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Directorate A - International, Mainstreaming & Policy Coordination

CLIMA.A.3 - Adaptation

Adaptation preparedness scoreboard:

Draft country fiche for Hungary

Disclaimer

This draft country fiche was prepared in the context of the implementation of the EU's Strategy for Adaptation to Climate Change (EUAS). The indicators were developed and agreed with experts from the Member States (MS). This draft version of the fiche is published as background information to the public stakeholder consultation about the evaluation of the EUAS running from early December 2017 to early March 2018. It constitutes work in progress, a particular stage of information collection and dialogue between the Commission and the Member States. It presents a snapshot of the status in the country as of September or October 2017. The fiches are planned to be finalised and published as an annex to the strategy's evaluation report in the fourth quarter of 2018, before which they will be further updated and modified. Should you have any specific comments on the draft fiche, please send it to the mailbox CLIMA-CLIMATE-CHANGE-ADAPTATION@ec.europa.eu

Please note that the assessments (yes/no/in progress) need to be read in conjunction with the narrative that accompanies them. They assess the state of play *within* each country. 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 MS. 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". For a more detailed explanation of what each indicator means and how its value is determined, please refer to the description of the scoreboard, a document published alongside the country fiches.

Hungary's fiche is based on an analysis of the country's draft 2nd National Climate Change Strategy, proposed by the Government to the Parliament earlier this year. Should the Parliament fail to adopt the Strategy by mid-2018, the final version of the country fiche will be re-drafted to reflect the status under the 1st National Climate Change Strategy from 2008.

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POLICY FRAMEWORK

Adaptation strategies

A1. National adaptation strategy

Hungary's National Adaptation Strategy has been submitted for discussion to the Parliament.

Adaptation is currently captured in Hungary's National Climate Change Strategy.

The 2007 Climate Change Act (no. LX)¹ provided a mandate for the Government to develop a strategy on climate change in Hungary. In 2008, the former Ministry for the Environment and Water developed Hungary's First National Climate Change Strategy for 2008-2025 (NCCS I)², which entered into force via the Parliamentary Resolution 29/2008³. This strategy covered three major areas of action: mitigation, adaptation and awareness raising. Compared to mitigation, considerations for adaptation played only a minor role and the chapter was mostly descriptive and theoretical.

Successive revisions of the National Climate Change Strategy, as well as global climate policy developments eventually led the Hungarian Government to revise the second strategy. The updated Second National Climate Change Strategy for 2017-2030 (NCCS II)⁴ was published and open to public consultation⁵ in the spring of 2017. It was accepted by the Government and submitted to the Parliament in May 2017.

The updated strategy includes a National Adaptation Strategy (NAS), a National Decarbonisation Roadmap (NDR), and a "Partnership for Climate" Awareness-Raising Plan.

Adaptation plays a much more prominent role in the draft NCCS II. The draft NAS provides information on the following: 1) role of adaptation in current national sectoral strategies, 2) link to EU policy, 3) climate change impacts on natural resources, human health and socio-economic sectors, 4) vulnerability assessment building on the National Adaptation Geo-information System (NAGiS), 5) specific adaptation goals, and 6) short-, mid-, and long-term adaptation actions for all impacted sectors. The overarching objectives of the NAS are the following:

1. Ensure the quality of natural resources and their sustainable use;
2. Support regional adaptation actions and the development of regional adaptation strategies and integrate these into regional development plans;
3. Support the development of sectoral adaptation strategies and the integration of adaptation into sectoral strategies, in particular for the vulnerable sectors (agriculture, tourism, energy, transport, buildings and telecommunication);
4. Support horizontal integration of adaptation in strategic sectors, such as disaster risk reduction, critical infrastructure in the water sector and in rural regions;
5. Understand and improve the adaptive capacity of society; and
6. Support research and innovation and make research publicly available.

1 https://net.jogtar.hu/jr/gen/hjegy_doc.cgi?docid=a0700060.tv

2 <http://www.kvvm.hu/cimg/documents/nes080214.pdf>

3 <https://mkogy.jogtar.hu/?page=show&docid=a08h0029.OGY#Ibj0idafef>

4 http://www.kormany.hu/download/f/6a/f0000/N%C3%89S_2_strat%C3%A9gia_2017_02_27.pdf#!DocumentBrowse

5 <http://klima.kormany.hu/megkezdodott-a-masodik-nemzeti-eghajlatvaltozasi-strategia-tarsadalmi-konzultacioja>

A2. Adaptation strategies adopted at subnational levels

At the regional and local level, a number of cities are being active on climate change adaptation. There are eight signatories in Hungary for the adaptation actions of the Covenant of Mayors of Climate & Energy, including the 12th and the 18th district of Budapest, Kaposvár, Nyíregyháza, Békéscsaba, Kőszegdoroszló, Répceszemere and Sárvár.⁶

Other national initiative aim to foster the adoption of local climate change strategies. The Hungarian Alliance of Climate-Friendly Cities⁷, initiated by the Institute of Sociology of the Hungarian Academy of Sciences, is a partnership of local governments and NGOs providing technical advice, tools, case studies and information to cities on climate change adaptation and mitigation. Currently, it has 35 Hungarian member cities. Another local initiative, The Climate Protection Alliance, was founded to support local climate protection activities. Currently it has 35 members, including 20 Hungarian cities, 14 NGOs and 1 county-level municipality.⁸

Adaptation action plans

B1. National adaptation plan

B2. Adaptation plans adopted at sub-national level

B3. Sectoral adaptation plans

In 2010, the first National Climate Change Programme for 2009-2010 was adopted. This Programme however only included broad and not well-defined objectives for adaptation **actions**. Furthermore, even though the programme should have been updated every two years, no further plans were adopted, as the relevant legal requirement has not been longer in force after 2013.

Paragraph 3 (2) of the 2007 Climate Change Act (no. LX) in force prescribes the followings: *The Climate Strategy should be elaborated first for the period of 2008-2025, in accordance with the international commitments. The Government shall review the Climate Strategy in 2019 with regard to decisions 2018 originated from the Framework Convention, then according to the schedule defined in international decisions, but at the latest in every five years.*

The parliamentary draft decision on NCCS II prescribes for the Government to elaborate a Climate Change Action Plan within 6 months after adoption of NCCS II, and then in every 3 years.

The new NCCS II foresees that a new Climate Change Action Plan (2018-2020) will be developed still in 2017. The development of this action plan is stated as the first task of the NCCS II as it will include the specific tasks that will need to be delivered in order to achieve the objectives of the NCCS II. As part of the action plan a specific Adaptation Programme will be developed (alongside a Decarbonisation Programme). The draft NCCS II indicates that the following should be considered in the Adaptation Programme:

- A cost-benefit analysis and in particular an assessment of inaction;

6 http://www.covenantofmayors.eu/about/signatories_en.html?q=Search+for+a+Signatory...&country_search=hu&population=&date_of_adhesion=&status=&commitments2=1 [Accessed: 27/09/2017]

7 <http://klimabarat.hu/> [Accessed: 27/09/2017]

8 <http://eghajlatvedelmiszovetseg.hu/>

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- The development of an indicator-based assessment methodology for adaptation policy programs for sectors exposed to climate change;
- An indicator system based on regional and sectoral vulnerability, which should be used to track the NAS and its objective; and
- The range of actions and interventions that are in place in the specific period, according to the directions of the NAS.

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 responsible central body for adaptation policy making and coordination is the Climate Policy Department within the Ministry of National Development⁹. Furthermore, the Mining and Geological Survey of Hungary (former Geological and Geophysical Institute of Hungary) acts as an institution providing background research.

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

Yes / **In progress** / No

The Department for Climate Policy in the Ministry of National Development is responsible for the implementation of NAS. The National Adaptation Centre as a background institute takes part in the development and in the coordination of implementation.

As part of the Geological and Geophysical Institute of Hungary a National Adaptation Centre¹⁰ (NAC) was established. The centre is responsible for the development of the climate change strategies, the national adaptation strategies and the climate change action plans, and it should also support practical considerations in these processes. The NAC aims to involve a wide range of stakeholders and also serves as an information point for the general public. As such, the NAC can be considered to serve as a horizontal coordinator for adaptation actions.

The NAS in the draft NCCS II covers the following sectors: natural resources, including water, soil, biodiversity and forests, human health, agriculture, disaster risk reduction and security, built environment, transport, waste, energy infrastructure and tourism. References to key sectoral strategies are included in the NAS. Furthermore, specific short-, - mid-, - and long-term actions are identified for horizontal integration. Nevertheless, a horizontal coordination structure is not in place for all sectoral actions and the division of responsibilities is not always clear.

⁹ <http://www.kormany.hu/hu/nemzeti-fejlesztési-miniszterium/fejlesztés-es-klimapolitikaért-valamint-kiemelt-kozzolgaltatásokért-felelős-államtitkárság>

¹⁰ <http://nak.mfgi.hu/hu>

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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 draft NAS emphasises the need to actively involve regional and local authorities (LRAs) as part of its stakeholder engagement objectives and also identifies a set of sectoral actions specifically linked to LRAs.

Nineteen climate strategies at the county level and one for the capital, Budapest will be prepared in 2017, with support from the 2014-2020 Environmental and Energy Efficiency Operational Programme (EEE OP). This will be followed by the preparation of several municipal strategies as a result of call for tender under the EEE OP. The preparation of the county and municipal strategies will be based on a unified methodology prepared by the NAC. Moreover mini inventories will operate at county and municipal levels.

Furthermore, as mentioned above a number of cities are part of the Covenant of Mayors and the two national initiatives.

The detailed framework for the implementation of NAS, including the responsible actors of implementation and mechanisms coordination are planned to be defined in the Climate Change Action Plan.

The counties are obliged to report on the progress periodically. The Hungarian Alliance of Climate-Friendly Cities is responsible for the national and regional coordination between the members of the Covenant of Mayors.

Regional development plans and flood risk/river basin management plans take into account the possible impacts of climate change.

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 NCCS II was open for public consultation only for a limited time (two weeks), while its first draft was open for consultation in 2013 and 2015. Stakeholders were invited to send their comments to a governmental email address but no templates/questions were publicly available. After this administrative consultation, the NCCS II draft was first discussed by the National Environmental Protection Council, whose members are mainly NGOs and scientific institutions and secondly by the National Council for Sustainable Development, which consists of members of parliamentary parties and NGOs.

Overall, while noting the short public consultation period for the current draft of the NCCS II stakeholder engagement seems to be in place.

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

Yes / No

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In 2011, during the Hungarian Presidency the European Union Strategy for the Danube Region¹¹ was accepted by the EU. The main target of the strategy is to sustainably develop the river basin macro-region, protect its natural areas, landscapes and natural values. Adaptation to climate change is listed as one of the issues which needs to be addressed by the strategy.

The country is party to the International Convention for the Protection of the Danube River, under which a dedicated Climate Adaptation Strategy was developed in 2013.

In addition, the NAS further describes a set of future plans on transboundary cooperation.

In 2014, a Carpathian Home Development Concept Note was adopted which provides a strategic development framework for the Carpathian region until 2030. The NCCS II indicates that the concept note supports the objectives of the NCCS II nevertheless the document is not available publicly and therefore it cannot be checked whether adaptation plays a role in it.

In January 2006, the Framework Convention on the Sustainable Development and Protection of the Carpathians¹² entered into force nevertheless neither climate change nor adaptation are mentioned in it. The draft NAS indicates that adaptation could be strengthened via the convention. Furthermore, it calls for action in the Visegrad 4 countries.

In 2016, a Water Summit was organised in Budapest which specifically aimed to align actions with the UN's Sustainable Development Goals. Building on the event, the draft NAS suggests that a regional adaptation centre should be established in Hungary for the Danube but no further details are provided on this action.

The need for transboundary action also appears in a small number of identified adaptation options but no systematic assessment is completed.

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

The Hungarian Meteorological Service (HMS) operates the network for observations and measurements, providing quality control and data homogenisation of the long-term observation series. The HMS has a large number of meteorological stations measuring temperature, precipitation, wind, sunshine and many other meteorological parameters. Observation and monitoring systems to assess the impacts of climate change are not operated by the HMS.

Regarding the climate change impacts there are primary and secondary impacts. The primary impacts are concrete weather-climate related events that are fully tracked by the HMS. The secondary effects are due to weather events. In this case the extreme events are tracked by the below mentioned institutes:

11 <http://eur-lex.europa.eu/legal-content/EN/ALL/?uri=CELEX:52010DC0715>

12 http://net.jogtar.hu/jr/gen/hjegy_doc.cgi?docid=A0500306.KOR

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- water management related information (e.g. flood, inland inundation) – General Directorate of Water Management
- geological hazards related data and information (e.g. landslide) – Mining and Geological Survey of Hungary
- environmental and other disaster situations related data and information – National Directorate General for Disaster Management
- agriculture and forestry risk related data and information (e.g. ice and storm damage) – National Food Chain Safety Office
- human health related data and information (e.g. mass death caused by heat waves) – National Public Health and Medical Officer Service

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

The HMS (Regional Climate Modelling Group) applies two regional climate models: the ALADIN Climate model and the REMO model.¹³ The scenarios and projection included in the draft NAS are based on these models.

With regards to scenarios and projections, the latest and most important initiative is that in 2014 the National Adaptation Geo-information System (NAGiS)¹⁴ was established and set off in 2016. The NAGiS is operated by the Mining and Geological Survey of Hungary (), according to Government Decree No. 94/2014. (III. 21.)¹⁵ on the detailed rules of operation of NAGiS. The legal foundation of the system was laid down by the 2007 Climate Change Act which stipulates that the implementation of the adaptation strategy framework be supported by a national adaptation geo-information system, and the results of climate vulnerability assessments of the system.

The reference years of the NAGiS are 1961-1990 and it provides projections for the period of 2021-2050 and 2071-2100.

The NAGiS2 project was launched at the end of 2016 and is going to be implemented by the end of 2018. The main objectives are to further develop the methodology assessment scheme and the databases of the current system, and to create a new toolkit for the local and governmental climate adaptation decision making.

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

Yes / In progress / No

The NAS, building on the results of the NAGiS (see above), provides a vulnerability assessment of the following sectors and areas:

- Human health impacts as a result of heatwaves;
- Vulnerability of arable lands and agriculture production;
- Vulnerability of forests;
- Impacts on natural ecosystems;
- Flash flood risks in hills and mountains;

¹³ <http://met.hu/omsz/tevekenysegek/klimamodellezes/modellkiserletek/>

¹⁴ <http://nater.mfgi.hu/en>

¹⁵ http://njt.hu/cgi_bin/njt_doc.cgi?docid=168214.261603

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- Vulnerability of drinking water supply.

In order to assess the vulnerability of the agriculture sector in more details the NAGiS was extended to the agricultural sector (AGRAGiS).¹⁶ A further project of the NAGiS was the "Long-term socio-economic forecasting for Hungary"¹⁷, which was implemented by the Institute for Regional Studies, Centre for Economic and Regional Studies, Hungarian Academy of Sciences.

Furthermore, a set of background studies were conducted to support the vulnerability assessment¹⁸ and a further project – also funded by an EEA grant - called 'CRIGiS: Vulnerability/Impact Studies with a focus on Tourism and Critical Infrastructures' - was also conducted.¹⁹

Prior to the NAGiS, between 2003 and 2007 the so-called 2003-2007 VAHAVA project²⁰ focusing on adaptation and vulnerability was carried out by the Hungarian Academy of Sciences (MTA) and the former Ministry of Environment and Water, now Ministry of National Development. It was a nationwide project, involving leading researchers from a number of scientific institutions across Hungary. The project covered several areas related to climate change, such as agriculture, meteorology, medicine, biology, socio-economic, energy, health and methodological aspects.

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

Yes / **In progress** / No

The NAGiS only covers Hungary and the vulnerability assessment in the draft NAS does not cover transboundary risks. Nevertheless, one of the NAS' planned action is to develop a geo-information model which considers the whole water catchment area of the Danube and builds on regional hydrological models. In addition, 2b provides evidence that coordinated collaboration on transboundary risks takes place.

4. Knowledge gaps

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

Yes / **In progress** / No

The draft NCCSII includes a SWOT analysis of the NCCS I and aimed to address the identified gaps.

Research, development and innovation are considered in the draft NCCS II as a key horizontal tool and short-, mid- and long-term actions are established. For instance, in the short-term the strategy aims to further implement regional climate models and observation systems.

¹⁶ <http://agrater.hu/?lang=en>

¹⁷ <http://nater.rkk.hu/english/>

¹⁸ See for instance: Somodi I., Bede-Fazekas Á., Lepesi N., Czúcz B.: Természetes ökoszisztémák éghajlati sérülékenységének elemzése, 2016.; A klímaváltozás hatása a villámárvíz kockázatra, D4.10 NATÉR kutatási jelentés, Magyar Földtani és Geofizikai Intézet, 2016.; Rotárné Szalkai Ágnes - Homolya Emese - Selmecei Pál: A klímaváltozás hatása az ivóvízbázisokra. Kutatási jelentés. MFGI, Budapest, 2015. december 15.

¹⁹ <http://www.met.hu/KRITeR/en/kezdol>

²⁰ The website of the project is not operating anymore.

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Overall, a number of knowledge gaps are being identified and some actions are listed to solve them nevertheless this is not done in a systematic way.

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

A dedicated portal on the Government's website on climate change is available at <http://klima.kormany.hu>. On the website there is a dedicated section on national strategies, including on the NAS nevertheless the provided information is not fully updated. Furthermore, no links are provided to the National Adaptation Centre or the National Adaptation Geo-information System (NAGiS).

The National Adaptation Centre (see at: <http://nakfo.mbfisz.gov.hu>) could serve as a platform to provide detailed information on the NCCS, NAS and Decarbonisation Plans nevertheless the website does not seem to be adequately updated. At the same time, there is sufficient information about the National Adaptation Geo-information System (NAGiS) and links are also provided to it (see at: <http://nater.mfgi.hu/hu>). The website of the NAGiS provides detailed information and guidance on the use of the databases and is also accessible in English. In addition of providing detailed geo-information it can also serve as a tool to inform the public.

There is also a dedicated website for climate change on the website of the Hungarian Meteorological Service (HMS), which is accessible at: <http://met.hu/eghajlat/eghajlatvaltozas/>. Information on climate projections and regional climate models is also available nevertheless it is not fully up to date.

Finally, in 2016 a Facebook page was launched by the Ministry for National Development to share information with the public on climate change issues.

Overall, there are four main platforms where information can be found on adaptation in Hungary nevertheless the majority of them do not provide fully up to date information and the interlinkages between them are not clearly flagged.

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

Capacity building and stakeholder engagement appears as an important horizontal tool in the NCCS II – however, there seems to be no systematic action in place.

In 2013, the NAC established an online platform, the Climate Dialogue, where registered stakeholders can have an informal discussion about climate change. This platform has targeted stakeholders during the development of the first NCCS II in 2014²¹.

During the Hungarian presidency in 2011, guidance was developed for cities and regions providing support for climate change action. Furthermore, a set of newly developed

²¹ <http://klimadialogus.mfgi.hu/hu/cikk/bemutakozik-klimadialogus>.

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guidance is also available for counties²² on how to develop climate change strategies on the website of the Hungarian Alliance of Climate-Friendly Cities.

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

As indicated above, the draft NAS, building on the results of the NAGiS, provides a vulnerability assessment of the following sectors and areas:

- Human health impacts as a result of heatwaves;
- Vulnerability of arable lands and agriculture production;
- Vulnerability of forests;
- Impacts on natural ecosystems;
- Flash flood risks in hills and mountains;
- Vulnerability of drinking water supply.

Short-, medium- and long-term actions are defined within the draft NAS for the following sectors:

- Human health;
- Water management;
- Disaster risk reduction and security;
- Agriculture and rural development;
- Nature protection;
- Built environment;
- Energy infrastructure; and
- Tourism.

The identified objectives seem to build on the results of the vulnerability assessments and the observed climate change impacts and projections, furthermore expert judgement seems to be applied. The sectoral actions also aimed to be integrated into other sectoral policies and strategies as the NAS in many cases the links between various strategies.

Compared to the identification of sectoral adaptation options the geographical focus is less apparent. Nevertheless, in the vulnerability assessment it is addressed in more details.

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 draft NAS does not apply any prioritisation tools to identify the most important/urgent adaptation actions and sectors. Actions are listed for all impacted sectors.

²² http://klimabarat.hu/sites/default/files/document/kbtsz_modszertanfejl_megye.pdf

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At the same time, adaptation actions are priorities as per their time horizon (short-, mid- and long-term actions) nevertheless it is unclear what methodologies were used for this and what are the actual timescales of these actions.

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

The draft NAS specifically assesses disaster risk reduction and security concerns and considers the projected impacts on key infrastructure, industrial security, ecological security, food safety and impacts on health care, and national security (including for instance climate migration). Short-, mid- and long-term actions are identified in this field and the NAS emphasises that adaptation needs to be considered in the National Disaster Risk Reduction Strategy, which was adopted in 2012 by the Government Decision 1035/2012. (II. 21.).

The 2001 Disaster Risk Reduction Act (No. CXXVIII)²³ makes no reference to climate change and adaptation and provides no further details about a DRR Strategy.

Although the current National Security Strategy²⁴ makes a reference to climate change, it does not present adaptation actions as a potential tool to address security problems.

Overall, no evidence could be found of systematic mechanisms to coordinate disaster risk management and climate change adaptation on the ground.

7. Funding resources identified and allocated

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

Yes / **In progress** /No

Information on funding resources are specifically discussed as part of the implementation framework of the draft NCCSII and details are provided separately for mitigation and adaptation.

The key financial resources for adaptation actions are coming from the EU funds, in particular the ERDF, CF and EAFRD. Adaptation actions are mainstreamed through Operational Programmes (the Environment and Energy OP²⁵, the Competitive Central Hungary OP²⁶ and the Territorial and Settlement Development OP²⁷) and the Rural Development Programme²⁸. Unsurprisingly, the Environment and the Energy OP delivers the majority of adaptation actions. In total, during the 2014-2020 Cohesion Policy programming period €892.71 million is allocated to adaptation actions under these three OPs. (No figures are included in the draft NAS on the RDP). In comparison, €3024.53 million is allocated to mitigation under 5 OPs.

The draft NCCSII also describes national funding sources that are allocated to both mitigation and adaptation actions.

There was no evidence found on the funding of cross-cutting adaptation action.

23 http://njt.hu/cgi_bin/njt_doc.cgi?docid=139408

24 http://2010-2014.kormany.hu/download/f/49/70000/1035_2012_korm_hatarozat.pdf

25 http://ec.europa.eu/regional_policy/en/atlas/programmes/2014-2020/hungary/2014hu16m1op001

26 http://ec.europa.eu/regional_policy/en/atlas/programmes/2014-2020/hungary/2014hu16m2op002

27 http://ec.europa.eu/regional_policy/en/atlas/programmes/2014-2020/hungary/2014hu16m2op001

28 https://ec.europa.eu/agriculture/rural-development-2014-2020/country-files/hu_en

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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 EIA Directive and the SEA Directive are translated into Hungarian legislation via the Governmental Decree 314/2005. (XII. 25.)²⁹ and the Governmental Decree 2/2005. (I. 11.)³⁰, respectively.

In June 2017, the Governmental Decree 139/2017 introduced the amended EIA directive provisions. The modification prescribes – inter alia - that the pre-examination documentation shall include a climate change sensitivity analysis for certain investment types, the analysis of potential impacts related to the relevant climate factors, risk-evaluation and potential adaptation actions.

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

Yes / No

It is unclear to what extent the future climate-related risks (based on projections) are being considered in current disaster risk management plans. This has been elaborated in the context of climate change and adaptation actions in relevant legislation, above under point 6c.

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

Yes / No

The draft NCCS II makes a specific reference to the National Development and Spatial Development Concept Note, which establishes the strategic orientation for the development priorities for Hungary until 2030. The legal base of the concept note is the Parliamentary Resolution 1/2014. (I. 3.)³¹ and is linked to the Act XXI of 1996 on Regional Development and Spatial Planning³².

The concept note emphasises that climate change is a major threat and has important implications for all aspects of life and quality of life. It indicates that Hungary is particularly vulnerable to extreme weather events and that a special attention should be paid on the protection of water resources in the country. While the concept note calls for cooperation with neighbouring countries in order to sustainably manage water resources it does not mention the need to implement adaptation actions in this sector..

The concept note also provides an overview of the vulnerability of key sectors in Hungary to climate change and emphasises the regional variations and the differences in adaptation capacities.

29 http://net.jogtar.hu/jr/gen/hjegy_doc.cgi?docid=A0500314.KOR

30 https://net.jogtar.hu/jr/gen/hjegy_doc.cgi?docid=a0500002.kor

31 <https://mkogy.jogtar.hu/?page=show&docid=a14h0001.OGY>

32 https://net.jogtar.hu/jr/gen/hjegy_doc.cgi?docid=99600021.TV

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In the summary of the chapter on natural resources the concept note calls for adaptation actions and indicates that these should be already implemented in the short-term. The practical implementation of the concept note is done through the operational programmes referenced in 7a.

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 draft NAS includes a specific chapter on the link between the strategy and other sectoral policies. The following strategies are specifically mentioned:

- National Rural Strategy (2012-2020)³³: the NAS makes a specific reference to the need to better adapt to climate change in the agriculture sector via for instance water use efficiency and capacity building for farmers.
- National Forestry Strategy (2016-2030)³⁴: the need to implement alternative forestry practices to better adapt to climate change is mentioned.
- National Environmental Protection Strategy (2015-2020)³⁵: adaptation actions at the local and regional level are emphasised.
- National Nature Protection Strategy (2015-2020)³⁶: for instance, the importance of green infrastructure is indicated.
- National Biodiversity Strategy (2015-2020)³⁷: the need to maintain ecosystem services is emphasised.
- National Environmental Technology Innovation Strategy (2011-2020)³⁸: the strategy aims to support the development of innovative and new technologies which could help to adapt to climate change.
- National Water Strategy³⁹: water policy has the explicit aim of adaptation to climate change, with special emphasis on extreme weather events and droughts. The National Water Strategy includes several adaptation measures in the field of local water management, such as water retention in local (both groundwater & surface) water reservoirs, improved irrigation and land use change where necessary (less arable lands at the extreme low elevations).

Furthermore, the Constitution, the National Sustainable Development Strategy, the Partnership Agreement, the National Reform Programme, the National Development and Spatial Development Concept Note and the Carpathian Home Development Concept Note are also listed as key strategic documents which are closely linked to the overarching objectives of the NCCS II and are integrating climate change objectives.

Overall, there are many sectoral strategies that are increasingly considering adaptation nevertheless some of the key sectors are still missing, such as human health, built environment and infrastructure and therefore the coverage is considered to be patchy.

33 <http://videkstrategia.kormany.hu/download/4/37/30000/Nemzeti%20Vid%C3%A9kstrat%C3%A9gia.pdf>

34 http://www.kormany.hu/download/a/1a/d0000/Nemzeti_Erd%C5%91strat%C3%A9gia.pdf

35 <https://mkogy.jogtar.hu/?page=show&docid=a15h0027.OGY>

36 <http://2010-2014.kormany.hu/download/6/c7/11000/Nemzeti%20Term%C3%A9szetv%C3%A9delmi%20Alapterv%20IV.pdf>

37 <https://mkogy.jogtar.hu/?page=show&docid=a15h0028.OGY>

38 <http://kornyezettechnologia.kormany.hu/download/c/66/40000/NKIS.pdf>

39 <https://www.vizugy.hu/index.php?module=vizstrat&programelemid=143>

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

Yes / **No**

In the draft NAS, the need to ensure adequate insurance instruments primarily appears linked to the agriculture sector. The 2011 Act (no. CLXVIII.)⁴⁰ on climate-related risk management affecting agriculture production provides a framework on how to deal with risk prevention in the agriculture sector, nevertheless it does not refer to the need for adaptation actions.

Overall, no evidence could be found that adaptation is mainstreamed in insurance policies or alternative policy instruments to provide incentives for investments in risk prevention.

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**

The NAS is not yet adopted and therefore the implementation phase of the adaptation actions identified in the strategy has not yet started. The first Climate Change Action Plan and the Adaptation Programme will be implemented after six months of the adoption of the NCCS II. These documents will provide more detailed information on the implementation framework.

Since the adoption of the first NCCS only scattered and limited adaptation measures have been implemented, which was partly the result of the lack of focus on adaptation within the strategy.

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

Yes / **No**

As the coordinated implementation of adaptation actions, as described in the NAS, has not yet started, the cooperation mechanisms for fostering adaptation at sub-national levels are not yet in place.

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

In January 2017, a Climate Risk Guidance was developed by the Government which provides detailed guidance on how the resilience and vulnerability of major projects and other projects funded by the ESI Funds should be assessed. The adaptation guidance covers the following eight steps:

- Sensitivity assessment of the project;
- Analysis of the exposure of the project location;

⁴⁰ https://net.jogtar.hu/jr/gen/hjegy_doc.cgi?docid=a1100168.tv

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- Assessment of the potential impacts;
- Risk assessment;
- Identification and selection of possible adaptation options;
- Assessment of the possible adaptation options;
- Integration of adaptation options into the project;
- Monitoring of the effectiveness of adaptation options.

In addition to the guidance, a detailed description of the methodology is also available⁴¹.

The Ministry of National Development held several trainings and briefings for the leaders of major projects supported by Cohesion Policy on the practical utilization of the Governmental Decree 314/2005 on the procedure of environmental impact assessment (EIA) and integrated pollution prevention and control. The Prime Minister's Office has published a technical guidance document on the detailed climate risk assessment methodology⁴². This document is an amendment of the European Commission's guidance on integrating climate change adaptation into the programmes and investments supported by the Cohesion Policy⁴³ with the addition of Hungarian local and regional specificities.

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

Yes / **No**

County Climate Change Platforms are already set up in every county as a result of the support of the EEE OP.

Concerning the implementation of the NCCS II, due consideration has been given to the role of stakeholders in its future implementation, including State organisations, regional and local municipalities, civic organisations and churches, business and media. However, it is too early to assess how stakeholders are involved in the implementation of adaptation policies and measures in the absence of the adopted NAS.

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

As for 10c. See below value and explanation.

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

As for 10c. See below value and explanation.

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

Yes / **No**

⁴¹ <https://www.palyazat.gov.hu/tmutatkszablyzatok>

⁴² <https://www.palyazat.gov.hu/tmutat-projektek-klimakockzatnak-becslshez-s-cskkentshez>

⁴³ https://ec.europa.eu/clima/sites/clima/files/adaptation/what/docs/swd_2013_135_en.pdf

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The NCCS II and the NAS indicate that an overarching monitoring and evaluation framework is required in the first Climate Change Action Plan, which will also establish a set of indicators. The new Climate Change Action Plan (2018-2020), which covers the monitoring and evaluation framework, was planned to be developed in 2017. Currently there is no system in place for monitoring mainstreaming of adaptation into specific sectoral policies, or assessing adaptation actions that are being implemented and no reporting has taken place.

11. Evaluation

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

Yes / No

After six months of the adoption of the NCCS II and the NAS a first Climate Change Action Plan and the Adaptation Programme for 2018-2020 will be also developed. The following timeline is foreseen by the strategy for review:

- The second action plan is planned to be developed in 2020 for 2021-2023 and then every three years, i.e. 2023 for 2024-2026 and 2026 for 2027-2029.
- The NCCS II is planned to be evaluated in 2019, 2024 and 2028. This evaluation will be in line with the Regulation on the governance of the Energy Union.
- Finally, an ex-post evaluation of the NCCS II and the renewal of the strategy is planned to take place in 2031.

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

Yes / **No**

No description is provided in the NCCS II on the planned involvement of stakeholders in the evaluation processes and therefore it is unclear whether there are any plans to do this.

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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 | Yes / <u>In progress</u> / 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 |
| 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)Yes / In progress / No (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. | Yes / <u>In progress</u> / No |
| 3d | Climate risks/vulnerability assessments take transboundary risks into account, when relevant | Yes / <u>In progress</u> / No |
| 4 <i>Knowledge gaps</i> | | |
| 4 | Work is being carried out to identify, prioritise and address the knowledge gaps | Yes / <u>In progress</u> / No |
| 5 <i>Knowledge transfer</i> | | |
| 5a | Adaptation relevant data and information is available to all stakeholders, including policy makers (e.g. through a | Yes / <u>In progress</u> / No |

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| Adaptation Preparedness Scoreboard | | |
|---|--|--------------------------------------|
| No. | Indicator | Met? |
| | dedicated website or other comparable means). | |
| 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> / No |
| Step C: Identifying adaptation options | | |
| 6 Identification of adaptation options | | |
| 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 | 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 / <u>In progress</u> / No |
| 7 Funding resources identified and allocated | | |
| 7 | Funding is available to increase climate resilience in vulnerable sectors and for cross-cutting adaptation action | Yes / <u>In progress</u> / No |
| 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 | <u>Yes</u> / No |
| 8b | Prevention/preparedness strategies in place under national disaster risk management plans take into account climate change impacts and projections | Yes / <u>No</u> |
| 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 Implementing adaptation | | |
| 9a | Adaptation policies and measures are implemented, e.g. as defined in action plans or sectoral policy documents | Yes / In progress / <u>No</u> |
| 9b | Cooperation mechanisms in place to foster and support adaptation at relevant scales (e.g. local, subnational) | Yes / <u>No</u> |

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| Adaptation Preparedness Scoreboard | | |
|---|--|-----------------|
| No. | Indicator | Met? |
| 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. | Yes / <u>No</u> |
| 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 | Yes / <u>No</u> |
| 10b | The integration of climate change adaptation in sectoral policies is monitored and the results of the monitoring are disseminated | Yes / <u>No</u> |
| 10c | Regional-, sub-national or local action is monitored and the results of the monitoring are disseminated | Yes / <u>No</u> |
| 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 and review of national adaptation policy | Yes / <u>No</u> |