

# Adaptation preparedness scoreboard:

## Country fiche for Austria

### Note to the Reader

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

- Institutional structure
- Quality of national vulnerability assessments
- Knowledge creation (national observation systems in relevant sectors<sup>2</sup> and climate modelling), transfer and use
- Action plans:
  - Quality (incl. the basis used for assessment of adaptation options)
  - Actual implementation mechanisms
- Funding mechanisms
- Mainstreaming into sectoral policies, in particular:
  - Disaster risk reduction
  - Spatial planning
  - Environmental impact assessment (EIA) (how the Directive is transposed)
  - Insurance policy
- Transboundary cooperation
- Monitoring mechanisms in different sectors and governance levels

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<sup>1</sup> The first versions of the fiches, prepared in consultation with the Member States in 2014-15, were unpublished and used to fine-tune the scoreboard. The second drafts were published, after consulting the Member States, as background documents to the public consultation on this evaluation in December 2017.

[https://ec.europa.eu/clima/consultations/evaluation-eus-strategy-adaptation-climate-change\\_en](https://ec.europa.eu/clima/consultations/evaluation-eus-strategy-adaptation-climate-change_en) The final Member State consultation on the draft fiches took place in June 2018.

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

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

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

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## **List of abbreviations**

ACRP	Austrian Climate Research Programme
APCC	Austrian Panel on Climate Change
BMNT	Ministry of Sustainability and Tourism
CCCA	Climate Change Centre Austria
COIN	Costs of Inaction
EAA	Environment Agency Austria
EIA	Environmental Impact Assessment
EUSALP	EU Strategy for the Alpine Region
LURK	Provincial Environmental Speaker's Conference
NAP	National Adaptation Plan
NAS	National Adaptation Strategy
NGO	Non-Governmental Organisation
NUTS	Classification of Territorial Units for Statistics
PACINAS	Public Adaptation Costs: Investigating the National Adaptation Strategy
PATCH:ES	Private Adaptation Threats and Chances: Enhancing Synergies
SEA	Strategic Environmental Assessment
SKKM	Strategy for National Crisis and Disaster Protection Management
VIOLA	Violent Observed Local Assessment
ZAMG	Central Institute for Meteorology and Geodynamics
ÖREK	Austrian Spatial Planning Concept
ÖROK	Austrian Conference on Spatial Planning

## **POLICY FRAMEWORK**

### **Adaptation strategies**

#### **A1. National adaptation strategy**

In Austria, a national adaptation strategy (NAS) was adopted on 23<sup>rd</sup> October 2012 by the Council of Ministers and endorsed by the Provincial Governors' Conference on 16<sup>th</sup> May 2013. The Austrian NAS consists of two parts: a Strategic Framework (or "Context") and an Action Plan<sup>3</sup>. The aim of the Austrian NAS is to avoid the adverse effects of climate change on the environment, society, and the economy and to fully utilise any opportunities that may arise. The NAS aims to create a national framework to ensure coordination and harmonisation of the various climate adaptation activities in all areas. In August 2017, a revised version of the NAS was adopted by the Austrian Council of Ministers, which was subsequently also approved by the Conference of the Governor's of the Bundesländer (NUTS II) in November 2017. This new version aims to update and further develop the NAS, while preserving its overall structure.

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

In Austria, the Bundesländer have legislative and executive powers (e.g. with regard to spatial planning, nature protection, transport), which are relevant to climate adaptation. The Bundesländer are also responsible for the administration, implementation and enforcement of certain federal laws at lower levels of government. Representatives from all Bundesländer were actively involved in the development of the NAS and NAP.

The Bundesländer have either developed regional adaptation strategies (Oberösterreich, 2013; Steiermark, 2015; Vorarlberg, 2016; Salzburg, 2017) or integrated adaptation and mitigation strategies (Tirol, 2015), or have integrated adaptation into existing climate mitigation strategies (Niederösterreich, 2011; Wien, 2009). Kärnten is in the process of preparing a climate adaptation strategy. In Burgenland, adaptation measures are directly integrated into sectoral programmes and strategies. The Bundesländer propose, enact and implement measures. Overall, 93.6% of the population and 88.6% of the territory of Austria are covered by sub-national adaptation strategies (with Kärnten as the only Bundesland without one).

### **Adaptation action plans**

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

A national adaptation plan (NAP) was adopted in 2012 (as part of the NAS) and revised in 2016 (and approved together with the revised NAS in 2017, see above). The NAP presents a catalogue of 136 adaptation options for 14 areas of action. These areas are: agriculture, forestry, water resources and water management, tourism, energy (with a focus on the electricity industry), protection from natural hazards, construction and housing, disaster risk

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<sup>3</sup> BMNT, formerly BMLFUW (2017). The Austrian Strategy for Adaptation to Climate Change. Part 1 – Context and Part 2 – Action plan. Available (in German) at: [https://www.bmnt.gv.at/umwelt/klimaschutz/klimapolitik\\_national/anpassungsstrategie/strategie-kontext.html](https://www.bmnt.gv.at/umwelt/klimaschutz/klimapolitik_national/anpassungsstrategie/strategie-kontext.html), Date accessed: 15/05/2018

management, health, ecosystems and biodiversity, transportation infrastructure and selected aspects of mobility, spatial planning, business/industry/trade, and cities (with a focus on urban green and open spaces).

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

The NAP makes reference to a range of individual Bundesländer in its 136 adaptation options, however, only Tirol and Vorarlberg have also prepared (together with their strategy) their own action plan with relevant state-specific adaptation measures<sup>4</sup>.

The development of local adaptation concepts and measures is supported by KLAR! – Climate Change Adaptation Model Regions<sup>5</sup>, a programme which was launched in 2016. Until the end of March 2017, regions and municipalities were invited to submit their applications including a basic concept to the Climate and Energy Fund, who initiated the programme in cooperation with the Ministry of Sustainability and Tourism (BMNT). Since 2018 and up until 2020, beneficiaries are now working on implementing the measures laid out in these concepts. In a third phase post-2020, the action plans and their executed measures will then be evaluated.

An increasing number of activities carried out at regional and local level can be identified already; however, these are not always explicitly labelled as adaptation. Many of these activities are fostered by applied research projects, which are financed by the ACRP (Austrian Climate Research Programme) of the Climate and Energy Fund<sup>6</sup> and StartClim<sup>7</sup>. Examples of Bundesländer-level activities are: touristic concepts and water management measures for an important large lake in eastern Austria, research projects devoted to impacts and adaptation measures in the Alps, projects for flood risk management and spatial planning, protection of forests and habitats, and concepts for safeguards against summertime overheating of buildings in urban areas.<sup>8</sup> The Austrian government has recently published a good practice guide presenting various examples of how cities and communities can implement adaptation actions<sup>9</sup>.

## **B3. Sectoral adaptation plans**

A range of sectors are discussed in the NAP, as well as the Tirol action plan on adaptation and others. However, no sector-specific adaptation plans exist as of today.

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<sup>4</sup> Government of Tirol (2015). Klimaschutz und Anpassung an den Klimawandel in Tiroler Gemeinden. Available at: <http://www.klimaschutz-tirol.at/images/doku/gemeindemappe.pdf>, Date accessed: 15/05/2018

<sup>5</sup> KLAR!-Website, URL: <http://klar-anpassungsregionen.at/>, Date accessed: 15/05/2018

<sup>6</sup> Klima Energie Fonds. Climate Research Programme. URL: <https://www.klimafonds.gv.at/foerderungen/aktuelle-foerderungen/2015/austrian-climate-research-programme-2/>, Date accessed: 15/05/2018

<sup>7</sup> StartClim. URL: [www.startclim.at](http://www.startclim.at), Date accessed: 15/05/2018

<sup>8</sup> BMNT, formerly BMLFUW (2017). The Austrian Strategy for Adaptation to Climate Change. Part 1 – Context, Available (in German) at:

[https://www.bmnt.gv.at/umwelt/klimaschutz/klimapolitik\\_national/anpassungsstrategie/strategie-kontext.html](https://www.bmnt.gv.at/umwelt/klimaschutz/klimapolitik_national/anpassungsstrategie/strategie-kontext.html)

<sup>9</sup> BMNT, formerly BMLFUW (2016). Unsere Gemeinden im Klimawandel: Good Practice Broschuere. Available at:

[https://www.bmnt.gv.at/umwelt/klimaschutz/klimapolitik\\_national/anpassungsstrategie/goodpractice-broschuere.html](https://www.bmnt.gv.at/umwelt/klimaschutz/klimapolitik_national/anpassungsstrategie/goodpractice-broschuere.html), Date accessed: 15/05/2018

## SCOREBOARD

### Step A: Preparing the ground for adaptation

#### 1. Coordination structure

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

Yes / No

In Austria, the BMNT<sup>10</sup> (formerly, BMLFUW) holds overall responsibility for adaptation policy-making (Division I/4 of the BMNT). One of its main assignments is to provide guidance by keeping the NAS and NAP updated, as well as by drafting the progress report on its implementation. The NAP is implemented in collaboration with a wide range of fellow ministries, regional government actors and sector stakeholders.

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

Yes / In progress / No

All federal ministries were invited to join the NAS and NAP development process and to provide feedback and comments on the document via three rounds of written consultations. More precisely, the Inter-Ministerial Committee to Coordinate Measures to Protect Global Climate (IMC Climate Change) was regularly updated on the status of work towards the NAS. (According to the latest amendment of the Austrian Climate Protection Law, § 4. (2), instead of the IMC the National Climate Protection Committee is in charge of adaptation to unavoidable climate impacts. The Committee meets at least once a year and is chaired by the BMLFUW.)

Given the holistic and cross-sectoral nature of adaptation action, there is a need for horizontal coordination in the implementation phase as well. In accordance with the current division of competences (after the national election in 2017), the BMNT holds a much broader range of responsibilities as concerns areas of action in climate change. The National Climate Protection Committee is the relevant institutional body, set up by law, to provide sectoral coordination of adaptation and mitigation measures. The Austrian Spatial Planning Concept (ÖREK)<sup>11</sup>, also calls for the continued organisation of ‘round table’ meetings between sectoral representatives to discuss relevant climate-related issues during the implementation of measures.

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

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<sup>10</sup> Bundesministerium für Nachhaltigkeit und Tourismus, URL: <https://www.bmnt.gv.at/>, Date accessed: 15/05/2018

<sup>11</sup> ÖROK (2011). ÖREK 2011 - Austrian Spatial Planning Concept. Available at: [https://www.oerok.gv.at/fileadmin/Bilder/2.Reiter-Raum u. Region/1.OEREK/OEREK\\_2011/Dokumente\\_OEREK\\_2011/OEREK\\_2011\\_EN\\_Downloadversion.pdf](https://www.oerok.gv.at/fileadmin/Bilder/2.Reiter-Raum_u_Region/1.OEREK/OEREK_2011/Dokumente_OEREK_2011/OEREK_2011_EN_Downloadversion.pdf), Date accessed: 15/05/2018

Yes / **In progress** / No

The Bundesländer are highly committed to cooperating with the Federal Ministry (BMNT) on climate adaptation. Climate coordination officers/units have been installed in all provincial governments and act as the main agents of vertical cooperation with the National Ministry<sup>12</sup>.

The Federal Ministry for Sustainability and Tourism together with all Bundesländer (decision taken by the LURK - Provincial Environmental Speaker's Conference) has established an implementation plan summarising a few specific measures to be implemented in close cooperation, as a first step. One of the decisions<sup>13</sup> was the implementation of "dialogue events"<sup>14</sup> in various Austrian cities. Twelve such dialogue events took place in 2016 and 2017.

The National Climate Protection Committee is the relevant institutional body, set up by law, to provide vertical (and sectoral) coordination of adaptation and mitigation measures.

## **2 Stakeholders' involvement in policy development**

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

**Yes** / No

A broad participatory process conducted by the Environment Agency Austria (EAA) accompanied development of the NAS. The main objective of the participation process was to discuss the adaptation options identified by the scientific community (expert studies) with stakeholders from the organised public (e.g. federal and provincial ministries or related institutions, interest groups and social/environmental NGOs) for inclusion in the policy paper<sup>15</sup>.

Stakeholders were consulted during the development of the NAS via online-surveys, written feedback on policy drafts and advisory committees. Governmental stakeholders from national level and sub-national level have been actively involved. The private sector, interest groups and researchers have been consulted and information has been gathered from the general public.<sup>16</sup>

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

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<sup>12</sup> Nachmany, M, S. Frankhauser, J. Davidová et al. (2015). Climate Legislation in Austria. An excerpt from: The 2015 Global Climate Legislation Study. A review of Climate Change Legislation in 99 countries. Grantham Research Institute on Climate Change and the Environment, London.

<sup>13</sup> Beschlüsse der Landesumweltreferentinnenkonferenz, URL: <https://www.wien.gv.at/umweltschutz/pdf/lurk-2015.pdf>, Date accessed: 15/05/2018

<sup>14</sup> Dialogveranstaltungsreihe 2016/2017, URL: <http://klimawandelanpassung.at/index.php?id=31609>, Date accessed: 15/05/2018

<sup>15</sup> Climate-ADAPT (2017). Austria, Summary. Available at: <http://climate-adapt.eea.europa.eu/countries-regions/countries/austria>, Date accessed: 15/05/2018

<sup>16</sup> BMNT, formerly BMLFUW (2014). Self-assessment survey from Austria. National adaptation policy processes in European countries. EEA, Publications Office of the European Union, Luxembourg



## **Yes** / No

In the NAS/NAP, cooperation to address common challenges with neighbouring countries is not explicitly addressed. Nevertheless, Austria is participating in several international partnerships that are actively working on climate change and adaptation issues, although it is not clear how these interact with the Austrian strategic approach to adaptation.

Austria is a contracting Party to the International Commission for the Protection of the Danube River, which adopted a Climate Adaptation Strategy in 2012<sup>17</sup>. The Strategy is based on a thorough assessment of possible climate impacts and suggests possible means to adapt to and mitigate them.

Austria is also a member country of the Alpine Convention, a framework that sets out general measures for sustainable development in the Alpine region. A ministerial declaration<sup>18</sup> on climate change was adopted in 2006, followed in 2009 by an action plan<sup>19</sup> of measures for the Alpine region to contribute to the reduction of emissions affecting the climate and the development of strategies to adapt to a changing environment. Within the Alpine convention, guidelines have been developed on local climate adaptation in relation to water management and natural hazards in the Alps<sup>20</sup>. In addition, the recently established Advisory Committee on the Alpine Climate (Alpine Climate Board)<sup>21</sup> under the Alpine Convention gathers climate change specialists from the eight Alpine States and observer organisations. It aims to bundle the current contributions of the Alpine Convention to climate mitigation and adaptation. The Board will prepare recommendations for future reinforced action, for the attention of the next Alpine Conference in 2018, with the establishment of a climate-neutral Alpine space 2050 as the overarching goal.

A shared task of all Alpine countries is to intensify research work on the consequences of climate change. Joint activities are taking place in the EU Strategy for the Alpine Region (EUSALP) in Action Group 8<sup>22</sup>, which focuses on improving risk management and coping with climate impacts, including major natural risks prevention.

The EU Interreg project, C3-Alps aimed to foster transboundary cooperation with the focus on information and knowledge transfer<sup>23</sup>. During the course of the C3-Alps project (2012-2014), an informal exchange among ministerial representatives of all Alpine countries was

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<sup>17</sup> ICPDR (2013). Strategy on Adaptation to Climate Change. Available at: [https://www.icpdr.org/flowpaper/viewer/default/files/nodes/documents/icpdr\\_climate-adaptation-strategy.pdf](https://www.icpdr.org/flowpaper/viewer/default/files/nodes/documents/icpdr_climate-adaptation-strategy.pdf), Date accessed: 15/05/2018

<sup>18</sup> Alpine Convention (2006). Ministerial Declaration on Climate Change. Available at: [http://www.alpconv.org/en/convention/protocols/Documents/AC\\_IX\\_declarationclimatechange\\_en\\_fin.pdf](http://www.alpconv.org/en/convention/protocols/Documents/AC_IX_declarationclimatechange_en_fin.pdf), Date accessed: 15/05/2018

<sup>19</sup> Alpine Convention (2009). Action Plan on Climate Change in the Alps. Available at: Alpine Convention. The Climate Portal. Available at: <http://www.alpconv.org/en/ClimatePortal/default.html>, Date accessed: 15/05/2018

<sup>20</sup> Alpine Convention. The Climate Portal. Available at: <http://www.alpconv.org/en/ClimatePortal/default.html>, Date accessed: 15/05/2018

<sup>21</sup> Alpine Climate Board instituted by the XIVth Alpine Conference in October 2016

<sup>22</sup> Action Group 8, URL: <https://www.alpine-region.eu/action-group-8>, Date accessed: 15/05/2018

<sup>23</sup> Climate-Adapt. C3-Alps. Available at: <http://climate-adapt.eea.europa.eu/metadata/projects/c3-alps-2013-capitalising-climate-change-knowledge-for-adaptation-in-the-alpine-space>, Date accessed: 15/05/2018

initiated. Meetings took place twice per year and served the purpose of transnational coordination for issues of common concern. These activities are continuing.

## **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

Data collection and provision is located at the Central Institute for Meteorology and Geodynamics (ZAMG) with meteorological stations measuring temperature, precipitation, wind, sunshine and many other meteorological parameters<sup>24</sup>. Since 1948, data about damage caused by extreme events have been recorded by ZAMG. The VIOLA (Violent Observed Local Assessment)<sup>25</sup> project started in 2014 with the development of a digital extreme-weather-platform. It works like a search engine for extreme events and offers different search options. In the frame of the project damage.at (funded by the Austrian Climate and Energy Fund), the feasibility for the development of an Austrian-wide damage-database for weather- and climate-related natural hazards is currently being assessed<sup>26</sup>.

#### **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

New regional climate scenarios for Austria and its nine provincial states have been available since Autumn 2016. The scenarios are based on 13 EURO-CORDEX models, a 12.5km x 12.5 km grid, and use two greenhouse gas scenarios. Results are available via the Climate Change Centre Austria (CCCA) data portal<sup>27</sup>.

A scientific evaluation of the financial consequences of climate change in Austria was presented in January 2015 as results of an ACRP project, Costs of Inaction (COIN)<sup>28</sup>. The main results of two projects – PACINAS (Public Adaptation Costs: Investigating the National Adaptation Strategy)<sup>29</sup> and PACTCH:ES (Private Adaptation Threats and Chances: Enhancing Synergies with the Austrian NAS implementation)<sup>30</sup> – were published in mid-2017.

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<sup>24</sup> ZAMG Climate, URL: <https://www.zamg.ac.at/cms/en/climate>, Date accessed: 15/05/2018

<sup>25</sup> VIOLA, URL: <https://www.zamg.ac.at/cms/de/forschung/klima/datensaetze/viola>, Date accessed: 15/05/2018

<sup>26</sup> Damage.at, URL: [https://www.joanneum.at/life/aktuelles/news/news-detail/news/damageat?tx\\_news\\_pi1%5Bcontroller%5D=News&tx\\_news\\_pi1%5Baction%5D=detail&cHash=ee733657c5828d853ee0683e93cfd82](https://www.joanneum.at/life/aktuelles/news/news-detail/news/damageat?tx_news_pi1%5Bcontroller%5D=News&tx_news_pi1%5Baction%5D=detail&cHash=ee733657c5828d853ee0683e93cfd82), Date accessed: 15/05/2018

<sup>27</sup> CCCA Data Centre, URL: <https://data.ccca.ac.at/group/oks15>, Date accessed: 15/05/2018

<sup>28</sup> COIN project, <https://www.ccca.ac.at/en/climate-knowledge/coin/>, Date accessed: 20/06/2018

<sup>29</sup> PACINAS, URL: <http://anpassung.ccca.at/pacinas/ergebnisse/>, Date accessed: 15/05/2018

<sup>30</sup> PATCH:ES, URL: <http://anpassung.ccca.at/patches/ergebnisse/>, Date accessed: 15/05/2018

The ACRP also emphasises the social aspects of climate change. Projects, such as Capital-Adapt<sup>31</sup>, have used projections and collected data on a variety of indicators to assess the climate vulnerability of different parts of society.

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

**Yes** / In progress / No

The Austrian NAS (2017) contains a qualitative vulnerability assessment for nine sectors (i.e. water, tourism, agriculture, forestry, electricity and energy, housing and construction, health, ecosystems and biodiversity and transport/infrastructure). It was carried out by the Environment Agency Austria in cooperation with the Institute of Meteorology of the University of Natural Resources and Life Sciences. The vulnerability reports fed into the NAS. Separate studies have not been carried out for the other five sectors (protection from natural hazards, disaster risk management, spatial planning, business/industry/trade, cities). Nevertheless, a descriptive vulnerability assessment has been included in the NAP 2017 for all 14 sectors, although it highlights the differences in the level of knowledge and detail across sectors.

The Austrian Panel on Climate Change (APCC) published a report in September 2014<sup>32</sup>, after the release of the IPCC Working Group III 5<sup>th</sup> Assessment Report. The APCC report consists of three volumes that present existing knowledge on climate change in Austria, and the needs and possibilities for mitigation and adaptation.

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

Yes / **In progress** / No

The vulnerability assessments described in relation to Indicator 3c do not take transboundary risks into account. Nevertheless, as noted in relation to Indicator 2b, Austria is involved in a range of transboundary cooperation initiatives some of which address relevant transboundary risks; these primarily focus on the River Danube and the Alpine region.

**4 Knowledge gaps**

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

**Yes** / In progress / No

The Austrian Assessment Report 2014 (AAR14)<sup>33</sup> built an active network of Austrian research institutions, individual scientists, policymakers, and other stakeholders to carry work on climate change forward. At the initiative of Austrian universities, the CCCA was formally established in 2011. The objective of the CCCA is to improve the quality and efficiency of

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<sup>31</sup> Klimanetz, URL: <http://www.klimanetz.at/>, Date accessed: 15/05/2018

<sup>32</sup> APCC. Available at: <http://www.apcc.ac.at/>, Date accessed: 15/05/2018

<sup>33</sup> CCCA (2014). AAR14. Available at: <https://www.ccca.ac.at/en/apcc/austrian-assessment-report-apcc-aar14-information-and-materials/>, Date accessed: 15/05/2018

Austrian climate research not only through networking and promoting cooperation, but also by enhancing its international visibility<sup>34</sup>.

A workshop with scientists was conducted, within the framework of the participatory process accompanying the development of the NAS<sup>35</sup>, to determine the research needs specifically for implementation of measures in the NAS. The aim was to facilitate a dialogue between scientists/researchers and politicians and other decision-makers. The 2015 progress report<sup>36</sup> on the NAS also indicated research needs. In addition, the CCCA Science Plan 2017<sup>37</sup> showcases the research needs and gaps identified by the Austrian scientific community. The research needs identified are being addressed in research programmes such as the ACRP of the Climate and Energy Fund and the national climate research programme StartClim<sup>38</sup>. The eleventh and most recent (June 2018) guide for calls for proposals of the ACRP<sup>39</sup> focuses especially on four thematic areas where knowledge gaps persist. These are ‘Understanding the climate system and consequences of climate change’, ‘Specific support for Austria’s policymakers’, ‘Systemic transformation – the human dimension’, and ‘Governance and institutions – towards systemic transformation’. Specific topics range from biodiversity and agricultural aspects to social dimensions of climate change. One special report discussing ‘Tourism, large cultural and sports events and climate change’ was funded in the frame of the tenth ACRP call for proposals.

## 5 Knowledge transfer

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

**Yes** / In progress / No

The website of the BMNT contains information on the NAS, various activities in climate adaptation including, for example, a brochure on good practices for municipalities<sup>40</sup>.

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<sup>34</sup> Climate-ADAPT (2017). Austria, Summary. Available at: <http://climate-adapt.eea.europa.eu/countries-regions/countries/austria>, Date accessed: 15/05/2018

<sup>35</sup> KWA. Climate Change Adaptation in Austria. Available at: <http://www.klimawandelanpassung.at/ms/klimawandelanpassung/en/>, Date accessed: 15/05/2018

<sup>36</sup> BMNT, formerly BMLFUW (2015). Anpassung an den Klimawandel in Österreich: Fortschrittsbericht. Available at: [https://www.bmlfuw.gv.at/dam/jcr:affd5225-8d2b-4772-9977-da229f5b5690/Fortschrittsbericht-Final\\_v17\\_2015-12-02\\_klein.pdf](https://www.bmlfuw.gv.at/dam/jcr:affd5225-8d2b-4772-9977-da229f5b5690/Fortschrittsbericht-Final_v17_2015-12-02_klein.pdf), Date accessed: 15/05/2018

<sup>37</sup> CCCA Science Plan 2017 [https://www.ccca.ac.at/fileadmin/00\\_DokumenteHauptmenue/03\\_Aktivitaeten/Science\\_Plan/CCCA\\_Science\\_Plan.pdf\\_20170502.pdf](https://www.ccca.ac.at/fileadmin/00_DokumenteHauptmenue/03_Aktivitaeten/Science_Plan/CCCA_Science_Plan.pdf_20170502.pdf), Date accessed: 15/05/2018

<sup>38</sup> BMNT, formerly BMLFUW (2012). The Austrian Strategy for Adaptation to Climate Change. Part 1 – Context. Available at: [https://www.bmlfuw.gv.at/dam/jcr:f2e2e558-f714-4676-8768-e9b4d32be6a4/AustrianAdaptationStrategy\\_Context\\_FINAL\\_25092013\\_v02\\_online.pdf](https://www.bmlfuw.gv.at/dam/jcr:f2e2e558-f714-4676-8768-e9b4d32be6a4/AustrianAdaptationStrategy_Context_FINAL_25092013_v02_online.pdf), Date accessed: 15/05/2018

<sup>39</sup> ACRP (2017). 10<sup>th</sup> Call for Proposals Guide for the Submission of Proposals. Available at: <https://www.klimafonds.gv.at/assets/Uploads/Downloads-Frderungen/ACRP/LeitfadenACRP10th2017.pdf>, Date accessed: 15/05/2018

<sup>40</sup> BMNT, formerly BMLFUW (2016). Unsere Gemeinden im Klimawandel. Available at: [https://www.bmlfuw.gv.at/dam/jcr:73969c08-9351-49fd-a2f3-85bf25c55167/Good%20Practice\\_Broschuere.pdf](https://www.bmlfuw.gv.at/dam/jcr:73969c08-9351-49fd-a2f3-85bf25c55167/Good%20Practice_Broschuere.pdf), Date accessed: 15/05/2018

The national platform for climate adaptation<sup>41</sup> contains information on climate research, policies, proposed implementation measures and examples and support for municipalities, the Bundesländer and sectors. The databank is useful for finding relevant resources, e.g. sector-specific research or adaptation practice for a specific region. It is possible to subscribe to a newsletter<sup>42</sup>.

The climate research department of the Central Institute for Meteorology and Geodynamics (ZAMG) presents scientific information on climate change<sup>43</sup>.

CCCA's website provides climate data and information on ongoing research activities<sup>44</sup>.

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

**Yes** / In progress / No

For raising public awareness on climate impacts and adaptation, the Ministry of Sustainability and Tourism has published a brochure for the general public<sup>45</sup>, "translating" the national adaptation strategy's content into easily understandable language and providing concrete tips for individuals. This brochure has been sent to all municipalities in Austria and has been further distributed via contacts and networks.

A handbook with methods and tools that help to tackle the challenges of adaptation was published<sup>46</sup> to support politicians and experts in the public administration of provinces and cities, as well as actors in regional management in developing adaptation strategies. It provides guidance for the strategic and proactive examination of climate impacts. A practical guide on local adaptation is available<sup>47</sup>, which provides information on regional climate impacts and specific measures that can be implemented by cities. It also includes tools that can be used in workshops.

The NAS includes recommendations for communication and education of the wider public but does not provide information on the coordination of capacity building. The BMNT, together with the provincial states, have financed various capacity building activities at regional and local levels (e.g. workshops in regions, a brochure with 11 good-practice examples on adaptation from regions across Austria<sup>48</sup>). Capacity building mostly functions

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<sup>41</sup> KWA. Climate Change Adaptation in Austria. Available at: <http://klimawandelanpassung.at>

<sup>42</sup> KWA. Newsletter registration. Available at:

[http://www.klimawandelanpassung.at/ms/klimawandelanpassung/de/newsletterregistrierung/kwa\\_archiv/](http://www.klimawandelanpassung.at/ms/klimawandelanpassung/de/newsletterregistrierung/kwa_archiv/), Date accessed: 15/05/2018

<sup>43</sup> ZAMG. Informationsportal Klimawandel. Available at:

<https://www.zamg.ac.at/cms/de/klima/informationsportal-klimawandel>, Date accessed: 15/05/2018

<sup>44</sup> CCCA. Available at: <https://www.ccca.ac.at>, Date accessed: 15/05/2018

<sup>45</sup> CCCA. COIN. Available at: <http://coin.ccca.at/>, Date accessed: 15/05/2018

<sup>46</sup> Umweltbundesamt (2014). Methods and Tools for Adaptation to Climate Change. Available at:

[http://www.klimawandelanpassung.at/fileadmin/inhalte/kwa/pdfs/HANDBUCH\\_EN.pdf](http://www.klimawandelanpassung.at/fileadmin/inhalte/kwa/pdfs/HANDBUCH_EN.pdf), Date accessed: 15/05/2018

<sup>47</sup> CCact. Ihre Gemeinde im Klimawandel. Available at: <http://www.ccact.anpassung.at/>

<sup>48</sup> BMNT, formerly BMLFUW (2016). Unsere Gemeinden im Klimawandel: Good Practice Broschuere. Available at: [https://www.bmlfuw.gv.at/dam/jcr:73969c08-9351-49fd-a2f3-85bf25c55167/Good%20Practice\\_Broschuere.pdf](https://www.bmlfuw.gv.at/dam/jcr:73969c08-9351-49fd-a2f3-85bf25c55167/Good%20Practice_Broschuere.pdf), Date accessed: 15/05/2018

through a cooperation-based network approach to vertical governance with predominantly voluntary instruments. Examples reflecting the nature of this cooperation-based network are dedicated workshops in the Bundesländer, which were financed by the Ministry of Sustainability and Tourism in cooperation with the Climate and Energy Fund. These workshops aimed to support the Bundesländer in building adaptive capacity, discuss means of implementation, and highlight research results relevant to the respective province, as a basis for deciding on concrete adaptation measures.

As mentioned above, a new pilot project to foster adaptation in Austrian regions started in September 2016<sup>49</sup>.

In 2016, a handbook for so-called ‘Multipliers’ (i.e. Adaptation managers, Energy modelling managers, regional managers) was released to implement adaptation action at regional and municipal level<sup>50</sup>. Further trainings building on this guide and other study materials were provided to ‘Multipliers’ up to the beginning of 2018 (“learning workshops”). Since April 2018, these Bundesländer-level consultants and advisors support municipalities and regions in the implementation of adaptation activities<sup>51</sup>.

### **Step C: Identifying adaptation options**

#### **6 Adaptation options’ identification**

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

**Yes** / No

The NAS contains a qualitative vulnerability assessment for nine out of the 14 sectors (see Indicator 3c). For the remaining five sectors, the NAP presents a descriptive vulnerability assessment. Adaptation options are based on these assessments (including geographic specificities where relevant), stakeholder consultations and expert judgment. Adaptation measures are described in detail and interlinkages to other areas and links to existing instruments are indicated.

##### **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

Adaptation options have not been prioritised, but criteria for prioritisation are identified in the NAS. In general, measures that provide benefits independent of climate change (“win-win”) or measures that entail no disadvantages in case the actual climate trends do not correspond

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<sup>49</sup> See KLAR!-Website, URL: <http://klar-anpassungsregionen.at/>, Date accessed: 15/05/2018

<sup>50</sup> CCact (2016). Klimawandelanpassung umsetzen – Lebensqualität erhöhen; Ein Handbuch für MultiplikatorInnen zur Beratung österreichischer Gemeinden und Regionen. Available at: <http://www.anpassung.at/ccact/downloads/CC-Act-Handbuch.pdf>, Date accessed: 15/05/2018

<sup>51</sup> Personal communication with a MS contact.



to projections (“no-regret”) should be prioritised, as well as flexible measures. Furthermore, prioritisation according to the “Europe 2020 – A strategy for intelligent, sustainable, and inclusive growth” is suggested.

## **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

As an alpine country, Austria has been used to adapting and coping with environmental risks for centuries. The Federal Ministry of the Interior is responsible for the coordination of the State Crisis and Disaster Protection Management in Austria, whereas the BMNT is responsible for coordinating the national adaptation policy. One of the NAS actions aims at coordinating disaster protection management and adaptation policies, through a continuous review, modification, and implementation of the SKKM Strategy 2020 (Strategy for National Crisis and Disaster Protection Management)<sup>52</sup>, taking into account the effects of climate change. Regular exchange between the Ministries and working groups on the NAS as well as the progress report ensure bi-lateral coordination. Joint efforts to work on the 2<sup>nd</sup> National Risk Assessment, as well as on the upcoming national portal for the reduction of disaster risk in Austria<sup>53</sup>, leads to regular exchange and improved coordination.

## **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

The NAS does not include a dedicated budget (no numbers) or an expenditure commitment for adaptation activities to increase climate resilience in vulnerable sectors and for cross-cutting adaptation action. The NAS only states that “the implementation of the recommendations must be achieved within the existing jurisdictions of all governmental authorities (federal, state, local)” and are to be “covered by the resources available in the applicable financial frameworks of the public sector (federal, state, local)”. While it is not possible to conclude directly that a critical mass of actions or consistent funding is in place for vulnerable sectors, the phrasing of the NAS does indicate that sufficient funding should be available for them.

## **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**

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<sup>52</sup> SKKM (2009). Strategie 2020. Available at: [http://www.bmi.gv.at/cms/BMI\\_Zivilschutz/skkm/files/002\\_SKKM\\_Strategie\\_2020.pdf](http://www.bmi.gv.at/cms/BMI_Zivilschutz/skkm/files/002_SKKM_Strategie_2020.pdf), Date accessed: 15/05/2018

<sup>53</sup> Austrian Strategy for Disaster Risk Reduction, available at: [www.isdr.at](http://www.isdr.at), Date accessed: 15/05/2018

Yes / **No**

Climate adaptation will be addressed by an amendment to the Environmental Impact Assessment (EIA) Law in Austria in 2018. The guidance documents for conducting EIA Reports are currently being revised in order to comply with the requirements of the amended EIA Directive. However, neither the change to the Law nor to the guidance documents has been finalised at the time of writing this fiche. Legislation on Strategic Environmental Assessment (SEA) in Austria does not, currently, refer to climate adaptation or vulnerability in its list of criteria to assess.

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

Yes / **No**

The proposed measures in the NAP to improve natural disaster preparedness under climate change are based on experiences with natural disaster management in the past and expert judgement. One of the proposed actions in the NAP is developing knowledge of the projected change in natural processes and resulting possibilities for early warning systems. The other adaptation measures are mainly related to the precautionary principle, including through hazard zoning and promoting hazard and risk awareness, self-sufficiency and responsible behaviour.

The National Crisis and Disaster Protection Management Strategy 2020<sup>54</sup> does not include projected climate change effects and does not mention climate change as one of the major challenges for disaster protection management. One of the proposed actions in the NAP is to adapt and implement the SKKM Strategy 2020 in line with expected climate change impacts.

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

Yes / **No**

The Bundesländer are responsible for spatial planning legislation. Therefore, the level at which climate impacts are taken into account varies in state-specific legislative documents. The 2015 progress report on the implementation of the NAS/NAP states that some aspects, such as flood risks and natural hazard management, are frequently mentioned in spatial planning legislations but zoning and green infrastructure are not<sup>55</sup>.

The Austrian Conference on Spatial Planning (ÖROK) developed the Austrian Spatial Planning Concept (ÖREK) in 2011<sup>56</sup>. This is a non-binding agreement signed by the national

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<sup>54</sup> SKKM, (2009). Staatliches Krisen – und Katastrophenschutzmanagement Strategie 2020. Available at: <https://www.bmi.gv.at/204/skkm/start.aspx>, Date accessed: 15/05/2018

<sup>55</sup> BMNT, formerly BMLFUW (2015). Anpassung an den Klimawandel in Österreich. Fortschrittsbericht. Federal Ministry of Agriculture, Forestry, Environment and Water Management, Vienna.

<sup>56</sup> ÖROK (2011). ÖREK 2011. Austrian Conference on Spatial Planning. Available at: [https://www.oerok.gv.at/fileadmin/Bilder/2.Reiter-Raum\\_u\\_Region/1.OEREK/OEREK\\_2011/Dokumente\\_OEREK\\_2011/OEREK\\_2011\\_EN\\_Downloadversion.pdf](https://www.oerok.gv.at/fileadmin/Bilder/2.Reiter-Raum_u_Region/1.OEREK/OEREK_2011/Dokumente_OEREK_2011/OEREK_2011_EN_Downloadversion.pdf), Date accessed: 15/05/2018



government, the Bundesländer, and the convention of municipalities. Among other things, the concept lays out pathways to integrate adaptation action (e.g. zoning, energy-efficient construction, flood management) into regional legislative documents. However, the 2018 mid-term evaluation of the ÖREK<sup>57</sup> does not report on progress in this endeavor.

The mainstreaming of climate adaptation into urban planning policies is more advanced. The Vienna urban development plan 2025 (STEP 2025)<sup>58</sup> mentions climate adaptation measures as an integral part of planning the management and enhancement of the city. The ‘Grünes Netz Graz’ (Green Grid Graz)<sup>59</sup> developed by the city of Graz is a further example of a municipal strategy paper for urban planning that places ecological and climate-specific measures at its core. Nonetheless, the overall incidence of such climate-focused urban planning policy documents and strategies across Austrian cities is low.

Austria does not have a coastline and, therefore, has no plans for maritime spatial planning.

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

Yes / **In Progress** / No

The NAS provides guidance for the development and amendment of national policy instruments at sectoral level to promote adaptation. However, it is recognised in the NAP (and its progress report) that only a few sectoral instruments explicitly address adaptation and other climate-relevant issues.

Institutional barriers and lack of political momentum currently hinder the implementation of cornerstone policies that include adaptation measures at sectoral level (e.g. in health and transport)<sup>60</sup>. Nevertheless, climate adaptation is being integrated into sectoral policies for agriculture (within the National Agricultural Programme, 2015), forestry, energy<sup>61</sup>, and biodiversity<sup>62</sup>. In addition, a 2018 study on the effects of climate change in the water sector<sup>63</sup> is set to inform climate-relevant policy development.

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

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<sup>57</sup> ÖROK (2018). Executive Summary Interim Evaluation ÖREK 2011. Available at: <https://bestelltool.oerok.gv.at/go/DateiUpload/uploads/pub277/kurzfassungEN.PDF>, Date accessed: 15/05/2018

<sup>58</sup> Stadt Wien (2014) Stadtentwicklungsplan Wien STEP 2025. Available at: <https://www.wien.gv.at/stadtentwicklung/studien/pdf/b008379a.pdf>

<sup>59</sup> Grünes Netz Graz. Available at: <http://www5.umweltbundesamt.at/klimawandel/abfrage/show/4a118664-3c0d-1030-89d5-ed5b02f6ce23>, Date accessed: 15/05/2018

<sup>60</sup> BMLFUW (2015). Anpassung und den Klimawandel in Österreich. Fortschrittbericht. Federal Ministry of Agriculture, Forestry, Environment and Water Management, Vienna.

<sup>61</sup> BOKU. FIS. Available at: [https://forschung.boku.ac.at/fis/suchen.projekt\\_uebersicht?sprache\\_in=de&menue\\_id\\_in=300&id\\_in=7199](https://forschung.boku.ac.at/fis/suchen.projekt_uebersicht?sprache_in=de&menue_id_in=300&id_in=7199), Date accessed: 15/05/2018

<sup>62</sup> BMNT, formerly BMLFUW (2014). Biodiversity Strategy Austria 2020+. Conserving Diversity - securing quality of life and prosperity for us and future generations. Available at: <https://www.cbd.int/doc/world/at/at-nbsap-v3-en.pdf>, Date accessed: 15/05/2018

<sup>63</sup> BMNT, formerly BMLFUW (2017). Klimawandel in der Wasserwirtschaft. Available at: <http://klimawandelanpassung.at/index.php?id=34870>, Date accessed: 15/05/2018

Yes / **No**

Several recommendations proposed under relevant sectors (e.g. agriculture, protection from natural hazards, disaster risk reduction, health, business) in the NAP involve the insurance sector and refer to it as a key actor. Recommendations include the development of new risk assessment methods, development and extension of risk-sharing instruments, and awareness-raising. At present, there is limited information available about the extent to which these actions have been implemented. A standardisation of contributions for insurances against natural hazards in the agricultural sector is underway.

The ‘Österreichische Hagelversicherung’ is the main insurance company for agriculture against natural disasters, including hail, frost, storms, snow load, droughts, floods, and animal pests. Target groups are farmers, gardeners and wineries. ‘Hagelversicherung’ also initiates targeted climate action projects.

The NAP progress report indicates that the insurance of agricultural land has remained constant, no new instruments have been developed to promote further insurance in the sector (only new schemes under the ‘Hagelversicherung’ that focus more on droughts: ‘Dürreindex’). Furthermore, there has not been much progress in the drafting of the natural disaster insurance that was mentioned in the NAP (‘NatKat-Versicherung’). However, first steps towards the creation of a public-private partnership for risk transfers have been made.<sup>64</sup> In general, the progress report concludes that it is not yet clear to what degree climate adaptation is integrated within private risk management.

Thus, although insurance schemes incentivising investments in enhanced resilience and/or risk prevention are not yet in place, there are several ongoing activities and discussions in this field.

## **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 progress report evaluates the state of implementation of the proposed actions in the NAP. Several proposed measures have been implemented. They include mainstreaming of climate change in sectoral as well as regional policy documents, such as the National Agricultural Programme or, more recently, the Forest Strategy 2020+ (see Indicator 8d for more detail). Furthermore, several Bundesländer have published regional adaption strategies and action plans (see Sections A2 and B2 above).

Nonetheless, climate change and adaptation are not yet considered sufficiently in strategic policy documents throughout Austria. Institutional barriers and lack of political momentum

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<sup>64</sup> BMNT, formerly BMLFUW (2015). Anpassung an den Klimawandel in Österreich. Fortschrittbericht. Federal Ministry of Agriculture, Forestry, Environment and Water Management, Vienna.

still slow down and hinder the implementation of adaptation measures across sectors and regions<sup>65</sup>.

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

**Yes** / No

For vertical coordination throughout the implementation phase, existing committees, such as the National Climate Protection Committee, are important for regular exchange of information, experience, lessons learned and close contact between the Ministry and the provincial states. The Federal Ministry for Sustainability and Tourism, together with all provincial states, established an implementation plan summarising specific adaptation measures to be implemented in close cooperation as a first step.

The Ministry of Sustainability and Tourism supports adaptation activities across regions or municipalities mainly by providing information<sup>66</sup>, via funding specific projects, or by developing tools and guidelines<sup>67</sup>. A number of ACRP-financed projects<sup>68</sup> (e.g. Capital-Adapt, FAMOUS, AdaptBehaviour, CcTalK!, Go-Adapt) are fostering regional cooperation in adaptation.

The measures described in the action plan identify key actors responsible for implementation, but the NAS does not prescribe a clear governance system that ensures necessary coordination for turning recommendations into specific actions. The Ministry of Sustainability and Tourism organised workshops in 2014 in order to increase adaptive capacity in the provinces. Due to their success, a second series of workshops was organised in Autumn 2016, focusing on building the capacity of regional and local stakeholders. In addition, the monitoring and evaluation scheme is designed to enable dialogue between stakeholders, leading to a more efficient distribution of responsibilities for implementation.

In September 2016, a new pilot project to foster adaptation in Austrian regions was initiated. In a first phase, regions apply for support in order to develop adaptation concepts and measures shaped to their special adaptation needs. Successful applications receive funding for an adaptation manager who is responsible for steering the process of implementing adaptation measures for a period of two years<sup>69</sup>.

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<sup>65</sup> BMNT, formerly BMLFUW (2015). Anpassung an den Klimawandel in Österreich. Fortschrittbericht. Federal Ministry of Agriculture, Forestry, Environment and Water Management, Vienna.

<sup>66</sup> BBSR (2016). Anpassung an den Klimawandel in Stadt und Region. Available at: [http://www.bbsr.bund.de/BBSR/DE/Veroeffentlichungen/Sonderveroeffentlichungen/2016/anpassung-klimawandel-dl.pdf;jsessionid=D3E9C3D23F8AE48656C761BAB4529763.live11294?\\_\\_blob=publicationFile&v=2](http://www.bbsr.bund.de/BBSR/DE/Veroeffentlichungen/Sonderveroeffentlichungen/2016/anpassung-klimawandel-dl.pdf;jsessionid=D3E9C3D23F8AE48656C761BAB4529763.live11294?__blob=publicationFile&v=2), Date accessed: 15/05/2018

<sup>67</sup> BBSR. Klima Stadt Raum. Available at: [http://www.klimastadtraum.de/DE/Home/home\\_node.html](http://www.klimastadtraum.de/DE/Home/home_node.html), Date accessed: 15/05/2018

<sup>68</sup> ACRP (2016). Klimawandelanpassung in der Umsetzung. Available at: <https://www.klimafonds.gv.at/assets/Uploads/ACRPKlimawandelanpassungweb.pdf>, Date accessed: 15/05/2018

<sup>69</sup> Climate-ADAPT (2017). Austria, Summary. Available at: <http://climate-adapt.eea.europa.eu/countries-regions/countries/austria>, Date accessed: 15/05/2018

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

**Yes / No**

The Institute for Meteorology published a document entitled ‘Strategic support for integrating climate change into project planning for large projects’<sup>70</sup>, as part of the research project ENVISAGE-CC, funded by the ACRP. The project was successful in raising awareness of climate impacts with developers of large-scale infrastructure projects that are subject to EIA. A follow-up project named SPECIFIC (SPECific Climate change Foresight in project design)<sup>71</sup> has broadened the target audience to environmental authorities and consultants (EIA assessors/ practitioners), and focuses on rail, highway and power grid projects, leading to the EIA climate-fit portal<sup>72</sup>.

A handbook with methods and tools that help to tackle adaptation challenges was published in order to support politicians and experts in the public administration of provinces, regions and cities, as well as actors in regional management, to develop adaptation strategies (see Indicator 5b). The handbook provides guidance for strategic examination of the consequences of climate change in all areas of action covered by the NAS. The handbook is one of the main results of the project FAMOUS (Factory of Adaptation Measures operated at different Scales)<sup>73</sup> financed by the Climate and Energy Fund.

Another overarching guidance published at the end of 2014 is a communication strategy<sup>74</sup> focusing on practically oriented, target-group specific, and action-motivating recommendations for effectively communicating climate change and adaptation.

Several guidelines have successfully supported implementation of adaptation measures (see also Indicator 5b). An example is the climate change (adaptation) handbook for spatial planning<sup>75</sup>. Its tools have been widely tested and applied throughout the different Austrian alpine regions (as per the updated NAS). External handbooks (e.g. EU-level, transnational,

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<sup>70</sup> BOKU-Met (2015). Strategische Unterstützung bei der Projektplanung zur Berücksichtigung von Klimawandelfolgen. Available at: [http://www.klimawandelanpassung.at/fileadmin/inhalte/kwa/pdfs/Envisage\\_StrategischeUnterstuetzung\\_BOKU-Met\\_Report\\_24.pdf](http://www.klimawandelanpassung.at/fileadmin/inhalte/kwa/pdfs/Envisage_StrategischeUnterstuetzung_BOKU-Met_Report_24.pdf), Date accessed: 15/05/2018

<sup>71</sup> <https://www.rali.boku.ac.at/ilen/forschungsprojekte/specific/>, Date accessed: 15/05/2018

<sup>72</sup> EIA climatefit portal: <http://uvpklimatefit.boku.ac.at/>, Date accessed: 15/05/2018

<sup>73</sup> Prutsch, A., Felderer, A., Balas, M., König, M., Clar, C., Steurer, R. (2014): Methods and Tools for Adaptation to Climate Change. A Handbook for Provinces, Regions and Cities. Environment Agency Austria, Wien. Available at: [http://www.klimawandelanpassung.at/fileadmin/inhalte/kwa/pdfs/HANDBUCH\\_EN.pdf](http://www.klimawandelanpassung.at/fileadmin/inhalte/kwa/pdfs/HANDBUCH_EN.pdf), Date accessed: 15/05/2018

<sup>74</sup> Umwelt Bundesamt (2014). Ein Leitfaden zur erfolgreichen Kommunikation. Available at: [http://klimawandelanpassung.at/fileadmin/inhalte/kwa/pdfs/cctalk\\_strategie\\_Web-Version.pdf](http://klimawandelanpassung.at/fileadmin/inhalte/kwa/pdfs/cctalk_strategie_Web-Version.pdf) [29], Date accessed: 15/05/2018  
[http://www.bmlfuw.gv.at/dms/umat/umwelt/klimaschutz/klimapolitik\\_national/anpassungsstrategie/broschuere/Klimawandel-Brosch-re-Web/Klimawandel%20Brosch%C3%BCre%20Web.pdf](http://www.bmlfuw.gv.at/dms/umat/umwelt/klimaschutz/klimapolitik_national/anpassungsstrategie/broschuere/Klimawandel-Brosch-re-Web/Klimawandel%20Brosch%C3%BCre%20Web.pdf), Date accessed: 15/05/2018

<sup>75</sup> Pütz, M., Kruse, S., Butterling, M. (2011). Bewertung der Klimawandel-Fitness der Raumplanung: Ein Leitfaden für PlanerInnen. Projekt CLISP, ETC Alpine Space Programm. Available at: [http://www.klimawandelanpassung.at/fileadmin/inhalte/kwa/pdfs/Clisp\\_Leitfaden\\_Klimawandelfitness.pdf](http://www.klimawandelanpassung.at/fileadmin/inhalte/kwa/pdfs/Clisp_Leitfaden_Klimawandelfitness.pdf), Date accessed: 15/05/2018

national) and other forms of (national) guidance documents are mentioned by projects and plans and, thus, support the implementation of specific actions included in the NAP.

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

Yes / **No**

Although activities have taken place in the past and there are some activities currently underway and planned, it is unclear to what extent non-public administration stakeholders are being involved in the implementation of adaptation policies and measures. To improve the management of natural disasters, the NAP (via a specific action) mandates inclusion of all relevant civil society actors in the decision-making and execution processes.

The Federal Ministry for Sustainability and Tourism, together with all of the Bundesländer, has established an implementation plan for the NAP. This plan summarises a few specific participatory measures to be undertaken as a next step. For example, a working group on increased private risk precaution in case of extreme weather events was established in Austria. In addition, it was agreed to make stronger joint efforts to support adaptation at regional level (e.g. through regional workshops, and a brochure with good-practice examples).

**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

A progress report was published by the BMNT in 2015<sup>76</sup> on the state of implementation of the measures described in the NAP. Monitoring and evaluation of the NAS/NAP is pragmatic and comprises two modules: 1) a self-assessment approach using a stakeholder survey based on the NAP and sent to the key actors mentioned therein; 2) an indicator-based approach with qualitative and quantitative data collections<sup>77</sup>. No information is available on allocated budgets, but the cost of inaction was calculated by the ACRP project COIN in 2015<sup>78</sup>. The costs of public adaptation was calculated in the project PACINAS.<sup>79</sup> Furthermore, the role of private actors in adaptation was analysed by the project PATCH:ES<sup>80</sup>. All studies were

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<sup>76</sup> BMNT, formerly BMLFUW (2015). Anpassung an den Klimawandel in Österreich. Fortschrittsbericht. Federal Ministry of Agriculture, Forestry, Environment and Water Management, Vienna.

<sup>77</sup> BMNT, formerly BMLFUW (2014). Anpassung an den Klimawandel in Österreich. Konzept für die Fortschrittsdarstellung. Federal Ministry of Agriculture, Forestry, Environment and Water Management, Vienna

<sup>78</sup> CCCA. COIN. Available at: <http://coin.ccca.at/>, Date accessed: 15/05/2018

<sup>79</sup> <http://anpassung.ccca.at/pacinas/ergebnisse/>, Date accessed: 15/05/2018

<sup>80</sup> <http://anpassung.ccca.at/patches/ergebnisse/>, Date accessed: 15/05/2018

reflected in the NAS and NAP 2017. The progress report is to be drafted and published at 5-year intervals. The next version is, therefore, due in 2020<sup>81</sup>.

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

**Yes** / No

The central progress report (see Indicator 10a) assesses the implementation of adaptation measures for 14 different sectors. Mainstreaming of climate adaptation into sector policies is one of the evaluation criteria of these sectoral assessments.

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

**Yes** / No

As mentioned in relation to Indicator 10a, the progress report is based on heavy input from regional (Bundesländer) and local stakeholders (self-assessment approach). This feedback mechanism allows for significant vertical flow of information, qualifying the central progress report as a proper monitoring tool for regional, sub-national, and local adaptation action.

## **11 Evaluation**

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

**Yes** / No

The concept note for the ‘presentation of progress’ (Konzept für die Fortschritts-Darstellung)<sup>82</sup> that lies at the heart of the central progress report (see Indicator 10a) provides an evaluation framework for both the NAS and the NAP. The evaluation takes place within a five-year cycle<sup>83</sup>.

There is no formal revision framework that dictates a specific process for amending the NAS or NAP periodically. However, the release of the 2015 progress report and other political developments at the time triggered a first revision and update of the NAS and NAP documents in 2017. Therefore, the review timeline is characterised by an ad-hoc revision based on the findings of the five-year recurring evaluation/progress report of the NAS and NAP.

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

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<sup>81</sup> Climate-ADAPT (2017). Austria, Summary. Available at: <http://climate-adapt.eea.europa.eu/countries-regions/countries/austria>, Date accessed: 15/05/2018

<sup>82</sup> BMNT, formerly BMLFUW (2014). Anpassung an den Klimawandel in Österreich – Konzept für die Fortschritts-Darstellung. Available at: [https://www.bmnt.gv.at/umwelt/klimaschutz/klimapolitik\\_national/anpassungsstrategie/fortschrittsbericht.html](https://www.bmnt.gv.at/umwelt/klimaschutz/klimapolitik_national/anpassungsstrategie/fortschrittsbericht.html), Date accessed: 15/05/2018

<sup>83</sup> Climate-ADAPT (2017). Austria, Summary. Available at: <http://climate-adapt.eea.europa.eu/countries-regions/countries/austria>, Date accessed: 15/05/2018

**Yes** / No

Stakeholder involvement and engagement (cross-ministerial and regional) in the development of the central progress report qualifies as active participation in the monitoring and reviewing process. In both the self-assessment approach and the indicator-based approach, stakeholders provided information and were consulted. Additional workshops took place to jointly work on the interpretation of quantitative and qualitative data for the progress report and to find consensus in the findings. The 2015 progress report was adopted by the Council of Ministers and all Provincial Governors.

## SUMMARY TABLE

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



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

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

