



# Adaptation preparedness scoreboard:

## Draft country fiche for Romania

### Disclaimer

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

Please note that the assessments (yes/no/in progress) need to be read in conjunction with the narrative that accompanies them. They assess the state of play *within* each country. While all effort has been made to ensure the coherence across fiches in the assessment of the same indicator, it should not be directly compared across the MS. Two countries with a "yes" on the same indicator could have a different national situation leading to that assessment. Not all indicators have the "in progress" status, some can only be "yes" or "no". For a more detailed explanation of what each indicator means and how its value is determined, please refer to the description of the scoreboard, a document published alongside the country fiches.

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## POLICY FRAMEWORK

### Adaptation strategies

#### A1. National adaptation strategy

Romania adopted its National strategy on tackling climate change 2013-2020<sup>1</sup> in July 2013. The strategy is divided in two parts, the second one dealing with adaptation to climate change (whilst the first describes the mitigation-related aspects). The aim of the strategy is to provide an overall framework for action, as well as guidelines that would enable each of the identified priority to develop their own action plans and align them with the national strategic principles. The 13 priority sectors identified in the Strategy are: industry; agriculture and fisheries; tourism; public health; buildings and infrastructure; transport; water resources; forests; energy; biodiversity; insurance; recreation activities; and education.

The adaptation component of the strategy identifies two major sets of actions to be undertaken –specific actions for the national level, and indicative categories of sectoral adaptation actions. Some very preliminary vulnerability and impact analysis is sketched for the 13 priority sectors and potential adaptation actions are recommended for most sectors. The strategy provides a brief outline of the existing and necessary resources

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<sup>1</sup> [http://www.mmediu.ro/beta/wp-content/uploads/2013/10/2013-10-01\\_SNSC.pdf](http://www.mmediu.ro/beta/wp-content/uploads/2013/10/2013-10-01_SNSC.pdf)

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dedicated to adaptation (touching in general terms on human resources, funding and information/knowledge). It also presents the proposed overall institutional framework for coordinating and implementing future adaptation actions.

A 2-year programme to operationalise the national climate change strategy<sup>2</sup> resulted in the development of a **National Climate Change and Low Carbon Green Growth Strategy (2016-2030)**<sup>3</sup> and an associated **Action Plan on Climate Change (2016-2020)**<sup>4</sup>, adopted through Government Decision 739/2016. The new strategy and action plan cover both mitigation and adaptation. The priority sectors identified in the 2013-2020 strategy were maintained in the new strategy.

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

For the time being there is no centralised information or evidence about adaptation strategies being developed at regional, sub-regional or local levels. However, there are some ongoing projects aiming to develop strategies, measures and local guidelines for adapting to climate change.

The project 'Danube Delta Integrated Sustainable Development Strategy (2030)<sup>5</sup> (completed in 2015) identified a series of priority areas of intervention and key projects within each sector based on criteria of expected impact towards the strategic objectives, geographical breadth, level of preparedness, and financial and administrative sustainability. Among the actions proposed was a reference to develop clear and easy to use local guidelines for climate change and energy efficiency programmes, including RO07- A green way to sustainable development<sup>6</sup>:

The Environmental Protection Agency Sibiu (project promoter, project financed from EEA funds), the monitoring and coordination environmental body for the Region 7 Center, commenced in February 2015 a project aiming to develop a set of good practices on adaptation to climate change. This project is meant also to provide a valuable model of good practices that could be replicated in other regions and to support the capacity building on climate data and climate experts in the field.

### **Adaptation action plans**

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

A national climate change action plan with a distinct adaptation component was developed within the project Romania: Climate Change and Low Carbon Green Growth

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<sup>2</sup> World Bank (2015) Romania: Climate Change and Low Carbon Green Growth Program, project website available at: <http://www.worldbank.org/en/country/romania/brief/romania-climate-change-and-low-carbon-green-growth-program>

<sup>3</sup> Strategia națională privind schimbările climatice și creșterea economică bazată pe emisii reduse de carbon pentru perioada 2016-2030 [National Climate Change and Low Carbon Green Growth Strategy 2016-2020], Annex 1 to Government Decision 739/2016, available at: <http://www.mmediu.ro/categorie/strategia-nationala-privind-schimbarile-climatice-rezumat/171>

<sup>4</sup> Planul național de acțiune pentru implementarea Strategiei naționale privind schimbările climatice și creșterea economică bazată pe emisii reduse de carbon pentru perioada 2016-2030 [National action plan for the implementation of the National Climate Change and Low Carbon Green Growth Strategy 2016-2020], Annex 2 to Government Decision 739/2016, available at: <http://www.mmediu.ro/categorie/strategia-nationala-privind-schimbarile-climatice-rezumat/171>

<sup>5</sup> The project is developed by the Government of Romania through the Ministry of Regional Development and Public Administration (MRDPA) with the support of the World Bank. More information available at: [http://www.mdrap.ro/userfiles/delta\\_dunarii/draft\\_Danube\\_Delta\\_Strategy.pdf](http://www.mdrap.ro/userfiles/delta_dunarii/draft_Danube_Delta_Strategy.pdf)  
[http://www.mdrt.ro/userfiles/delta\\_dunarii/draft\\_Danube\\_Delta\\_Strategy.pdf](http://www.mdrt.ro/userfiles/delta_dunarii/draft_Danube_Delta_Strategy.pdf)

<sup>6</sup> More information can be found at: <http://www.eeagrants.ro/en/funded-programs-see-grants>

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Program<sup>7</sup> undertaken by the Government of Romania, through the Ministry of Environment, Waters and Forests (MEWF) with the World Bank. The plan, adopted in 2016, includes actions and timelines, provides a design of specific responsibilities to each sector, identifies institutions and recommends criteria and indicators to assess how the objectives can be/have been meet.

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

There is currently no centralised information or evidence about adaptation action plans developed at subnational levels.

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

The adaptation strategy adopted in 2013<sup>8</sup> outlines a set of national actions to be developed and implemented (including mainstreaming adaptation into various policy areas). The strategy is also supposed to be the enabler for the priority sectors to start developing and implementing their own sectoral adaptation plans. These sectors are: industry; agriculture and fisheries; tourism; public health; constructions and infrastructure; transport; water resources; forestry; energy; biodiversity; insurance; recreational activities; education.

Some adaptation measures are already included in the existing sectoral strategies and plans, notably for agriculture and water management, and flood risk management.

## **SCOREBOARD**

### **Step A: preparing the ground for adaptation**

#### **1. Coordination structure**

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

**Yes** / No

The Ministry of Environment is the central body designated to coordinate the adaptation policy-making process.

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

Yes / **In progress** / No

During the development of the 2013-2020 Climate Change Strategy, a horizontal coordination mechanism was in place. The Ministry of Environment, Waters and Forests (MEWF) consulted a number of line ministries, governmental agencies, as well as research institutes, an NGO and an umbrella association of the Romanian municipalities. A Working Group was established to carry out the environmental assessment of the Strategy and Action Plan, comprising representatives from all relevant ministries.<sup>9</sup>

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<sup>7</sup> World Bank (2015) Romania: Climate Change and Low Carbon Green Growth Program, project website available at: <http://www.worldbank.org/en/country/romania/brief/romania-climate-change-and-low-carbon-green-growth-program>

<sup>8</sup> National strategy on tackling climate change 2013-2020, available at: [http://www.mmediu.ro/beta/wp-content/uploads/2013/10/2013-10-01\\_SNSC.pdf](http://www.mmediu.ro/beta/wp-content/uploads/2013/10/2013-10-01_SNSC.pdf)

<sup>9</sup> Raport de Mediu la Strategia națională privind schimbările climatice și creșterea economică bazată pe emisii reduse de carbon (CRESC) și Planul Național de Acțiune 2016-2020 privind schimbările climatice, available at: [http://www.mmediu.ro/app/webroot/uploads/files/2015-09-24\\_Raport\\_Mediu\\_CRESC\\_final.pdf](http://www.mmediu.ro/app/webroot/uploads/files/2015-09-24_Raport_Mediu_CRESC_final.pdf)

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In November 2014, Government Decision no. 1026/2014 led to the reorganisation of the National Commission for Climate Change (NCCC) as a framework that enhances inter-ministerial coordination towards meeting Romania's climate objectives. According to this regulatory document, the proposed structure of NCCC includes representatives from 16 ministries or agencies with competencies in the climate change area and also contains a technical working group of the representatives of 34 institutions at the operational level. One of the responsibilities of the NCCC as provided in the GD no. 1026/2014 enables the Commission to modify and update the National Climate Change Strategy and its Action Plan. The NCCC is designated therefore to become the principal operational structure ensuring a proper governance system for adaptation.

The new National Adaptation Strategy was adopted in 2016. A working group composed of representatives from ministries involved in activities regarding the National Action Plan will be established at ministerial level, with the participation of the National Commission for Climate Change.

### **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

Although no regional organisations or county administrations (i.e. NUTS-2 or NUTS-3 levels respectively) were directly involved in the development of the 2013-2020 Climate Change Strategy, the active participation of the Association of the Romanian Municipalities can be seen as a satisfactory vertical coordination across various levels of administration. As outlined above, a coordination mechanism (including vertical coordination) is described in the 2013-2020 strategy, but it was not rendered operational.

In Romania Centru Region, the Development Agency is the coordination body for the Covenant of Mayors. Centru RDA has contributed significantly to promoting the Covenant of Mayors at the region's level through the ENESCOM project - 'European network of information centers in promoting sustainable energy and reducing CO2 emissions in local communities ".

River Basin Management Plans/Flood Risk Management Plans take into account the possible effects of climate change.

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

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

**Yes** / No

The stakeholders that were actively involved in the development of the national climate change strategy 2013-2020 included the research sector (represented by several research institutes) and an NGO active in tackling climate change. Furthermore, during a self-assessment exercise carried out by the EEA in 2013, the Romanian authorities reported that the private sector, various interest groups and the wider public were duly informed and consulted during the process. Stakeholders were also consulted during the development of the 2016-2030 Strategy and the Action Plan was subject to a public consultation under the Strategic Environmental Assessment procedure.

A stakeholder consultation process also took place during the development of the 2016-2030 Strategy and 2016-2020 Action Plan, as part of the Strategic Environmental Assessment procedure. The first version of the 2016-2030 Strategy was subject to a public consultation.

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

**Yes / No**

Trans-national and cross-border cooperation comprises research components, policy-making activities and some concrete implementation measures (mainly related to flood risk management). As such, teams of climate researchers, hydrologists, experts in environmental protection, experts in disaster management, and stakeholders from forestry and agriculture sectors have participated in a number of transnational projects dealing with vulnerability assessments and adaptation measures. With regard to policy-making processes, Romania contributed to the development of the EU Strategy for the Danube Region (EUSDR). This macro-regional strategy includes, among others, measures and actions for tackling the flood risk along the Danube. From an implementation point of view, relevant activities include joint planning, sharing best practices and joint capacity building facilitated by the EUSDR, as well as the proposed joint actions regarding tackling flood risks, desertification and heat waves to be implemented with the support of the Romania-Bulgaria Cross-border Cooperation Programme 2014-2020<sup>10</sup>.

Also, Romania is an active party in the Commission on the Protection of the Black Sea Against Pollution<sup>11</sup>. Within this framework, the Strategic Action Plan for the Environmental Protection and Rehabilitation of the Black Sea was adopted (17 April 2009, Sofia- Bulgaria), which considered, among other objectives, assessing impacts of climate change on the Black Sea ecosystem and sustainable development of the coastal population.

The NAS includes transboundary components. The ministries involved in strategy implementation carries out government policy in the following areas of activity: regional development, cohesion and territorial development, cross-border, transnational and interregional cooperation.

### **Step B: assessing risks and vulnerabilities to climate change**

#### **3. Current and projected climate change**

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

Yes / **In progress** / No

The Romanian National Meteorological Administration (NMA, or ANM in Romanian) is proficiently monitoring climate change and extreme weather events and has its own department for research. Thus, it plays a key role in providing data and research for adaptation to climate change. ANM was/is also an active partner in a number of EU funded trans-national research projects that produced extremely valuable climate models and projections, such as the FP7 project European Reanalysis and Observations for Monitoring (EURO4M)<sup>12</sup>. The ANM website provides useful information about the current and future climate. At present, ANM has a specific section for adaptation to climate change: [http://www.meteoromania.ro/anm/?page\\_id=2893](http://www.meteoromania.ro/anm/?page_id=2893). ANM is responsible for monitoring the meteorological parameters – such as air temperature and pressure,

<sup>10</sup> Interreg V-A - Romania-Bulgaria, [http://ec.europa.eu/regional\\_policy/en/atlas/programmes/2014-2020/Territorial%20co-operation/2014tc16rfgb021](http://ec.europa.eu/regional_policy/en/atlas/programmes/2014-2020/Territorial%20co-operation/2014tc16rfgb021)

<sup>11</sup> More information can be found at: <http://www.blacksea-commission.org/bssap2009.asp>

<sup>12</sup> <http://www.euro4m.eu/projectinfo.html>

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precipitations, humidity, wind speed and direction – while the National Administration Romanian Waters (NARW, or ANAR in Romanian) is responsible for monitoring the surface water, ground water and its quality. The General Inspectorate for Emergency Situations (GIES), part of the Ministry of Internal Affairs is responsible for the coordination, prevention and management of emergency situations. To forecast climate-related emergency situations (e.g. floods), GIES relies largely on information from ANM and ANAR.<sup>13</sup> Records of historical extreme events exist, including floods, forest fires and drought.

As regards the observation/monitoring of impacts (e.g. casualties, financial losses), the World Bank study underpinning the development of the 2016-2030 Climate Change Strategy mentions that several assessments of past impacts have been conducted by various organisations, but notes the lack (in 2014) of a standard evaluation methodology and of a national database containing information on damages.<sup>14</sup> As we could not find evidence that the observation systems in place include systematic records on impacts, performance on this criterion is assessed as being 'in progress'.

They have been deployed sectoral rapid assessment studies addressing the adaptation and mitigation of climate change impacts in six key sectors (energy, transport, agriculture and rural development, forestry, urban and water). These studies have contributed to collecting sectoral information and data, identifying key players, highlighting the impact of climate change, and have provided the basis for proposing climate change measures to be integrated into the Action Plan.

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

**Yes** / In progress / No

Climate projections are available for Romania from ANM.<sup>15</sup> Climate change scenarios to 2001-2030 (compared to 1961-1990) were elaborated through a project which commenced in 2008, funded by the Ministry of Environment.<sup>16</sup> Climate projections for Romania were obtained through both statistical and dynamic downscaling methods, applied to global and regional climate models, based on IPCC emissions scenario A1B.

Through the project developed by MEWF and World Bank<sup>17</sup>, rapid assessments reports were delivered in 2014, including impacts and vulnerability rapid assessments for six sectors: water, agriculture, forestry, energy, urban, and transport.

Several modelling exercises based on different scenarios were carried out as part of the development of the 2016-2020 climate change strategy, including:

- Agricultural sector: modelling the effects by 2040 of three climate change scenarios (low, medium, high) on the productivity of different crop types and on water demand for

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<sup>13</sup> World Bank (2014) Monitorizarea efectelor schimbărilor climatice și a riscurilor în România: Evaluarea situației și a necesităților, [http://www.fonduri-ue.ro/images/files/studii-analize/48145/Raport%20A.2.2.%20Monitorizare%20efecte%20si%20riscuri%20climatice\\_RO.pdf](http://www.fonduri-ue.ro/images/files/studii-analize/48145/Raport%20A.2.2.%20Monitorizare%20efecte%20si%20riscuri%20climatice_RO.pdf)

<sup>14</sup> Ibid.

<sup>15</sup> Website of the National Administration of Meteorology, <http://www.meteoromania.ro/anm2/clima/>

<sup>16</sup> Busuioc, A., Caian, M., Bojariu, R., Boroneant, C., Cheval, S., Baciu, M. and Dumitrescu, A. (undated) Scenarii de schimbare a regimului climatic in Romania pe perioada 2001-2030, available at: <http://www.mmediu.ro/categorie/link-uri-utile/103>

<sup>17</sup> World Bank (2015) Romania: Climate Change and Low Carbon Green Growth Program, project website available at: <http://www.worldbank.org/en/country/romania/brief/romania-climate-change-and-low-carbon-green-growth-program>

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irrigation, in 12 hydrographical regions of Romania; the effect of different adaptation measures was also assessed.<sup>18</sup>

- Water sector: climate change impacts on mean annual flow were quantified for four river basins of Romania: Buzau, Ialomita, Arges, and Mures.<sup>19</sup>

- Energy sector: modelling climate change impacts on hydropower under different scenarios.<sup>20</sup>

The analytical work done through the project developed by the MEWF and the World Bank built on but mostly expanded and replaced existing work from several completed EU-supported, multi-country/multi-year assessments: 1. Climate Change and Variability: Impact on Central and Eastern Europe (or CLAVIER, <http://www.clavier-eu.org/>), completed in 2009; and 2. Central and Eastern Europe Climate Change Impact and Vulnerability Assessment (CECILIA <http://www.cecilia-eu.org/>), completed in 2010.. The impact of climate change on water resources availability and demands was directly linked to uncertain estimations of rainfall by General Circulation Models (GCMs), and subsequently, river flow volumes.

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

**Yes** / In progress / No

A number of studies are available regarding impacts of climate change on water supply, water scarcity and drought impacts on agriculture, and comprehensive flood risks assessment have been completed for the major river basins. Furthermore, the 2013-2020 adaptation strategy involved only a very rough and preliminary impact assessment at sectoral level. However, the strategy also acknowledged that a more detailed impact assessment should be run at sectoral level for identifying the main climate threats (or opportunities) and identifying appropriate adaptation measures. As part of the development of the 2016-2030 strategy, a Strategic Environmental Assessment was undertaken, which included consideration of risks to particular sectors.

Case studies about heat waves risk assessment in Western Romania's urban areas were developed by the SEE-RISK project.<sup>21</sup>

An overarching methodology was developed through the project RO-RISK – support for the fulfilment of ex-ante Conditionality 5.1. – risk assessment at national level.<sup>22</sup> The project was completed in 2016.

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<sup>18</sup> Redman, M., Andrei, L., Ionita, G., Janssen, W., Braimoh, A. (2014) Romania - Climate change and low carbon green growth program: component B sector report - agriculture and rural development rapid assessment, Washington DC; World Bank Group, available at: <http://documents.worldbank.org/curated/en/305181468333545430/Romania-Climate-change-and-low-carbon-green-growth-program-component-B-sector-report-agriculture-and-rural-development-rapid-assessment>

<sup>19</sup> Pahuja, S., Bica, I., Niculescu, C., Ionita, G., Fagarasan, A., Stanciu, P., Davy, T., Talbi, A., Paul, T., and Liden, R. (2014) Romania - Climate change and low carbon green growth program: component B sector report - integrated water resources rapid assessment, Washington DC; World Bank Group, available at: <http://documents.worldbank.org/curated/en/675851468094456585/Romania-Climate-change-and-low-carbon-green-growth-program-component-B-sector-report-integrated-water-resources-rapid-assessment>

<sup>20</sup> Liu, F., Meyer, A., Nutu, A.O., Constantinescu, J., Kaza, S., Singh, J., and Peszko, G. (2013) Romania - Climate change and low carbon green growth program: component B sector report - energy sector rapid assessment, Washington DC; World Bank Group, available at: <http://documents.worldbank.org/curated/en/727811468296463280/Romania-Climate-change-and-low-carbon-green-growth-program-component-B-sector-report-energy-sector-rapid-assessment>

<sup>21</sup> <http://www.seeriskproject.eu/seerisk/#main>

<sup>22</sup> Country report 5.1 Conditionality Romania 2016, deliverable of the "National Risk Assessment – RO RISK", available at: [https://www.igsu.ro/documente/RO-RISK/Raport\\_Final\\_de\\_tara.pdf](https://www.igsu.ro/documente/RO-RISK/Raport_Final_de_tara.pdf); Metodologia de evaluare a riscurilor și de integrare a



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Additionally, a risk analysis and screening approach for climate change mitigation and adaptation options was delivered to the MEWF as a milestone within the project 'Climate Change and Low Carbon Green Growth' (see above) – "Report on the analysis and risk assessment mitigation and adaptation actions and options in key policies".<sup>23</sup>

Other recently completed international projects which provide information on climate change impacts and vulnerability in Romania include:

- CECILIA: Central and Eastern Europe Climate Change Impact and Vulnerability Assessment<sup>24</sup> - provides studies on air quality in urban areas, water management and water quality, hydrology, agriculture and forestry. The National Meteorological Administration was involved in the study "Climate change impacts on Agriculture and Forestry sectors."
- CLAVIER: Climate Change and Variability: Impact on Central and Eastern Europe<sup>25</sup> - the main objective of this project is to investigate the impact of climate change on weather patterns, air pollution, extreme events and water resources in Central and Eastern Europe. Romania was involved in the projects "Impact on the hydrological and agricultural regime" and "Economic Vulnerability of CEE Societies and Economic Impact Assessment."
- WATERCoRe: Water scarcity and droughts - Co-ordinated activities in European Regions<sup>26</sup> - provides a platform for information exchange on water deficit, drought and climate change problems, as well as a manual of good practices and technological measures.
- CCWaters - Climate Change and Impacts on Water Supply<sup>27</sup>: the main objective of this project is to identify and evaluate the climate change impacts on availability and safety of public drinking water supply for several decades into the future, and provoked land-use changes.
- Climate change adaptation measures in Romanian agriculture<sup>28</sup> - pilot project (within the OrientGate project) providing adaptation options in agriculture.

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

Yes / **In progress** / No

At transnational level, a hazard map for flood risk in the Danube river basin is available. However, there is not yet evidence that transboundary risks are systematically taken into account in other sectors.

### **4. Knowledge gaps**

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

Yes / **In progress** / No

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evaluărilor de risc sectoriale, [https://www.igsu.ro/documente/RO-](https://www.igsu.ro/documente/RO-RISK/Metodologia%20de%20evaluare%20unitara%20a%20riscurilor%20-%20versiune%20finala.pdf)

[RISK/Metodologia%20de%20evaluare%20unitara%20a%20riscurilor%20-%20versiune%20finala.pdf](https://www.igsu.ro/documente/RO-RISK/Metodologia%20de%20evaluare%20unitara%20a%20riscurilor%20-%20versiune%20finala.pdf)

<sup>23</sup> World Bank (2015) Romania: Climate Change and Low Carbon Green Growth Program, project website available at:

<http://www.worldbank.org/en/country/romania/brief/romania-climate-change-and-low-carbon-green-growth-program>

<sup>24</sup> <http://www.cecilia-eu.org/>

<sup>25</sup> <http://www.clavier-eu.org/>

<sup>26</sup> <http://www.watercore.eu/>

<sup>27</sup> <http://climate-adapt.eea.europa.eu/metadata/projects/climate-change-and-impacts-on-water-supply>

<sup>28</sup> <http://climate-adapt.eea.europa.eu/metadata/publications/climate-change-adaptation-measures-in-romanian-agriculture>

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The National Climate Change Strategy 2013-2020 includes as the first two priority actions with regard to adaptation: updating climate change scenarios; supporting research activities in the field of climate change and creating a national climate change database. However, information could not be found on the level of progress to date in these two areas, or on the processes employed for periodically tackling knowledge gaps. It is also unclear how knowledge gaps are used to prioritise funding in the field of climate change adaptation research

### 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

Climate-related information (including some projections and brief information on adaptation-related policies and legislation) is available on the ANM website.<sup>29</sup> The MEWF website<sup>30</sup> also contains a section on climate change, with a sub-section dedicated to adaptation. It includes brief information on the international, EU, and national policy framework and links to the national climate change strategies and Action Plan. Vulnerability and risk assessments and adaptation tools are not the subject of specific sections on the ANM or MEWF websites. However, the visibility and breadth of information on these webpages could be improved.

Another important stakeholder that develops projects and studies based on the strategic documents and guidelines is the National Administration for Meteorology. Studies falling under its remit include SEERISK - Changing risks in changing climate<sup>31</sup> and OrientGate – A structured network for integration of climate knowledge into policy and territorial planning<sup>32</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

The 2013-2020 and 2016-2030 climate change strategies do not explicitly foresee capacity-building measures, however they do refer to actions on information and awareness-raising, particularly among citizens. It is unclear to what extent implementation in this area has progressed at this stage. A number of projects with capacity-building components have recently been carried out in the country, for example: the World Bank technical assistance project 'Making operational the National Strategy on Climate Change and the Development of the Climate Component of the Operational Programmes 2014-2020' (building the capacity of the MEWF with regard to climate action, including adaptation); OrientGate (a project covering 13 Southern and Eastern European countries communicate up-to-date climate knowledge for the benefit of policy makers, including urban planners, nature protection authorities, regional and local development agencies, and territorial and public works authorities); 'A Green Way to Sustainable Development' (one of the project's objectives was to educate, inform and

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<sup>29</sup> Website of the National Administration of Meteorology, <http://www.meteoromania.ro/anm2/clima/>

<sup>30</sup> Website of the Ministry of Environment, Forests and Waters, <http://www.mmediu.ro/categorie/adaptarea-asc/101>

<sup>31</sup> <http://www.seeriskproject.eu/seerisk/#main>

<sup>32</sup> <http://www.orientgateproject.org/>

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develop knowledge through training programmes focused on adaptation to climate change and effects of vulnerable sectors).<sup>33</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 2013-2020 adaptation strategy mentions some preliminary potential adaptation actions for many of the 13 priority sectors. **The 2016-2030 CC strategy, extending the previous one**, was complemented with an action plan with identifiable actions, timelines and indicators.<sup>34</sup> The actions proposed in the action plan cover all of the 13 sectors prioritised in the strategy. For six sectors, the selection of the actions was underpinned by rapid risk assessments (as described with respect to indicator 3c). For the remainder, the methodology used for the identification of adaptation options is unclear.

##### 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 actions in the Action Plan was done through stakeholder consultation, taking into consideration primarily the sectoral priorities, the availability of additional financing apart from the national budget sources and the climate relevance of the actions. Expert judgement prevailed (also during the consultations run with the stakeholders) although more complex tools were at times employed, especially in relation to climate change measures and actions proposed in sectors with higher co-financing rate from European Structural and Investment Funds.

##### 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**

It is not clear how climate change considerations are integrated into disaster risk reduction planning. A National Platform for Disaster Risk Reduction was established in October 2016,<sup>35</sup> but it is unclear to what extent climate change considerations will be integrated in its work.

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<sup>33</sup> ClimateADAPT Country Information: Romania: <http://climate-adapt.eea.europa.eu/countries-regions/countries/romania>

<sup>34</sup> Planul național de acțiune pentru implementarea Strategiei naționale privind schimbările climatice și creșterea economică bazată pe emisii reduse de carbon pentru perioada 2016-2020 2030 [National action plan for the implementation of the National Climate Change and Low Carbon Green Growth Strategy 2016-2020], Annex 2 to Government Decision 739/2016, available at: <http://www.mmediu.ro/categorie/strategia-nationala-privind-schimbările-climatice-rezumat/171>

<sup>35</sup> Government of Romania (2016) Organizarea și funcționarea Platformei naționale pentru reducerea riscurilor la dezastre, reglementată de Guvern, <http://gov.ro/ro/guvernul/sedinte-guvern/organizarea-si-funcționarea-platformei-naționale-pentru-reducerea-riscurilor-la-dezastre-reglementata-de-guvern>

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DRR does not feature prominently in the 2013-2020 national climate change strategy, however the strategy mentions that “the General Inspectorate for Emergency Situations should be more involved in the process of adaptation to climate change, given that climate change represents a matter of national security.” In the updated climate change strategy (2016-2030)<sup>36</sup> and associated Action Plan<sup>37</sup>, the emergency response services are discussed in connection with public health. The 2016-2030 strategy also considers flood risks. It foresees that “knowledge regarding flood risk management will be improved taking into account the expected effects of climate change” and that investments in the water sector will be prioritised on the basis of hazard and flood risk maps, taking into account, as far as possible, the impacts of climate change.

Regarding institutionalised cooperation and procedures, the institutional mandate for the coordination, prevention and management of emergency situations lies with the General Inspectorate for Emergency Situations (GIES), part of the Ministry of Internal Affairs.<sup>38</sup> The 2015 fact sheet noted that “a cross-institutional consultation group operates under the coordination of the General Inspectorate for Emergency Situations to facilitate a uniform approach towards climate change risks related drivers. However, this group does not carry regular meetings with an agenda established well in advance and encompassing preventive and analytic adaptation features.” Information on this group (in particular, whether it is in place) could not be found online.

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

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

**Yes** / In Progress / No

Funding is available for increasing climate resilience in a number of sectors (with an extremely important contribution expected from the European Structural and Investment Funds - ESIF, which will also bring in national co-financing). Under Romania’s Partnership Agreement 2014-2020, EUR 2 billion is allocated to the thematic objective “promoting climate change adaptation, risk prevention and management” (EUR 0.5 billion from the Cohesion Fund and EUR 1.5 billion from the European Agricultural Fund for Rural Development).<sup>39</sup> The national Action Plan – which identifies funding sources for each proposed action (including for cross-cutting actions such as capacity-building, climate research) – indicates that some adaptation actions will also be funded through other ESIF funds, such as the European Development Fund and the European Social Fund. Other funding sources identified in the NAP include the national budget (however, a particular budget line is not always specified), local budgets (without further specification), Horizon 2020, LIFE, SEE/INTERREG.

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<sup>36</sup> Strategia națională privind schimbările climatice și creșterea economică bazată pe emisii reduse de carbon pentru perioada 2016-2020 2030 [National Climate Change and Low Carbon Green Growth Strategy 2016-2020], Annex 1 to Government Decision 739/2016, available at: <http://www.mmediu.ro/categorie/strategia-nationala-privind-schimbările-climatice-rezumat/171>

<sup>37</sup> Planul național de acțiune pentru implementarea Strategiei naționale privind schimbările climatice și creșterea economică bazată pe emisii reduse de carbon pentru perioada 2016-2020 2030 [National action plan for the implementation of the National Climate Change and Low Carbon Green Growth Strategy 2016-2020], Annex 2 to Government Decision 739/2016, available at: <http://www.mmediu.ro/categorie/strategia-nationala-privind-schimbările-climatice-rezumat/171>

<sup>38</sup> ClimateADAPT Country Information: Romania: <http://climate-adapt.eea.europa.eu/countries-regions/countries/romania>

<sup>39</sup> Summary of the Partnership Agreement with Romania, 2014-2020, available at: [https://ec.europa.eu/info/publications/partnership-agreement-romania-2014-20\\_en](https://ec.europa.eu/info/publications/partnership-agreement-romania-2014-20_en)

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### Step D: Implementing adaptation action

#### 8. Mainstreaming adaptation in planning processes

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

Yes / **No**

The national framework for environmental impact assessment has not yet been revised to include considerations on adaptation. Notably, the revision of the national framework for environmental impact assessment is underway in order to align it with new EIA Directive. Aspects on CC adaptation are considered in the preparation of the new legislation.

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

**Yes** / No

The General Inspectorate for Emergency Situations (GIES) implemented the RO-RISK "Support to fulfil the ex-ante conditionality 5.1. – risk assessment at national level" project, whose aim was to develop a common risk assessment methodology.<sup>40</sup>

The methodology aims at developing an integrated approach of (natural, biological, technological) risk assessment and its objective is both to assure a common framework for sectoral risk assessment, and to provide information regarding the types of risks on the Romanian territory, by its application to all these risks. On the basis of this methodology, risk assessments were carried out for 10 risks, including floods, drought, forest fires and landslides. Climate projections were taken into consideration for the assessments regarding drought and forest fires.<sup>41</sup> The risk assessments will be followed by the preparation of risk management plans at sectoral level.

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

Yes / **No**

It is unclear how climate change adaptation considerations are included in land use or urban planning policies. The 2016-2030 strategy mentions the need to update current building/infrastructure codes and norms in view of climate change and extreme events, but there is no evidence that mainstreaming in this sector has already taken place.

##### 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

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<sup>40</sup> Country report 5.1 Conditionality Romania 2016, deliverable of the "National Risk Assessment – RO RISK", available at: [https://www.igsu.ro/documente/RO-RISK/Raport\\_Final\\_de\\_tara.pdf](https://www.igsu.ro/documente/RO-RISK/Raport_Final_de_tara.pdf); Metodologia de evaluare a riscurilor și de integrare a evaluărilor de risc sectoriale, <https://www.igsu.ro/documente/RO-RISK/Metodologia%20de%20evaluare%20unitara%20a%20riscurilor%20-%20versiune%20finala.pdf>

<sup>41</sup> Country report 5.1 Conditionality Romania 2016, deliverable of the "National Risk Assessment – RO RISK", available at: [https://www.igsu.ro/documente/RO-RISK/Raport\\_Final\\_de\\_tara.pdf](https://www.igsu.ro/documente/RO-RISK/Raport_Final_de_tara.pdf)

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It is unclear whether there are coordinated actions of mainstreaming adaptation into national policies and policy instruments. However, this is one of the actions included in the 2013-2020 adaptation strategy that will be carried at the national level.

### **The National Sustainable Development Strategy Romania 2013-2020-2030**

acknowledges the complexity of the process to adapt to the effects of climate change due to various factors such as physical vulnerability, level of socio-economic development, natural and human capacity for adjustment etc. Among the objectives of the Strategy there is a reference to the ability to anticipate the effects of climate change, to prepare solutions for adaptation in the long run and to develop cross-sector contingency plans comprising portfolios of alternative crisis-management solutions in case of natural or man-made disasters.

The National Strategy for Rural Development and the National Rural Development Programme 2014-2020 mention climate change adaptation as a priority and set out a number of related actions. However, it is unclear whether implementation has progressed. The integration of adaptation considerations in these documents appears to be driven mainly by the requirements of the Common Agricultural Policy, in particular those concerning funds, rather than the NAS.

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

Yes / **No**

The 2016-2030 strategy mentions the need to mainstream climate change adaptation in this sector and the action plan sets out a list of measures in this regard, but so far, no evidence could be found that adaptation is mainstreamed in insurance policies or alternative policy instruments to provide incentives for investments in risk prevention.

## **9. Implementing adaptation**

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

Yes / **In progress** / No

Some autonomous adaptation actions are being undertaken e.g. at sectoral level for agriculture and water management, and flood risk management or at local level regarding coastal erosion, flood protection or analysis of climate change impacts. However, it is unclear whether these actions are coordinated with the national adaptation strategy and the sectoral adaptation action plans are still not in place. The '**Large Infrastructure Operational Programme 2014-2020**' includes as a priority axis the promotion of adaptation to climate change, prevention and risk management that will be applied to projects financed through EU funds. The National Rural Development Plan 2014 - 2020 provides certain areas targeting climate change adaptation actions (M01 - Knowledge transfer and information actions (art 14); M02 - Advisory services, farm management and farm relief services (art 15); M11 - Organic farming (art 29).

As the NAP was only adopted in October 2016, no progress report on its implementation has been issued so far.

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

Yes / **No**

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We could not find any information regarding cooperation with regions and cities for implementation.

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

Yes / **No**

Apart from various guidelines issued by the European Commission, specific procedures or guidelines issued or used by the Romanian authorities for assessing the impact of climate change on major projects or programmes and for facilitating their adaptation were not identified.

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

Yes / **No**

It is unclear whether specific mechanisms for ensuring the involvement of the stakeholders in implementation have been put in place.

## **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**

Reports on the implementation of the NAS/NAP have so far not been published.

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

Yes / **No**

Currently, there appears to be no system in place for monitoring the integration of climate change adaptation in sectoral policies. Sectoral reports including information on adaptation aspects could not be found.

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

Yes / **No**

No evidence of information on reporting by sub-national administrations seems to be available.

### **11. Evaluation**

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

Yes / **No**

A schedule for periodic review of the adaptation action was included in the 2013-2020 national strategy. Specifically, the strategy was to be reviewed and its objectives updated during the first half of 2015. The World Bank technical assistance project mentioned above and the development of the 2016-2030 strategy responded to this

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requirement. The new 2016-2030 strategy does not give any indication with regards to its review schedule.

The strategy does not provide periodic review. It is envisaged to review / update the National Action Plan on Climate Change in due time. Actions are planned for the period 2016-2020, which are intended to be evaluated post 2020.

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

Yes / **No**

Information could not be found on the involvement of stakeholders in monitoring and evaluation of national adaptation policy. Additionally, the new strategy and action plan adopted in 2016 are not explicit on this point



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## 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>Yes</b> / No
1b	Horizontal (i.e. sectoral) coordination mechanisms exist within the governance system, with division of responsibilities	Yes / <b>In progress</b> / 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>In progress</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>Yes</b> / No
2b	Transboundary cooperation is planned to address common challenges with relevant countries	<b>Yes</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	Yes / <b>In progress</b> / 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) (e.g. in response to revised IPCC assessments)	<b>Yes</b> / In progress / No
3c	Sound climate risks/vulnerability assessments for priority vulnerable sectors are undertaken to support adaptation decision making.	<b>Yes</b> / In progress / No
3d	Climate risks/vulnerability assessments take transboundary risks into account, when relevant	Yes / <b>In progress</b> / No
<b>4      <i>Knowledge gaps</i></b>		
4	Work is being carried out to identify, prioritise and address the knowledge gaps	Yes / <b>In progress</b> / No
<b>5      <i>Knowledge transfer</i></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).	Yes / <b>In progress</b> / No
5b	Capacity building activities take place; education and	Yes / <b>In progress</b> /

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<b>Adaptation Preparedness Scoreboard</b>		
<b>No.</b>	<b>Indicator</b>	<b>Met?</b>
	training materials on climate change adaptation concepts and practices are available and disseminated	No
<b>Step C: Identifying adaptation options</b>		
<b>6 Identification of adaptation options</b>		
6a	Adaptation options address the sectoral risks identified in 3c, the geographical specificities identified in 3b and follow best practices in similar contexts	<u>Yes</u> / No
6b	The selection of priority adaptation options is based on robust methods (e.g. multi-criteria analyses, stakeholders' consultation, etc.) and consistent with existing decision-making frameworks	<u>Yes</u> / No
6c	Mechanisms are in place to coordinate disaster risk management and climate change adaptation and to ensure coherence between the two policies	Yes / In progress / <u>No</u>
<b>7 Funding resources identified and allocated</b>		
7	Funding is available to increase climate resilience in vulnerable sectors and for cross-cutting adaptation action	<u>Yes</u> / In Progress / 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 / <u>No</u>
8b	Prevention/preparedness strategies in place under national disaster risk management plans take into account climate change impacts and projections	<u>Yes</u> / No
8c	Key land use, spatial planning, urban planning and maritime spatial planning policies take into account the impacts of climate change	Yes / <u>No</u>
8d	National policy instruments promote adaptation at sectoral level, in line with national priorities and in areas where adaptation is mainstreamed in EU policies	Yes / <u>In progress</u> / No
8e	Adaptation is mainstreamed in insurance or alternative policy instruments, where relevant, to provide incentives for investments in risk prevention	Yes / <u>No</u>
<b>9 Implementing adaptation</b>		
9a	Adaptation policies and measures are implemented, e.g. as defined in action plans or sectoral policy documents	Yes / <u>In progress</u> / No
9b	Cooperation mechanisms in place to foster and support adaptation at relevant scales (e.g. local, subnational)	Yes / <u>No</u>
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	Yes / <u>No</u>

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<b>Adaptation Preparedness Scoreboard</b>		
<b>No.</b>	<b>Indicator</b>	<b>Met?</b>
	infrastructure	
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	Yes / <b><u>No</u></b>
10b	The integration of climate change adaptation in sectoral policies is monitored and the results of the monitoring are disseminated	Yes / <b><u>No</u></b>
10c	Regional-, sub-national or local action is monitored and the results of the monitoring are disseminated	Yes / <b><u>No</u></b>
<b>11      <i>Evaluation</i></b>		
11a	A periodic review of the national adaptation strategy and action plans is planned	Yes / <b><u>No</u></b>
11b	Stakeholders are involved in the assessment, evaluation and review of national adaptation policy	Yes / <b><u>No</u></b>