Country Code	ESPON countries Hazards	National level *(role of spatial planning in DRM)*	Regional level *(role of spatial planning in DRM)*	Local level *(role of spatial planning in DRM)*	Good practice examples	Integration of DRM and CCA in planning laws	Primary integration of risk assessment and management into spatial planning processes: hazards and risks that are already integrated in spatial plans call for a more effective DRM than a secondary integration of sectoral hazard and risk maps	Territorial approach: identify management options that mitigate risks in the whole territory instead of following unconnected sectoral approaches (JRC 2019, p. 21)	Planning instruments, incl. EIA	Hazard zoning as a basis for planning decisions	Specific sectoral management plans and instruments	Innovative strategies (no regret strategies; retreat; burden sharing)	Stakeholder involvement: increases the quality and acceptance of risk assessmentand risk management (involvement already in the development and selection of methodologies)	Integration of climate change in DRM and closer cooperation between DRM and CCA action and concepts
AT	**Austria (Österreich)**													
AT	(1) Floods (river floods, storm surges)	The Austrian Conference on Spatial Planning (ÖROK) developed the Austrian Spatial Planning Concept (ÖREK) in 2011. This is a non-binding agreement signed by the national government, the Bundesländer, and the convention of municipalities. The concept lays out pathways to integrate adaptation action (e.g. zoning, energy-efficient construction, **flood management**) into regional legislative documents. However, the 2018 mid-term evaluation of the ÖREK does not report on progress in this endeavor. (European Commission: 16-17)	The 2015 progress report on the implementation of the NAS/NAP states that some aspects, such as flood risks and natural hazard management, are frequently mentioned in spatial planning legislations but zoning and green infrastructure are not. (European Commission: 16) The Austrian regional planning conference (ÖROK - Österreichische Raumordnungskonferenz) conducted a recommendation on preventive measures for natural hazards in regional planning with the focus on floods due to previous devastating impacts of events (ÖROK-Empfelung Nr. 52 zum präventiven Umgang mit Naturgefahren in der Raumordnung)	Integration of spatial planning within flood risk management: In Austria, hazard zone plans show the areas that are at risk of floods, mountain streams, avalanches and erosion. Municipalities' zoning and development plans include information on hazard zones, which form the basis for further planning. (ECA 2018: 43)	Clear integration of spatial planning within flood risk management: In Austria, hazard zone plans show the areas that are at risk of floods, mountain streams, avalanches and erosion. Municipalities' zoning and development plans include information on hazard zones, which form the basis for further planning. (ECA 2018: 43)	x				x	x			
AT	(2) Droughts													
AT	(3) Storms (winter, convective)													
AT	(4) Earthquakes													
AT	(5) Others (flash floods, land slides)													
BE	**Belgium (Belgien)**													
BE	(0) General information	Horizontal coordination among sectors is organised by each of the federal and regional governments via meetings in committees and contact groups. These groups bring together representatives of various sectoral policy departments that are likely to be affected by climate change, such as water, agriculture, nature and forests, agriculture, health, spatial planning, disaster risk management, etc. (European Commission 2018b_Adaptation preparedness scoreboard for Belgium: 9) There are a few policy instruments implemented in spatial planning in Flanders that aim to avoid new developments in flood risk areas (e.g. the 'watertoets' and the 'Signaalgebieden' in Flanders) (European Commission Belgium 2018: 21)	Climate change is not yet completely integrated in land use, spatial planning, urban planning and maritime planning. However, there are a few policy instruments implemented in spatial planning in Flanders that aim to avoid new developments in flood risk areas. (European Commission 2018b_Adaptation preparedness scoreboard for Belgium: 22)						x					
BE	(1) Floods (river floods, storm surges)	The environmental agency in Flanders has built an advanced flood forecasting system that uses real-time measurements and meteorological forecasts as input for hydrologic models. The real-time flood forecast maps it publishes using ArcGIS for Server keep residents aware of potential danger by showing the maximum extent and impact of flooding. (ESRI, andere Quelle mit mehr Infos suchen)	Climate change is mentioned in maritime spatial planning. It is being taken into account throughout the planning process and has led to specific spatial decisions directly or indirectly related to climate change, e.g. the designation of a zone for a test island for coastal protection and the designation of additional zones for offshore renewable energy. In addition, climate change is included in EIA. Spatial planning remains the Achilles' heel of the Belgian FRGA. The fact that an ambitious policy is pursued today has come about through the need to compensate for ill-considered spatial planning choices made in the past.(Meers et al 2016:12) - here is no national contingency plan in Belgium for emergencies involving flooding. Every municipality has its own specific contingency plans on issues relevant to that municipality. ((Website Risc-Kit; Meers et al. 2016)											
BE	(2) Droughts													
BE	(3) Storms (winter, convective)													
BE	(4) Earthquakes													
BE	(5) Others (flash floods, land slides)													
BG	**Bulgaria (Bulgarien)**													
BG	(1) Floods (river floods, storm surges)	Climate adaptation is considered in land-use and urban planning policies at national and regional levels. The **National Concept for Spatial Development** for the period 2013-2025 (NCSD) is a mid-term strategic document, which outlines directions for land-use planning, governance and protection of national territory and waters. (European Commission 2018: 20) **Spatial Planning Act** (SPA): it regulates the procedures for preparation, approval and amandment of general and detailed spatial development plans of settlements. Thy bylaws issued on the basis of the SPA lay down the standards of urban planning and development of land. The standards for planning and construction regulated at governemntal level, as well as the specific management decisions taken at local level are directly related to the activities for sector Land Use, Land Use Change and Forestry proposed in the NAPCC (Third Bulgarian National Action Plan on Climate Change 2012: 76). **Law on Territorial Planning**: regulates the construction of buildings and facilities in landslide areas. Serves as the main source of ordinances and other normative documents governing land use planning in different spheres. Involves both master and detailed development plans, the latter of which require an assessment of general stability. States that property owners are obliged to let competent authorities perform any necessary stabilisation activities (RISK KIT)			Key land use, spatial planning, urban planning and maritime spatial planning policies take into account the impacts of climate change (European Commission: 26)									x
BG	(2) Droughts													
BG	(3) Storms (winter, convective)													
BG	(4) Earthquakes													
BG	(5) Others (flash floods, land slides)													
CH	**Switzerland (Schweiz)**													
CH	(1) Floods (river floods, storm surges)	In January 2011, the revised Waters Protection Act (Swiss Confederation, 2012b) came into effect. It stipulates, inter alia, the spatial requirements for surface waters (space provided for waters) in order to safeguard the natural functions of the waters, flood protection and waters use. (UNFCCC NC7: 187)	As climate change adaptation is still a relatively new issue, activities and experiences on regional and local level are widely lacking. Therefore, the pilot programme 'Adaptation to climate change' was set up under the leadership of the Swiss Federal Office for the Environment together with the civil protection, public health, agriculture, spatial development and the food safety and veterinary offices as a national funding initiative to support cantons, regions and municipalities in tackling climate change-related challenges. The sectors covered are, in line with the national strategy, water management, natural hazards management, agriculture, forestry, energy, tourism, biodiversity management, health and spatial management. Contents are updated and extended periodically. (UNFCCC NC: 180)	Der Hochwasserschutz ist Aufgabe der Kantone (Art. 2 WBG). Diese gewährleisten den Hochwasserschutz in erster Linie durch den Unterhalt der Gewässer und durch raumplanerische Massnahmen (Art. 3 Abs. 1 WBG). Reicht dies nicht aus, müssen Massnahmen wie Verbauungen, Eindämmungen, Korrektionen usw. getroffen werden. Im Weiteren bezeichnen die Kantone gemäss Art. 21 der Verordnung vom 2. November 1994 über den Wasserbau (Wasserbauverordnung, WBV, SR 721.100) die Gefahrengebiete. (Art. 3 Abs. 2 WBG). (BAFU 2012: 13)										
CH	(2) Droughts													
CH	(3) Storms (winter, convective)													
CH	(4) Earthquakes													
CH	(5) Others (flash floods, land slides)													
CY	**Cyprus (Zypern)**													
CY	(1) Floods (river floods, storm surges)													
CY	(2) Droughts													
CY	(3) Storms (winter, convective)													
CY	(4) Earthquakes													
CY	(5) Others (flash floods, land slides)													
CZ	**Czechia (Tschechien)**													
CZ	(1) Floods (river floods, storm surges)	Integration of spatial planning within flood risk management: The FRMPs in Czech Republic, included measures, not yet implemented, to update planning regulations or to better integrate land use planning in flood management risk, thus recognizing insufficiencies in current regulations (ECA 2018: 43)												
CZ	(2) Droughts													
CZ	(3) Storms (winter, convective)													
CZ	(4) Earthquakes													
CZ	(5) Others (flash floods, land slides)													
DE	**Germany (Deutschland)**													
DE	(1) Floods (river floods, storm surges)	The Aspect of climate Adaption is almost disregarded in the regional plans - mergely declarations on flood protection on rivers and in coastal zones consider possible prospective risks in formal plans. The same is almost true for local land-use planning. (BMVBS-BBR_2010b: 41) When the Federal Regional Planning Act was revised in 2008, climate adaptation was introduced as one of the principles of spatial planning (Paragraph 2, Section 2, No. 6).	When the Federal Regional Planning Act was revised in 2008, climate adaptation was introduced as one of the principles of spatial planning (Paragraph 2, Section 2, No. 6). This Act put in place a framework that has allowed inclusion of adaptation-relevant considerations when the spatial plans of the Länder and regions are revised. (European Commission 2018c:19)	CCA has only been explicitly integrated into very few laws, i.e. the Federal Regional Planning Act (Raumordnungsgesetz (ROG)), the Federal Building Code (Baugesetzbuch (BauGB)) and the Federal Water Resources Act (Wasserhaushaltsgesetz (WHG)) (UNFCCC NC7:27)	KLIMAPAKT is an example of a project integrating climate change into land use and land management. It has established best practices for spatial planning in Germany (2008-2010). The internet platform Klima und Raum is a result of this project and aims to promote longterm collaboration between research, institutions and practice. A recent report (2016) of the Federal Environmental Office provides a practical guide for consideration of climate adaptation in spatial planning. There are several more research projects related to climate change and spatial planning. Examples include: the Klimawandelgerechter Regional Plan and projects within the KlimaMORO framework, which aims to develop strategies for spatial development and climate change. (European Commission 2018c:19)	x								
DE	(2) Droughts													
DE	(3) Storms (winter, convective)													
DE	(4) Earthquakes													
DE	(5) Others (flash floods, land slides)													
DK	**Denmark (Dänemark)**													
DK	(1) Floods (river floods, storm surges)	Central government can address important aspects of the climate challenge through its influence on the revision of municipal development plans, through the national planning report, as well as through the following legislation: the Planning Act, the Act on assessment and management of the risk of flooding from watercourses and lakes (lov om vurdering og styring af oversvømmelsesrisikoen fra vandløb) and the Statutory Order on assessment and risk management of flooding from the sea, fjords or other parts of the Danish territorial waters (bekendtgørelse om vurdering og risikostyring for oversvømmelser fra havet, fjorde eller andre dele af søterritoriet). (Danish Nature Agency Mapping climate change - barriers and opportunities for action: 92)		The Minister for the Environment can influence the municipalities' planning through political statements in the national planning report, and through an report on national interests in municipal planning published every four years for use in the municipalities' revision of their municipal development plans. (Danish Nature Agency Mapping climate change - barriers and opportunities for action: 91) There is a wish to be able to plan explicitly for climate change in local planning. A bill has therefore been presented to amend the Planning Act, providing the municipalities with a new tool that will allow them to e.g. prevent future flooding in the local development plan. The municipalities will be able directly to prepare local development plans aimed at climate change adaptation, e.g. managing extreme rainfall and flooding. So far, the municipalities have only been able to substantiate their decisions in local development plans using architectural and functional explanations. The bill was presented on 29 March 2012. (Danish Nature Agency Mapping climate change - barriers and opportunities for action: 92)	Copenhagen, among other cities, has a detailed plan for the city's future urban planning with adaptation at its core. Approximately 300 specific projects addressing adaptation are proposed, and a 'climate-resilient neighbourhood' is being developed as a demonstration project with adaptation built into every aspect of its design. European Commission 2018:24)	x								x
DK	(2) Droughts													
DK	(3) Storms (winter, convective)													
DK	(4) Earthquakes													
DK	(5) Others (flash floods, land slides)													
EE	**Estonia (Estland)**													
EE	(1) Floods (river floods, storm surges)													
EE	(2) Droughts													
EE	(3) Storms (winter, convective)													
EE	(4) Earthquakes													
EE	(5) Others (flash floods, land slides)													
EL	**Greece (Griechenland)**													
EL	(1) Floods (river floods, storm surges)													
EL	(2) Droughts													
EL	(3) Storms (winter, convective)													
EL	(4) Earthquakes													
EL	(5) Others (flash floods, land slides)													
ES	**Spain (Spanien)**													
ES	(1) Floods (river floods, storm surges)		Regional governments have the competency to develop urban planning of the coastal area. When necessary, coastal protection is entrusted by the Spanish Constitution to the national government.Funding for coastal protection comes from the national government through the budget of the Directorate-General for the Sustainability of the Coast and the Sea (European Commission - Policy Research Corporation - Country fiche Spain: 4)	The vast majority of Local Governments are working actively to prevent climate change. The development of these actions falls within the scope of the Spanish Network for Cities for the Climate (RECC), which is made up of local entities that are integrating protecting the climate within their municipal policies (UNFCCC NC7: 11).										
ES	(2) Droughts													
ES	(3) Storms (winter, convective)													
ES	(4) Earthquakes													
ES	(5) Others (flash floods, land slides)													
FI	**Finland (Finnland)**													
FI	(1) Floods (river floods, storm surges)	Current legislation on building and other statutes include requirements for taking climate change into consideration in land use planning and building. According to the revised land use guidelines, new construction should not be located in areas that are prone to flooding. Local master and detailed planning should take account of the increasing possibility of extreme weather events in built areas. The management of flood risks and river basins is also regulated. (20) The most important impacts of climate change on land use are changes in flood risks, extreme weather events and groundwater conditions. The impacts will vary regionally. Changes related to flooding will create challenges for land-use planning, especially in the vicinity of rivers and lakes, in coastal areas and in other flood prone areas. Increased heavy rainfall will be a challenge for storm water management, especially in areas with high degree of surfaces sealed with impermeable materials. Current legislation on building and other statutes include requirements for taking climate change into consideration. For new construction, climate change and adaptation are taken into consideration already during the planning stage through planning guidance. Local conditions that may affect construction are increasingly being taken into account through existing instruments, such as building ordinances and municipal instructions for building. The use of specific local, regional and municipal guidance instruments should be further reinforced. This is especially important in vulnerable areas, such as the archipelago where construction is particularly affected by environmental conditions. (Finland's Seventh National Communication : 198)							x					
FI	(2) Droughts													
FI	(3) Storms (winter, convective)	The update of the national governmental land-use guidelines in 2008 mentions the need to consider storms, heavy rains and urban flooding and the risks of major accidents during land-use planning processes. (European Commission Finland: 19)									x			
FI	(4) Earthquakes													
FI	(5) Others (flash floods, land slides)													
FR	**France (Frankreich)**													
FR	(1) Floods (river floods, storm surges)													
FR	(2) Droughts													
FR	(3) Storms (winter, convective)													
FR	(4) Earthquakes													
FR	(5) Others (flash floods, land slides)													
HR	**Croatia (Kroatien)**	In Croatia, so far, spatial planners have not conducted scientific research related to vulnerability assessments (spatial units and anthropogenic structures in them – buildings, infrastructure, economic buildings and installations) and climate change adaptation measures that would be planned through spatial plans. Assessments of vulnerability to climate impacts, in the area of spatial planning and anthropogenic structures within them, are also not part of spatial plan development practice nor are vulnerability assessments for the purposes of the strategic environmental impact assessment for spatial plan. The latter indicates that climate change, as a factor in spatial planning, is yet to be positioned. (UNFCCC NC7:168)												
HR	(1) Floods (river floods, storm surges)	Adaptation considerations are only included currently in the water management sector (the RBMP and Flood Risk Management Plan for the 2016-2021 planning period) and, since 2017, in spatial planning through updates to sectoral legislation, although there is not yet concrete evidence of adaptation considerations being included in planning documents. (European Commission Croatia: 22) In Croatia, the state is responsible for the operation of the planning system, and the formulation and enforcement of the planning regulations and instruments (ISOCARP 2008, 135). The main regulation in urban planning is the Law on Physical Planning (Zoning), (N. 30/94, 68/98, 35/99, 32/02). The Ministry of Environmental Protection and Physical Planning ensures that the plans and policies have been formally approved and adopted by the appropriate local authorities. The county and district authorities are empowered to prepare, as appropriate, regional and local plans. According to the Croatian National Report, spatial plans are being developed according to the DRR approach, considering risks to populations and the environment.(UNISDR 2015:20).		The municipal authorities are responsible for the exercise of planning control over the development and use of land (ISOCARP 2008, 135). However, there are only five towns in Croatia with strict urban plans, one of which is Dubrovnik. In Dubrovnik, the Department of Urban Planning and the Protection of Environment are working in collaboration with the Department of Protection and Rescue to improve urban plans. Every urban planning and development plan contains a risk assessment which has to be integrated in the plan in the first phase of the planning process. Accordingly, all urban plans are prepared using risk assessment as a basis. According to the Urban Planning Department of the City of Dubrovnik, in general the existence of informal settlements is due to very strict building regulations and the long time it takes to obtain permits. However, despite high levels of informal settlements in Croatia, and especially in the Adriatic Coast, there are no informal settlements within the borders of Dubrovnik (UNISDR 2015:20).										
HR	(2) Droughts													
HR	(3) Storms (winter, convective)													
HR	(4) Earthquakes													
HR	(5) Others (flash floods, land slides)													
HU	**Hungary (Ungarn)**													
HU	(1) Floods (river floods, storm surges)													
HU	(2) Droughts													
HU	(3) Storms (winter, convective)													
HU	(4) Earthquakes													
HU	(5) Others (flash floods, land slides)													
IE	**Ireland (Irland)**													
IE	(1) Floods (river floods, storm surges)	The Irish state is currently working on and implementing maritime spatial planning. Resilience to climate change is one of the aspects of major concern (European MSP Platform - Countryfiche) A draft for a National Marine Planning Framework has been published recently. * National Spatial Strategy for Ireland. 2002 - 2020: national planning framework, provides the strategic context for spatial planning or various stakeholders. In the strategy a sustainable development policy framework is included as advrse impacts on environmental features shall be avoided (Ministry for the Environment and Local Government)												
IE	(2) Droughts													
IE	(3) Storms (winter, convective)													
IE	(4) Earthquakes													
IE	(5) Others (flash floods, land slides)													
IS	**Iceland (Island)**													
IS	(1) Floods (river floods, storm surges)	The Icelandic National Planning Agency is inter alia responsible for the administration, monitoring and implementation of the Act on Marine Spatial Planning, the Environmetal Impact Assessment (information on the natural hazards present in areas subject to plans should be featured) and the Strategic Environmental Assessment Act. For the latter ones guidelines are worked out. Besides the National Planning Agency reviews and approves spatial plans produced by local authorities according to their fulfillment of the assessments. (https://www.skipulag.is/en)	According to Planning Act 123/2010 natural hazards should be taken into account in terms of spatial planning/land-use. For floods, seismic and geothermal hazards mitigation by recourse of land-use restrictions is strictly required by Planning Regulation 90/2013. For instance it is forbidden to build in areas knwon to floods or close to geothermal sources (Hartjanne et al. 2016: 36ff).								x			
IS	(2) Droughts													
IS	(3) Storms (winter, convective)													
IS	(4) Earthquakes	Mitigation by recourse of land-use restrictions is strictly required by the Planning Regulation (90/2013) for floods as well as for seismic and geothermal hazards: It is forbidden to build in areas known to be (i) at risk of floods from rivers, lakes, and the sea, (ii) located on faults or fissures, or (iii) close to geothermal sources (NORDRESS REport 2016: 33)												
IS	(5) Others (flash floods, land slides)													
IT	**Italy (Italien)**													
IT	(1) Floods (river floods, storm surges)	With regards to CCA the currently developed National Adaptation plan will provide institutional guidance to national and local authorities in terms of integrating adaptation measures in spatial planning and policy processes (UNFCCC NC7: 192). * Italy has to elaborate a maritime spatial plan by 2021 under the EU Directive on Maritime Spatial Planning. CCA measures and sustainability will be of high concern (Marina Spatial Planning Programme by UNESCO - Country fiche)									x			
IT	(2) Droughts													
IT	(3) Storms (winter, convective)													
IT	(4) Earthquakes													
IT	(5) Others (flash floods, land slides)													
LI	**Liechtenstein**													
LI	(1) Floods (river floods, storm surges)													
LI	(2) Droughts													
LI	(3) Storms (winter, convective)													
LI	(4) Earthquakes													
LI	(5) Others (flash floods, land slides)													
LT	**Lithuania (Litauen)**													
LT	(1) Floods (river floods, storm surges)													
LT	(2) Droughts													
LT	(3) Storms (winter, convective)													
LT	(4) Earthquakes													
LT	(5) Others (flash floods, land slides)													
LU	**Luxembourg (Luxemburg)**													
LU	(1) Floods (river floods, storm surges)													
LU	(2) Droughts													
LU	(3) Storms (winter, convective)													
LU	(4) Earthquakes													
LU	(5) Others (flash floods, land slides)													
LV	**Latvia (Lettland)**													
LV	(1) Floods (river floods, storm surges)	Environmental monitoring is a tool for environmental policy planning and assessing the effectiveness of the environmental protection measures. It includes the Early Warning System for dangerous change in quality of the environment, which is the basis for emergency actions for the recovery or mitigation. Environmental monitoring program sets parameters, frequency and methods for Latvia's environmental monitoring network organized by environmental authorities (UNFCCC NC: 188)	Due to an adminstrative territorial reform of Latvia, their structural system has been changed to one level municipalities and no subnational or regional programmes are developed or implemented in the country (UNFCCC NC: 158).											
LV	(2) Droughts													
LV	(3) Storms (winter, convective)													
LV	(4) Earthquakes													
LV	(5) Others (flash floods, land slides)													
MT	**Malta**													
MT	(1) Floods (river floods, storm surges)													
MT	(2) Droughts													
MT	(3) Storms (winter, convective)													
MT	(4) Earthquakes													
MT	(5) Others (flash floods, land slides)													
NL	**Netherlands (Niederlande)**													
NL	(1) Floods (river floods, storm surges)	In the Netherlands, the spatial planning and environmental ministry is the coordinating institution. In the Netherlands, all programmes, plans and projects have to be developed in such a way that they are climate-proof, i.e. that they are resilient to changing conditions that they might be confronted with in the future. This climate proofing is part of the Strategic Environmental Assessment (for programmes and plans) and the Environmental Impact Assessment (for projects) in the Netherlands.	Part of the new Environment Act (and the old Spatial Planning Law) is the Water Assessment (Watertoets). In the Water Assessment, regional water authorities assess the impact of spatial plans and urban development on the water system and provide the planning authorities with advice on how to build while avoiding problems for the water system. Climate adaptation and long-term development issues are generally discussed in this Water Assessment; however, it is not an obligation to follow the advice. (Country Fiche: 21)	So-called Water Plans are developed at different scales and with different legal status; for example, a Water Plan at the level of municipalities, a Municipal Sewerage Plan (including rainwater collection), a Provincial Water Plan, a Water Management Plan of the Water Authorities and a country-wide National Water Plan. These different water plans together offer opportunities for water-inclusive planning (UNFCCC NC7:144) - The climate-proofing of the urban area against flooding is improved by local measures (drainage, green roofs and water squares) or by spatial measures such as the construction of new open water (ditches, canals and ponds). An example of adaptation to changing weather patterns is the update of the design guidelines for infrastructure in order to account for the changing characteristics of rainfall. Rijkswaterstaat (the Directorate-General for Public Works and Water Management) examines whether it is necessary to update and amend the guidelines for road design. The procedures for replacing essential water management structures such as locks and dams, as well as the plans for new infrastructure, take into account the risks imposed by climate change. ProRail, which manages the national rail infrastructure, has implemented measures to deal with risks during calamities that are associated with flooding and extreme weather. For the design of new infrastructure, climate change is taken into account.(UNFCCC NC7:152)			x		x					x
NL	(2) Droughts													
NL	(3) Storms (winter, convective)													
NL	(4) Earthquakes													
NL	(5) Others (flash floods, land slides)													
NO	**Norway (Norwegen)**													
NO	(1) Floods (river floods, storm surges)	As a support to the municipalities, Norwegian Water Resources and Energy Directorate (NVE) performs mapping programmes, warnings (flood, soil landslides and avalanches), gives advice in the spatial planning processes and offers technical and financial support in the planning and construction of structural protection measures. (UNFCCC NC7:190)		The NVE is to hold monitoring and inspections of dams and other watercourse facilities. The general municipal emergency preparedness obligation means that municipal authorities are to identify the adverse events that might occur within their municipality According to the Planning and Building Act and the Natural Disasters Act, municipal authorities have the responsibility to prevent flooding and landslides, and to protect the inhabitants from these. (National Risk Analysis 2014:47)										
NO	(2) Droughts													
NO	(3) Storms (winter, convective)													
NO	(4) Earthquakes													
NO	(5) Others (flash floods, land slides)													
PL	**Poland (Polen)**	The National Spatial Development Concept 2030 (NSDC 2030) – adopted by the government in December 2011 – is the most important national strategic document that addresses the spatial planning management of Poland. (UNFCCC NC: 74)												
PL	(1) Floods (river floods, storm surges)	Counteracting the effects of climate change and adapting to the effects of these changes are the principles of spatial management, which will be implemented by the legislative act of the draft Urban-Building Code. The Code will enable: minimizing potential losses associated with natural disasters, in particular floods, droughts and natural geological hazards by means of spatial planning tools (UNFCCC NC: 110)												
PL	(2) Droughts													
PL	(3) Storms (winter, convective)													
PL	(4) Earthquakes													
PL	(5) Others (flash floods, land slides)													
PT	**Portugal**													

PT	(1) Floods (river floods, storm surges)	The main focus of this sector is at the planning level, particularly by integrating climate change issues into Hydrographic Region Management Plans, Flood Risk Management Plans and the Water National Plan. These plans define adaptation measures to be implemented during the period of validity of the plans, between 2016 and 2021. (UNFCCC NC7:135)															
PT	(2) Droughts																	
PT	(3) Storms (winter, convective)																	
PT	(4) Earthquakes																	
PT	(5) Others (flash floods, land slides)																	
RO	**Romania (Rumänien)**																	
RO	(1) Floods (river floods, storm surges)																	
RO	(2) Droughts																	
RO	(3) Storms (winter, convective)																	
RO	(4) Earthquakes																	
RO	(5) Others (flash floods, land slides)																	
SE	**Sweden (Schweden)**																	
SE	(1) Floods (river floods, storm surges)	Under the Planning and Building Act, the general plan has to describe the environmental and risk factors that should be taken into account in decisions on the use of areas of land and water. The risk factors include flooding, landslides and erosion. (SOU 2007:563) In the Planning and Building Act (2010:900)82 and the Planning and Building Ordinance (2011:338)11 it is stipulated that built environment and construction works must be located on land that is suitable for the purpose, and that the risk of accidents, flooding and erosion must be taken into account. The Act also highlights that planning must give due regard to environmental and climate aspects. (European Commission 2018:20)		In particular, this has involved measures in the areas of physical planning and building. Some municipalities have also raised the minimum level for construction, built levees and invested in pump systems to protect against flooding. (UNFCCC NC7 Sweden.). The local authorities have a key role in identifying, analysing and prioritising areas at risk from different natural disasters, such as floods. Local authorities and property owners ought to take measures to adapt developed land in prioritised areas to avoid damage and establish contingency plans and resources to reduce the consequences of any disasters. The above permanent technical measures are solutions which, with concrete requirements and the right formulation, can protect existing and new buildings.(SOU 2007:275)	Climate change makes new demands on the location and planning of building development and infrastructure. Vulnerability can be reduced by adapting planning to a changed climate and taking preventive measures. The Planning Portal is an ongoing project run by the National Board for Housing, Building and Planning to create a web service to assist with physical planning, regional development planning, infrastructure planning, urban and rural development and with the locating and permit approval of buildings and installations. Compa- nies, municipalities, government agencies, organisations and indivi- duals are to be able to search for and retrieve geographical infor- mation that is relevant to community planning and general plan- ning via the Portal. (SOU 2007:547)		x							x		
SE	(2) Droughts																	
SE	(3) Storms (winter, convective)																	
SE	(4) Earthquakes																	
SE	(5) Others (flash floods, land slides)	National Board of Housing, Building and Planning (Boverket) is developing updated building standards based on climate assessments, and the Swedish transport administration, which has integrated risk and impact assessment in its work with transport systems. (European COmmission 2018:14)	The Swedish Geotechnical Institute, in cooperation with the Geological Survey of Sweden, the National Land Survey of Sweden and the Swedish National Rescue Services Agency, has previously presented a model of a general national map database of landslide conditions in clay and silt soils, as an aid to general planning.(SOU 2007:286)	According to the Swedish Planning and Building Act, the physical planning conducted by local authorities is the most important instrument in avoiding new development in areas under threat either today or in the future (see also section 5.5). A changed climate means changed geotechnical conditions, which means, for example, a need for safety margins to increase protection against ground fracture. Measures must be taken in relation to local geological conditions. It is important that the choice of reinforcement measure aims to counter the cause of the unsatisfactory stability, in other words, counter the problem and not the symp- toms. New areas will fall under the threat of landslide in a changed climate. (SOU 2007:286)		x				x			x	
SI	**Slovenia (Slowenien)**																	
SI	(1) Floods (river floods, storm surges)	The water sector developed its adaptation actions for periodical flood protection, water management and spatial planning in the context of national legislation and obligations under the EU Water Framework and Floods Directives, simultaneously participating in the work of international river commissions, such as ICPDR and ISRBC. (European Commission: 20)																
SI	(2) Droughts																	
SI	(3) Storms (winter, convective)																	
SI	(4) Earthquakes																	
SI	(5) Others (flash floods, land slides)	The new Spatial Planning Law has been adopted and enters into force on 1 June 2018. It provides for land use, regional spatial plans, urban and maritime spatial plans. In the process of environmental impact assessment (EIA), climate impacts are also considered. (European Commission: 8)																
SK	**Slovakia (Slowakei)**																	
SK	(1) Floods (river floods, storm surges)	Chapter 11 of the current NAS advocates mainstreaming adaptation into the national legislation on land-use planning, for instance, when it comes to investments with a long life- cycle, such as industry or energy infrastructure. The Urban Development Framework of the Slovak Republic until 2030 mentions the need to consider adverse climate impacts in city and spatial planning. (European Commission 2018:98)																
SK	(2) Droughts																	
SK	(3) Storms (winter, convective)																	
SK	(4) Earthquakes																	
SK	(5) Others (flash floods, land slides)																	
UK	**United Kingdom (Vereinigtes Königreich)**																	
UK	(1) Floods (river floods, storm surges)	The Environment Agency will work with local authorities and developers to avoid inappropriate building or redevelopment in areas of high flood or coastal erosion risk. Key to this is ensuring that risks are effectively identified in local strategies and that there is good co-operation between the lead local flood authority and the planning authority (where these are different). This should ensure that local development plans and other plans include appropriate policies and avoid inappropriate development in areas at risk.	Regional/local authorities and Internal Drainage Boards are responsible for planning for flood events by producing flood plans and recovery/continuity plans; dealing with the consequences of flooding such as humanitarian assistance, emergency housing and clear up operations; and by providing advice to local communities on what actions they can take before, during and after a flood (ECONADAPT TOOLBOX: United Kingdom).	Other disaster risk related frameworks have been revised to integrate the effects of climate change. The Health and Social Care Act (2012) focuses on local planning and decision- making for setting and delivering local health priorities. Some basic tools include the Joint Strategic Needs Assessments (JSNAs) and subsequent strategies produced by health and wellbeing boards. The Statutory guidance on JSNAs and Joint Health and Wellbeing Strategies (JHWSs), produced by the Department of Health, demands consideration of the impacts of climate change when preparing them. (European Commission 2018:33)		x							x	x	
UK	(2) Droughts																	
UK	(3) Storms (winter, convective)																	
UK	(4) Earthquakes																	
UK	(5) Others (flash floods, land slides)																	