the Nordic Research Council on a five year commitment of research collaboration on societal security. Focus will be on open calls for the establishment of a number of Centres of Excellence.

The National Food Agency develops methods for risk-cost-benefit assessments. This includes exposure analyses and systematic literature reviews. The agency is also developing risk assessment methods for the risk of parasites in drinking water, that can occur during flooding, torrential rains and high water flows.

In the field of early warnings, work is in progress at the national level regarding the ability to detect unusual pathogens. Systematic efforts are also made to identify new hazards that can affect drinking water and foods and evaluate risks, and to develop early warning systems. There are manuals and guides produced that can be used for developing risk and vulnerability analysis etc.

Not only do research institutes identify areas where knowledge is needed, but also the Swedish National Platform for Disaster Risk Reduction tries to identify gaps in the knowledge base.

Provide an explanation of some of the key contextual reasons for the country's ranking assessment at the indicated level. In particular, highlight key challenges encountered by the country/ national authorities

and partner agencies; and recommendations on how these can/ will be overcome in the future.

There is a need for compiled and synthesized information about the results from existing research and other studies.

Increasing collaboration across sectors on DRR-related research projects and on the implementation of programmes could provide useful synergies and added-value. .

Core indicator 4

Countrywide public awareness strategy exists to stimulate a culture of disaster resilience, with outreach to urban and rural communities.

Level of Progress achieved? 4

Substantial achievement attained but with recognized limitations in key aspects, such as financial resources and/ or operational capacities.

Key Questions and Means of Verification

Do public education campaigns for risk-prone communities and local authorities include disaster risk? Yes

Public education campaigns for enhanced awareness of risk.	Yes
Training of local government	Yes
Disaster management (preparedness and emergency response)	Yes
Preventative risk management (risk and vulnerability)	Yes
Guidance for risk reduction	Yes
Availability of information on DRR practices at the community level	Yes

Provide description and constraints for the overall core indicator (not only the means of verification).

Please describe some of the key contextual reasons for the country's ranking/ assessment for the indicated level of progress.

The municipalities' responsibility towards the public with regards to awareness raising and resilience in case of emergency is regulated by law and regulations. The general population shall be given information on the ability of authorities to act in an emergency, and on the way that warnings and information will be given in case of serious accidents.

Provide an explanation of some of the key contextual reasons for the country's ranking assessment at the indicated level. In particular, highlight key challenges encountered by the country/ national authorities and partner agencies; and recommendations on how these can/ will be overcome in the future.

The public needs adequate information about risks and their role in building community disaster resilience. Even homeowners need to know about risks and the individual's responsibility for taking mitigation measures.

Priority for Action 4

Reduce the underlying risk factors

Core indicator 1

Disaster risk reduction is an integral objective of environment related policies and plans, including for land use natural resource management and adaptation to climate change.

Level of Progress achieved? 4

Substantial achievement attained but with recognized limitations in key aspects, such as financial resources and/ or operational capacities.

Key Questions and Means of Verification

Is there a mechanism in place to protect and restore regulatory ecosystem services? (associated with wet lands, mangroves, forests etc) Yes

Protected areas legislation	Yes
Payment for ecosystem services (PES)	Yes
Integrated planning (for example coastal zone management)	Yes
Environmental impacts assessments (EIAs)	Yes
Climate change adaptation projects and programmes	Yes

Provide description and constraints for the overall core indicator (not only the means of verification).

Please describe some of the key contextual reasons for the country's ranking/ assessment for the indicated level of progress.

government authority for planning and management of land and water resources, urban development, building and housing. A fundamental requirement in the Planning and Building Act is that land has to be suitable for building development. In examining building permits, the municipality has to take into account whether the land is suitable for development in consideration of the health and safety of the residents.

The National Board of Housing, Building and Planning is responsible for ensuring that ecological, cultural, and social aspects are taken into account in the planning process. The focus of planning is increasingly turning to regional development and sustainable urban development by introducing new planning methods. The Board supports the development of cost and energy efficient, robust and sustainable buildings as well as accessible public spaces.

The Planning and Building Act states that it is the responsibility of all municipalities to have updated comprehensive plans for the entire land and water area. This act has limited options regarding the protection of existing development. Taking protection measures in city planning is sometimes regulated by several different laws. There are ongoing discussions about harmonization between the Planning and Building Act, the Environmental Act and the laws on public water services, for example, when it comes to land use and flood protection and storm water management during downpours. The Swedish Environmental Protection Agency is given a coordinating responsibility for following-up on progress towards the environmental objectives that have been set. The environmental quality objective defines the state of the Swedish environment that will be achieved after environmental action is taken. Milestone targets are made to assist in achieving these goals.

There is also an Environmental Code that promotes sustainable development that will assure a healthy and sound environment for present and future generations. To achieve this, the code shall be applied so that 1) human health and the environment are protected against damage and detriment, whether caused by pollutants or other impacts, 2) valuable natural and cultural environments are protected and preserved 3) biological diversity is preserved and 4) the use of land, water and the physical environment is such as to secure long term good management in ecological, social, cultural and economic terms, 5) reuse and recycling, as well as other management of materials, raw materials and energy are encouraged so that natural cycles are established and maintained. The Environmental Code includes shore protection areas, which applies to the sea, lakes and watercourses. The shore protection area regulations also fulfill the purpose of disaster risk reduction, so that buildings are not constructed in flood prone areas.

The Environmental Code includes regulations of water operations. To establish water operations, permission is needed from the Environmental Court. The water level regulations also fulfill the purpose of disaster risk reduction, so that constructions are not established in flood prone areas unless permission has been granted. The application process in order to gain permission requires an environmental impact assessment.

The National Board of Housing, Building and Planning is responsible for the environmental quality objective that cities, towns and other developed areas must provide a good, healthy living environment and contribute to a good regional and global environment. Natural and cultural assets must be protected and developed. Buildings and amenities must be located and designed in accordance with sound environmental principles and in such a way as to promote sustainable management of land, water and other resources.

There are two kinds of environmental assessments in Sweden, EIA (Environmental

Impact Assessment) and SEA (Strategic Environmental Assessment). Both are based on EU regulations and have been implemented in chapter 6 of the Environmental Code. Sweden has also ratified the Espoo convention on the environmental impact assessment in a trans-boundary context and the protocol on strategic environmental assessment. At the EU level the Water Directive, the Flood Directive and the Seveso Directive all have some bearing on the environment and how it is to be protected.

The Geological Survey of Sweden has an environmental goal meant to maintain good quality groundwater. The agency is working towards restricting the use of natural gravel that is considered to be an important groundwater resource.

The Swedish Forest Agency is building up knowledge and information and is continuously working on adaptation of forest management for long-term prevention of natural disasters including storm damage. The agency conducts extensive national training for forest owners and caretakers about climate change adaptation for forestry management.

Supported by environmental legislation, the County Administrative Boards work towards sustainable development by protecting natural areas (nature reserves, water protection areas etc). Through the planning and building legislation, the County Administrative Boards can forbid unsuitable city planning in risk areas. These and other measures are positive steps towards disaster risk reduction.

The County Administrative Boards are responsible for the regional coordination of adaptation to climate change. One of the key issues within this area is the aim of increased resilience and risk reduction in case of disasters related to extreme weather events.

MSB assists municipalities and County Administrative Boards with general slope stability and flood mapping in developed areas. The Swedish government has earmarked financing for prevention measure to be taken in developed areas in case the risk for landslide or flooding is high.

The County Administrative Board of Västra Götaland and the County Board of Värmland have developed a manual "Rising Water". This handbook assists in planning within flood prone areas. It is used as a regional climate change adaptation guide and includes recommendations for local authorities aimed at reducing the risk of adverse consequences of floods.

The Swedish Board of Agriculture has produced a number of reports and works on projects that describe how different vectors can increase the risk of contamination. It has also been investigated how agriculture in general are affected by climate change. Ecosystems management measures have been taken as a result of a Chalmers University study from 2011. The study looked at the environmental management and good quality drinking water supplies. The environmental quality objectives set by the Swedish Agency for Marine and Water Management and by the Geological Survey of Sweden have also been evaluated.

Provide an explanation of some of the key contextual reasons for the country's ranking assessment at the indicated level. In particular, highlight key challenges encountered by the country/ national authorities and partner agencies; and recommendations on how these can/ will be

overcome in the future.

Due to the great variations in the Sweden's natural landscape, and the high level of decentralization, the plans, strategies and inventories vary in type and detail.

Core indicator 2

Social development policies and plans are being implemented to reduce the vulnerability of populations most at risk.

Level of Progress achieved? 4

Substantial achievement attained but with recognized limitations in key aspects, such as financial resources and/ or operational capacities.

Key Questions and Means of Verification

Do social safety nets exist to increase the resilience of risk prone households and communities? Yes

Crop and property insurance	Yes
Temporary employment guarantee schemes	Yes
Conditional and unconditional cash transfers	No
Micro finance (savings, loans, etc.)	No
Micro insurance	No

Provide description and constraints for the overall core indicator (not only the means of verification).

Please describe some of the key contextual reasons for the country's ranking/ assessment for the indicated level of progress.

The safety net is primarily the insurance coverage that an individual takes. It is part of the Swedish culture to assure that insurance premiums are paid and that when a disaster occurs, reimbursement can be claimed. Therefore most citizens have adequate insurance. There is a need for continued dialogue with the insurance companies.

Provide an explanation of some of the key contextual reasons for the

country's ranking assessment at the indicated level. In particular, highlight key challenges encountered by the country/ national authorities and partner agencies; and recommendations on how these can/ will be overcome in the future.

No constraints have been identified.

Core indicator 3

Economic and productive sectorial policies and plans have been implemented to reduce the vulnerability of economic activities

Level of Progress achieved? 3

Institutional commitment attained, but achievements are neither comprehensive nor substantial.

Key Questions and Means of Verification

Are the costs and benefits of DRR incorporated into the planning of public investment? No

National and sectoral public investment systems incorporating DRR.

No

Please provide specific examples: e.g. public infrastructure, transport and communication, economic and productive assets

N/A

Investments in retrofitting infrastructures including schools and hospitals

No

Provide description and constraints for the overall core indicator (not only the means of verification).

Please describe some of the key contextual reasons for the country's ranking/ assessment for the indicated level of progress.

There is a certain institutional commitment and capacity to work towards reducing the vulnerability of economic activities in case of disasters. The national platform has not had a focus on economic vulnerability.

Provide an explanation of some of the key contextual reasons for the

country's ranking assessment at the indicated level. In particular, highlight key challenges encountered by the country/ national authorities and partner agencies; and recommendations on how these can/ will be overcome in the future.

Increased private sector engagement in disaster risk reduction could provide a better assessment of Sweden's economic vulnerability. There is an increase in research activities in this area.

Core indicator 4

Planning and management of human settlements incorporate disaster risk reduction elements, including enforcement of building codes.

Level of Progress achieved? 4

Substantial achievement attained but with recognized limitations in key aspects, such as financial resources and/ or operational capacities.

Key Questions and Means of Verification

Is there investment to reduce the risk of vulnerable urban settlements? Yes

Investment in drainage infrastructure in flood prone areas	Yes
Slope stabilisation in landslide prone areas	No
Training of masons on safe construction technology	No
Provision of safe land and housing for low income households and communities	No
Risk sensitive regulation in land zoning and private real estate development	Yes
Regulated provision of land titling	No

Provide description and constraints for the overall core indicator (not only the means of verification).

Please describe some of the key contextual reasons for the country's

ranking/ assessment for the indicated level of progress.

Funding for permanent preventive measures in built areas against natural disasters applied for by municipalities is provided by MSB. For this, the Swedish Geotechnical Institute (SGI) and the Swedish Meteorological and Hydrological institute (SMHI) as well as consultants provide technical expertise.

The National Board of Housing, Building and Planning has produced publications on the following topics: building safely in a changing climate, security measures in city planning, flood issues in planning, and landslides hazards in land use planning. The County Administrative Boards work with local governments in the process of city planning, where one of the topics discussed is resilience and disaster risk reduction within new exploitation areas. The County Administrative Boards have the authority to and can choose to act if local governments propose development plans that do not adhere to the law.

The Swedish National Board of Housing, Building and Planning was commissioned by the government to complete a report on "Climate adaptation in planning and construction: Analysis and Action". One of the results is the recommendation that the national and regional climate adaptation work should be supported by the development of a national strategy for climate adaptation. The report contains, among other things, a detailed analysis of how the system is applied and practical methods and examples of mitigating measures that can reduce the negative impacts of climate change.

Risk and vulnerability for drinking water supplies is a part Vision Sweden 2025 promoted by the Swedish National Board of Housing, Building and Planning.

Provide an explanation of some of the key contextual reasons for the country's ranking assessment at the indicated level. In particular, highlight key challenges encountered by the country/ national authorities and partner agencies; and recommendations on how these can/ will be overcome in the future.

It is important to consider disaster risk reduction in urban planning despite economic and other interests. There is a need to identify effective measures and timely action for the prevention of erosion.

Core indicator 5

Disaster risk reduction measures are integrated into post disaster recovery and rehabilitation processes

Level of Progress achieved? 3

Institutional commitment attained, but achievements are neither comprehensive nor

substantial.

Key Questions and Means of Verification

Do post-disaster programmes explicitly incorporate and budget for DRR for resilient recovery? No

% of recovery and reconstruction funds assigned to DRR

Yes

DRR capacities of local authorities for response and recovery strengthened

Yes

Risk assessment undertaken in pre- and post-disaster recovery and reconstruction planning

Yes

Measures taken to address gender based issues in recovery

Yes

Provide description and constraints for the overall core indicator (not only the means of verification).

Please describe some of the key contextual reasons for the country's ranking/ assessment for the indicated level of progress.

Risk reduction measures continue to be promoted to minimise the consequence of natural disasters primarily due to flooding, storms, and landslides.

Severe storms during the last years have resulted in major power failures. When repairing and rebuilding the local networks, measures to secure the networks have been taken such as cabling and trenching,

Solutions, such as lowering the water level in Sweden's largest lake Vänern, have reduced the vulnerability of cities on the shoreline. Rules and advice on regulation of dams and locks for high discharge in connection with extreme precipitation has been developed.

Provide an explanation of some of the key contextual reasons for the country's ranking assessment at the indicated level. In particular, highlight key challenges encountered by the country/ national authorities and partner agencies; and recommendations on how these can/ will be overcome in the future.

Risk reduction measures are often expensive. They may take considerable time to

implement, are complex and often require legal action (e.g. environment impacts, land use plans, individuals etc). Efforts have been made in the past two years to increase the knowledge about what can and should be done at the local and county levels.

Core indicator 6

Procedures are in place to assess the disaster risk impacts of major development projects, especially infrastructure.

Level of Progress achieved? 4

Substantial achievement attained but with recognized limitations in key aspects, such as financial resources and/ or operational capacities.

Key Questions and Means of Verification

Are the impacts of disaster risk that are created by major development projects assessed? Yes

Are cost/benefits of disaster risk taken into account in the design and operation of major development projects? Yes

Impacts of disaster risk taken account in Environment Impact Assessment (EIA)	Yes
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By national and sub-national authorities and institutions	Yes
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By international development actors	Yes
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Provide description and constraints for the overall core indicator (not only the means of verification).

Please describe some of the key contextual reasons for the country's ranking/ assessment for the indicated level of progress.

There are no specific regulations within the Environmental Code regarding EIA or SEA that focus on risk management or risk reduction. However, during the screening process for a SEA and when assessing significant environmental effects of implementing a project, plan or programme; addressing even risk reduction issues is expected.

Drinking water issues are discussed in one of the six coordination arenas, administered by MSB, where inter alia the Swedish National Food Agency is represented.

The National Grid has, in cooperation with dam owners in the electrical power industry, identified dams on the major hydropower rivers that in the event of a dam failure, besides endangering the lives of many people and their health, could cause severe disruptions in critical infrastructure. In dialogue with the dam owners, authorities have been developing and testing procedures for enhanced supervision and regulatory guidance for this category of dams. In 2013, work was done to enhance dam safety reporting and regulatory monitoring has been conducted for all plants in this high-impact class.

MSB has produced a guide for identifying and prioritizing societal vital functions. Under the provisions for risk and vulnerability analysis (MSBFS 2010:6 and 2010:7), municipalities, county councils and government designated agencies are required by law to identify their societal vital functions.

Provide an explanation of some of the key contextual reasons for the country's ranking assessment at the indicated level. In particular, highlight key challenges encountered by the country/ national authorities and partner agencies; and recommendations on how these can/ will be overcome in the future.

All major development projects need to take into account the risks associated with a changing climate and assure that measures are taken to protect people, the environment and property. It is desirable to develop guidelines on how to build in a changing climate. Some work has already been done by the Swedish National Board of Housing, Building and Planning.

Priority for Action 5

Strengthen disaster preparedness for effective response at all levels

Core indicator 1

Strong policy, technical and institutional capacities and mechanisms for disaster risk management, with a disaster risk reduction perspective are in place.

Level of Progress achieved? 4

Substantial achievement attained but with recognized limitations in key aspects, such as financial resources and/ or operational capacities.

Key Questions and Means of Verification

Are there national programmes or policies for disaster preparedness, contingency planning and response? Yes

DRR incorporated in these programmes and policies	Yes
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The institutional mechanisms exist for the rapid mobilisation of resources in a disaster, utilising civil society and the private sector; in addition to public sector support.	Yes
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Are there national programmes or policies to make schools and health facilities safe in emergencies? Yes

Policies and programmes for school and hospital safety	Yes
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Training and mock drills in school and hospitals for emergency preparedness	Yes
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Are future disaster risks anticipated through scenario development and aligned preparedness planning? Yes

Potential risk scenarios are developed taking into account climate change projections	Yes
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Preparedness plans are regularly updated	Yes
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based on future risk scenarios

Provide description and constraints for the overall core indicator (not only the means of verification).

Please describe some of the key contextual reasons for the country's ranking/ assessment for the indicated level of progress.

School and hospitals are subject to building regulations that requires certain arrangements for buildings where a lot of people or people that need assistance in evacuating are staying. Health and safety legislation requires systematic safety work, regular training and mock drills in schools and hospitals.

Provide an explanation of some of the key contextual reasons for the country's ranking assessment at the indicated level. In particular, highlight key challenges encountered by the country/ national authorities and partner agencies; and recommendations on how these can/ will be overcome in the future.

No constraints have been identified.

Core indicator 2

Disaster preparedness plans and contingency plans are in place at all administrative levels, and regular training drills and rehearsals are held to test and develop disaster response programmes.

Level of Progress achieved? 4

Substantial achievement attained but with recognized limitations in key aspects, such as financial resources and/ or operational capacities.

Key Questions and Means of Verification

Are the contingency plans, procedures and resources in place to deal with a major disaster? Yes

Plans and programmes are developed with gender sensitivities

Yes

Risk management/contingency plans for continued basic service delivery

Yes

Operations and communications centre	Yes
Search and rescue teams	Yes
Stockpiles of relief supplies	Yes
Shelters	Yes
Secure medical facilities	Yes
Dedicated provision for disabled and elderly in relief, shelter and emergency medical facilities	Yes
Businesses are a proactive partner in planning and delivery of response	Yes

Provide description and constraints for the overall core indicator (not only the means of verification).

Please describe some of the key contextual reasons for the country's ranking/ assessment for the indicated level of progress.

Several municipalities have been affected by flooding and thereby have tested their capacity for preparedness and operations. Weather forecast and warning systems are used by municipalities. When there is a flooding situation, some municipalities use forecast maps with their current flood risk maps to see the anticipated flow level. The Swedish Meteorological and Hydrological Institute (SMHI) provides a prognosis for the expected flow for the coming 10 days. SMHI also has a warning system for heat, storms, and grass fires. Information about temperature and wind includes the anticipated effects of intensely cold temperatures

Some municipalities have used the International Charter satellite photos to spread information about the risks and provide warnings. MSB is the focal point for International Charter.

MSB directs and coordinates national as well as regional emergency preparedness exercises. MSB uses the experiences from emergency exercises, to learn and develop emergency preparedness capability. MSB has national resources that can be used to reinforce the municipalities when their own resources are not enough to handle a large scale event. MSB has assets for forest fires, floods, oil spills and chemical emergencies. MSB has also the role as coordinator of national resources that can be allocated between different stake holders, if needed in a disaster.

There is a national pandemic plan in place. This was written in consultation with several agencies. The Swedish National Board of Health and Welfare and MSB issued together a report called "Influenza A (HINI) 2009 - Evaluation of preparation and handling of the pandemic." This was the result of a government commission and the report was published in March 2011.

MSB produced the "Guide for Crises - Part 2 To plan for a pandemic". Earlier there was "Guidance for crises Part 1 - Designing for crises". The purpose of the guidance was to give advice to support all business managers, enterprises, government agencies, municipalities, and organizations to ensure their businesses could take action if faced with an influenza pandemic."

There is a national emergency water team (VAKA) to aid in crises affecting drinking water supplies. At national level there are also national stocks of equipment, designed to supply with emergency drinking water at regional and local level.

The National Food Agency on government commission is enhancing Sweden's preparedness for possible catastrophes that would lead to a lack of good quality drinking water. Representatives from the national water catastrophe group (VAKA) participate in international observation studies to learn from the crises of others.

National crises or events such as floods are systematically followed up in order to learn from experiences. International observation after emergencies is coordinated by MSB. Training exercises have been carried out and are a regular part of the team's work. Specific training programmes have been conducted in catastrophic risks, crisis management and protection measures in the area of drinking water, including risks in connection with floods, high flows, torrential rains, landslides, forest fires, etc. These are conducted primarily by those responsible for drinking water at the local and regional levels.

Sweden has a well functioning cooperation between municipal rescue services, communication centres and medical facilities in emergency situations. Sweden also has a service for senior citizens to assure their safety during and after a crisis.

Sweden has an extensive cooperation with the neighboring countries including the Baltic region. Cross border co-operation is ongoing regarding the management of forest and grassland fires in the Baltic Region and between the Nordic countries. There are several agreements, on different levels, between the countries, such as NORDRED and Barents Agreement. MSB has resources such as flood containment equipment for supporting large scale national responses.

Sweden is also involved in the civil protection work within the EU, for instance regarding the development of civil protection modules. Sweden has registered a number of modules, for instance modules for flood containment and water purification.

MSB works together with stakeholders to provide coordinated information to the public and develop a common situational picture across sectors. MSB also supports the Swedish Government Offices with situation reports and information in the event of serious crises or disasters. Social media plays an increasingly important role in crisis communication and in the dialogue with the public. MSB is continuously developing the agency's use of social media.

There is a network of Duty Officers at the government agencies. MSB:s Duty Officer conveys requests for resources and/or expert support for interventions at a national, EU or international level. The Duty Officer also monitors development both nationally and internationally to detect and identify events and trends that may degenerate into serious accidents, disasters or crises

Furthermore, MSB can provide external actors, both national and international, an overview of national resources, such as, access to power reserves, modules for various types of operation (for example; Urban Search and Rescue, Emergency Temporary Shelter and Flood Containment), in the event of serious emergencies etc.

In the field of humanitarian assistance MSB is able to contribute with many different types of support, such as 1) base camps, health care 2) water, sanitation and hygiene 3) housing and basic necessities 4) specialists and 5) transportation. The personnel who manage the emergencies and those who are recruited for the pool of experts, have many years of experience working with and providing support to other organizations during and after natural disasters and conflict situations.

MSB's international operations often start up after a request from an UN organisation. Operations can be of very different types, from emergency search & rescue operations following an earthquake to long-term projects aimed at strengthening a country's capacity for handling its own future disasters.

The County Administrative Boards are responsible for supporting the system of contingency plans and disaster preparedness plans at the county level. This is done, for example, through regular training drills, often designed with the purpose of identifying measures to reduce vulnerability. The county supports the local government in their development of disaster response programmes.

The National Heritage Board has produced a manual on how to salvage art and other cultural collections, buildings and environments. The agency has also organized seminars on regional disaster preparedness for cultural heritage.

MSB and local rescue services work continuously with gender issues. Gender objectives are included in action plans.

Provide an explanation of some of the key contextual reasons for the country's ranking assessment at the indicated level. In particular, highlight key challenges encountered by the country/ national authorities and partner agencies; and recommendations on how these can/ will be overcome in the future.

No constraints have been identified.

Core indicator 3

Financial reserves and contingency mechanisms are in place to support effective response and recovery when required.

Level of Progress achieved? 4

Substantial achievement attained but with recognized limitations in key aspects, such as financial resources and/ or operational capacities.

Key Questions and Means of Verification

Are financial arrangements in place to deal with major disaster? Yes

National contingency and calamity funds	Yes
The reduction of future risk is considered in the use of calamity funds	Yes
Insurance and reinsurance facilities	Yes
Catastrophe bonds and other capital market mechanisms	No

Provide description and constraints for the overall core indicator (not only the means of verification).

Please describe some of the key contextual reasons for the country's ranking/ assessment for the indicated level of progress.

According to Chapter 7, § 3 of the Civil Protection Act, if a disaster operation in the municipality has resulted in substantial costs, the municipality has the right to compensation from the national government for the portion of the costs that exceed the deductible. A prerequisite for eligibility is that the costs are directly attributable to the intervention phase. The purpose of the municipality's right to reimbursement for emergency expenses is to protect the municipality from the expenses which may result from a large, long-term emergency that could affect an individual municipality's economy.

MSB has a financial agreement with the Swedish International Development Coordination Agency (Sida) that ensures the possibility of quickly financing international operations in response to disasters, or in support of disaster risk reduction activities.

Provide an explanation of some of the key contextual reasons for the country's ranking assessment at the indicated level. In particular, highlight key challenges encountered by the country/ national authorities and partner agencies; and recommendations on how these can/ will be overcome in the future.

No constraints have been identified.

Core indicator 4

Procedures are in place to exchange relevant information during hazard events and disasters, and to undertake post-event reviews.

Level of Progress achieved? 5

Comprehensive achievement with sustained commitment and capacities at all levels.

Key Questions and Means of Verification

Has an agreed method and procedure been adopted to assess damage, loss and needs when disasters occur? Yes

Damage and loss assessment methodologies and capacities available	Yes
Post-disaster need assessment methodologies	Yes
Post-disaster needs assessment methodologies include guidance on gender aspects	Yes
Identified and trained human resources	Yes

Provide description and constraints for the overall core indicator (not only the means of verification).

Please describe some of the key contextual reasons for the country's ranking/ assessment for the indicated level of progress.

MSB is responsible of supporting and facilitating the coordination of information during hazardous events and disasters at national level, and to keep the government informed. MSB is also required to undertake post-event reviews. The County Administrative Boards have the same role at the county level and the municipality at the local level.

Coordination conferences are arranged by MSB to bring together the different partners that are working on an emergency. The purpose is to let the stakeholders share situation reports, pool resources, and discuss crisis communication.

The Swedish Accident Investigation Authority is a government agency responsible for investigation accidents and incidents. Its purpose is to improve the level of safety and decrease disasters.

MSB is responsible for expanding, developing and supporting the digital communication system, Rakel, used by the emergency services and others in the fields of civil protection, public safety and security, emergency medical services and healthcare. Rakel reduces societal vulnerability during an emergency due to its robustness as a reliable communications system. Besides its resilient attributes, Rakel also provides greater coverage than commercial systems, and enhanced methods and platforms for interaction. Rakel also helps increase societal preparedness. The system streamlines everyday communications, and enables new ways of working, which increases readiness and with it, ultimately the ability to manage an emergency. MSB together with 40 organisations have produced national guidelines for cooperation in the use of Rakel from January 2013.

MSB has adopted the internationally accepted methods and procedures for post-disaster needs assessments as utilized in MSB's collaboration with international partners such as UNDP, the World Bank and the EU. In order to be able to support assessments, MSB has a number of highly qualified staff members that are available and can be deployed nationally and internationally under short notice.

Provide an explanation of some of the key contextual reasons for the country's ranking assessment at the indicated level. In particular, highlight key challenges encountered by the country/ national authorities and partner agencies; and recommendations on how these can/ will be overcome in the future.

Emergency operations conducted at the local level are effective; however, the socio-economic losses are not always assessed or used. Follow-up studies and evaluations are carried out. However, there are no guidelines for what data should be collected after disasters. Therefore, it is difficult to study trends in damages and losses based on these evaluations. Methodological developments are underway when it comes to estimate disaster loss.

Drivers of Progress

a) Multi-hazard integrated approach to disaster risk reduction and development

Levels of Reliance

Significant and ongoing reliance: significant ongoing efforts to actualize commitments with coherent strategy in place; identified and engaged stakeholders.

Do studies/ reports/ atlases on multi-hazard analyses exist in the country/ for the sub region?: Yes

If yes, are these being applied to development planning/ informing policy?: Yes

Description (Please provide evidence of where, how and who)

There is a multi-hazard integrated approach to disaster risk reduction and development. There are many engaged stakeholders both in the Swedish National Platform for Disaster Risk Reduction and within networks engaged with disaster management including those at the county and local level. The assessment of hazards and vulnerability has by law been implemented by the municipalities in Sweden and the degree of disaster risk reduction varies from municipality to municipality largely due to the amount of resources available for such endeavours. Also the national strategy for Critical Infrastructure Protection has an all hazard approach.

b) Gender perspectives on risk reduction and recovery adopted and institutionalized

Levels of Reliance

Significant and ongoing reliance: significant ongoing efforts to actualize commitments with coherent strategy in place; identified and engaged stakeholders.

Is gender disaggregated data available and being applied to decision-making for risk reduction and recovery activities?: Yes

Do gender concerns inform policy and programme conceptualisation and implementation in a meaningful and appropriate way?: Yes

Description (Please provide evidence of where, how and who)

On the national level there is an upward trend regarding employment of women in civil protection.

The key areas that MSB is working with in international operations following our mandate and UNSCR 1325 involves: Increasing the number of women on missions, pre-deployment gender training, strengthening local women's participation and the security of women and girls. The participation aspect is one of the key areas that MSB is trying to improve and which is essential for disaster risk reduction projects where gender specific vulnerability and capacity aspects linked to gender roles and power relations are crucial factors.

MSB has developed methods for and worked actively with a gender perspective in the following disaster risk reduction project components: Gender/risk analysis, contingency planning, early warning systems, gender awareness facilitation and pedagogy in disaster risk reduction training, urban search and rescue, and flooding. MSB's ambition is to include a gender analysis and a subsequent gender action plan and specific reporting in all international long term disaster risk reduction projects. Gender and diversity are integrated into more large scale international disaster risk reduction projects through analysis, education/training, specific activities and recommendations within the project.

MSB assures that training in gender and diversity perspective in international assistance is included in all induction training courses. The roster staff also receives a gender mission specific brief prior to deployment. MSB has an increasing number of Gender Fields Advisors (GFA's) on the roster that can be sent on missions. The GFA's have expertise on how to include a gender perspective in all the project phases and can be used in the field, as a resource for improved quality and sustainability of MSB projects.

c) Capacities for risk reduction and recovery identified and strengthened

Levels of Reliance

Significant and ongoing reliance: significant ongoing efforts to actualize commitments with coherent strategy in place; identified and engaged stakeholders.

Do responsible designated agencies, institutions and offices at the local level have capacities for the enforcement of risk reduction regulations?:
Yes

Are local institutions, village committees, communities, volunteers or urban resident welfare associations properly trained for response?: Yes

Description (Please provide evidence of where, how and who)

Sweden is active in promoting cooperation and exchange of experiences in the area of disaster risk reduction (cf. the many examples provided throughout the report). Sweden has also taken an active role within the European Forum for Disaster Risk Reduction, EFDRR.. Sweden was the first chair of the forum (in 2010) and has continued to be active through working group activities, EU financed projects and exchanges and direct collaboration with other HFA focal points.

d) Human security and social equity approaches integrated into disaster risk reduction and recovery activities

Levels of Reliance

Significant and ongoing reliance: significant ongoing efforts to actualize commitments with coherent strategy in place; identified and engaged stakeholders.

Do programmes take account of socio-environmental risks to the most vulnerable and marginalised groups?: Yes

Are appropriate social protection measures / safety nets that safeguard against their specific socioeconomic and political vulnerabilities being adequately implemented?: Yes

Description (Please provide evidence of where, how and who)

No description provided.

e) Engagement and partnerships with non-governmental actors; civil society, private sector, amongst others, have been fostered at all levels

Levels of Reliance

Significant and ongoing reliance: significant ongoing efforts to actualize commitments with coherent strategy in place; identified and engaged stakeholders.

Are there identified means and sources to convey local and community experience or traditional knowledge in disaster risk reduction?: Yes

If so, are they being integrated within local, sub-national and national disaster risk reduction plans and activities in a meaningful way?: Yes

Description (Please provide evidence of where, how and who)

Every Swedish municipality has to make action plans for disasters. Several municipalities in Sweden include adaptation to climate change in their disaster risk analyses.

Effective disaster risk reduction requires effective community participation. Participatory approaches can more effectively capitalize on existing coping mechanisms and are effective at strengthening community knowledge and capacities. Equally, public-private partnerships are important for prevention, preparedness, operations and recovery. Such voluntary associations may involve public organizations such as government agencies, professional and/or academic institutions and NGOs, together with business organizations such as companies, industry associations and private foundations. Public-private partnerships can offer opportunities to combine resources and expertise to act jointly to reduce risks and potential losses. They can in turn improve the resilience of communities.

Both at a national, regional and local level there are public-private partnerships in various areas and working in different capacities. In several EU projects in which Swedish actors participate, public-private cooperation is carried out.

Contextual Drivers of Progress

Levels of Reliance

Significant and ongoing reliance: significant ongoing efforts to actualize commitments with coherent strategy in place; identified and engaged stakeholders.

Description (Please provide evidence of where, how and who)

Significant and ongoing reliance: significant ongoing efforts to actualize commitments with coherent strategy in place; identified and engaged stakeholders.

Future Outlook

Future Outlook Area 1

The 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.

Overall Challenges

One of the biggest challenges of effective integration of disaster risk reduction is to increase the awareness of the need to consider disaster risk reduction in all planning and development projects and amongst the public. After awareness-raising comes the challenge of commitment through systematic processes, allocation of resources and follow-up on the effectiveness of measures towards reducing vulnerability.

Another important element is to maintain a close cooperation with academic institutions and to reach out with research results. Authorities are working close with the research sector, for example by being an active member of steering committees and reference groups for several research centres and projects that study natural hazards and risk management.

The National Strategy for Exercises facilitates the coordination and direction of cross-sector exercises at national and regional level. In order to provide a complete picture, it would be necessary to extend the scope to also include the community and local level as well as the County Councils and private stakeholders.

Future Outlook Statement

Climate change adaptation is one of the major challenges since it will lead to new or magnified threats. All sectors and levels of society need to increase their awareness of the risks and vulnerabilities resulting from climate change. Risk assessment and planning aimed at mitigating the impact from climate change also needs to factor in the growing technological complexity of society and other trends such as an ageing population, outsourcing of vital societal functions and globalization.

The national authorities will continue to cooperate and support the county and local municipalities in identifying risks and offering methods and techniques for identifying vulnerability, preventing disasters, mitigating the consequences of possible disasters, and preparing for disaster. Much focus will be placed on the integration of disaster

risk reduction and climate change adaptation, to take climate adaptation into account in our national risk assessment and the next cycle of the EU Floods Directive, as well as other directives. Of vital importance is combining all these efforts in the same direction to achieve effective reduction of disaster risks and more common risks. Sweden, in its capacity as a Member State of the European Union, will continue to support policy development that leads to prevention and mitigation of disasters especially by knowledge of local risks and how to reduce their underlying causes.

Future Outlook Area 2

The development and strengthening of institutions, mechanisms and capacities at all levels, in particular at the community level, that can systematically contribute to building resilience to hazards.

Overall Challenges

increases. Issues related to climate change and vulnerability are receiving increasing visibility in Sweden. Discussions are ongoing about how to bring together DRR, climate adaptation and sustainable development. The solutions are to be further discussed and decisions made about effective implementation. These issues stretch across sector boundaries and, therefore, collaboration on the part of all affected actors is critical for successful results. Models for public-private partnerships need to be further explored.

Future Outlook Statement

mechanisms, and capacities not only at the national level but also at the county and local levels. The national level will enhance knowledge and promote the development of methods and techniques that can be used by the counties and municipalities for disaster risk reduction. The platform will promote cities that are building resilience to hazards and encourage the dissemination of successful methods so that other municipalities can enhance their plans and practices.

Future Outlook Area 3

The systematic incorporation of risk reduction approaches into the design and implementation of emergency preparedness, response and recovery programmes in the reconstruction of affected communities.

Overall Challenges

have been few opportunities to implement reconstruction policies. The challenges include a more structured coordination of the actors who are working towards a risk reduction approach when recovery and reconstruction is required. In addition, there is insufficient knowledge about the best methods and techniques for recovery. Many useful ideas can come from the private sector or experiences from other countries.

Future Outlook Statement

The Swedish government agencies will continue to assist municipalities in their risk management programmes and measures to identify, prevent, mitigate and respond to disasters but also to build back in a manner as to create resilience to future disasters. Experience with humanitarian capacity building programme will provide for effective cooperation intended to enhance the foreign partners' ability to manage all phases of the disaster management cycle.

Stakeholders

Organizations, departments, and institutions that have contributed to the report

Organization	Organization type	Focal Point
MSB; Swedish Civil Contingencies Agency (Gov.)	Governments	mette.lindahl-olsson@msb.se (HFA focal point)
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