

# Adaptation preparedness scoreboard:

## Country fiche for the Czech Republic

### 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.<sup>1</sup> 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 sectors<sup>2</sup> 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

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<sup>1</sup> The first versions of the fiches, prepared in consultation with the Member States in 2014-15, were unpublished and used to fine-tune the scoreboard.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](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.

<sup>2</sup> 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".

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## **List of abbreviations**

CHMI	Czech Hydrometeorological Institute
CR	Czech Republic
DRR	disaster risk reduction
EIA	Environmental Impact Assessment
EUMETNET	European Meteorological Services Network
MMR	Mechanism for Monitoring and Reporting
NAP	National Adaptation Plan
NAS	National Adaptation Strategy
RBMP	River Basin Management Plans
RCM	regional climate model
SEA	Strategic Environmental Assessment
V4	Visegrad group
WRI	T.G. Masaryk Water Research Institute

## POLICY FRAMEWORK

### Adaptation strategies

#### A1. National adaptation strategy

The National Adaptation Strategy (NAS)<sup>3</sup> of the Czech Republic was adopted in October 2015 by Government Resolution No. 861<sup>4</sup>. The NAS assesses the climate impacts prevalent in the Czech Republic and defines appropriate adaptation measures, including their linkages to mitigation. The priority sectors are forest management, agriculture, water regime in landscape and water management, urban landscape, biodiversity and ecosystem services, health, tourism, transportation, industry and energy, emergencies and protection of the population and environment.

#### A2. Adaptation strategies adopted at subnational levels

One regional and six adopted local adaptation strategies cover a population of 1 884 707, i.e. 18 % of the Czech population. The one adaptation strategy at regional level on which the Ministry of the Environment, currently, has information is for the City of Prague and was adopted in 2017. Prague is both a municipality and a greater territorial self-governing unit (region)<sup>5</sup> and the strategy addresses ca. 12% of the country's total population. Two (Kopřivnice in 2017<sup>6</sup>, Hlučín in 2017<sup>7</sup>) adaptation strategies were adopted by the relevant municipal councils and four adaptation strategies (Hrádek nad Nisou in 2016<sup>8</sup>, Nový Bor in 2016<sup>9</sup>, Plzeň in 2017<sup>10</sup>, Brno in 2016<sup>11</sup>) were presented to the municipal council and are used as non-binding documents for the ongoing elaboration of comprehensive development strategies of municipality or spatial planning. The city of Krnov is also preparing a conceptual note on climate adaptation and has run a public consultation within the frame of a

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<sup>3</sup> Ministry of the Environment, Strategy on Adaptation to Climate Change in the Czech Republic (2015), URL: [https://www.mzp.cz/C1257458002F0DC7/cz/zmena\\_klimatu\\_adaptacni\\_strategie/\\$FILE/OEOK-Adaptacni\\_strategie-20151029.pdf](https://www.mzp.cz/C1257458002F0DC7/cz/zmena_klimatu_adaptacni_strategie/$FILE/OEOK-Adaptacni_strategie-20151029.pdf) English executive summary: [https://www.mzp.cz/C125750E003B698B/en/strategy\\_adaptation\\_climate\\_change/\\$FILE/OEOK\\_Adaptation\\_strategy\\_20171003.pdf](https://www.mzp.cz/C125750E003B698B/en/strategy_adaptation_climate_change/$FILE/OEOK_Adaptation_strategy_20171003.pdf)

<sup>4</sup> Government Resolution no. 861/ 2015, URL: <https://apps.odok.cz/attachment/-/down/VPRAA3VATUSE>

<sup>5</sup> Information on this and the strategy itself can be downloaded from IPR Praha website, URL: <http://www.iprpraha.cz/adaptacnistrategie>

<sup>6</sup> CI2, o.p.s. (2017), Adaptacni strategie na zmenu klimatu pro mesto Koprivnice, URL: [http://adaptace.ci2.co.cz/sites/default/files/souboryredakce/navrhova\\_cast\\_strategie\\_koprivnice\\_030417.pdf](http://adaptace.ci2.co.cz/sites/default/files/souboryredakce/navrhova_cast_strategie_koprivnice_030417.pdf)

<sup>7</sup> CI2 Adaptace mest na klimatickou zmenu webpage, URL : <http://adaptace.ci2.co.cz/cs/hlucin-schvalil-adaptacni-strategii> , Date accessed : 1/6/2018

<sup>8</sup> Adaptacni strategie na zmenu klimatu pro Hradek nad Nisou, URL : [http://adaptace.ci2.co.cz/sites/default/files/souboryredakce/adaptacni\\_strategie\\_pro\\_hradek\\_nad\\_nisou.pdf](http://adaptace.ci2.co.cz/sites/default/files/souboryredakce/adaptacni_strategie_pro_hradek_nad_nisou.pdf)

<sup>9</sup> Adaptacni strategie na zmenu klimatu pro Novy Bor, URL : [http://adaptace.ci2.co.cz/sites/default/files/souboryredakce/adaptacni\\_strategie\\_novy\\_bor.pdf](http://adaptace.ci2.co.cz/sites/default/files/souboryredakce/adaptacni_strategie_novy_bor.pdf)

<sup>10</sup> Adaptacni strategie mesta Plzne, Latest draft available at URL : <https://ukr.plzen.eu/rozvoj-mesta/mezinarnodni-projekty/urbanadapt/urbanadapt.aspx>

<sup>11</sup> Brno municipality webpage, URL: <https://www.brno.cz/strategie/urbanadapt-klimaticka-zmena/> , Date accessed: 1/6/2018

project (which ran until the end of 2017).<sup>12</sup> Currently, two additional cities are in the process of developing an adaptation strategy – Ostrava<sup>13</sup> and Opava.<sup>14</sup>

The Czech Republic has to date five signatories to the Covenant of Mayors for Climate & Energy (CoM) with respect to adaptation: Prague (population 1 246 780), Liberec (106 000), Litoměřice (24 101), Písek (29 800) and Brno (377,973)<sup>15</sup>. Some other cities and towns are preparing their adaptation strategies as well.

In addition to the development of an adaptation strategy, cities and towns often include adaptation considerations within their other strategic documents, such as development plans.

## **Adaptation action plans**

### **B1. National adaptation plan**

The Czech Republic adopted its National Action Plan on Adaptation to Climate Change (NAP) in January 2017<sup>16</sup> by Government Resolution No. 34<sup>17</sup>. The NAP aims to implement the NAS and is structured according to climate impacts identified in the Czech Republic: long-term droughts; floods and flash floods; temperature increase; extreme meteorological events (heavy rainfall, extremely high temperatures and heat waves; extreme wind); and wild fires. The NAP contains 33 specific targets and one cross-cutting target focused on education and awareness-raising. These targets will be implemented through 52 priority measures detailed into 160 priority tasks.

### **B2. Adaptation plans adopted at sub-national level**

As noted above, there are five cities in the Czech Republic that are signatories to the CoM with respect to adaptation. Although some of these Czech cities have started preparing an adaptation action plan, none have been implemented yet.

### **B3. Sectoral adaptation plans**

The Strategy for Environmental Safety 2016-2020 with an outlook to 2030, implements the Sendai Framework for Disaster Risk Reduction 2015-2030. This strategy includes measures for disaster risk reduction connected with climate impacts, notably extreme meteorological events.

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<sup>12</sup> Adaptace mest na klimatickou zmenu webpage, URL: <http://adaptace.ci2.co.cz/cs/2017-krnov-klimaticky-odpovedne-mesto> , Date accessed: 1/6/2018

<sup>13</sup> Ekotoxa, Adaptacni strategie mesta Ostravy, URL: <https://www.ekotoxa.cz/blog/adaptacni-strategie-ostrava/>, Date accessed : 15/5/2018

<sup>14</sup> Personal communication with MS contact.

<sup>15</sup> Covenant of Mayors for Climate & Energy, Adaptation, the Czech Republic, URL: <https://www.covenantofmayors.eu/about/covenant-community/signatories.html> , Date accessed: 1/6/2018

<sup>16</sup> National Action Plan on Adaptation to Climate Change in Czech Republic (2017), URL: [https://www.mzp.cz/cz/narodni\\_akcni\\_plan\\_zmena\\_klimatu](https://www.mzp.cz/cz/narodni_akcni_plan_zmena_klimatu)

<sup>17</sup> Government Resolution no. 34/ 2017, URL: <https://apps.odok.cz/attachment/-/down/RCIAAHVB5M6W>

The Policy of Protection from Impacts of Drought and Water Scarcity was adopted by the Government in July 2017. The document describes the main adverse trends in climate and hydrological conditions in the last three decades, as well as future expected climate impacts on water balance. The document identified strategic goals, such as increased knowledge of current and future drought and water scarcity risks, better preparedness based on operational plans and measures, increased public awareness, a balance between the availability of water resources and water demand across all sectors, and a restored natural water regime of the landscape.

The climate impacts are considered in the second river basin management plans (RBMP), when assessing the trends of water use up to the year 2021. The programme of measures contains a "Drought and water scarcity" measure, which defines climate change risks. Due to the fact that the second RBMP was adopted whilst the NAS was being drafted, the NAS is not fully reflected in the second RBMP. The outcomes of the NAS and the NAP will be taken into account in the third RBMP. Flood risk management plans, as well as the Action Plan for Organic Farming 2016-2020, also take into account climate change issues. The Rural Development Programme 2014-2020 supports the implementation of adaptation measures within the agricultural sector.

## **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

In the Czech Republic, the Ministry of the Environment is the national coordinator for NAS development, adoption, implementation and evaluation.<sup>18</sup> The Department of General Nature and Landscape Protection was responsible for the coordination and preparation of the document and the Department of Energy and Climate Protection was actively involved in the NAS preparatory phase, including consultations with the Czech Hydrometeorological Institute (CHMI).

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

**Yes** / In progress / No

During the development phase of the NAS, interdepartmental groups of experts from all relevant ministries and institutions for each sector were established. The work was conducted in 12 working groups covering specific sectors (biodiversity, forest management, agriculture,

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<sup>18</sup> Ministry of the Environment, Czech Republic, URL: [https://www.mzp.cz/cz/zmena\\_klimatu](https://www.mzp.cz/cz/zmena_klimatu) , Date accessed: 16/5/2018

water balance in landscape and water management, industry and energy, health and hygiene, crisis management, etc.) coordinated by the Ministry of the Environment.

The main stakeholders involved in the preparation of the NAS were national-level institutions, i.e. relevant ministries: the Ministry of Agriculture (water, agriculture, forestry), the Ministry of Health (health and hygiene), the Ministry of Transport (adaptation of transportation), the Ministry of Industry and Trade (supply of electricity), the Ministry of Regional Development (spatial planning and regional development), the Ministry of the Interior (civil protection and warning systems), the Ministry of Education, Youth and Sports and selected scientific and research institutions, e.g. the Czech Hydrometeorological Institute (CHMI) and the T.G. Masaryk Water Research Institute (WRI).

Each of the 12 working groups consisted of representatives from relevant ministries, expert departments of the Ministry of the Environment, and in some cases also the CHMI and WRI. A coordinator from the Ministry of the Environment facilitated each working group. The institution responsible for each sector developed inputs related to the specific sector (e.g. water issues were prepared by the Ministry of the Environment and the Ministry of Agriculture, forest management by the Ministry of Agriculture, etc.).

With regard to the coordination mechanism during the implementation phase, an inter-ministerial working group on climate change issues was established in January 2015. This group cooperates, consults and works further on the basis of the NAS and was involved in the preparation process of the NAP. An adaptation platform was established in January 2016 within the framework of this working group and its preparation of the NAP. This platform continues to actively operate and is currently used for the purpose of the evaluation of the NAP. The Ministry of the Environment, as the main coordinator of this process, is actively communicating with other relevant ministries and actors within the frame of the current evaluation of the NAP.

Relevant ministries are also responsible for their respective implementation tasks defined in the NAS as well as in the NAP.

**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

Stakeholders, including representatives from regions and municipalities, had a chance to participate directly in preparation of the NAP through the inter-ministerial consultations. Some of them actively participated in this process and submitted written comments.

The main target of the communication strategy of the NAP is not only to ensure access to information but also to include public and other stakeholders in the implementation of the NAS. In the future, the evaluation and monitoring of the NAS and adaptation measures set in

the NAP will be secured through the inter-ministerial working group on climate change issues, which has also some members from non-governmental non-profit organisations. Furthermore, the communication strategy aims to use two-way communication (bottom-up and top-down communication) between the Ministry of the Environment and public, including National Network of Local Action Groups in the Czech Republic, or Union of the Towns and Municipalities of the Czech Republic. The inter-ministerial working group on climate change issues will be serving as communication mediator for this communication.

In order to enhance coordination, the Ministry of the Environment of the Czech Republic became a national coordinator of the CoM in 2017.

## **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

The development of the NAS involved only the sectoral national ministries and the relevant scientific and research institutions, such as the Global Change Research Institute of the Czech Academy of Sciences (CzechGlobe) and Charles University Environment Centre. These stakeholders were also consulted on the final draft of the NAS. Business, non-governmental sectors, interest groups and other stakeholders did not participate in the formulation of the NAS.

However, the Strategic Environmental Assessment (SEA) process of the NAS allowed the general public to provide written comments, and included a public hearing. Stakeholders also had the opportunity to participate directly on the preparation of the NAP via the inter-ministerial consultations and participation in thematic working groups. Several stakeholders provided written comments, including Chamber of Commerce and Confederation of Employers and Business Union, Czech Geological Survey, Association of Municipal and Private Forest Owners, Forest Management Institute, Institute of Botany AS CR, The Water Supply and Sewerage Association of the Czech Republic, Green Circle (network of NGO dealing with environmental issues), Chance for Buildings and others.

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

**Yes** / No

Transboundary cooperation for climate adaptation was considered when drafting the NAS and NAP. The national experts from the Czech Republic and Slovenia organised meetings where they exchanged experiences and lessons learned from the preparation of the NAS and NAP. In addition, an onsite exchange of adaptation practice was organised in the Czech Republic.

Furthermore, the Czech Republic has frameworks for bilateral cooperation with neighbouring countries, i.e. Germany (Czech-German Commission on Environment and its working groups), Austria, Slovakia and Poland. There is close cooperation in the field of water management. The Czech Republic has bilateral commissions with all neighbouring states in relation to transboundary rivers and their management (e.g. transboundary early warning systems, flood prevention measures etc.). The Czech Republic participates actively in the activities of the international commissions for Elbe, Oder and Danube river basins. Transboundary projects are supported through the Interreg EUROPE 2014-2020 (Bavaria, Saxony, Poland, Austria and Slovakia) in the fields of risk prevention, flood management systems and cooperation of rescue services.

The Visegrad group (V4) also addresses issues related to climate adaptation in specific sectors (water management, nature protection etc.) at a political level and within its working groups.

The Czech Republic is actively involved in the EU Strategy for the Danube Region and in the activities of its Priority Area 5, Environmental Risks, which, among others, addresses the challenges of water scarcity and droughts and focuses on the implementation of Danube-wide flood risk management plans, taking into account potential climate impacts as well.

The Czech Republic is a Party to the Framework Convention on the Protection and Sustainable Development of the Carpathians (Carpathian Convention). In 2014, the Fourth Meeting of the Conference of the Parties to the Carpathian Convention adopted the Strategic Agenda on Adaptation to Climate Change in the Carpathian Region, which is being implemented mainly through the activities of the Working Group on Adaptation to Climate Change under the Convention.<sup>19</sup> In October 2017, a new article (Article 12bis) on “Climate Change” was adopted at the Fifth Meeting of the Conference of the Parties.<sup>20</sup>

Within the macro-regional strategies, the Czech Republic is a member of European Meteorological Services Network (EUMETNET).

## **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

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<sup>19</sup> Fourth Meeting of the Conference of the Parties to the Framework Convention on the Protection and Sustainable Development of the Carpathians, URL: [http://www.carpathianconvention.org/tl\\_files/carpathiancon/Downloads/03%20Meetings%20and%20Events/COP/2014\\_COP4\\_Mikulov/Follow%20Up/DOC5\\_Joint%20AplineCarpathianStatement\\_FINAL.pdf](http://www.carpathianconvention.org/tl_files/carpathiancon/Downloads/03%20Meetings%20and%20Events/COP/2014_COP4_Mikulov/Follow%20Up/DOC5_Joint%20AplineCarpathianStatement_FINAL.pdf), Date accessed: 15/5/2018

<sup>20</sup> Carpathian Convention website, URL: [http://www.carpathianconvention.org/tl\\_files/carpathiancon/Downloads/03%20Meetings%20and%20Events/COP/2017\\_COP5\\_Lillafuered/outcomes\\_documents/Article%20on%20Climate%20Change\\_FINAL\\_ADOPTED.pdf](http://www.carpathianconvention.org/tl_files/carpathiancon/Downloads/03%20Meetings%20and%20Events/COP/2017_COP5_Lillafuered/outcomes_documents/Article%20on%20Climate%20Change_FINAL_ADOPTED.pdf), Date accessed: 1/6/2018

The Czech Hydro-Meteorological Institute (CHMI) provides information on actual weather conditions and alerts to extreme hydrological and meteorological situations. It also publishes data and information on climate change science, observations, scenarios and impacts. Regarding climate impacts, a general qualitative description of impacts with some key figures from the modelling analysis is given.

Monitoring of water courses undertaken by the CHMI, based on specific indicators, provides different applicable data series showing climate impacts. The CHMI performs the function of a state institute for the area of air quality protection, hydrology, water quality, climatology and meteorology, with a competence to establish and operate State monitoring and observation networks, including international data exchange pursuant to the WMO principles.

Regarding climate extremes, the warning system has been further improved on the basis of the innovated Integrated Warning Service System in the Czech Republic. This system includes forecast warning information on 26 dangerous phenomena and each phenomenon is assigned a danger level (low, medium, extreme). A large number of stations with operative presentation of measured data and forecasts have been placed on the website of the reporting and forecasting flood service.<sup>21</sup>

Observation and collection of information on climate change and its impacts (i.e. droughts) is supported by several institutions: the Committee on the Environment of the Czech Academy of Sciences and its institutes (CzechGlobe and others<sup>22</sup>), the National Forestry Committee, University departments and sectoral institutes.

Currently the indicators showing effects of extreme weather events are developed for floods, such as Return Period of Floods and Flood Effects. Indicators for climate impacts and extreme weather events, such as damage, casualties, and financial losses are currently being developed for the NAP.

**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

A Comprehensive Study on Impacts, Vulnerability and Risks Sources Connected to Climate Change in the Czech Republic from November 2015 was conducted for the Ministry of the Environment by EKOTOXA.<sup>23</sup> It provides an assessment of impacts and vulnerabilities to climate adaptation in the Czech Republic at a general level as well as per adaptation-related

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<sup>21</sup> Reporting and forecasting flood service webpage, URL: <http://hydro.chmi.cz/hpps/#> , Date accessed: 1/6/2018

<sup>22</sup> CzechGlobe website, URL: <http://www.intersucho.cz/en/>, Date accessed: 1/6/2018

<sup>23</sup> A Comprehensive Study on Impacts, Vulnerabilities and Risks Sources Connected to Climate Change in the Czech Republic (2015), URL: [https://www.mzp.cz/C1257458002F0DC7/cz/studie\\_dopadu\\_zmena\\_klimatu/\\$FILE/OEOK-Komplexni\\_studie\\_dopady\\_klima-20151201.pdf](https://www.mzp.cz/C1257458002F0DC7/cz/studie_dopadu_zmena_klimatu/$FILE/OEOK-Komplexni_studie_dopady_klima-20151201.pdf)

sector. This assessment is mainly based on a study from 2011, analysing the results of a research project that developed scenarios and projections to assess the economic, social and environmental impacts of climate change. The assessment also includes information on indicators and a cost-benefit analysis.<sup>24</sup>

The main model used for climate scenarios to date in the Czech Republic is the ALADIN-CLIMATE/CZ regional climate model. The basis for the estimates of impacts is a specific project allowing the integration of the regional climate model (RCM) ALADIN-CLIMATE/CZ with the A1B emissions scenario for 1961-2100 at a horizontal resolution of 25 km, completed in 2011. The projections (which do not cover key uncertainties due to climate models or socioeconomic scenarios) have been used to screen the environmental impacts of climate change in specific sectors (water management, agriculture and forestry sectors) and to inform the initial identification of potential adaptation options.

The Comprehensive Study on Impacts<sup>25</sup> mentioned above also has a section with an overview of the latest developments in this field, mentioning several recent projects involved in modelling climate change impacts in the Czech Republic, and/or projects developing systems to monitor and share data on such impacts. An example is the CzechAdapt project (2015-2016)<sup>26</sup> which developed a regularly updated online database to show the impacts of climate change, vulnerability assessments and adaptation measures for the Czech Republic based on the best available methods, e.g. GCM CMIP5 models and regional models coming from another project, EUROCORDEX – a coordinated downscaling programme.<sup>27</sup> There are also a couple of regional projects, focusing on specific Czech regions and adaptation sectors (AdaptaN<sup>28</sup>, UrbanAdapt<sup>29</sup>).

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

**Yes** / In progress / No

Some assessments of risks and vulnerabilities have been carried out through research projects. The most complex one so far has been the aforementioned research project from 2011 on “Specification of existing estimates of climate change impacts in hydrology, water management, agriculture and forestry sectors and proposals for adaptation measures”

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<sup>24</sup> CHMI (2011), Specification of existing estimates of climate change impacts in hydrology, water management, agriculture and forestry sectors and proposals for adaptation measures

<sup>25</sup> A Comprehensive Study on Impacts, Vulnerabilities and Risks Sources Connected to Climate Change in the Czech Republic (2015), URL:

[https://www.mzp.cz/C1257458002F0DC7/cz/studie\\_dopadu\\_zmena\\_klimatu/\\$FILE/OEOK-Komplexni\\_studie\\_dopady\\_klima-20151201.pdf](https://www.mzp.cz/C1257458002F0DC7/cz/studie_dopadu_zmena_klimatu/$FILE/OEOK-Komplexni_studie_dopady_klima-20151201.pdf)

<sup>26</sup> CzechAdapt project, URL: <http://www.klimatickazmena.cz/cs/>, Date accessed: 1/6/2018

<sup>27</sup> EUROCORDEX project, URL: <http://www.euro-cordex.net/>, Date accessed: 1/6/2018

<sup>28</sup> Regional project AdaptaN, URL: <http://www.adaptan.net/>, Date accessed: 1/6/2018

<sup>29</sup> Regional project UrbanAdapt, URL: <http://urbanadapt.cz/en>, Date accessed: 1/6/2018

coordinated by the CHMI<sup>30</sup>. The outcomes were used in the preparation of the NAS, as mentioned above.

The Comprehensive Study on Impacts, mentioned above<sup>31</sup>, provides an assessment of climate risks / vulnerability for all ten priority sectors of the NAS. Further analysis of the expected impacts of water regime / water management, agriculture, forestry, health, urbanised landscape and biodiversity in the Czech Republic is done by the CHMI.

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

Yes / **In progress** / No

For the time being, climate risks and vulnerability assessments within the framework of the NAS and NAP do not take transboundary risks into account. Nevertheless, this issue is partially covered through transboundary cooperation of the Czech Republic with the neighbouring states in the field of water management (transboundary water protection in the framework of the UNECE and in the international basins of Danube, Elbe and Oder rivers), as described in Indicator 2b. However, it is yet to be defined how this transnational cooperation will address climate change, and how it will relate to the NAS and NAP. Both the NAS and NAP will be updated in 2020.

## **4 Knowledge gaps**

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

Yes / **In progress** / No

There is cooperation between policy-makers within the Ministry of the Environment and the Ministry of Agriculture, and scientific organisations in defining and working on research priorities. Accordingly, the NAS contains a number of measures to improve the knowledge base on adaptation and research focus areas. There is also a list of institutions that focus on climate adaptation research. Some of them participate in the National Climate Programme, which creates research teams and publishes results.

The NAP contains the same research priorities mentioned in the NAS and mentions that the National Policy on Research, Development and Innovation for 2016-2020 includes research in global changes, i.e. also on climate adaptation. Moreover, the research and development strategy of the Ministry of the Environment for 2016-2025 is coherent with this national research policy.

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<sup>30</sup> CHMI (2011), Specification of existing estimates of climate change impacts in hydrology, water management, agriculture and forestry sectors and proposals for adaptation measures

<sup>31</sup> A Comprehensive Study on Impacts, Vulnerabilities and Risks Sources Connected to Climate Change in the Czech Republic (2015), URL: [https://www.mzp.cz/C1257458002F0DC7/cz/studie\\_dopadu\\_zmena\\_klimatu/\\$FILE/OEOK-Komplexni\\_studie\\_dopady\\_klima-20151201.pdf](https://www.mzp.cz/C1257458002F0DC7/cz/studie_dopadu_zmena_klimatu/$FILE/OEOK-Komplexni_studie_dopady_klima-20151201.pdf)

In addition, there are several funding programmes which are indirectly linked with the research gaps. The national programme ADAPT operated between the 2008-2016. Since then the financing of this programme has stopped. The main objective of the programme was the modernisation of the monitoring system in order to secure more accurate projections of extreme weather events and to adapt to them. The final evaluation report of this programme was submitted to the Ministry of Finance of the Czech Republic on 31<sup>st</sup> July 2017 but has not yet been approved. There is no plan to continue this programme in the future.<sup>32</sup> Other programmes were funded by Norwegian grants between 2009-2014, with some work to be continued in the 2015-2021 funding period.

## **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

The Ministry of the Environment publishes general and specific information on its website regarding climate adaptation, key documents and links to other relevant sources.<sup>33</sup> CHMI publishes climate adaptation information on key climate impacts and scenarios in the Czech Republic.<sup>34</sup> It also provides questions and answers, a glossary, the main international documents and other basic facts, besides the hydro-meteorological information.

There are several other web portals with information on climate change and climate adaptation.<sup>35</sup>

### **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

A general communication strategy is part of the NAS and the NAP. The former specifies types of awareness-raising events related to the relevant sectors, targeted activities for media and the public. The NAS includes a general approach to environmental education and the legal basis for it (i.e. programmes for schools, awareness raising campaigns, exhibitions, etc.), which involves cooperation between the Ministry of the Environment and the Ministry of Education, Youth and Sports.

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<sup>32</sup> Personal communication with MS contact.

<sup>33</sup> Ministry of Environment website, URL: [http://www.mzp.cz/cz/adaptace\\_na\\_zmenu\\_klimatu](http://www.mzp.cz/cz/adaptace_na_zmenu_klimatu). Date accessed: 1/6/2018

<sup>34</sup> Cesky Hydrometeorologicky Ustav webpage, URL: <http://portal.chmi.cz/historicka-data/pocasi/zmena-klimatu/zakladni-informace>. Date accessed: 1/6/2018

<sup>35</sup> Zmena klimatu website, URL: <http://www.zmenaklimatu.cz/cz/>; <http://www.regio-adaptace.cz/cs/>; <http://www.adaptacesidel.cz/?news-date=2017-04-28>; <http://www.intersucho.cz/cz/>, Date accessed: 1/6/2018

The NAS also defines the need to mainstream climate adaptation into educational programmes and relevant strategic materials, and attributes the ministries responsible for doing so. There is no mentioning of training.

To improve capacity building in the field of climate adaptation, as announced in the NAS and NAP, a State Programme for environmental education and awareness raising for 2016-2025, adopted in 2016, incorporates climate change as a focal area.<sup>36</sup> The aim of this State Programme's climate objective is to raise awareness about climate change and its impacts in the Czech Republic and to encourage support for education programmes and campaigns in this field.

### **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 NAS sets general directions and examples of suitable adaptation measures for all ten priority sectors. Risk and vulnerability assessments carried out through various research projects and the comprehensive study have been taken into account when defining measures.

The adaptation options considered are usually based on existing practices and measures, where win-win value or low-regrets options are considered (e.g. fighting floods, rural development, agro-environmental measures, etc.). The adaptation options take into account local conditions and also include the potential link to other sectors and to mitigation measures in that sector.

The NAP identifies the main climate risks and analyses the impacts and adaptation measures for each climate risk. As such, targets and measures for a certain climate risk are analysed for a variety of sectors. The annex to the NAP provides adaptation measures in detail, including the sector, responsible body, timeline of delivery, link to sectorial policy and financial needs.

##### **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 selection of adaptation options in the NAS has been based on expert judgement. The prioritisation of adaptation measures proposed in the NAP per sector was made according to a robust multi-criteria analysis, in consultation between different ministries and thematic

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<sup>36</sup> Ministry of the Environment CZ, Statni program EVVO a EP na leta 2016-2025, URL: [https://www.mzp.cz/cz/statni\\_program\\_evvo\\_ep\\_2016\\_2025](https://www.mzp.cz/cz/statni_program_evvo_ep_2016_2025), Date accessed: 16/5/2018

working groups. The priority was given to measures with positive impact on climate adaptation and positive spill over and cross-cutting effects on sectors and on the whole economy. The NAP measures were prioritised according to four criteria: (1) multiple adaptation effects to tackle climate impacts, (2) spill over social, economic or mitigation impacts, (3) impact on the environment and ecosystems, and (4) financial needs for implementation. Criterion (1) was evaluated by the thematic working groups and was attributed a value twice as important as criteria (2), (3) and (4). The latter were assessed by external consultants. Based on this multi-criteria analysis, adaptation measures were categorised into priority one measures and priority two measures.

## **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

Through the thematic working groups for the NAS and NAP development, inter-sectoral coordination between disaster risk management and climate adaptation has been established. Experts from the Safety and Crisis Management Department of the Ministry of the Environment who are responsible for disaster risk management have been involved in the preparation of the relevant NAS and NAP chapters. The Strategy of Environmental Safety 2016-2020 with an outlook to 2030<sup>37</sup>, which implements the Sendai Framework for Disaster Risk Reduction 2015-2030, has also been prepared by climate adaptation experts. The strategy includes measures for disaster risk reduction for disasters caused by climate change, mainly extreme meteorological events.

A multi-sectoral national platform on disaster risk reduction (DRR) to coordinate actions and activities related to disaster risk reduction (Sendai Framework DRR) and climate change was established in February 2015.

## **7 Funding resources identified and allocated**

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

Yes / **In Progress** / No

Both the NAS and the NAP identify existing and potential economic instruments to fund proposed adaptation measures. Besides the EU funds, there are several national programmes available for specific sectors: for instance, “Programme on landscape protection” and “Programme for restoration of natural functions of landscape”. Both of these programmes have a high potential value for vulnerable sectors (agriculture, water management, forestry and biodiversity adaptation), as their actions might increase climate resilience. In addition, several programmes supporting the building and/or reconstruction of fish ponds, small water

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<sup>37</sup> Ministerstvo životního prostředí (2015), Koncepce environmentální bezpečnosti 2016-2020 s výhledem do roku 2030, URL: [https://www.mzp.cz/C1257458002F0DC7/cz/environmentalni\\_bezpecnost/\\$FILE/OKR-koncepce\\_environmentalni\\_bezpecnosti\\_2016\\_2020-20160606.pdf](https://www.mzp.cz/C1257458002F0DC7/cz/environmentalni_bezpecnost/$FILE/OKR-koncepce_environmentalni_bezpecnosti_2016_2020-20160606.pdf)

reservoirs, improvement of water courses and support of the irrigation facilities are administrated by the Ministry of Agriculture, including a long-term programme for the prevention of floods.

However, there is no specific budget available for financing cross-cutting/coordinated adaptation action, or a dedicated fund to finance adaptation actions proposed in the NAS and the NAP. Most actions carried out to date have been implemented through one-off specific projects.

## **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

Legislation transposing the new Environmental Impact Assessment (EIA) Directive came into force on 1 November 2017. It requires assessment of projects in relation to: project impacts, i.e. on climate, vulnerability to climate change, risks of major accidents and/or disasters caused by climate change, and climate adaptation.

With regard to the SEA, the EU Directive is transposed through Act No. 100/2001 and its amendments.<sup>38</sup> The Act considers climate impacts and adaptation within its framework for systematically examining and assessing systematic examination and assessment potential environmental impacts.

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

Yes / No

The Czech Republic has developed a very comprehensive multi-hazard system based on an integrated early warning system connected with a special rescue and response system. The overall system was tested on past weather extremes (floods in the last 15 years). Currently, it considers risk scenarios for floods, flash floods, drought, extreme wind and extreme high temperatures. These risk scenarios were prepared for the needs of ministries and regional governments and cities. As outlined in Indicator 6c, disaster risk reduction strategies take into account climate change risks and impacts and their future projections, particularly related to

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<sup>38</sup> Zákon č. 100/2001 Sb. Zákon o posuzování vlivů na životní prostředí a o změně některých souvisejících zákonů (zákon o posuzování vlivů na životní prostředí), URL: <https://www.zakonyprolidi.cz/cs/2001-100/zneni-20180101>, Date accessed: 16/5/2018

extreme weather events. The Strategy of Environmental Safety 2016-2020 with an outlook to 2030<sup>39</sup>, mentioned in Indicator 6c is an example of such a strategy.

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

**Yes** / No

The Ministry of Regional Development, responsible for spatial planning, is involved in the inter-ministerial working group on adaptation, and the NAS and NAP contain several actions for spatial planning. The Spatial Development Policy of the Czech Republic<sup>40</sup> from 2015 does not mention climate adaptation explicitly. However, it contains several priorities relating to spatial planning for sustainable development, which deal with climate adaptation, e.g. in the field of flood damage prevention and biodiversity reinforcement. It also sets out the specific spatial planning tasks with a territorial projection of areas suitable for the accumulation of surface water and for dams. The Strategy of Regional Development of the Czech Republic 2014 to 2020<sup>41</sup> contains explicit references to climate impacts and the need to tackle them. Moreover, the Action Plan for the Regional Development Strategy 2017-2018<sup>42</sup> does contain specific references to climate impacts and the need for climate adaptation.

The Ministry of Agriculture and the Ministry of the Environment (in line with the national Water Act) developed a general plan that defines a suite of protected sites that are morphologically, geologically and hydrologically suitable for accumulation of surface water. This general plan serves as one of the documents supporting spatial planning.

### **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

As the NAP was adopted in 2017, there is only limited evidence of adaptation being mainstreamed in sectoral policies to date. However, there is progress in some sectors, i.e. agriculture, water management, disaster risk management and education. For example, measures for water retention in forests and restoration of small water reservoirs have been implemented, RBMPs include adaptation measures, and the State Programme for Environmental Education and Awareness Raising contains specific targets and measures

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<sup>39</sup> Ministerstvo životního prostředí (2015), Koncepce environmentální bezpečnosti 2016-2020 s výhledem do roku 2030, URL: [https://www.mzp.cz/C1257458002F0DC7/cz/environmentalni\\_bezpecnost/\\$FILE/OKR-koncepce\\_environmentalni\\_bezpecnosti\\_2016\\_2020-20160606.pdf](https://www.mzp.cz/C1257458002F0DC7/cz/environmentalni_bezpecnost/$FILE/OKR-koncepce_environmentalni_bezpecnosti_2016_2020-20160606.pdf)

<sup>40</sup> Ministry of Regional Development CZ (2015), Spatial development policy of the Czech Republic, Updated version 1, URL: [https://www.mmr.cz/getmedia/d23c51e1-64c8-44f2-b1cd-6f98eb5e46ed/2015\\_VIII\\_7\\_SDP\\_update1\\_EN.pdf?ext=.pdf](https://www.mmr.cz/getmedia/d23c51e1-64c8-44f2-b1cd-6f98eb5e46ed/2015_VIII_7_SDP_update1_EN.pdf?ext=.pdf)

<sup>41</sup> Ministerstvo pro místní rozvoj ČR, Strategie regionálního rozvoje ČR 2014 – 2020, URL: <https://www.mmr.cz/getmedia/08e2e8d8-4c18-4e15-a7e2-0fa481336016/SRR-2014-2020.pdf>

<sup>42</sup> Ministerstvo pro místní rozvoj ČR, Akční plán strategie regionálního rozvoje ČR 2017-2018, URL: [https://www.mmr.cz/getmedia/8d2bd22a-eea0-4f85-8646-0d1e348af266/AP\\_SRR\\_17\\_18.pdf](https://www.mmr.cz/getmedia/8d2bd22a-eea0-4f85-8646-0d1e348af266/AP_SRR_17_18.pdf)

focused on education and dissemination of information regarding climate adaptation. The NAS/ NAP drive the integration of adaptation at sectoral level.

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

Yes / **No**

Only limited evidence could be found that adaptation is mainstreamed in insurance policies or alternative policy instruments to provide incentives for investments in risk prevention. There are some insurance schemes in the agriculture sector that cover some specific current extreme events. Use of agriculture-related insurance is supported by the Relief and Guarantee Farming and Forestry Fund and a new fund is in preparation to cover those risks for farmers that are not insurable commercially. However, prevention and adaptation are mentioned as a tool, rather than insurance, to reduce further damage by extreme events.

**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

There are already some sectoral action plans drafted that take climate adaptation into account, as mentioned in Indicator 8b, in particular in disaster risk reduction, water management and regional development planning. These plans have been adopted recently.

The NAP was adopted in 2017. During the NAP drafting process, existing and new adaptation actions were identified in order to ensure the continuity and improvement of adaptive capacity of the Czech Republic to future climate conditions. Implementation of the NAP is planned to be evaluated in 2019, as a basis for the preparation of an updated NAS. In the current NAS, the tasks for ministries to implement sector-specific actions have been allocated, and possible funding for adaptation actions is clearly identified. As specified in Indicator 8d, the Czech Republic adopted the State Programme for Environmental Education and Awareness Raising in 2016. It contains specific targets and measures focused on education and dissemination of information regarding climate mitigation and adaptation.

Activities in the NAP that have already been implemented include measures for water retention in forests and promotion of restoration of the water management function of small water reservoirs.

In addition, some measures undertaken by various Ministries and Departments in the agriculture, forestry, biodiversity, human health and water management sectors could also be considered relevant to climate adaptation.

The RBMPs introduced support to the implementation of the adaptation measures identified in the 2004 National Programme to Abate the Climate Change Impacts in the Czech

Republic. Reportedly, the revision of the RBMPs takes due consideration of an increased frequency of floods and adds other flood risk management measures. For example, the context of climate change has been considered in the second RBMPs in order to assess the trends of water use up to the year 2021. The programme of measures contains a "Drought and water scarcity" measure, which is defining climate change risks.

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

Yes / No

Currently there is no cooperation framework at regional or local levels. Nevertheless, the Czech Republic Strategic Framework 2030 and Czech Republic Strategy for Regional Development 2021+ identify that cooperation mechanisms need to be established at a subnational level. There is, however, cooperation through the help of NGOs and through the development of a variety of documents (methods, catalogues of measures, information sources, etc.). Implementation of adaptation measures at local and subnational levels is also supported through funding programmes under the Ministry of the Environment.<sup>43</sup>

**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

We could not find any procedures or guidelines for assessment of potential climate impacts on major projects or programmes aside from the EIA and SEA frameworks addressed in Indicator 8a.

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

Yes / No

Currently, the involvement of stakeholders is through the National Network of Local Action Groups in the Czech Republic and the national platform of Healthy cities of the Czech Republic, as stated in the NAP. This concerns particularly the following sectors: environment, water management and disaster risk management. Moreover, the topic of climate change is also one of the main topics of calls of the Ministry of the Environment for the support of Environmental Education and Consulting. However, the calls do not specify in which sectors or areas supported activities should be taking place. Current evidence shows that it concerns, for example, a measure in the area of water management, or implementation of local adaptation platforms for the initiation of adaptation activities.<sup>44</sup>

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<sup>43</sup> Personal communication with MS contact.

<sup>44</sup> Personal communication with MS contact.

## **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**

There is a system in place to monitor the implementation of the NAP on an annual basis. However, for the time being it is only used for internal purposes by the Ministry of the Environment. The overall monitoring of the NAP and the publication of the results will only happen in 2019,<sup>45</sup> since the NAP was adopted in 2017 and the NAS in 2015. A set of indicators to measure vulnerabilities to climate change and adaptation will be tracked and evaluated.

To date, one relevant publication is the report on national adaptation actions under Article 15 of the Mechanism for Monitoring and Reporting from 2015.

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

Yes / **No**

A set of indicators to measure climate vulnerabilities and adaptation in priority sectors has already been developed and is being piloted. Monitoring and the publication of the results based on these indicators will happen in 2019 for data in the period of 2014-2018.<sup>46</sup>

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

Yes / **No**

Currently there is no monitoring and reporting system in place at regional or local levels. Nevertheless, the Strategic Framework of the Czech Republic 2030 establishes the creation of a monitoring and reporting system at subnational level as one of its tasks.

### **11 Evaluation**

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

**Yes** / No

The NAS will be reviewed and updated in 2020. From then onwards, the NAS will be reviewed once every ten years.

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<sup>45</sup> Personal communication with MS contact..

<sup>46</sup> Personal communication with MS contact.

The NAP will be evaluated in 2019 and this evaluation will form the basis for the revision of the NAS. From then onwards, the NAP will be reviewed every 4-5 years, depending on the reporting obligations of the Czech Republic within the framework of its international commitments.

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

Yes / **No**

Current monitoring is undertaken by the Ministry of Environment (see Indicator 10a). Evaluation and review of the NAS/NAP is expected in 2019-2020. Evaluation of the NAS and adaptation measures set out in the NAP will be shaped through the inter-ministerial working group on climate change. Its members include regional and local authorities' associations, research institutions, professional or non-governmental and non-profit organisations. The communication strategy aims to use two-way communication between the Ministry of the Environment and public, including the National Network of Local Action Groups in the Czech Republic or the union of the cities and municipalities. The inter-ministerial working group on climate change will serve as a mediator of communications.

## SUMMARY TABLE

<b>Adaptation Preparedness Scoreboard</b>		
<b>No.</b>	<b>Indicator</b>	<b>Met?</b>
<b>Step A: Preparing the ground for adaptation</b>		
<b>1 Coordination structure</b>		
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.	Yes / <u>In Progress</u> / No
<b>2 Stakeholders' involvement in policy development</b>		
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
<b>Step B: Assessing risks and vulnerabilities to climate change</b>		
<b>3 Current and projected climate change</b>		
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
<b>4 Knowledge gaps</b>		
4a	Work is being carried out to identify, prioritise and address the knowledge gaps	Yes / <u>In progress</u> / No
<b>5 Knowledge transfer</b>		

<b>Adaptation Preparedness Scoreboard</b>		
<b>No.</b>	<b>Indicator</b>	<b>Met?</b>
5a	Adaptation relevant data and information is available to all stakeholders, including policy makers (e.g. through a dedicated website or other comparable means).	<u>Yes</u> / In progress / No
5b	Capacity building activities take place; education and training materials on climate change adaptation concepts and practices are available and disseminated	<u>Yes</u> / In progress / No
<b>Step C: Identifying adaptation options</b>		
<b>6 Identification of adaptation options</b>		
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> / No
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	<u>Yes</u> / No
6c	Mechanisms are in place to coordinate disaster risk management and climate change adaptation and to ensure coherence between the two policies	<u>Yes</u> / In Progress / No
<b>7 Funding resources identified and allocated</b>		
7a	Funding is available to increase climate resilience in vulnerable sectors and for cross-cutting adaptation action	Yes / <u>In Progress</u> / No
<b>Step D: Implementing adaptation action</b>		
<b>8 Mainstreaming adaptation in planning processes</b>		
8a	Consideration of climate change adaptation has been included in the national frameworks for environmental impact assessments	<u>Yes</u> / No
8b	Prevention/preparedness strategies in place under national disaster risk management plans take into account climate change impacts and projections	<u>Yes</u> / No
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	Yes / <u>No</u>

<b>Adaptation Preparedness Scoreboard</b>		
<b>No.</b>	<b>Indicator</b>	<b>Met?</b>
	for investments in risk prevention	
<b>9 Implementing adaptation</b>		
9a	Adaptation policies and measures are implemented, e.g. as defined in action plans or sectoral policy documents	Yes / <b><u>In Progress</u></b> / No
9b	Cooperation mechanisms in place to foster and support adaptation at relevant scales (e.g. local, subnational)	Yes / <b><u>No</u></b>
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 / <b><u>No</u></b>
9d	There are processes for stakeholders' involvement in the implementation of adaptation policies and measures.	Yes / <b><u>No</u></b>
<b>Step E: Monitoring and evaluation of adaptation activities</b>		
<b>10 Monitoring and reporting</b>		
10a	NAS/NAP implementation is monitored and the results of the monitoring are disseminated	Yes / <b><u>No</u></b>
10b	The integration of climate change adaptation in sectoral policies is monitored and the results of the monitoring are disseminated	Yes / <b><u>No</u></b>
10c	Regional-, sub-national or local action is monitored and the results of the monitoring are disseminated	Yes / <b><u>No</u></b>
<b>11 Evaluation</b>		
11a	A periodic review of the national adaptation strategy and action plans is planned	<b><u>Yes</u></b> / No
11b	Stakeholders are involved in the assessment, evaluation and review of national adaptation policy	Yes / <b><u>No</u></b>