



Adaptation preparedness scoreboard

Country fiche for Belgium

Note to the Reader

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

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

¹ The first versions of the fiches, prepared in consultation with the Member States in 2014-15, were unpublished and used to fine-tune the scoreboard.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

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

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

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

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List of abbreviations

AMICE	Adaptation of the Meuse to the Impacts of Climate Evolution
BELSPO	Belgian Federal Science Policy Office
CCIEP	Coordination Committee for International Environmental Policy
EIA	Environmental Impact Assessment
NAP	National Adaptation Plan
NAS	National Adaptation Strategy
NCC	National Climate Commission
RMI	Royal Meteorological Institute
SSD	Science for a Sustainable Development programme
SEA	Strategic Environmental Assessment
TIDE	Tidal River Development
VAP	Flemish Adaptation Plan
VMM	Flanders Environment Agency
WGA	Working Group on Adaptation

POLICY FRAMEWORK

Belgium is a federal state, composed of three regions and three language-based communities, each with its own executive and legislative bodies. These bodies intervene on an equal footing but in different areas of competence³. The federal state level is in charge of competences like foreign affairs, national defence and parts of national health⁴. This division of power means that what is considered as Belgium's national climate adaptation policy is in fact the combination of the federal and three regional climate adaptation policies, which are those of the Walloon, the Flemish and the Brussels Capital region.

At the national level, the National Climate Commission (NCC) plays the main role in internal coordination of climate policy. The Coordination Committee for International Environmental Policy (CCIEP) deals with international environmental affairs. The NCC, and more specifically its Working Group on Adaptation (WGA), is responsible for the development, adoption and implementation of the National Adaptation Strategy (NAS) and the National Adaptation Plan (NAP)⁵. The WGA is composed of representatives from the Federal Government and the three different regions, as mentioned above^{6,7}:

- The Federal Government: Federal Public Service Health, Food Chain Safety and Environment (DG Environment) and Federal Public Service Foreign Affairs, Foreign Trade and Development Cooperation (DG Development Cooperation and Humanitarian Aid)
- Flemish region: Department of Environment and Spatial Development
- Walloon region: Agence wallonne de l'air & du climat
- Brussels region: Environment Brussels.

When describing the national climate adaptation policy in the analysis presented in this document, all relevant activities in each of the four governments are included. Intergovernmental mechanisms refer to collaborations between the Federal, Flemish, Walloon and Brussels Capital regions. Vertical mechanisms are mechanisms between these regions and the provincial and local level.

³ Further details are available at: belgium.be, Date accessed: 01/06/2018

⁴ Belgium, a Federal State, URL: https://www.belgium.be/en/about_belgium/government/federale_staat, Date accessed: 01/06/2018

⁵ National adaptation strategy, URL: https://www.cnc-nkc.be/sites/default/files/content/be_nas_2010.pdf, Date accessed: 01/06/2018

⁶ Beslissorganen, URL: <http://www.klimaat.be/nl-be/klimaatbeleid/belgisch-klimaatbeleid/nationaal-beleid/beslissingsorganen/> Date accessed: 01/06/2018

⁷ The National Climate Commission, URL: <https://www.cnc-nkc.be/en/about-national-climate-commission>, Date accessed: 01/06/2018

Adaptation strategies

A1. National adaptation strategy

Belgium has a National Adaptation Strategy (NAS), which was approved in 2010. The NAS describes the main climate impacts, the existing adaptation responses, a roadmap to the National Adaptation Plan (NAP) and some policy guidelines for a climate proof future. The priority sectors are health, tourism, agriculture, forestry, biodiversity, ecosystems and water, coastal, marine and tidal areas, and production systems and physical infrastructure. The NAS pursues the improvement of the communication of and coherence between the adaptation activities among the different governments.

A2. Adaptation strategies adopted at subnational levels

The Federal Government and each of the three regional governments – the Walloon region, the Flemish Region and the Brussels Capital region – together contribute to the national adaptation policy. They do not have separate adaptation strategies, but are each responsible for part of the NAS relevant to their competences.

Adaptation action plans

B1. National adaptation action plan

The National Adaptation Plan (NAP) was approved in April 2017. Priority sectors addressed in the NAP are agriculture, coastal areas, fishery, spatial planning and infrastructure, forests, biodiversity, energy, health, water management, tourism, industry and services, research and international cooperation⁸. The NAP complements the existing Flemish, Brussels Capital, Walloon and Federal adaptation plans. It includes some additional adaptation measures to improve the coordination and information exchange between the different governments, for example developing high-resolution climate scenarios and a roadmap for a Belgian Centre of Excellence on adaptation.

B2. Adaptation plans adopted at sub-national level

The Federal Government and the three regional governments have developed and adopted adaptation plans, each in their own areas of competence.

On 28 June 2013, Flanders adopted the Flemish Climate Policy Plan 2013-2020, including a section on adaptation known as the Flemish Adaptation Plan (VAP)⁹. The primary goals are

⁸ Nationale Adaptation Plan België, URL: http://www.klimaat.be/files/6714/9880/5758/NAP_NL.pdf, Date accessed: 01/06/2018. English version available at: https://www.cnc-nkc.be/sites/default/files/report/file/nap_en.pdf

⁹ Vlaams Adaptatieplan, URL: https://www.lne.be/sites/default/files/atoms/files/2013-06-28_VAP.pdf, Date accessed: 01/06/2018

to assess climate vulnerability and improve Flanders' ability to deal with climate impacts. The pursuit of these goals is described in the plan as the "climate reflex". The 11 Flemish governmental departments concerned maintain responsibility for the adaptation actions in their policy domain and bear the cost of these actions using their usual financial resources.

On 2 May 2013, the Brussels Capital Region adopted its Air-Climate-Energy Code (known as COBRACE¹⁰). It serves as a legal basis for its Integrated Air-Climate-Energy Plan, which was adopted on 2 June 2016 and which includes a section on adaptation¹¹. Priority sectors are water management, infrastructure and built areas, energy, green areas and, forests. Other thematic plans that include adaptation measures are the 2012 Regional Water Management Plan¹², including a flood prevention plan created in 2003. A second regional water management plan has been adopted for the period 2016-2020 and integrates consideration of floods and flood risks¹³. Furthermore, the region adopted the "Forêt de Soignes" management plan (2003)¹⁴ and its Nature Plan (2016), which both include adaptation measures.

In January 2014, the Walloon government adopted its 'Climate Decree'¹⁵ giving a legal framework for climate policy in Wallonia. The main implementation instrument is the 'Air-Climate-Energy Plan 2016 – 2022'¹⁶ which contains a section on adaptation and was adopted on 21 April 2016¹⁷. This adaptation section summarises the impacts and vulnerability assessments, as well as detailed adaptation actions to deal with these impacts and vulnerabilities in the following sectors: agriculture, forestry, biodiversity, water, health and tourism.

¹⁰ Air-Climate-Energy Code Brussels, URL: <http://environnement.brussels/thematiques/mobilite/stationnement-cobrace>, Date accessed: 01/06/2018

¹¹ Brussels Climate Plan, URL: http://document.environnement.brussels/opac_css/elecfile/PLAN_AIR_CLIMAT_ENERGIE_NL_DEF.pdf, Date accessed: 01/06/2018

¹² 2012 Regional Water Management Plan, URL: http://www.environnement.brussels/thematiques/eau/plan-de-gestion-de-leau/plan-de-gestion-de-leau-2009-2015?view_pro=1, Date accessed: 01/06/2018

¹³ Brussels Watermanagement plan, URL: <http://www.environnement.brussels/thematiques/eau/plan-de-gestion-de-leau>, Date accessed: 01/06/2018

¹⁴ "Forêt de Soignes" management plan (2003), URL: http://www.environnement.brussels/thematiques/espaces-verts-et-biodiversite/action-de-la-region/plan-de-gestion-pour-la-foret-de?view_pro=1, Date accessed: 01/06/2018

¹⁵ Climate Decree, URL: <http://environnement.wallonie.be/legis/air/air074.html>, Date accessed: 10/05/2018

¹⁶ Walloon Climate Plan, URL: http://www.awac.be/images/Pierre/PACE/Plan%20Air%20climat%20C3%A9nergie%202016_2022.pdf, Date accessed: 01/06/2018

¹⁷ Adaptation section of PACE, URL: <http://www.awac.be/index.php/thematiques/changement-climatique/adaptation#en-wallonie-de-la-concertation-au-pace>, Date accessed: 01/06/2018

On 28 October 2016, the Federal Government adopted the Federal Contribution to the National Adaptation Plan¹⁸, which identifies federal adaptation actions in sectors like crisis management and transport.

In addition, some provincial and local governments have signed the Covenant of Mayors for Climate and Energy and have developed adaptation plans, amongst others the Province of Antwerp,¹⁹ the Province of Limburg²⁰, and the City of Gent²¹

B3. Sectoral adaptation plans

No sectoral adaptation plans have been identified. Sectoral adaptation measures from the different policy departments are, however, integrated in the national, federal and regional adaptation plans.

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 Belgium, the central administration body in charge of Belgian adaptation policy is the WGA²², which is part of the NCC. It is the responsibility of the WGA to develop the NAS and the NAP. Representatives of the four levels of the Government, i.e. the Federal Government and the three regional governments, form the WGA. All of these four governments are equal and there is no hierarchical relationship between the regions and the federal authority.

18 Federal contribution to national adaptation plan, URL: http://www.klimaat.be/files/5514/7915/5040/federale_bijdrage_adaptatieplan.pdf, Date accessed: 01/06/2018

19 Adaptatieplan Provincie Antwerpen, URL: <https://www.provincieantwerpen.be/content/dam/provant/dlm/dmn/klimaat/ProvinciaalAdaptatiePlan.pdf>, Date accessed: 01/06/2018

20 Adaptatieplan Provincie Limburg, URL: http://www.limburg.be/webfiles/limburg/product/klimaat_klimaatadaptatieplan_2017.pdf, Date accessed: 01/06/2018

21 Adaptatieplan Gent, URL: https://klimaat.stad.gent/sites/default/files/klimaatadaptatieplan_gent.pdf, Date accessed: 01/06/2018

22 Working Group on Adaptation, URL: <https://www.cnc-nkc.be/nl/wg-adaptatie>, Date accessed: 01/06/2018

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

Yes/ In progress/ No

Horizontal coordination among sectors is organised by each of the federal and regional governments via meetings in committees and contact groups. These groups bring together representatives of various sectoral policy departments that are likely to be affected by climate change, such as water, agriculture, nature and forests, agriculture, health, spatial planning, disaster risk management, etc. Horizontal coordination mainly includes identification and follow-up of priority goals and adaptation actions. Furthermore, it addresses information and data exchange and pursues communication and synergy between the different sectors. The WGA, mandated by the NCC, was the central actor for the drafting of the NAS and the NAP. The WGA is in charge of the consultation with and coordination of the different regional/federal sectors for the elaboration, implementation and monitoring of 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

To develop the NAS, representatives of the different governments of the WGA met regularly and continue to do so in order to discuss progress of the NAS and the implementation of adaptation plans.

Vertical coordination in Belgium refers to coordination between the four governments, the ten provinces and the 589 local authorities. Vertical coordination is in place at some levels but not in a systematic manner. At the regional level, the departments involved in adaptation are in touch with provinces and local authorities, although not always through formal working groups or coordination mechanisms between the regional level and the provincial or the local authorities, but rather through cooperation mechanisms.

The federal level has no competence with regard to provinces and local authorities.

In Flanders, there is no formal coordination mechanism that vertically coordinates the provincial and local authorities, nevertheless coordination exists *ad hoc* and related to specific initiatives, such as the development of an adaptation portal. Furthermore, there was a pilot group with representatives of some local authorities and provinces that aimed to co-

develop adaptation support tools, including a tool to explore adaptation measures²³, good adaptation practices, and a climate portal (under development) that collects all data on climate impacts at a municipal level in Flanders²⁴.

In contrast to Flanders, vertical coordination in Wallonia is formal. In July 2017, the Government signed a commitment to be a territorial coordinator of the Covenant of Mayors. In addition, the Walloon region has elaborated comparable adaptation support tools for local authorities²⁵.

Vertical coordination is also planned to take place via the official territorial coordinators of the Covenant of Mayors. Eight out of ten Belgian provinces, and about 12 associations of municipalities ('intercommunales') have signed up as territorial coordinators. The main focus of this coordination so far is on mitigation, but it is expected that these administrations will also play a role in adaptation²⁶.

There is no specific vertical coordination between Brussels Capital government and the local authorities.

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

Stakeholders are involved in the preparation and implementation of adaptation policies in various ways.

In all four governments, focus groups that included representatives of the different policy departments were established to identify objectives and priority measures. In addition, other stakeholders have been consulted as well during the process. More specifically:

- At the level of the Federal Government, there was a public consultation on the federal plan 'adaptation to climate change' (later renamed 'federal contribution to the NAP') between 17 February and 18 April 2014. Stakeholders involved included citizens, NGOs and sectoral organisations. The plan was also submitted to the

23 Klimaatadaptatieportaal, URL: <http://www.burgemeestersconvenant.be/klimaatadaptatie>, Date accessed on: 01/06/2018

24 Klimaatportaal, URL: <https://www.milieurapport.be/klimaatportaal>, Date accessed on: 01/06/2018

25 Adaptation portal for Walloon local authorities, URL: <http://www.awac.be/index.php/en/thematiques/changement-climatique/adaptation#a-diagnosis-of-vulnerability-at-the-local-level>, <http://leswallonssadaptent.be>, Date accessed on: 01/06/2018

26 Territorial coordinators Covenant of Mayors, URL: <https://www.covenantofmayors.eu/about/covenant-community/coordinators.html>, Date accessed on: 01/06/2018

Federal Council for Sustainable Development that includes representatives of society, including environmental organisations, organisation for development cooperation, users', employees' and employers' bodies, youth organisations and scientists.

- In Flanders, stakeholder consultation during the development of the adaptation plan was carried out twice via 'roundtables'. The first roundtable presented preliminary ideas about the adaptation plan, while the second roundtable focused on the draft version of the plan to offer a platform for stakeholders to discuss it. Stakeholders included industry representatives, environmental organisations, farmer organisations and youth associations. Furthermore, the 'MINAraad' was consulted on the draft Flemish Climate Plan.
- In the Walloon region, there was a public consultation on the adaptation plan in the summer of 2014. Citizens, companies and local authorities took part in the consultation²⁷.
- The Brussels adaptation plan went to public consultation in 2015.

The national adaptation plan was submitted for consultation to the federal and regional advice councils, which include stakeholders from all societal sectors, such as environment, industry, employee, and science.

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

Yes/ No

Transboundary cooperation is a priority in the NAP²⁸. Action 10 of the NAP ("Promote transnational cooperation on adaptation") aims to facilitate transnational cooperation on adaptation, covering both international cooperation between (neighbouring) countries and cross-border cooperation among countries with shared cross-border resources (e.g. water, protected areas) or other shared interests. The main foci for transboundary cooperation are disaster management, nature and water management. Cooperation mechanisms in these sectors already existed, nevertheless, it was recognised that further cooperation was needed. For instance, Belgium takes part in transboundary water management commissions of the Meuse and Scheldt. Belgium participated in Interreg projects, such as TIDE (Tidal River Development), AMICE, and Future Cities. Furthermore, the Flemish government coordinates the Interreg 2 Seas project PROWATER (protecting and restoring raw water sources through actions at the landscape scale), which is expected to start in September 2018.

27 Public Consultation Walloon climate plan, URL: <http://www.climat.be/fr-be/news/2014/consultation-publique-plan-air-climat-energie-de-la-wallonie/> Date accessed on: 01/06/2018

28 National Adaptation Plan Belgium, URL: http://www.klimaat.be/files/6714/9880/5758/NAP_NL.pdf, Date accessed on: 01/06/2018

So far, transboundary co-operation on adaptation in the BENELUX countries has been *ad hoc*. For instance, in 2016 the BENELUX secretariat organised workshops on adaptation concerning the following sectors: transport, energy, health and crisis management²⁹. The expectation is that more formal transboundary cooperation will be established in the coming years³⁰.

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

Belgium has observation systems that allow for long-term monitoring of temperature, precipitation and sea level. This monitoring work is carried out by the Royal Meteorological Institute (RMI)³¹ and the Permanent Service for Mean Sea Level.

Climate impacts are monitored by the different organisations:

- Different climate impact studies have been performed for Belgium in the framework of CORDEX.be project on: extreme precipitation; maximum snow height; urban parameters for Brussels (including outdoor labour productivity, excess energy consumption and heat stress due to heat waves); agricultural crop performance and yield as well as biogenic emissions.
- Impacts on forests and nature: by Brussels Environment³², Walloon Observatory of Forest Health³³ and the Research Institute for Nature and Forest in Flanders.³⁴
- Impacts on the oceans: the Flemish Hydrography and Royal Institute of Natural Sciences.
- Impact on water: flood, water quality and drought – Flanders Hydraulics Research, the Flemish water managers³⁵, the Walloon Waterways³⁶, the Walloon Flood

29Cooperation BENELUX on Adaptation, URL: <http://www.benelux.int/fr/publications/publications/adaptation-au-changement-climatique-au-sein-du-benelux>, Date accessed on: 01/06/2018

30 National Adaptationplan Belgium, URL: http://www.klimaat.be/files/6714/9880/5758/NAP_NL.pdf, Date accessed on: 01/06/2018

31 KMI/RMI: URL <http://www.kmi.be/meteo/view/nl/357714-Algemeen.html>, Date accessed on: 01/06/2018

32 Brussels Environment, URL: http://www.environnement.brussels/thematiques/espaces-verts-et-biodiversite/la-foret-de-soignes/gestion-de-la-foret?view_pro=1&view_school=1, Date accessed on: 01/06/2018

33 Walloon Observatory of forest health, URL: <http://owsf.environnement.wallonie.be/fr/index.html?IDC=5636>, Date accessed on: 01/06/2018

34 INBO research institute for nature and forest in Flanders, URL: <https://www.inbo.be/en>, Date accessed on: 01/06/2018

Portal³⁷, Brussels Environment, Royal Institute of Natural Sciences. Impact on extreme precipitation, heat waves, and droughts is collected by the RMI. In 2015, the RMI published “Vigilance climatique”. In 2015 the Flanders Environment Agency (VMM) published the ‘MIRA Climate Report 2015: About observed and future climate changes in Flanders and Belgium’. The indicators from the report are regularly updated on their website. Due to the dry conditions in Flanders, the VMM published a report on drought³⁸ based on hydrological and meteorological indicators in June 2017.

Since 1992 the EM-DAT database has recorded the number of victims (deaths and affected persons) of natural disasters in Belgium. Indicators are developed by the Federal Planning Bureau.³⁹To conclude, observation systems for many climate impacts are in place, however, they sometimes are fragmentary and not always available for the whole of Belgium.

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

While Belgium does not formally have a national climate centre, the CORDEX.be project⁴⁰ (Combining regional downscaling expertise in Belgium: CORDEX and Beyond 2015-2017) provided a platform for data exchange and communication among the Belgian climate modelling groups. CORDEX.be makes use of the most recent IPCC scenarios (2014). All impact assessments rely on these models. In the context of the CORDEX.be project, a wide range of climate model simulations have been performed that are collected on the CORDEX.be data hub at the RMI and will serve as the basis of future impact studies. The model simulations are thoroughly validated by comparison with past observations and GNSS-derived products.

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

Yes/ In progress/ No

35 Flanders Hydraulics Research, URL: <http://www.waterinfo.be/> Date accessed on: 01/06/2018

36 Walloon Waterways, URL: <http://voies-hydrauliques.wallonie.be/opencms/opencms/fr>, Date accessed on: 01/06/2018

37 Walloon Flood Portal, URL: <http://environnement.wallonie.be/inondations/>, Date accessed on: 01/06/2018

38 VVM drought report, URL: <http://www.waterinfo.be/download/e8cd3c39-0463-478e-a41b-1d3fbfad332c?dl=0>, Date accessed on: 01/06/2018

39 Federal Planning Bureau EM-DAT database, URL: http://www.indicators.be/fr/i/BGD_CLI_NDV/Victimes_de_catastrophes_naturelles, Date accessed on: 01/06/2018

40 CORDEX – project, URL: <http://www.euro-cordex.be/>, Date accessed on: 01/06/2018

The NAP provides sound climate risk and vulnerability assessments for 11 key sectors: agriculture, coastal areas, fishery, spatial planning and infrastructure, forests, biodiversity, energy, health, water management, tourism, industry and services. The assessments indicate the types and intensity of climate impacts on these sectors by a colour gradation from green to red (opportunity to threat). The assessment is carried out in a qualitative way and provides climate impact information for the periods 2030, 2050 and 2085 within wet, mean and dry scenarios. The assessment is the combination of the results of the different climate impact assessments carried out by the regional governments and impact studies at federal level. In addition, the Flemish Environment Agency has published a climate assessment report in 2015⁴¹ and the research report on indicators for urban heat island effect in Flanders⁴².

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

Yes/ **In Progress**/ No

Taking into account transboundary risks is not yet common practice in climate risk and vulnerability assessments in Belgium. It is mainly in the field of flood risk management where progress has been made, primarily as a result of joint projects. One of the examples is the Interreg AMICE project for which scientists from France, Belgium and the Netherlands have built a transnational scenario to evaluate climate impacts with regards to flood risks in the Meuse river basin. Another example is the ENDURE Interreg project, which aims to improve the adaptive capacity by focusing on the protection of sand dunes in the 2 Seas area. Furthermore, the Flemish drought and water scarcity indicator also considers risks of upstream parts of the international basins⁴³.

4. Knowledge gaps

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

Yes/ In progress/ No

Research for better understanding is part of the Belgian adaptation policy. Knowledge gaps are addressed by:

- 1) Conventional research funding organisations. Knowledge gaps are mentioned in a general way but researchers have some freedom to determine the focus of their

41 Climate assessment report 2015, URL: <http://www.milieurapport.be/nl/publicaties/topicrapporten/mira-rapport-klimaat-2015/> Date accessed on: 01/06/2018

42 Urban Heat Island report, URL: <http://www.milieurapport.be/nl/publicaties/topicrapporten/mira-rapport-klimaat-2015/> Date accessed on: 01/06/2018

43 Risks in river basins, URL: <http://www.milieurapport.be/nl/feitencijfers/milieuthemas/waterkwantiteit/> Date accessed on: 01/06/2018

research. The Belgian Federal Science Policy Office (BELSPO) financed several projects on climate impacts and adaptation through the former ‘Science for a Sustainable Development’ (SSD) programme⁴⁴. Topics and sector-specific domains of interest addressed include transport, hydrological events, surface water, coastal management, fisheries and health. Several research projects have been launched to increase knowledge of climate impacts and adaptation through the BRAIN-be programme⁴⁵. In 2014, the call for project proposals by BELSPO included climate adaptation as one of its four priority themes. Special attention was directed to two research activities: understanding sectoral climate impacts, and developing policy decision-support tools that aim at evaluating the effects of climate change. The BRAIN-BE call in 2016 included a call for proposals for developing scientific support for the development of climate services. Unfortunately, no projects were selected for funding.

In total five projects are funded in the framework of the ERA4CS Joint Call on Researching and Advancing Climate Services Development by (A) Advanced co-development with users (B) Institutional integration, linked to the JPI Climate (two cash-funded via BELSPO and three funded in kind via RMI).

- 2) Research and studies funded by the policy departments themselves. These studies are upon request and knowledge gaps are identified and specified. Examples of these studies are the study on climate proof spatial planning, or on the needs assessment for local authorities on climate adaptation planning.
- 3) A think tank consisting of academics and other experts on climate adaptation (Flanders only), which was subsidised by the Flemish government from 2015 – 2017 to develop and spread knowledge on adaptation across disciplines. Knowledge gaps were identified and addressed during meetings^{46,47}.

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

44 Science for a Sustainable Development” programme, URL: http://www.belspo.be/belspo/ssd/science/pr_climate_nl.stm Date accessed on: 01/06/2018

45 BRAIN-be programme, URL: https://www.belspo.be/belspo/brain-be/index_fr.stm Date accessed on: 01/06/2018

46 DenkTank Adaptatie, URL: <http://dka.ugent.be/index.php/cases-2/eindcongres-denktank-klimaatadaptatie-vlaanderen>, Date accessed on: 01/06/2018

47 DenkTank Adaptatie, URL: <http://www.dka.ugent.be/>, Date accessed on: 01/06/2018

Information that is useful for adaptation is available online and can be used by different types of stakeholders.

In Flanders, there are portals with abundant adaptation-relevant information, including:

- An overview of Flemish adaptation policy⁴⁸
- Climate change information⁴⁹
- Support for local authorities⁵⁰.

A climate portal will also soon be launched that includes geographical climate impact information at a detailed level for all Flemish municipalities⁵¹. The main policy department in climate adaptation has initiated this data provision.

In Wallonia, it is the Walloon Agency for Air & Climate (AWAC) that provides the online information to support adaptation. This information mainly aims at different sectors and at local authorities⁵²

The Brussels Capital region offers information on its website mainly limited to the policy plan⁵³.

At the federal level, the website⁵⁴ provides information on climate change and climate adaptation policy at all levels as well as climate observations and impacts.

A dedicated national online platform⁵⁵ is planned (with a committed budget) at the national level, as mentioned in the NAP.

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 limited number of specific education and training materials could be identified in the available sources of information.⁵⁶

⁴⁸ Vlaams adaptatiebeleid, URL: <http://www.vlaamseklimaatop.be/>, Date accessed on: 01/06/2018

⁴⁹ MIRA Klimaatrapport, URL: <http://www.milieurapport.be/nl/publicaties/topicrapporten/mira-rapport-klimaat-2015/>, Date accessed on: 01/06/2018

⁵⁰ Ondersteuning lokale overheden, URL: <http://www.vlaamseklimaatop.be/ondersteuning-lokale-overheden>, Date accessed on: 01/06/2018 ; adaptatieportaal, URL: <http://www.burgemeestersconvenant.be>, Date accessed on: 01/06/2018; Klimaat en Ruimte, URL: <http://www.klimaatenuimte.be/>, Date accessed on: 01/06/2018

⁵¹ Klimaatportaal, URL: <https://www.milieurapport.be/klimaatportaal>, Date accessed on: 01/06/2018

⁵² URL: <http://www.awac.be/index.php/1-adaptation>, Date accessed on: 01/06/2018

⁵³ COBRACE, URL: http://environnement.brussels/thematiques/air-climat/laction-de-la-region/air-climat-et-energie-vision-integree?view_pro=1&view_school=1, Date accessed on: 01/06/2018

⁵⁴ URL: <http://www.climatechange.be/>, Date accessed on: 01/06/2018

⁵⁵ URL: www.adapt2climate.be, Date accessed on: 01/06/2018

Some more generic materials, considering impacts and adaptation exist, such as the “KLIMOS” environmental sustainability toolkit for development cooperation, and educational files on climate change targeted to young students.

There has also been some capacity building of local authorities, particularly on how to develop adaptation plans. Several workshops were organised for the Walloon municipalities to disseminate these tools, within two frameworks: the Floods Directive and the elaboration of flood risk management plans; and the Walloon POLLEC Programme, which provides regional support to the cities in relation to the Covenant of Mayors objectives.

It is expected that the capacity building for public officers to develop adaptation plans will be developed in the near future in Flanders⁵⁷ as well. The Flemish Region and some Flemish provinces have organised a number of annual conferences, aiming at climate practitioners to share their experiences on mitigation and adaptation⁵⁸.

In addition, national conferences and roundtables are organised in a coordinated way by regional and federal governments to implement the NAP (Measure 4 ‘Strengthening sectoral coordination at national level’). The 1st Conference ‘Adaptation to Climate Change: What is the Situation in Belgium’ was organised in November 2017⁵⁹ and was attended by around one hundred people.

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

56 Outils de vulgarisation, URL: <http://www.awac.be/index.php/mediatheque/outils-de-vulgarisation>, Date accessed on: 01/06/2018

See also "Weather forecast in 2050" video to sensitize population to the future climate of Christmas in Belgium in 2050 (initiative during the WMO climate summit), URL: <http://www.awac.be/index.php/mediatheque/multimedia-1/item/98-bulletin-meteo-en-2050>, Date accessed on: 01/06/2018

57 Ondersteuning lokale overheden, URL: <http://www.vlaamseklimaatop.be/ondersteuning-lokale-overheden>, Date accessed on: 01/06/2018

58 Interprovinciale klimaatdag, URL: <https://www.west-vlaanderen.be/kwaliteit/Leefomgeving/klimaat/Documents/Verslag%20interprovinciale%20klimaatdag%2013%20oktober%202016.pdf> en

Vlaams Brabant Klimaatneutraal, URL: <http://www.vlaamsbrabant.be/wonen-milieu/milieu-en-natuur/vlaams-brabant-klimaatneutraal/samen-met-jou-naar-een-klimaatneutrale-provincie/klimaattop-vlaams-brabant/index.jsp>, Date accessed on: 01/06/2018

59 National climate Commission, URL: <https://www.cnc-nkc.be/en/ConfAdapt>, Date accessed on: 01/06/2018

Relevant adaptation options for each sector in the national, the federal and regional adaptation plans were selected on the basis of sound sectoral risk and vulnerability assessments⁶⁰. The options were identified by expert judgement of the relevant policy departments. Besides sectoral adaptation options, the regional, federal and national adaptation plans also mentioned ‘horizontal’ adaptation options like research, international collaboration and transversal affairs. These adaptation options result from ambitions to better coordinate adaptation actions and are related to identified adaptation needs⁶¹.

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 priority adaptation options for the NAP is the result of an extensive process. It was based on an analysis of the measures contained in the adaptation plans (three regions and the Federal Government) with the aim to identify the gaps and/or the opportunities for synergies. It was also based on the EU adaptation framework (particularly the EU Adaptation Strategy and its accompanying documents), and a study exploring potential national adaptation actions to be implemented jointly by the federal and regional authorities. The WGA of the NCC identified a set of measures based on this analysis. The relevance and feasibility of the measures were analysed in consultation with the relevant sectoral experts, according to criteria, such as the opportunity for implementation (focusing on the integration of adaptation into planned sectoral projects/process), the national added-value (i.e. the extent of benefits for all four entities) and the urgency of action.

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

60 Federal contribution to the national adaptation plan, URL: http://www.klimaat.be/files/5514/7915/5040/federale_bijdrage_adaptatieplan.pdf, Date accessed on: 01/06/2018;

Vlaams adaptatieplan, URL: https://www.lne.be/sites/default/files/atoms/files/2013-06-28_VAP.pdf, Date accessed on: 01/06/2018;

COBRA, URL: http://document.environnement.brussels/opac_css/elecfile/PLAN_AIR_CLIMAT_ENERGIE_NL_DEF.pdf, Date accessed on: 01/06/2018;

PACE, URL: http://www.awac.be/images/Pierre/PACE/Plan%20Air%20climat%20%C3%A9nergie%202016_2022.pdf, Date accessed on: 01/06/2018

61 National Adaptation plan, URL: http://www.klimaat.be/files/6714/9880/5758/NAP_NL.pdf, Date accessed on: 01/06/2018

There is some evidence available on coordination mechanisms between the authorities dealing with disaster risk management and adaptation policies. There has been increased coordination in the context of the Federal contribution to the NAP, as the Federal Government is in charge of crisis and emergency management.

Belgium fostered better coordination between disaster risk reduction and climate adaptation by gathering the regional and federal crisis centre, adaptation experts, and climate services scientists in September 2017. Future coordination will build on the work realized in the framework of the cordex.be project and will look further into how to mainstream climate change in disaster risk prevention and management. This would be in line with implementation of Measure 11 of the NAP and Measure 5 of the Federal contribution to the NAP.

A national platform for disaster risk reduction (Sendai platform) was established in 2016 (coordinated by the Ministry of Foreign Affairs).

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

A dedicated budget is not attached to the NAS. Funding for climate adaptation is available at all levels within existing governmental budgets.

For 2017 and 2018, the NCC foresaw a dedicated budget for the implementation of the NAP.⁶² The NAP actions are generally horizontal and, therefore, the budget is not dedicated to one specific sector but every sector can benefit from these measures (e.g. the budget to develop a web platform on adaptation where every sector will be integrated). The sectoral adaptation actions have to be financed by each of the relevant policy departments and need to be included in the annual department budget. Although there is no evidence of multi-annual funding for climate adaptation, the different governments allocate a part of their budget to implementing adaptation measures. For instance, in 2017, Flanders⁶³ and Wallonia⁶⁴ funded impact assessments and the development of adaptation support tools to help local authorities. Flanders funded the development of climate scenarios and assess

62 Personal communication with MS contact.

63 Ondersteuning lokale overheden, URL: <http://www.vlaamseklimaatop.be/ondersteuning-lokale-overheden>, <http://www.vlaamseklimaatop.be/ondersteuning-lokale-overheden.en>, Date accessed on: 01/06/2018; Adaptatieportaal, URL: <http://burgemeestersconvenant.be/klimaataadaptatie>, Date accessed on: 01/06/2018

64 Tool to assess vulnerability at local level, URL: <http://www.awac.be/index.php/en/thematiques/changement-climatique/adaptation#a-diagnosis-of-vulnerability-at-the-local-level>, Date accessed on: 01/06/2018

climate impacts⁶⁵. In addition, there was a think tank⁶⁶ in Flanders on adaptation, financed by the Department of Environment and Spatial Development to bring together expertise. The Federal Government has funded an impact assessment study as well as research projects (via BELSPO). There appears to be no climate adaptation funding in the Brussels Capital region.

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

At the federal level, the need for Strategic Environmental Assessment (SEA) was established in law on 13 February 2006⁶⁷. The Federal Government has provided guidance on SEA via its website, since October 2017⁶⁸, in order to ensure that assessments address climate adaptation.

At the Flemish level, the Environmental Impact Assessment (EIA) Directive 2014/52/EU was transposed into law via the Decree of 3 February 2017⁶⁹. Consequently, climate adaptation is considered in EIA⁷⁰.

In the Walloon region and Brussels-Capital region, the former EU directive 2011/92/UE is still used to guide EIA, so climate change is not yet always considered in practice⁷¹.

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

Yes/ No

65 This fund is available at VMM

66 DenkTank Adaptatie, URL: <http://www.dka.ugent.be/index.php/doelstelling/doelstelling>, Date accessed on: 01/06/2018

67 SEA Guidance, URL: <https://www.health.belgium.be/nl/sea-guidance-klimaat-en-milieu-effect>, Date accessed on: 01/06/2018

68 SEA Guidance, URL: <https://www.health.belgium.be/nl/sea-guidance-klimaat-en-milieu-effect>, Date accessed on: 01/06/2018

69 Omgevingsvergunning en klimaatverandering in Vlaanderen, URL: <https://www.lne.be/omgevingsvergunning-gestart-op-23-februari-2017>, Date accessed on: 01/06/2018

70 Richtlijnenboek Milieueffectenrapportage, URL: <https://www.lne.be/sites/default/files/atoms/files/rlb-alg-proc-en-meth-aspecten-2015.pdf>, Date accessed on: 01/06/2018

71 Portail environnement de Wallonie, URL: <http://environnement.wallonie.be/>, Date accessed on: 01/06/2018 and Evaluatie van de milieueffecten, URL: <https://stedenbouw.irisnet.be/vergunning/de-vergunningsaanvraag/evaluatie-van-de-milieueffecten-1>, Date accessed on: 01/06/2018

Disaster risk management is a shared responsibility between the local, provincial and federal levels. Disaster risk management plans do not include direct reference to climate change. The NAP⁷² includes a measure for the 2018 risk analysis to include consideration of climate impacts in order to revise the disaster risk management plans⁷³. Specific plans for the protection of critical infrastructure, as well as specific emergency management plans for floods⁷⁴, heat waves⁷⁵ and forest fires, do consider climate change to a certain extent.

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

Yes/ **No**

Climate change is not yet completely integrated in land use, spatial planning, urban planning and maritime planning. However, there are a few policy instruments implemented in spatial planning in Flanders that aim to avoid new developments in flood risk areas (e.g. the ‘watertoets’ and the ‘Signaalgebieden’ in Flanders⁷⁶). However, these policy instruments are based on current flood risk information rather than flood risks arising from climate change. Climate change is mentioned in maritime spatial planning. It is being taken into account throughout the planning process and has led to specific spatial decisions directly or indirectly related to climate change, e.g. the designation of a zone for a test island for coastal protection and the designation of additional zones for offshore renewable energy. In addition, climate change is included in EIA.

Regional forestry policy instruments (e.g. the Walloon forest code, the Flanders forestry policy and the Brussels forest plans) aim to enhance the climate resilience of forests. Some major water and flood management initiatives with land-use implications consider climate change (e.g. the Walloon Plan PLUIES⁷⁷ and the Flemish SIGMA plan⁷⁸). However, no guidance related to climate proofing of buildings has been found⁷⁹.

72 Federale bijdrage adaptatieplan, URL: http://www.klimaat.be/files/5514/7915/5040/federale_bijdrage_adaptatieplan.pdf, Date accessed on: 01/06/2018

⁷³ Personal communication with MS contact.

⁷⁴ Flanders Hydraulics, URL: <http://www.waterinfo.be/>, Date accessed on: 01/06/2018

⁷⁵ Belgian Interregional Environment Agency, URL: [http://www.irceline.be/en and Hittewaarschuwing](http://www.irceline.be/en_and/Hittewaarschuwing), URL: <http://www.meteo.be/meteo/view/nl/1401103-Hittewaarschuwing.html>, Date accessed on: 01/06/2018

⁷⁶ Watertoets, URL: [http://www.integraalwaterbeleid.be/nl/beleidsinstrumenten/watertoets and](http://www.integraalwaterbeleid.be/nl/beleidsinstrumenten/watertoets_and), Date accessed on: 01/06/2018; Signaalgebieden, URL: <http://www.integraalwaterbeleid.be/nl/beleidsinstrumenten/signaalgebieden>, Date accessed on: 01/06/2018

⁷⁷ Plan Pluies, URL, http://environnement.wallonie.be/de/dcenn/plan_pluies/index.htm, Date accessed on: 01/06/2018

⁷⁸ Sigmaplan, URL: <http://sigmaplan.be/nl/>, Date accessed on: 01/06/2018

⁷⁹ Personal communication with MS contact.

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 NAS, the federal contribution to the NAP and the regional adaptation plans promote the mainstreaming of climate change in different policy sectors. Evidence of mainstreaming in sectors is reported in the 7th National Communication report⁸⁰ across many sectors, including water management, coastal areas, biodiversity, agriculture, forests, fishing, infrastructure and urban environment, transport, tourism, health, industry and services, energy, and disaster risk management. The policy instruments are diverse, ranging from an information campaign to encourage water savings to integrating climate change in the coastal safety master plan to encouraging farmer actions via climatic agri-environmental measures. The NAS (2010) has been the sole driver of mainstreaming climate adaptation in these sectors.

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

Yes/ **No**

The draft federal contribution to the NAP⁸¹ contains provisions to foster the consideration of climate risks in insurance and guarantee schemes, and to support the productive sectors in considering and addressing climate impacts and adaptation. However, this measure was not retained in the final version ('Federal Contribution to the NAP') adopted by the Federal Council of Ministers. Incorporating climate change in the insurance sector is also an ambition of the Flemish Adaptation Plan. However, the progress report^{82,83} indicated that the insurance sector is not yet willing to include climate change in their products due to lack of a legal framework. No evidence was found of other incentives for investments in risk prevention.

9. Implementing adaptation

⁸⁰ 7th National Communication, URL: http://www.klimaat.be/files/4315/1549/8156/NC7_EN_LR.pdf, Date accessed on: 01/06/2018

⁸¹ Federal Contribution to the national adaptation plan, URL: http://www.klimaat.be/files/5514/7915/5040/federale_bijdrage_adaptatieplan.pdf, Date accessed on: 01/06/2018

⁸² Voortgangsrapport 2015. Vlaams Adaptatiebeleid, URL: <https://www.lne.be/sites/default/files/atoms/files/VR%202016%201504%20MED.%20VORA2015%20-%203%20bijlage.pdf>, Date accessed on: 01/06/2018

⁸³ Voortgangsrapport 2017 Vlaams Adaptatiebeleid, URL: https://www.lne.be/sites/default/files/atoms/files/VORA2016-2017_Adaptatie.pdf, Date accessed on: 01/06/2018

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

Yes /In progress/ No

The NAS as well as the federal contribution to the NAP and the regional adaptation plans, have listed adaptation measures and actions. These actions are mainly defined by sectors and are implemented by the respective policy departments. There are also some overarching horizontal adaptation actions listed like carrying out research⁸⁴, and establishing transnational cooperation⁸⁵.

Many of the adaptation actions are being implemented⁸⁶ sectorally, i.e. in relation to water management, coastal areas, biodiversity, agriculture, forests, fishing, infrastructure and urban environment, transport, tourism, health, industry & services, energy and disaster risk management. Examples of adaptation actions include: awareness raising on the importance of healthy soils; connecting nature areas; setting up a centre of excellence on adaptation; considering climate change when restoring.

At the federal level, the adaptation actions have been implemented since 2016, so are in progress, as was planned.

At the Flemish level, implementation of adaptation actions started in 2013 and most actions are in progress, as was planned.

At the Walloon level, implementation of adaptation actions started in 2016 and most actions are in progress, as was planned.

In the Brussels Capital region, implementation of adaptation actions started in 2016.

At the national level, implementation started in 2017.

There are some adaptation actions that emerged autonomously and were implemented even before the adaptation plans were developed, like the SIGMA plan in Flanders in 2005 or Plan PIUIES in Wallonia in 2003.

⁸⁴ Vlaams Adaptatieplan, URL: https://www.lne.be/sites/default/files/atoms/files/2013-06-28_VAP.pdf, Date accessed on: 01/06/2018

⁸⁵ Nationaal Adaptatieplan, URL: http://www.klimaat.be/files/6714/9880/5758/NAP_NL.pdf, Date accessed on: 01/06/2018

⁸⁶ Voortgangsrapport 2015. Vlaams adaptatieplan, URL: <https://www.lne.be/sites/default/files/atoms/files/VR%202016%201504%20MED.%20VORA2015%20-%203%20bijlage.pdf>, Date accessed on: 01/06/2018

In addition to the adaptation measures in the NAP, there are also some provinces and cities that have listed adaptation measures that will soon be implemented⁸⁷.

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

Yes/No

Cooperation mechanisms at provincial and local levels are under development in Flanders and Wallonia. These are the regions that could benefit most from these cooperation mechanisms. The cooperation is being formalised in the Walloon.

In Flanders, the cooperation mechanism is provided by an adaptation support tool that was developed by the Flemish government with a pilot group of local authorities in order to support local authorities in the development of their adaptation plans. This support tool includes:

- A climate atlas that reveals the most vulnerable areas in Flanders
- A tool to explore adaptation measures⁸⁸; and
- Good practices about climate adaptation.

In the Walloon region, a comparable adaptation support tool for local authorities is available.⁸⁹

The Walloon region has recently signed a commitment to be a territorial coordinator of the Covenant of Mayors. Cooperation is, therefore, emphasized in a more formal way. Several workshops have been organized to present the tools available for the cities in the framework of the POLLEC Programme. This programme supports cities to develop action plans for the Covenant of Mayors. Wallonia also has more *ad hoc* cooperation, like the workshops organised in the framework of the Flood Directive and the elaboration of the flood risk management plans. These workshops were organised to disseminate information to cities, provinces and other actors in charge of the flood risk management the Walloon region. The adaptation tool for cities has been presented during these workshops.

⁸⁷ Provinciaal Adaptatieplan, URL: <https://www.provincieantwerpen.be/content/dam/provant/dlm/dmn/klimaat/ProvinciaalAdaptatiePlan.pdf>, Date accessed on: 01/06/2018; Adaptatieplan provincie Limburg, URL: http://www.limburg.be/webfiles/limburg/product/klimaat_klimaatadaptatieplan_2017.pdf, Date accessed on: 01/06/2018; Adaptatieplan stad Gent, URL: https://klimaat.stad.gent/sites/default/files/klimaatadaptatieplan_gent.pdf, Date accessed on: 01/06/2018

⁸⁸ Adaptatieportaal, URL: <http://www.burgemeestersconvenant.be/klimaatadaptatie>, Date accessed on: 01/06/2018

⁸⁹ Tools to assess vulnerability, URL: <http://www.awac.be/index.php/en/thematiques/changement-climatique/adaptation#a-diagnosis-of-vulnerability-at-the-local-level>; Adaptatieportaal for Walloon local authorities, URL: <http://leswallonssadaptent.be>, Date accessed on: 01/06/2018

Some provinces are planning to coordinate adaptation with the local authorities. However, as yet, no formalized coordination group has been established.

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

Measure 9 of the Federal contribution to the NAP is a cross-sectoral measure that foresaw mainstreaming of climate adaptation in the development of federal policies. This measure has been implemented through:

- Integration of adaptation in the analysis procedure for regulation (the so-called AIR – ‘analyse d’impact de législation’) as well as in the manual for impact analysis for regulation.
- Development of guidelines to promote better integration of climate mitigation and adaptation (and biodiversity) in SEA and EIA in the North Sea. The guidelines were published in October 2017⁹⁰. A (general) reference to the guidelines has been made in the Belgian EIA regulation for activities in the North Sea (Royal Decree of 9 September 2003). The existing guidelines⁹¹ for SEA will be updated according to the guidance.

Flanders has already developed guidelines to consider climate in EIA.

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

Yes / No

Many of the adaptation plans are government-driven. Stakeholders have a limited role in the implementation of adaptation measures and are involved on an ad hoc basis, depending on the adaptation measure considered. Although it is proposed that measures to address climate impacts should be taken up by the private sector, there does not seem to be any public-private cooperation.

⁹⁰ Guidance climate change in EIA, URL: http://www.climat.be/files/8215/0874/7294/Guidance_climat_et_impact_environmental.pdf, Date accessed on: 01/06/2018

⁹¹ Evaluation des incidences environnementales de certain plans, URL: <https://www.health.belgium.be/fr/document-orientation-pour-levaluation-des-incidences-environnementales-de-certains-plans-et>, Date accessed on: 01/06/2018

Step E: Monitoring and evaluation of adaptation activities

10. Monitoring, reporting and evaluation.

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

Yes/ No

Monitoring implementation of adaptation policy takes place every two to four years at the national level⁹². The WGA monitors the progress of implementation in a qualitative way by listing actions that are carried out by the different policy departments⁹³. The monitoring indicators that are described in the different adaptation plans are used as guidance. Allocated budgets and other financial information are not monitored. The National Climate Commission integrates monitoring results into the National Communication report⁹⁴.

Monitoring has been taking place since 2015, as part of the National Communication report. Results were disseminated in the 6th National Communication (2015-2016)⁹⁵ and in the 7th National Communication (2017-2018)⁹⁶, and are accessible amongst others via the national website⁹⁷ and the federal website⁹⁸.

A workshop for French-speaking technical staff working on climate adaptation in Africa was co-organised by Germany, Belgium, Switzerland, France, FAO and UNDP (Cluster Francophone) in May 2018 in Couala (Cameroun). The focus was on monitoring and evaluation of adaptation measures.

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

Yes / **No**

The monitoring results in National Communications are organised according to sectoral policies. However, the monitoring of the NAP is not specified per sector.

⁹² Rapportering klimaatbeleid, URL: <http://www.klimaat.be/nl-be/klimaatbeleid/belgisch-klimaatbeleid/rapportering>, Date accessed on: 01/06/2018

⁹³ 7th communication climate policy, URL: http://www.klimaat.be/files/4315/1549/8156/NC7_EN_LR.pdf, Date accessed on: 01/06/2018

⁹⁴ 6th communication climate policy, URL: http://www.klimaat.be/files/6714/9880/5758/NAP_NL.pdf, Date accessed on: 01/06/2018

⁹⁵ http://www.klimaat.be/files/7514/5034/4559/BR2_EN.pdf, Date accessed on: 01/06/2018

⁹⁶ 7th National Communication, URL: http://www.klimaat.be/files/4315/1549/8156/NC7_EN_LR.pdf, Date accessed on: 01/06/2018

⁹⁷ URL: www.cnc-nkc.be, Date accessed on: 01/06/2018

⁹⁸ URL: www.climatechange.be, Date accessed on: 01/06/2018

Nevertheless, at the Flemish level, the different policy sectors report on a bi-annual basis on the progress of their adaptation actions⁹⁹. The first progress report was published for the period 2013-2015. The second report for the period 2015-2017 was approved in March 2018.

At the federal level, in the framework of the federal law on monitoring, reporting and verification (MRV), sectoral departments of the federal authority have to report on the implementation of their respective adaptation measures (taken or planned), particularly the actions provided for in the federal contribution to the NAP. Monitoring addresses the main objectives, the climate impact category targeted, the planned and allocated budgets, the degree of implementation and, to the extent possible, indicators (the Royal Decree implementing the Law is not published yet).

At the level of the Walloon and the Brussels Capital region, no evidence was found of how climate adaptation is monitored in sectoral policies.

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

Yes/**No**

There is no systematic monitoring mechanism to collect and disseminate information on progress with the implementation of adaptation actions at the provincial or local levels.

11. Evaluation

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

Yes/No

A mid-term evaluation of the NAP will take place in 2018 and a final evaluation in 2020. This timing is aligned with the periodic National Communication and the development of the next NAP. Indicators identified in the NAP will be used in the evaluations. The mid-term evaluation will assess the progress of implementation and evaluate strengths and weaknesses. The final evaluation will mainly focus on identifying remaining gaps with regard to adaptation actions.^{100,101}

⁹⁹

<https://www.lne.be/sites/default/files/atoms/files/VR%202016%201504%20MED.%20VORA2015%20-%203%20bijlage.pdf>, Date accessed on: 01/06/2018

¹⁰⁰ National Adaptation plan, URL: http://www.klimaat.be/files/6714/9880/5758/NAP_NL.pdf

¹⁰¹ Federal contribution to national adaptation plan, URL: http://www.klimaat.be/files/5514/7915/5040/federale_bijdrage_adaptatieplan.pdf

URL:

URL:

The regional level will contribute to the evaluation. The federal level has specified in the Federal Contribution to the NAP that an evaluation will take place to assess coherence between actions in the NAP and actions taken at the federal level.

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

Yes/No

No specific information on external stakeholder involvement in the monitoring, evaluation or review of the adaptation strategies or plans was found. It is expected that assessment, evaluation and review will be undertaken by the actors involved in the WGA and respective regional platforms.

SUMMARY TABLE

Adaptation Preparedness Scoreboard		
No.	Indicator	Met?
Step A: Preparing the ground for adaptation		
1 Coordination structure		
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
2 Stakeholders' involvement in policy development		
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 Current and projected climate change		
3a	Observation systems are in place to monitor climate change, extreme climate events and their impacts	<u>Yes</u> / In progress / No
3b	Scenarios and projections are used to assess the economic, social and environmental impacts of climate change, taking into account geographical specificities and best available science (e.g. in response to revised IPCC assessments)	<u>Yes</u> / In progress / No
3c	Sound climate risks/vulnerability assessments for priority vulnerable sectors are undertaken to support adaptation decision making.	<u>Yes</u> / In progress / No
3d	Climate risks/vulnerability assessments take transboundary risks into account, when relevant	Yes / <u>In progress</u> / No
4 Knowledge gaps		
4a	Work is being carried out to identify, prioritise and	<u>Yes</u> / In progress

Adaptation Preparedness Scoreboard		
No.	Indicator	Met?
	address the knowledge gaps	/ No
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
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
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	Yes / 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 / No
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
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
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
8b	Prevention/preparedness strategies in place under national disaster risk management plans take into account climate change impacts and projections	Yes / No
8c	Key land use, spatial planning, urban planning and maritime spatial planning policies take into account the	Yes / No

Adaptation Preparedness Scoreboard		
No.	Indicator	Met?
	impacts of climate change	
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
8e	Adaptation is mainstreamed in insurance or alternative policy instruments, where relevant, to provide incentives for investments in risk prevention	Yes / No
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
9b	Cooperation mechanisms in place to foster and support adaptation at relevant scales (e.g. local, subnational)	Yes / No
9c	Procedures or guidelines are available to assess the potential impact of climate change on major projects or programmes, and facilitate the choice of alternative options, e.g. green infrastructure	Yes / No
9d	There are processes for stakeholders' involvement in the implementation of adaptation policies and measures.	Yes / No
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
10b	The integration of climate change adaptation in sectoral policies is monitored and the results of the monitoring are disseminated	Yes / No
10c	Regional-, sub-national or local action is monitored and the results of the monitoring are disseminated	Yes / No
11 Evaluation		
11a	A periodic review of the national adaptation strategy and action plans is planned	Yes / No
11b	Stakeholders are involved in the assessment, evaluation and review of national adaptation policy	Yes / No

