

Adaptation preparedness scoreboard:

Country fiche for Lithuania

NOTE TO THE READER

Under Action 1 of the EU's Strategy on adaptation to climate change (COM(2013)216), in collaboration with the Member States, the Commission developed an 'adaptation preparedness scoreboard'. Using the scoreboard, the Commission prepared country fiches on each Member State in an iterative consultation process.¹ The country fiches assess the Member States' adaptation policy as of June 2018, including the content of NASs and plans, for the following aspects:

- Institutional structure
- Quality of national vulnerability assessments
- Knowledge creation (national observation systems in relevant sectors² and climate modelling), transfer and use
- Action plans:
 - Quality (incl. the basis used for assessment of adaptation options)
 - Actual implementation mechanisms
- Funding mechanisms
- Mainstreaming into sectoral policies, in particular:
 - Disaster risk reduction
 - Spatial planning
 - Environmental impact assessment (EIA) (how the Directive is transposed)
 - Insurance policy
- Transboundary cooperation
- Monitoring mechanisms in different sectors and governance levels

¹ The first versions of the fiches, prepared in consultation with the Member States in 2014-15, were unpublished and used to fine-tune the scoreboard. The second drafts were published, after consulting the Member States, as background documents to the public consultation on this evaluation in December 2017. https://ec.europa.eu/clima/consultations/evaluation-eus-strategy-adaptation-climate-change_en The final Member State consultation on the draft fiches took place in June 2018.

² These relate for example to meteorology, floods, drought, sea level, coastal erosion, biodiversity, human/animal/plant health etc.

The fiches are based on internal work by the Commission and on targeted assistance from an external contractor. They also served as input to the assessment of Action 1 of the Strategy during its evaluation. Annex IX of the Commission's SWD(2018)461 on the evaluation of the Strategy presents a horizontal assessment of the 28 country fiches, while Annex X presents the list of scoreboard indicators and the methodology used in applying them.

The assessments in the country fiches (yes/no/in progress) need to be read in conjunction with the narrative that accompanies them. They assess the state of play within each EU Member State. While all effort has been made to ensure the coherence across fiches in the assessment of the same indicator, it should not be directly compared across the Member States. Two countries with a "yes" on the same indicator could have a different national situation leading to that assessment. Not all indicators have the "in progress" status, some can only be "yes" or "no".

Table of contents

List of abbreviations	4
POLICY FRAMEWORK	5
A. Adaptation strategies	5
A1. National adaptation strategy	5
A2. Adaptation strategies adopted at subnational levels	5
B. Adaptation action plans	5
B1. National adaptation plan	5
B2. Adaptation plans adopted at sub-national level	6
B3. Sectoral adaptation plans	6
SCOREBOARD	7
Step A: Preparing the ground for adaptation	7
1 Coordination structure	7
2 Stakeholders' involvement in policy development	8
Step B: Assessing risks and vulnerabilities to climate change	10
3 Current and projected climate change	10
4 Knowledge gaps	12
5 Knowledge transfer	13
Step C: Identifying adaptation options	14
6 Adaptation options' identification	14
7 Identifying and making resources available	15
Step D: Implementing adaptation action	16
8 Mainstreaming adaptation in planning processes	16
9 Implementing adaptation	19
Step E: Monitoring and evaluation of adaptation activities	21
10 Monitoring and reporting	21
11 Evaluation	22
SUMMARY TABLE	24

List of abbreviations

Action Plan	Action Plan for the implementation of the goals and objectives of the Strategy of National Climate Change Management Policy 2013-2020
ASTRA	Developing Policies & Adaptation Strategies to Climate Change in the Baltic Sea Region project
Committee	National Climate Change Committee
EIA	Environmental Impact Assessment
LHMS	Lithuanian Hydrometeorological Service under the Ministry of Environment
MoE	Lithuanian Ministry of Environment
NGO	Non-governmental organisation
RADOST	Regional Adaptation Strategies for the German Baltic Sea Cost project
Strategy	Strategy for National Climate Management Policy 2013-2050

POLICY FRAMEWORK

A. Adaptation strategies

A1. National adaptation strategy

Lithuania adopted a 'Strategy for National Climate Management Policy 2013-2050' in November 2012³ (hereafter the "Strategy"). This is an integrated strategy which covers both adaptation and mitigation issues and includes implementation considerations. There are no plans to develop a separate climate adaptation strategy. Until 2012, Lithuania had the National Strategy for the Implementation of the UNFCCC⁴, which included measures for both mitigation and adaptation.

A2. Adaptation strategies adopted at subnational levels

The new guidelines for municipalities on preparing climate mitigation and adaptation plans were developed by the Association of Local Authorities in Lithuania in 2017⁵, though no regional adaptation strategies have yet been adopted. The municipalities of Panevezys district ("rajonas") and Klaipeda city, have conducted comprehensive vulnerability studies⁶. The Lithuanian Hydrometeorological Service prepared a climate scenario study for Vilnius until 2100⁷. Lithuania has taken part in several transboundary EU-funded projects⁸ in which local adaptation options have been analysed and elaborated.

B. Adaptation action plans

B1. National adaptation plan

An action plan (hereafter the "Action Plan") to implement the goals and objectives of the Strategy of National Climate Change Management Policy 2013-2020 was first adopted in April 2013 and contained measures for the years 2013-2016. The Action Plan consisted of general provisions, targets, objectives, measures, financial resources, implementing institutions, assessment criteria and values. Following the strategic planning methodology approved by the Government, the Action Plan was prepared for a three-year period and is

³Lithuanian Ministry of Environment, URL: [http://www.am.lt/VI/files/File/Klimato%20kaita/Nacionaline klimato kaitos valdymo politikos strategija EN_galutinis.docx](http://www.am.lt/VI/files/File/Klimato%20kaita/Nacionaline_klimato_kaitos_valdymo_politikos_strategija_EN_galutinis.docx), Date accessed: 07/05/2018

⁴Lithuanian Parliament Registry of Legal Acts, URL: <https://e-seimas.lrs.lt/portal/legalAct/lt/TAD/TAIS.314407?positionInSearchResults=0&searchModelUUID=f0d11b05-5d5d-4c2b-bab1-de5e5b8895ef>, Date accessed: 07/05/2018

⁵ Kaunas Regional Energy Agency (author of the guidelines), URL: <http://www.krea.lt/images/angle180/klimato-kaita-gaires-savivaldybems.pdf>, Date accessed: 07/05/2018

⁶ Panevėžys district municipality, URL: www.panrs.lt/aplinka/2011/ataskaita.doc, Date accessed: 07/05/2018

⁷ Lithuanian Hydrometeorological Service, URL: http://www.meteo.lt/documents/20181/0/klimato_kaita_vilnius_xxi_v2-Vup1Vlhw.pdf/2e285f17-8bfb-4451-a865-f0c5e22ff42c, Date accessed: 07/05/2018

⁸ These include: ASTRA (Developing Policies and Adaptation Strategies to Climate Change in the Baltic Sea), Baltadapt, BaltCICA (Climate Change: Impacts, Costs and Adaptation in the Baltic Sea Region), BalticClimate, Baltclim, RADOST. See: selected project websites, URL: <http://www.baltadapt.eu/>, <http://www.balticsea-region-strategy.eu/>, Date accessed: 07/05/2018

updated annually by adding one more year. In 2016, the updated Action Plan with measures for 2017-2019 was adopted by the Government Resolution No. 846⁹. It includes 66 measures of which 31 are related to climate adaptation. An updated Action Plan with measures for was adopted by the Government Resolution No. 147 in 2018¹⁰.

B2. Adaptation plans adopted at sub-national level

Municipalities, together with relevant national-level ministries, are responsible for the implementation of the Strategy for National Climate Change Management Policy, as well as certain measures of the Action Plan. Independent activities have so far been limited to vulnerability studies in the municipalities of Panevezys district, and Klaipeda city. In Klaipeda, the study was conducted through the EU-funded project ASTRA¹¹. Flood risk has received the most attention at the sub-national level, so the EU-funded adaptation projects focus on coastal management and flood risks. The counties of Klaipeda and Taurage have adopted programmes to prepare for and mitigate flood¹² impacts. No adaptation strategies or plans have been prepared under the Covenant of Mayors initiative by the Lithuanian municipalities¹³.

B3. Sectoral adaptation plans

Adaptation measures at sector level are embedded in specific-sector development programmes, such as those that aim to promote sustainable farming (National Rural Development Programme 2014-2020¹⁴), and public transport (National Transport Development Programme 2014-2022¹⁵). There are also other initiatives, such as the National Public Health and Heat Prevention Action Plan for 2016-2020¹⁶. In 2015, a study was conducted on sector-specific climate vulnerabilities and related risk assessments¹⁷. The following priority sectors have been identified: energy, transport, industry, agriculture, landscape, spatial planning, ecosystems and biodiversity, fisheries and aquaculture sector, forestry, tourism, groundwater resources, and waste management.

⁹ Lithuanian Parliament Registry of Legal Acts, URL: <https://e-seimas.lrs.lt/portal/legalAct/lt/TAD/bfb5d0406b5311e6a421ea2bde782b94>, Date accessed: 07/05/2018

¹⁰ Registry of Legal Acts, URL: <https://www.e-tar.lt/portal/lt/legalAct/76fe2cf0122111e88456d055fb6f6244>, Date accessed: 14/05/2018

¹¹ Project website: http://www.astra-project.org/02_lithunia.html, Date accessed: 07/05/2018

¹² Registry of Legal Acts, URL: https://www.e-tar.lt/portal/lt/legalAct/TAR.3B87E3056C10/TAIS_237899, Date accessed: 07/05/2018

¹³ Covenant of Mayors initiative, URL: <https://www.covenantofmayors.eu/plans-and-actions/action-plans.html>, Date accessed: 07/05/2018

¹⁴ Ministry of Agriculture, URL: <https://zum.lrv.lt/lt/veiklos-sritys/lietuvos-kaimo-pletros-2014-2020-m-programa>, Date accessed: 07/05/2018

¹⁵ Ministry of Transport and Communications, URL: <https://sumin.lrv.lt/lt/administracine-informacija/nacionaline-susisiekimo-pletros-2014-2022-metu-programa>, Date accessed: 07/05/2018

¹⁶ Registry of Legal Acts, URL: <https://www.e-tar.lt/portal/lt/legalAct/78ffb580a97511e5be7fbc3f919a1ebe>, Date accessed: 07/05/2018

¹⁷ Ministry of Environment, URL: http://www.am.lt/VI/files/File/Klimato%20kaita/Klimato%20kaita_galutine%20ataskaita_2015_08_31.pdf, Date accessed: 07/05/2018

SCOREBOARD

Step A: Preparing the ground for adaptation

1 Coordination structure

1a. A central administration body officially in charge of adaptation policy making

Yes / No

The Lithuanian Ministry of Environment (MoE)¹⁸ is the main coordinating institution responsible for: the development and implementation of climate mitigation and adaptation policy, for transposing EU climate policy into national legislation, and advising for other institutions on integrating climate policy objectives and concerns into sectors that are not the MoE's responsibility.

1b. Horizontal (i.e. sectoral) coordination mechanisms exist within the governance system, with division of responsibilities

Yes / In progress / No

The National Climate Change Committee (hereafter "the Committee") is tasked to coordinate the development and implementation of the national climate policy¹⁹. Representatives of the following ministries are involved in the Committee's work: Ministry of Environment (chair), Ministry of Energy, Ministry of Finance, Ministry of Transport and Communications, Ministry of Education and Science, Ministry of Foreign Affairs, Ministry of Economy, Ministry of Agriculture and the Chancellery of the Government of Lithuania. Thus, most of the relevant sectors are covered by the Committee with the Ministry of Health and the Fire and Rescue Department being exceptions.

According to the Decree of the Minister of Environment No. 178 of 30 March 2001, the Committee: coordinates the implementation of the Strategy for National Climate Management Policy and its Action Plan; coordinates the development of new strategies, action plans, and legal initiatives; provides recommendations regarding investment priorities; coordinates preparation of climate policy related reports; and performs other coordination tasks. The Decree also provides procedural guidance on the functioning and decision making of the Committee. Usually there are two annual meetings of the Committee organised by the MoE.

The MoE is responsible for overall coordination of the implementation of the Action Plan. However, certain activities of the Action Plan are assigned to other ministries, such as the Ministry of Agriculture, Ministry of Transport, Ministry of Economy.

¹⁸ See at: <http://www.am.lt/VI/index.php#a/12866>

¹⁹ Ministry of Environment, URL: <http://www.am.lt/VI/index.php#a/12866>, Date accessed: 07/05/2018

1c. Vertical (i.e. across levels of administration) coordination mechanisms exist within the governance system, enabling lower levels of administration to influence policy making

Yes / In progress / No

The National Climate Change Committee is tasked with coordinating the development and implementation of the national climate policy.²⁰ According to the Decree of the Minister of Environment No. 178 of 30 March 2001, the Committee includes a representative of the Association of Local Authorities in Lithuania, other non-governmental organisations (NGOs) and the science community²¹.

The Association of Local Authorities in Lithuania also coordinates activities in the framework of the Covenant of Mayors, ensuring cooperation and knowledge exchange of municipalities and national institutions.

Certain activities of the Action Plan are expected to be implemented by municipalities, including adaptation-related actions. The MoE coordinates implementation of the Action Plan.

2 Stakeholders' involvement in policy development

2a. A dedicated process is in place to facilitate stakeholders' involvement in the preparation of adaptation policies

Yes / No

A dedicated process has been in place to facilitate stakeholders' involvement in the preparation of the adaptation policies. Firstly, stakeholders and any interested parties have possibilities to review and provide comments and proposals regarding the draft legal acts as they are made publicly available during their preparation as part of the legislative process.

Secondly, and more specifically to adaptation, the National Climate Change Committee consists of experts from the government, municipalities, research institutions and NGOs, all contributing to climate policy making, including the development of the adaptation strategy.

For developing sectoral programmes (e.g. for public health, agriculture, biodiversity, coastal management, river basin management), targeted working groups involving relevant stakeholders were created. These working groups usually play an important role in selecting specific measures or setting monitoring indicators. For example, the inter-institutional working group for heatwave prevention is set up by the Order No V-725 of the Minister of

²⁰ Climate ADAPT, URL: <http://climate-adapt.eea.europa.eu/countries-regions/countries/lithuania>, under 'Engaging stakeholders - Governance', Date accessed: 07/05/2018

²¹ Ministry of Environment, URL: <http://www.am.lt/VI/index.php#a/12866>, Date accessed: 07/05/2018

Health, adopted on 6 June 2016²². At the moment, these groups gather according to the need and they deal with mitigation and adaptation issues in separate sectors.²³

2b. Transboundary cooperation is planned to address common challenges with relevant countries

Yes / No

The Strategy for National Climate Management Policy and the Action Plan do not contain specific actions to initiate or support transboundary cooperation with relevant countries in addressing common challenges.

However, several adaptation-related activities are being implemented in cooperation with neighbouring countries. The transboundary cooperation in flood risk management is organised within the framework of existing intergovernmental agreements between Lithuania, Latvia and Poland to cooperate and exchange information and data in environmental fields. The transboundary cooperation is also ensured through implementation of the four river basin management plans.²⁴

Lithuania has taken part in several transboundary projects, including ASTRA, Baltadapt, BaltCICA, BalticClimate, Baltclim, RADOST²⁵. Lithuania has been active within the Baltic Sea Region Climate Change Adaptation Strategy and Action Plan. In these projects, local adaptation options are analysed and elaborated²⁶. In addition, Lithuania takes part in the implementation of the EU Strategy for the Baltic Sea Region by participating in the Climate Change Dialogue Platform (EUSBSR, 2009)²⁷.

Step B: Assessing risks and vulnerabilities to climate change

3 Current and projected climate change

3a. Observation systems are in place to monitor climate change, extreme climate events and their impacts

Yes / **In progress** / No

²² Registry of Legal Acts, URL: <https://www.e-tar.lt/portal/lt/legalAct/2f2e3aa0344711e69cf5d89a5fdd27cc/BBKjhxNI>, Date accessed: 14/05/2018

²³ Climate ADAPT, URL: <http://climate-adapt.eea.europa.eu/countries-regions/countries/lithuania>, under 'Engaging stakeholders - Governance', Date accessed: 07/05/2018

²⁴ See more information about Lithuania's RBMPs at: http://ec.europa.eu/environment/water/participation/map_mc/countries/lithuania_en.htm, Date accessed: 07/05/2018

²⁵ Project websites, URL: <http://www.astra-project.org/>; <http://www.baltadapt.eu/>; <http://www.baltcica.org/>; <http://www.balticclimate.org/en/project>; <http://www.bef-de.org/index.php?id=52>; <http://www.klimzug-radost.de/en>, Date accessed: 07/05/2018

²⁶ Climate ADAPT, URL: <http://climate-adapt.eea.europa.eu/countries-regions/countries/lithuania>, under 'Engaging stakeholders - Governance', Date accessed: 07/05/2018

²⁷ EU Strategy for the Baltic Sea Region, URL: <http://www.balticsea-region-strategy.eu/>, www.balticsea-region-strategy.eu/9th-annual-forum, Date accessed: 14/05/2018

The Lithuanian Hydro-meteorological Service (LHMS) under the MoE is responsible for meteorological (including agrometeorological, aeronautical and marine) and hydrological observations and forecasts. The website of LHMS²⁸ contains information on climate change. In addition, it provides records on extreme events, related to temperature, rain fall, wind speed, and snow fall. Moreover, LHMS provides warnings on dangerous and catastrophic hydro-meteorological phenomena, sudden weather changes, ozone layer depletion, etc.

Measures improving the observation of climate and ensuring the implementation of the Strategy for National Climate Management Policy, are being implemented. This includes, among others, increasing capacities of the LHMS observation network, renewing measurement equipment of the automatic agro-meteorological stations network and solar ultraviolet radiation, and developing satellite climatology²⁹.

Meteorological data is collected only from meteorological stations. Sometimes there is information about damage from extreme meteorological phenomena near meteorological stations, but it is only a visual recording of damage. There is no systematic information about impacts, such as loss and damage figures and numbers of people affected.

3b. Scenarios and projections are used to assess the economic, social and environmental impacts of climate change, taking into account geographical specificities and best available science (e.g. in response to revised IPCC assessments)

Yes / In progress / No

Climate projections for the 21st century are based on outputs from numerical climate models. Vilnius University produces climate projections by downscaling output data from COSMO-CLM, HadCM3, and ECHAM5 models. Climate change scenarios for Lithuania and its regions were finalised in 2015³⁰. They reflect potential future the greenhouse gas emissions caused by future social-economic development. Two greenhouse gas emissions scenarios from the Intergovernmental Panel on Climate Change (IPCC) 4th Assessment Report were considered, A1B (a relatively high-emissions scenario) and B1 (a low-emissions scenario).

The Lithuanian Hydro-meteorological Service prepared climate projections for Vilnius city in 2013 using the A1B scenario³¹.

²⁸ Lithuanian Hydro-meteorological Service, URL: <http://www.meteo.lt/en/web/guest/climate-change?inheritRedirect=true> and <http://www.meteo.lt/en/web/guest/extreme-phenomena>, Date accessed: 07/05/2018

²⁹ Lithuania's 6th National Communication and Second Biennial Report under the UNFCCC, URL: http://www.am.lt/VI/files/File/Klimato%20kaita/6_Nacionalinis_pranesimas_2014.pdf and https://unfccc.int/files/national_reports/biennial_reports_and_iar/submitted_biennial_reports/application/pdf/fin_al_2nd_br_lt.pdf, Date accessed: 07/05/2018

³⁰ Climate ADAPT, URL: http://climate-adapt.eea.europa.eu/countries-regions/countries/lithuania_under_Assessments, Date accessed: 07/05/2018

³¹ Lithuanian Hydro-meteorological Service, URL: http://www.meteo.lt/documents/20181/103901/klimato_kaita_vilnius_xxi_v2-Vup1V1bw.pdf/2e285f17-8bfb-4451-a865-f0c5e22ff42c?version=1.0, Date accessed: 07/05/2018

A study in 2015 on 'Laying down specific sectors vulnerability to climate change impacts, risk assessment and adaptation to climate change, effective adaptation and evaluation criteria' includes an analysis of Lithuanian climate change trends and projections based on the IPCC Representative Concentration Pathway (RCP) scenarios from its 5th Assessment Report. Geographical specifications are included in the scenarios and projections.³²

3c. Sound climate risks/vulnerability assessments for priority vulnerable sectors are undertaken to support adaptation decision making

Yes / In progress / No

In 2015, an assessment of individual sectors' vulnerabilities, risks and opportunities to adapt to climate change was completed. It also identified the most efficient adaptation measures and indicators for evaluation. The study focused on the following sectors: spatial planning, transport, energy, waste management, industry, agriculture, underground water resources, ecosystems and biodiversity, fisheries, forestry, tourism and others. The reports are available on the MoE website.³³ For each sector there is a detailed analysis of the sensitivity, vulnerability and potential risk for the sector due to climate change, the impacts, experience in other European countries, adaptation options, and criteria for measuring the effectiveness of adaptation in the sector.

A national risk assessment was conducted between Autumn 2012 and Spring 2013 coordinated by the Fire and Rescue Department under the Ministry of Interior. It assessed all risks in Lithuania, including those associated with climate change. An updated assessment was conducted in 2015³⁴.

In 2014, a climate risk and vulnerability assessment was undertaken in the public health sector. The study identified the risks posed to human health by climate change and proposed cost-efficient measures and indicators³⁵.

By agreement with the MoE, the Institute of Ecology of Vilnius University carried out "The study of climate change impact to the land ecosystems, biodiversity, water resources, agriculture and forestry and human health and the strategic plan for the mitigation of consequences" in 2007³⁶. This study is still one of the most important studies, which

³² Ministry of Environment, 'Laying down specific sectors vulnerability to climate change impacts, risk assessment and adaptation to climate change, effective adaptation and evaluation criteria' URL: http://www.am.lt/VI/files/File/Klimato%20kaita/Klimato%20kaita_galutine%20ataskaita_2015_08_31.pdf, Date accessed: 07/05/2018

³³ Ministry of Environment, 'Laying down specific sectors vulnerability to climate change impacts, risk assessment and adaptation to climate change, effective adaptation and evaluation criteria' URL: http://www.am.lt/VI/files/File/Klimato%20kaita/Klimato%20kaita_galutine%20ataskaita_2015_08_31.pdf, Date accessed: 07/05/2018

³⁴ Fire and Rescue Department, URL: <http://www.vpgt.lt/go.php/Nacionalin%C4%97%20rizikos%20analiz%C4%97611>, Date accessed: 07/05/2018

³⁵ Ministry of Environment, URL: <http://www.am.lt/VI/files/File/Klimato%20kaita/Galutine%20ataskaita-2014-09-17.pdf>, Date accessed: 07/05/2018

³⁶ Ministry of Environment, URL: <http://www.am.lt/VI/index.php#a/12840>, Date accessed: 07/05/2018

comprehensively investigates the climate impacts on ecosystems, biodiversity, water resources, agriculture and forestry and human health in Lithuania.

Sub-national level vulnerability studies are carried out in most cases as part of EU-funded projects, such as "ASTRA. Developing Policies and Adaptation Strategies to Climate Change in the Baltic Sea" and "BaltCICA. Climate Change: Impacts, Costs and Adaptation in the Baltic Sea Region".

3d. Climate risks/vulnerability assessments take transboundary risks into account, when relevant

Yes / **In progress** / No

Transboundary risks are not explicitly included in the Strategy for National Climate Change Management Policy. As referred in Indicator 2b, these risks are taken into account by some sectors, such as water and flood risk management.

Climate risk and vulnerability assessments take transboundary risks into account within the framework of the EU Baltic Sea Region Strategy, with horizontal action on climate. The Baltic Sea Region Climate Change Adaptation Strategy and Baltadapt Action Plan were developed, which focus on sectors, such as food supply (including fisheries and agriculture), coastal infrastructure and coastal tourism.³⁷

Lithuania has also taken part in several transboundary projects, including Astra, Baltadapt, BaltCICA, BalticClimate, Baltclim, RADOST. Baltadapt (2010-2013) was a flagship project under the EU Strategy for the Baltic Sea Region, developing a Baltic Sea Region-wide climate adaptation strategy and taking transboundary risks into account.

4 Knowledge gaps

4a. Work is being carried out to identify, prioritise and address the knowledge gaps

Yes / **In progress** / No

The Strategy for National Climate Management Policy does not identify specific knowledge gaps, even though the importance of a sound evidence base and knowledge on adaptation are emphasised. The Action Plan includes a number of measures related to climate research, such as studies on soil, forestry, agriculture and public health. No details are provided in the Action Plan as to whether these studies will identify, prioritise and address knowledge gaps. The climate risk and vulnerability assessments mentioned in relation to Indicator 3c do not refer to specific knowledge gaps to be addressed in the future.

Lithuania is now preparing an update of the strategy for the period 2021-2030 and beyond. An analysis of the current situation and a SWOT will be provided to identify, prioritise and address the knowledge gaps. For identifying and addressing knowledge gaps in different

³⁷ Climate ADAPT, URL: <http://climate-adapt.eea.europa.eu/countries-regions/countries/lithuania>, under 'Assessments - Impacts & Vulnerability assessments', Date accessed: 07/05/2018

sectors working groups are being installed. For example, a Heat prevention working group is established, where specialists from different institutions (national and local authorities, universities, institutes) will be working together to identify adaptation options and promote preparedness to heat events. A working group for National risk assessment is also being established.

Furthermore, numerous Lithuanian universities and research institutions conduct research relevant to climate adaptation. For example:

- Vilnius University performs research on temperature observations and adaptation of ecosystems
- Vilnius Gediminas Technical University is actively involved in green buildings initiatives
- Vytautas Magnus University conducts research on environmental infrastructure projects.

5 Knowledge transfer

5a. Adaptation relevant data and information is available to all stakeholders, including policy makers (e.g. through a dedicated website or other comparable means)

Yes / **In progress** / No

Ensuring systematic gathering and dissemination of climate change information to various interest groups and the public is among the main objectives concerning adaptation defined in the Strategy for National Climate Management Policy.³⁸ A web-portal on climate mitigation and adaptation is to be developed in accordance with the Action Plan using the EU 2014-2020 funds.

Climate-related information is available on the website of the MoE³⁹ and the websites of other ministries, e.g. the Ministry of Energy, the Ministry of Agriculture, and the Ministry of Transport and Communications⁴⁰. The website of the MoE provides information on the Strategy for National Climate Management Policy, studies and teaching material primarily on mitigation but also including limited information on adaptation.

³⁸ Climate ADAPT, URL: <http://climate-adapt.eea.europa.eu/countries-regions/countries/lithuania>, under 'Summary' and under 'Engaging stakeholders - Adaptation capacity, dissemination, education, training', Date accessed: 07/05/2018

³⁹ Ministry of Environment, URL: <http://www.am.lt/VI/index.php#r/847>, <http://www.am.lt/VI/index.php#a/12840>, <http://www.am.lt/VI/index.php#a/12844>, Date accessed: 07/05/2018

⁴⁰ Ministry of Energy, the Ministry of Agriculture, the Ministry of Transport and Communications, URL: <http://sumin.lrv.lt/>, <http://enmin.lrv.lt/>, <http://ukmin.lrv.lt/>, Date accessed: 07/05/2018

5b. Capacity building activities take place; education and training materials on climate change adaptation concepts and practices are available and disseminated

Yes / **In progress** / No

There is some evidence available on capacity building activities, education and training materials on climate change; mostly on materials and guidelines related to the transnational projects⁴¹. Several awareness-raising materials, studies and guidelines are publicly available, such as guidance for the Lithuanian municipalities on climate mitigation and adaptation.

The Action Plan's annual implementation in 2017 provided details on the capacity building activities that had been implemented⁴². For example, 806 farmers were consulted on climate impacts and adaptation during 2017, which was significantly more than expected and reflected their high interest in the topic. Fourteen capacity building projects were implemented targeting forestry specialists.

Step C: Identifying adaptation options

6 Adaptation options' identification

6a. Adaptation options address the sectoral risks identified in 3c, the geographical specificities identified in 3b and follow best practices in similar contexts

Yes / No

The detailed analysis undertaken in 2015 of the climate sensitivities, vulnerabilities and potential risks for sectors identified adaptation options that address geographical specificities by building upon best practices from other European countries (see Indicator 3c). The study focused on the following sectors: spatial planning, transport, energy, waste management, industry, agriculture, underground water resources, ecosystems and biodiversity, fisheries, forestry, tourism and others.⁴³

6b. The selection of priority adaptation options is based on robust methods (e.g. multi-criteria analyses, stakeholders' consultation, etc.) and consistent with existing decision-making frameworks

Yes / **No**

The 2015 study described in relation to Indicators 3c and 6a provides a list of adaptation options, as well as performance evaluation criteria per sector. However, the study does not

⁴¹ Climate ADAPT, URL: <http://climate-adapt.eea.europa.eu/countries-regions/countries/lithuania>, under 'Engaging stakeholders - Adaptation capacity, dissemination, education, training', Date accessed: 07/05/2018.

⁴² Ministry of Environment, URL: <http://www.am.lt/VI/index.php#a/19247>, Date accessed: 10/05/2018

⁴³ Ministry of Environment, 2015 study 'Laying down specific sectors vulnerability to climate change impacts, risk assessment and adaptation to climate change, effective adaptation and evaluation criteria' URL: http://www.am.lt/VI/files/File/Klimato%20kaita/Klimato%20kaita_galutine%20ataskaita_2015_08_31.pdf, Date accessed: 07/05/2018

provide any information on whether the options have been ranked based on these evaluation criteria and listed in priority order.⁴⁴

6c. Mechanisms are in place to coordinate disaster risk management and climate change adaptation and to ensure coherence between the two policies

Yes / In progress/ **No**

Climate adaptation is a consistent part of the national civil protection system. The citizens are warned and informed about natural disasters, emergency situations and possible threats related to climate change through the public warning and information system. However, it is unclear how the Strategy for National Climate Management Policy and Action Plan include disaster risk management measures, and how climate impacts are integrated in disaster risk reduction planning. It is also unclear if the disaster risk reduction and adaptation policies are coordinated through institutional frameworks to ensure coherence between the policies, as the Fire and Rescue Department and the Ministry of Interior are not part of the National Climate Change Committee.

7 Identifying and making resources available

7a. Funding is available to increase climate resilience in vulnerable sectors and for cross-cutting adaptation action

Yes / In progress /No

The implementation of the Strategy for National Climate Management Policy is funded from the state budget of the Republic of Lithuania, municipal budgets, EU and international organisations and other sources. The 2016 Action Plan for 2017-2019 and updated 2018 Action Plan for 2018-2020 establish measures ensuring the implementation of goals and objectives set by the Strategy for National Climate Management Policy. The Action Plan indicates what financial resources are dedicated to the measures and identifies the institutions responsible for implementing them. A dedicated budget is indicated for several sectors, including: transport, agriculture, waste, industry, public health, water resources, forestry, ecosystems, biodiversity, landscape.⁴⁵ As noted in relation to Indicator 5b, capacity-building activities are also supported. The annual reports of the MoE provide in-depth information on the disbursed funds and the achievement of specific objectives and indicators⁴⁶.

⁴⁴ Ministry of Environment, 'Laying down specific sectors vulnerability to climate change impacts, risk assessment and adaptation to climate change, effective adaptation and evaluation criteria' URL: http://www.am.lt/VI/files/File/Klimato%20kaita/Klimato%20kaita_galutine%20ataskaita_2015_08_31.pdf, Date accessed: 07/05/2018

⁴⁵ Climate ADAPT, URL: <http://climate-adapt.eea.europa.eu/countries-regions/countries/lithuania>, under 'Policy & Legal Framework', Date accessed: 07/05/2018

⁴⁶ Ministry of Environment, URL: http://www.am.lt/VI/article.php3?article_id=19247, Date accessed: 07/05/2018

Step D: Implementing adaptation action

8 Mainstreaming adaptation in planning processes

8a. Consideration of climate change adaptation has been included in the national frameworks for environmental impact assessments

Yes / No

The Law on Environmental Impact Assessment (EIA) of the Proposed Economic Activity transposing requirements of EIA Directive 2014/52/EU was adopted on 27 June 2017⁴⁷. The new law requires the competent authority to consider the climate impact when selecting projects to be subject to EIA (Article 7.5.1). However, no further details are provided in the law. The Minister of Environment issued two decrees in October 2017 setting procedures for project selection (No. D1-845)⁴⁸ and impact assessment (No. D1-885)⁴⁹. Both documents require climate impacts on a project to be assessed. Decree No. D1-885 provides more details on the assessment. The projects are to be assessed with regard to:

- Potential heatwaves and their impact on human health, agriculture, forestry, etc.
- Droughts and water sector impacts
- Extreme precipitation and floods
- Strong winds and storms
- Landslides
- Changes of sea levels, cold spells and others.

The decree requires a vulnerability assessment and analysis of adaptation options, as well as a disaster risk assessment.

The Lithuanian Government Decree No. 967 (2004) on the procedures for Strategic Environmental Assessment (SEA) includes climate impact in the list of the environmental impacts to be assessed⁵⁰. However, no further details are provided.

⁴⁷ Registry of Legal Acts, URL: <https://www.e-tar.lt/portal/lt/legalAct/d55bc650617c11e7b85cfdc787069b42>, Date accessed: 08/05/2018

⁴⁸ Registry of Legal Acts, URL: <https://www.e-tar.lt/portal/lt/legalAct/f26fcf10b30d11e7be72a4385c9bc055>, Date accessed: 08/05/2018

⁴⁹ Registry of Legal Acts, URL: <https://www.e-tar.lt/portal/lt/legalAct/81ad5250be4511e79122ea2db7aeb5f0>, Date accessed: 08/05/2018

⁵⁰ Registry of Legal Acts, URL: <https://www.e-tar.lt/portal/lt/legalAct/TAR.0F35D6D2E316/PIywwvkmkF>, Date accessed: 08/05/2018

8b. Prevention/preparedness strategies in place under national disaster risk management plans take into account climate change impacts and projections

Yes / **No**

A national risk assessment was coordinated by the Fire and Rescue Department under the Ministry of Interior in 2012-2013. This assessment evaluates all threats in Lithuania, including those caused by climate change. It was updated in 2015⁵¹. It is, however, unclear how the disaster risk management plans currently incorporate future climate projections. The MoE is planning on updating the national risk assessment, and disaster risk management plans will be updated in line with the results of climate projections for Lithuania. These projections, addressing four RCP scenarios, were produced by the Hydrology and Climatology Department of Vilnius University in 2013-2015.

8c. Key land use, spatial planning, urban planning and maritime spatial planning policies take into account the impacts of climate change

Yes / No

There is some indication that land use and spatial and urban policies. Work on the comprehensive national plan, setting out mandatory provisions on the requirements for the spatial structure and use of the territory and principles of protection, including climate impacts, was started in 2018⁵². No Lithuanian maritime spatial plan has yet been developed in accordance with Directive 2014/89/EU; the deadline is 31 March 2021.

In addition, there are other initiatives and guidelines being developed for the construction sector and infrastructure, which incorporate sustainable development of urban areas, such as:

- Guidelines for the expansion and development of the Lithuanian construction sector in 2015-2020, approved by the Minister of Environment (Order No D1-817, 2015), and
- A concept for the draft Infrastructure Development Law to be coordinated with public and municipal institutions and relevant non-state actors⁵³.

However, climate adaptation is barely mentioned in these documents; the focus is on mitigation measures.

⁵¹ <http://climate-adapt.eea.europa.eu/countries-regions/countries/lithuania>, under 'Sectors & Actions' and under 'Assessments - Impacts and vulnerability assessments'; Documents national risk assessment: <http://www.vpgt.lt/go.php/Nacionalin%C4%97%20rizikos%20analiz%C4%97611>

⁵² Personal communication with MS contact.

⁵³ Registry of Legal Acts, URL: <https://e-seimas.lrs.lt/portal/legalAct/lt/TAP/22bc4db2c1a811e48799bc57840226ce> and <https://www.e-tar.lt/portal/lt/legalAct/4a443e3087a811e5b7eba10a9b5a9c5f>, Date accessed: 10/05/2018

8d. National policy instruments promote adaptation at sectoral level, in line with national priorities and in areas where adaptation is mainstreamed in EU policies

Yes / **In progress** / No

The Strategy for National Climate Management Policy refers to mainstreaming of climate adaptation objectives and measures in the country's economic sectors that are most climate sensitive. The Strategy lists specific adaptation measures to be implemented in agriculture, forestry, water management, energy, transport, industry and public health by 2020.

The Strategy promotes the implementation of economic measures, including tax relief, state aid measures and other instruments to achieve short-term climate adaptation goals and objectives, as well as preparing a legal framework for regulations in the transport and energy sectors and spatial planning.⁵⁴

The Strategy also sets special indicative medium-term (by 2030 and 2040) and long-term (by 2050) climate adaptation goals that include continuous monitoring and survey of the most vulnerable economic sectors, such as agriculture, and ensuring their resilience. The measures for attaining these goals and objectives have been planned during the development of the Action Plans taking into account the developments at the EU and international policy level.⁵⁵

The latest Action Plan includes measures that ensure the implementation of cross-sectoral and short-term climate adaptation goals and objectives. These measures mainly focus on reducing negative climate impacts on different sectors, on improving the sustainability of sectors and on improving management systems. For example, the Ministry of Health is tasked to educate doctors and other health sector employees on climate impacts, health risks and adaptation measures. The Ministry of Agriculture is tasked to implement climate adaptation measures in the forestry sector.

8e. Adaptation is mainstreamed in insurance or alternative policy instruments, where relevant, to provide incentives for investments in risk prevention

Yes / **No**

There are some plans to mainstream adaptation into insurance or alternative instruments. For example, the Action Plan (2017-2019) includes activities related to crop and animal insurance compensation⁵⁶.

The Strategy for National Climate Management Policy (Objective 148.2) specifically identifies the need to develop risk and crisis management instruments to respond to economic effects of climate impacts, taking into account: flood risk maps, flood risk management plans and early warning systems, emergency management plan, insurance and compensation

⁵⁴ Ministry of Environment, URL: <http://www.am.lt/VI/en/VI/index.php#a/717>, Date accessed: 08/05/2018

⁵⁵ Climate ADAPT, URL: <http://climate-adapt.eea.europa.eu/countries-regions/countries/lithuania>, under 'Engaging stakeholders - Governance' and 'Sectors & Actions', Date accessed: 08/05/2018

⁵⁶ Registry of Legal Acts, URL: <https://e-seimas.lrs.lt/portal/legalAct/lt/TAD/bfb5d0406b5311e6a421ea2bde782b94>, Date accessed: 08/05/2018

mechanisms for damage to agriculture caused by natural disasters. There is no evidence that insurance schemes are available that incentivise adaptation.

9 Implementing adaptation

9a. Adaptation policies and measures are implemented, e.g. as defined in action plans or sectoral policy documents

Yes / **In progress** / No

Adaptation policies and measures are already being implemented, as defined in the Action Plans or sectoral policy documents, such as the heat prevention action plan for 2016-2020⁵⁷. For example:

- Upgraded mechanisms of support for agrarian environmental programmes
- Measures for afforestation of unproductive land with a view to increasing forest cover by 3–5 %⁵⁸, and
- Measures to promote the planting of buffer strips in agricultural areas with a view to reducing water and wind erosion, and to retain water resources in the soil.

The annual 2017 implementation report of the Action Plan provides details on the measures implemented in 2017⁵⁹. For example, the Ministry of Agriculture reported the number of studies conducted on agricultural plant species that can adapt to climate change, and the number of farmers consulted on climate adaptation. However, no details are available on the MoE website of adaptation-related actions implemented by other ministries and agencies in the framework of their own sectoral development plans (e.g. the heat prevention action plan for 2016-2020⁶⁰) where the actions are not integral to the Action Plan. Nevertheless, the website of the Health Education and Disease Prevention Centre provides some information on the implementation of several measures in the heat prevention action plan, such as the development of guidelines on health protection in cases of extreme heat and workshops conducted on climate change and health threats⁶¹. The MoE has an ongoing project to develop web pages containing comprehensive climate change related information.

At the sub-national level, climate adaptation-related activities have happened as a result of EU-funded transboundary projects, such as ASTRA, BaltCICA, BalticClimate and BaltAdapt.

⁵⁷ Registry of Legal Acts, URL: <https://www.e-tar.lt/portal/lt/legalAct/78ffb580a97511e5be7fbc3f919a1ebe>, Date accessed: 07/05/2018

⁵⁸ Convention on Biological Diversity, URL: <https://www.cbd.int/financial/doc/id226-Lithuania-integration-en.pdf>, Date accessed: 08/05/2018

⁵⁹ Ministry of Environment, URL: <http://www.am.lt/VI/index.php#a/19247>, Date accessed: 10/05/2018

⁶⁰ Registry of Legal Acts, URL: <https://www.e-tar.lt/portal/lt/legalAct/78ffb580a97511e5be7fbc3f919a1ebe>, Date accessed: 07/05/2018

⁶¹ Health Education and Disease Prevention Centre: http://www.smlpc.lt/lt/aplinkos_sveikata/klimatas_ir_sveikata/, Date accessed: 30/05/2018

While adaptation measures are being implemented, it does not appear that they are yet being undertaken in all key sectors.

9b. Cooperation mechanisms in place to foster and support adaptation at relevant scales (e.g. local, subnational)

Yes / No

The National Climate Change Committee is tasked with coordinating implementation of the national climate policy. It includes a representative of the Association of Local Authorities in Lithuania. The Committee usually has two annual meetings to discuss climate policy issues.

The Action Plans include a few adaptation measures which are expected to be implemented by relevant ministries in cooperation with municipalities, such as the implementation of flood risk management projects. The Action Plan obliges ministries to ensure close inter-institutional cooperation during the development and implementation of the sectoral action plans and programmes.⁶² However, no projects related to flood risk management were implemented in 2017 due to a lack of funding⁶³. It is, therefore, difficult to judge the effectiveness of this cooperation mechanism for catalysing implementation.

9c. Procedures or guidelines are available to assess the potential impact of climate change on major projects or programmes, and facilitate the choice of alternative options, e.g. green infrastructure

Yes / No

The Strategy for National Climate Management Policy provides some goals and objectives related to assessing climate impacts, including the need to ensure that development of engineering infrastructure takes account of projected climate impacts⁶⁴.

Projects which are subject to EIA are to be assessed from an adaptation perspective. The Minister of Environment Decree No. D1-885 of 31 October 2017 setting procedures for the impact assessment requires a vulnerability assessment and analysis of adaptation options, as well as disaster risk assessment⁶⁵. Recommendations for the use of innovative technologies in spatial planning and construction are prepared by the MoE. Application of climate modelling will become obligatory for newly built large public infrastructure constructions from 1 July 2022⁶⁶. However, the guidelines for the expansion and development of the Lithuanian

⁶² Registry of Legal Acts, URL: <https://e-seimas.lrs.lt/portal/legalAct/lt/TAD/bfb5d0406b5311e6a421ea2bde782b94>, Date accessed: 08/05/2018

⁶³ Ministry of Environment, URL: http://www.am.lt/VI/article.php3?article_id=19247#r/640, Date accessed: 08/05/2018

⁶⁴ Ministry of Environment, URL: <http://www.am.lt/VI/index.php#a/12869>, Date accessed: 08/05/2018

⁶⁵ Registry of Legal Acts, URL: <https://www.e-tar.lt/portal/lt/legalAct/81ad5250be4511e79122ea2db7aeb5f0>, Date accessed: 08/05/2018

⁶⁶ Personal communication with MS contact.

construction sector in 2015-2020, for example, do not directly refer to the risks of climate change or the need to climate proof major projects or programmes⁶⁷.

9d. There are processes for stakeholders' involvement in the implementation of adaptation policies and measures

Yes / No

Lithuanian non-governmental and academic institutions are quite active in various regional climate adaptation projects, providing analysis and elaboration of adaptation options to be applied at local level. While the 2017 implementation report does not provide enough details to judge if processes are in place for ensuring stakeholder involvement in the implementation of adaptation policies and measures⁶⁸, the Member State contact has advised⁶⁹ that:

- Academic institutions are involved in the National Climate Change Committee
- New guidelines for municipalities on preparing climate mitigation and adaptation plans were developed by the Association of Local Authorities
- Relevant stakeholders are involved when working groups and task forces are established.

Step E: Monitoring and evaluation of adaptation activities

10 Monitoring and reporting

10a. NAS/NAP implementation is monitored and the results of the monitoring are disseminated

Yes / No

The MoE reports on the implementation of the Action Plan annually⁷⁰. The latest report available on the website of the MoE is for the year 2017⁷¹. The report contains two files (MS Word and MS Excel). The first file provides detailed information on the achievement of quantitative assessment criteria per activity. The second file provides financial details for each individual activity.

10b. The integration of climate change adaptation in sectoral policies is monitored and the results of the monitoring are disseminated

Yes / No

⁶⁷ Registry of Legal Acts, URL: <https://www.e-tar.lt/portal/lt/legalAct/4a443e3087a811e5b7eba10a9b5a9c5f>, Date accessed: 10/05/2018

⁶⁸ Ministry of Environment, URL: <http://www.am.lt/VI/index.php#a/19247>, Date accessed: 10/05/2018

⁶⁹ Personal communication with MS contact.

⁷⁰ Ministry of Environment, URL: http://www.am.lt/VI/article.php3?article_id=19247#r/640, Date accessed: 08/05/2018

⁷¹ Ministry of Environment, URL: <http://www.am.lt/VI/index.php#a/19247>, Date accessed: 08/05/2018

Sectoral climate adaptation policies and measures included in the Action Plan are monitored annually, as explained in relation to Indicator 10a⁷². The annual report compiled by the MoE, the institution responsible for implementation of climate policy in Lithuania, contains two documents. The first document provides detailed information on the achievement of quantitative assessment criteria per activity. The second document provides details on the financial performance for each individual activity. The list of individual activities includes measures implemented by the MoE as well as sectoral measures implemented by other ministries. However, as noted in relation to Indicator 9a, no details are available on the MoE website on adaptation-related actions implemented by other ministries and agencies if these actions are not part of the climate Action Plan, although such information may be reported and disseminated elsewhere, e.g. the Health Education and Disease Prevention Centre's provision of information on implementation of the heat prevention action plan on its website⁷³.

10c. Regional-, sub-national or local action is monitored and the results of the monitoring are disseminated

Yes / No

Measures included in the Action Plan implemented by municipalities are monitored annually. They are included in the annual report of the MoE (see Indicator 10a). Municipal institutions provide the MoE with information by submitting annual activity reports, which are integrated in the annual report posted on the MoE website⁷⁴. These institutions also report on planned measures that could be included in the next Action Plan.⁷⁵

11 Evaluation

11a. A periodic review of the national adaptation strategy and action plans is planned

Yes / No

The outcomes of the monitoring, reporting and evaluation system feed into further development of the Action Plans and update of the Strategy for National Climate Management Policy. The Strategy does not refer to any timing for its revision or update. However, initial work on reviewing the Strategy and setting up legally binding climate mitigation and adaptation objectives for the period of 2021-2030 has started in 2018. It will include indicative mid-term measures and a long-term outlook beyond 2050⁷⁶. The Action Plan is updated regularly with the latest update adopted in 2018⁷⁷. In accordance with the

⁷² Climate ADAPT, URL: <http://climate-adapt.eea.europa.eu/countries-regions/countries/lithuania>, under 'Assessments', Date accessed: 08/05/2018

⁷³ Health Education and Disease Prevention Centre: http://www.smlpc.lt/lt/aplinkos_sveikata/klimatas_ir_sveikata/, Date accessed: 30/05/2018

⁷⁴ Ministry of Environment, URL: <http://www.am.lt/VI/index.php#a/19247>, Date accessed: 10/05/2018

⁷⁵ Climate ADAPT, URL: <http://climate-adapt.eea.europa.eu/countries-regions/countries/lithuania>, under 'Assessments', Date accessed: 10/05/2018

⁷⁶ Personal communication with MS contact.

⁷⁷ Registry of Legal Acts, URL: <https://www.e-tar.lt/portal/lt/legalAct/76fe2cf0122111e88456d055fb6f6244>, Date accessed: 14/05/2018

MoE 2018 Activity Plan, public procurement of services related to the update of the Strategy is planned for the 4th quarter of 2018⁷⁸.

11b. Stakeholders are involved in the assessment, evaluation and review of national adaptation policy

Yes / No

The National Climate Change Committee is an advisory body providing comments and proposals for updating the Strategy and its Action Plan. Other stakeholders can be involved in the assessment, evaluation and review of national adaptation policy by providing comments on any proposed changes to the Strategy via the Draft Legal Acts information system and participating in hearings and workshops⁷⁹.

⁷⁸ Ministry of Environment, URL: <http://www.am.lt/VI/index.php#a/19248>, Date accessed: 30/05/2018

⁷⁹ Personal communication with MS contact.

SUMMARY TABLE

Adaptation Preparedness Scoreboard		
No.	Indicator	Met?
Step A: Preparing the ground for adaptation		
1 <i>Coordination structure</i>		
1a	A central administration body officially in charge of adaptation policy making	<u>Yes</u> / No
1b	Horizontal (i.e. sectoral) coordination mechanisms exist within the governance system, with division of responsibilities	<u>Yes</u> / In progress / No
1c	Vertical (i.e. across levels of administration) coordination mechanisms exist within the governance system, enabling lower levels of administration to influence policy making.	<u>Yes</u> / In progress / No
2 <i>Stakeholders' involvement in policy development</i>		
2a	A dedicated process is in place to facilitate stakeholders' involvement in the preparation of adaptation policies	<u>Yes</u> / No
2b	Transboundary cooperation is planned to address common challenges with relevant countries	<u>Yes</u> / No
Step B: Assessing risks and vulnerabilities to climate change		
3 <i>Current and projected climate change</i>		
3a	Observation systems are in place to monitor climate change, extreme climate events and their impacts	Yes / <u>In progress</u> / No
3b	Scenarios and projections are used to assess the economic, social and environmental impacts of climate change, taking into account geographical specificities and best available science (e.g. in response to revised IPCC assessments)	<u>Yes</u> / In progress / No
3c	Sound climate risks/vulnerability assessments for priority vulnerable sectors are undertaken to support adaptation decision making.	<u>Yes</u> / In progress / No
3d	Climate risks/vulnerability assessments take transboundary risks into account, when relevant	Yes / <u>In progress</u> / No
4 <i>Knowledge gaps</i>		

Adaptation Preparedness Scoreboard		
No.	Indicator	Met?
4a	Work is being carried out to identify, prioritise and address the knowledge gaps	Yes / <u>In progress</u> / <u>No</u>
5	<i>Knowledge transfer</i>	
5a	Adaptation relevant data and information is available to all stakeholders, including policy makers (e.g. through a dedicated website or other comparable means).	Yes / <u>In progress</u> / <u>No</u>
5b	Capacity building activities take place; education and training materials on climate change adaptation concepts and practices are available and disseminated	Yes / <u>In progress</u> / <u>No</u>
Step C: Identifying adaptation options		
6	<i>Identification of adaptation options</i>	
6a	Adaptation options address the sectoral risks identified in 3c, the geographical specificities identified in 3b and follow best practices in similar contexts	<u>Yes</u> / <u>No</u>
6b	The selection of priority adaptation options is based on robust methods (e.g. multi-criteria analyses, stakeholders' consultation, etc.) and consistent with existing decision-making frameworks	Yes / <u>No</u>
6c	Mechanisms are in place to coordinate disaster risk management and climate change adaptation and to ensure coherence between the two policies	Yes / In progress / <u>No</u>
7	<i>Funding resources identified and allocated</i>	
7a	Funding is available to increase climate resilience in vulnerable sectors and for cross-cutting adaptation action	<u>Yes</u> / In progress / <u>No</u>
Step D: Implementing adaptation action		
8	<i>Mainstreaming adaptation in planning processes</i>	
8a	Consideration of climate change adaptation has been included in the national frameworks for environmental impact assessments	<u>Yes</u> / <u>No</u>
8b	Prevention/preparedness strategies in place under national disaster risk management plans take into account climate change impacts and projections	Yes / <u>No</u>

Adaptation Preparedness Scoreboard		
No.	Indicator	Met?
8c	Key land use, spatial planning, urban planning and maritime spatial planning policies take into account the impacts of climate change	<u>Yes</u> / No
8d	National policy instruments promote adaptation at sectoral level, in line with national priorities and in areas where adaptation is mainstreamed in EU policies	Yes / <u>In progress</u> / No
8e	Adaptation is mainstreamed in insurance or alternative policy instruments, where relevant, to provide incentives for investments in risk prevention	Yes / <u>No</u>
9 <i>Implementing adaptation</i>		
9a	Adaptation policies and measures are implemented, e.g. as defined in action plans or sectoral policy documents	Yes / <u>In progress</u> / No
9b	Cooperation mechanisms in place to foster and support adaptation at relevant scales (e.g. local, subnational)	<u>Yes</u> / No
9c	Procedures or guidelines are available to assess the potential impact of climate change on major projects or programmes, and facilitate the choice of alternative options, e.g. green infrastructure	<u>Yes</u> / No
9d	There are processes for stakeholders' involvement in the implementation of adaptation policies and measures.	<u>Yes</u> / No
Step E: Monitoring and evaluation of adaptation activities		
10 <i>Monitoring and reporting</i>		
10a	NAS/NAP implementation is monitored and the results of the monitoring are disseminated	<u>Yes</u> / No
10b	The integration of climate change adaptation in sectoral policies is monitored and the results of the monitoring are disseminated	<u>Yes</u> / No
10c	Regional-, sub-national or local action is monitored and the results of the monitoring are disseminated	<u>Yes</u> / No
11 <i>Evaluation</i>		
11a	A periodic review of the national adaptation strategy and action plans is planned	<u>Yes</u> / No
11b	Stakeholders are involved in the assessment, evaluation	<u>Yes</u> / No

Adaptation Preparedness Scoreboard		
No.	Indicator	Met?
	and review of national adaptation policy	