



Adaptation preparedness scoreboard:

Draft country fiche for Portugal

Disclaimer

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

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

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POLICY FRAMEWORK

Adaptation strategies

A1. National adaptation strategy

A new Strategic Framework for Climate Policy (QEPiC) was adopted by the Portuguese Government on 30th July 2015, through the Resolution of the Council of Ministers No.56/2015¹. QEPiC includes the National Programme for Climate Change 2020/2030 (2020/2030 PNAC)², addressing mitigation goals and action, and the follow-up of the National Adaptation Strategy (ENAAC 2020, which revises the earlier ENAAC of 2010). It sets out the vision and objectives of national climate policy, reinforcing the commitment to develop a competitive, resilient and low-carbon economy, contributing to a new development paradigm for Portugal.

The ENAAC 2020 has as vision for 2020: "A country adapted to the effects of climate change, through the continuous implementation of solutions based on technical-scientific knowledge and good practice." The three main goals that guide ENAAC 2020 are to:

¹ <https://dre.pt/web/guest/pesquisa/-/search/69905665/details/normal?l=1>

² <https://www.apambiente.pt/index.php?ref=16&subref=81&sub2ref=117&sub3ref=1376>

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1. **Improve the level of knowledge about climate change.** Update, develop and promote knowledge on climate change and potential impacts, risks and consequences, including those related to extreme weather events
2. **Implement adaptation measures.** Evaluate the current capacity to adapt and prioritize the implementation of options and adaptation measures that moderate future negative impacts and/or help to take advantage of opportunities arising from climate change.
3. **Promote mainstreaming of adaptation into sectoral policies.** Promote integration and monitoring of adaptation to climate change in priority public and sectoral policies and in the main instruments of spatial planning at national, regional and local level

A2. Adaptation strategies adopted at subnational levels

The NAS includes work undertaken by the two Autonomous Regions of Madeira³ and Azores⁴, which each have developed Regional Adaptation Strategies.

Because of the specificities and particular vulnerability of their environments to climate change, the Autonomous Region of the Azores has developed a targeted approach to the problem to be implemented through the Regional Strategy for Climate Change (ERAC). This has already been approved by the Government of Azores in October 2011⁵.

The Strategy of Adaptation to Climate Change of the Autonomous Region of Madeira was adopted through a Resolution of the Regional Government of Madeira⁶, after being published in September 2015⁷. Among other things it includes an extensive sectoral assessment of impacts and vulnerabilities.

There is a significant trend in development of Local Adaptation Strategies. This trend was greatly promoted by the project ClimAdaPT.Local⁸, under the EEA Grants' Programme AdaPT⁹, where local officers were subject of training on vulnerability assessment, and development of adaptation options. The project also led to 27 local adaptation strategies¹⁰ and to mainstreaming adaptation into local planning. The capacity building achieved with ClimAdaPT.Local is presently being replicated on other subnational regions (local and regional) through EU funding (Programme POSEUR, under Cohesion Fund¹¹) by using the guiding manuals¹² produced.

Three municipalities in mainland Portugal predominantly stand out with their early adoption of local climate change adaptation strategic plans: Almada, Cascais and Sintra. Some other municipalities report activities in related fields without calling them adaptation as such (e.g. initiatives to promote energy efficiency, water efficiency, increase in green urban areas and/or environmental education). Other municipalities are developing their adaptation plans within the scope of international networks, such as the

³ <http://clima-madeira.pt/pt>

⁴ <http://servicos-sraa.azores.gov.pt/grastore/SRAM/Resolu%C3%A7ao%20-%20estrat%C3%A9gia%20para%20as%20altera%C3%A7%C3%B5es%20clim%C3%A1ticas.pdf>

⁵ Governmental Resolution Nº 123/2011 on 19th October 2011

⁶ <http://www.gov-madeira.pt/joram/1serie/Ano%20de%202015/ISerie-188-2015-12-02.pdf>

⁷ http://clima-madeira.pt/uploads/public/estr_clima_web.pdf

⁸ <http://climadapt-local.pt/>

⁹ <http://apambiente.wixsite.com/adapt>

¹⁰ <http://climadapt-local.pt/en/municipal-strategies/>

¹¹ <https://poseur.portugal2020.pt/en/>

¹² <http://climadapt-local.pt/en/project-guides/>

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UN campaign: 'Making Cities Resilient: My City is getting ready'¹³ and the 'Covenant of Mayors for Energy and Climate'¹⁴. More than 20 cities have signed up the Covenant of Mayors on Energy and Climate so far.

Adaptation action plans

B1. National adaptation plan

A national Adaptation Action Plan is currently under development, based on the selection of actions foreseen in the biannual activity planning from some sectors and from transversal areas. Adaptation action has been promoted by mainstreaming in sectoral, local and/or regional planning. Furthermore, adaptation action in Portugal gives particular attention to financing, one of the main obstacles identified for implementing adaptation in the first phase of the ENAAC. Adaptation is considered within the scope of the Common Strategic Framework 2014 – 2020 under the European Structural Investment Funds (ESIF)¹⁵.

B2. Adaptation plans adopted at sub-national level

Much of the implementation of adaptation measures is taking place at regional/municipal level. Regions and municipalities are preparing action plans.

Autonomous Regions:

The **Azores** strategy will be operationalized through a Regional Plan for Climate Change, which will integrate the measures and actions considered relevant to each sector, in particular those which are already underway. This is under development and is expected to be finalised in 2017.

No regional Action Plan is currently being prepared for **Madeira**.

Municipalities

Most of the adaptation planning at local level is limited to adaptation strategies without allocation of resources or specific goals. However, this gap is being addressed in recent initiatives under EU funding (POSEUR) to develop subnational adaptation action plans (local and regional).¹⁶

¹³ Throughout 2010-2020 and beyond, the United Nations Office for Disaster Risk Reduction (UNISDR) Making Cities Resilient Campaign (MCRC), together with partners, aim to support sustainable urban development by promoting resilience activities and increasing local level understanding of disaster risk.

See more on the campaign here: <http://www.unisdr.org/campaign/resilientcities/home> and details on Portugal's participation here:

http://www.prociiv.pt/bk/RISCOSPREV/REDRISCOCASTROFE/Documents/Cidades_Resilientes_em_Portugal_2016_PNRRC.pdf

¹⁴ As of 16th June 2017, includes 23 signatories: Águeda, Alfândega da Fé, Almada, Anadia, Associação Transfronteiriça do Lago Alqueva, Aveiro, Barreiro, Braga, Cascais, Coruche, Estarreja, Faro, Guimarães, Ílhavo, Lagoa-Açores, Leiria, Lisboa, Mértola, Oeiras, Ribeira Grande, Torres Vedras, Vagos and Vila do Conde. See: http://www.covenantofmayors.eu/about/about/signatories_en.html?q=Search+for+a+Signatory...&country_search=pt&population=&date_of_adhesion=&status=&commitments1=1&commitments2=1&commitments3=1

¹⁵ http://ec.europa.eu/regional_policy/sources/docgener/guides/blue_book/blueguide_en.pdf

¹⁶ <https://poseur.portugal2020.pt/pt/candidaturas/avisos/poseur-08-2016-57-planeamento-em-adapta%C3%A7%C3%A3o-%C3%A0s-altera%C3%A7%C3%B5es-clim%C3%A1ticas/>

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B3. Sectoral adaptation plans

No adaptation action plans are adopted at sectoral level, or embedded in sectoral strategies. However adaptation issues are being mainstreamed in some sectoral action plans such as the Coast action plan – Litoral XXI, and the Dengue fever action plan.

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 Portugal the Environment Agency (APA) is in charge of national adaptation policy-making and coordination¹⁷.

The implementation of ENAAC 2020 is supported by a Coordination Group chaired by the APA, and composed of the coordinators of the thematic areas and of the sectoral working groups, as well as the representatives of the Autonomous Regions of Azores and Madeira and of the National Association of Portuguese Municipalities. In this way, the coordination group brings together the central administration bodies which in turn engage their specific stakeholders.

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

Yes / In progress / No

Sectoral Working Groups (WGs) were defined in the first phase of ENAAC along with the socio-economic and climate scenarios used to anticipate a range of future impacts. The coordinators/chairs of the WGs are integrated in the coordination group of ENAAC 2020.

Each WG is coordinated/chaired by the relevant central body (or bodies) of the central administration which ensures the involvement of the various sectoral agents:

- Agriculture - Directorate of Planning and Policies (GPP); Directorate General for Agriculture and Rural Development (DGADR)
- Biodiversity - Institute for Nature Conservation and Forests (ICNF)
- Economy - General Directorate of Economic Activities (DGAE)
- Energy - Directorate General for Energy and Geology (DGEG)
- Forests - ICNF
- Health - General Directorate of Health (DGS)
- Safety of people and assets – National Authority for Civil Protection (ANPC)
- Transports and communications – Institute of Mobility and Transports (IMTT); National Authority for Communications (ANACOM)
- Coastal areas and sea - APA; Directorate General for Maritime Policy (DGPM)

¹⁷ See <http://www.apambiente.pt/index.php?ref=16&subref=81&sub2ref=118&sub3ref=955>

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Taking into account ENAAC 2020's vision, objectives and Thematic Areas, each WG has the following competences:

- a. Identify impacts, vulnerabilities and adaptation measures;
- b. Integrate adaptation into sectoral policies;
- c. Identify knowledge needs and failures;
- d. Promote sectoral studies, identify funding sources and monitoring mechanisms;
- e. Prepare plan and activity report;
- f. Contribute to the work of the Thematic Areas;
- g. Articulate, when necessary, with other WGs.

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

ENAAC 2020 integrates the Autonomous Regions of Azores and Madeira, and the National Association of Portuguese Municipalities (ANMP) within its governance structure under the Coordination group. Under the Regional Strategy for Climate Change, the Autonomous region of **Azores** has created a specific governance structure related to climate change, the Climate Change Commission for the Autonomous Region of the Azores¹⁸, gathering entities responsible for health, agriculture, forestry, civil protection, transport, spatial planning, coastal protection, and climate experts.

For implementation of the regional strategy purposes, **Madeira** has established the Adaptation Community, which includes a Coordination Structure and a Stakeholders Panel; the latter includes private as well as public entities.

ANMP promotes diffusion of Covenant of Mayors initiatives at national level and also articulation between municipalities, enhancing their participation in this framework, as established in a partnership agreement between ANMP and the Commission¹⁹.

APA is also the National Water Authority, and as such it is currently working in the revision of planning instruments under WFD, such as River Basin Management Plans and Flood Risk Management Plans. The idea is to take into account climate scenarios, based on a methodology and data from Portugal's Climate Portal (<http://portaldoclima.pt>) and from other scientific studies and projects such as CIRAC²⁰, developed by University of Lisbon for the Portuguese Insurance Companies Association.

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

¹⁸<http://www.azores.gov.pt/Portal/en/entidades/sraf/noticias/Azores+will+have+commission+for+climate+change.htm?WBCMODE=ybtaemgtvxscpta>

¹⁹ More info: <http://www.anmp.pt/index.php/a-anmp/117>

²⁰https://www.apseguradores.pt/Portal/Content_Show.aspx?ContentId=2303&PagelId=80&MicrositeId=1&CategoryId=97

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The consultative process during the first stage of ENAAC involved stakeholders and experts in defining and working on research priorities for each of the sectors. This often resulted in an exhaustive collection of key action areas and adaptation measures published in sectorial reports. The revision of the strategy (EN AAC 2020) was submitted to public consultation during 2015.

EN AAC 2020 reiterates the importance of engaging a large number of stakeholders in the definition of adaptation policies and planning. The sectoral working groups were responsible for the involvement and consultation of stakeholders, who provided important contributions for the sectoral strategies and reports. Universities, academics, NGOs, relevant associations, the private sector and social partners were actively involved in the review and planning process at the sector level.

Stakeholder consultation is supported by two other structures: a scientific panel and the Inter-ministerial Commission on Air and Climate Change (CIAAC). The scientific panel guarantees the engagement of the scientific community and can provide knowledge-based support to EN AAC's Coordination Group. The CIAAC²¹ guarantees political support.

Following the principle of stakeholders' involvement in policy development, the revision of EN AAC was widely discussed within its Coordination Group (and respective coordinators/chairs of the sectoral working groups).

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

Yes / No

In EN AAC, the cooperation with relevant EU Member States was mentioned, albeit in a generic way, as an important dimension for adaptation. The EN AAC Progress Report (2013) emphasised 'strengthening the bilateral relations with Spain and the planning and integrated management of international river basins' as one of the planned adaptation measures under several key sector strategies: i.e. Agriculture, Forestry, Fishery and Water Management.

Transboundary cooperation to date is most developed with Spain.

Spain and Portugal share five important river basins, with two-thirds of their borders delineated by these rivers or their tributaries, the Miño/Minho, Limia/Lima, Duero/Douro, Tajo/Tejo, and Guadiana. Cooperation with Spain is long-standing, including an agreement on water management.

In 1998, the Albufeira Convention on Cooperation for the Protection and Sustainable Use of the Waters of the Portuguese-Spanish River Basins was signed. The Albufeira Convention broadens the scope of cooperation from an economic to a much wider framework for achieving the sustainable use and management of shared water resources. An additional protocol to the Convention, from 2008, contains a brief mention to climate change as a factor to take into account in future developments of the agreement.

Furthermore, Portugal's APA is a partner in the recently launched LIFE project LIFESHARA (Sharing Awareness and Governance of Adaptation to Climate Change in

²¹ CIAC was created for the monitoring of climate policy and sectoral policies impacting on national air quality and climate goals.

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Spain²²) will provide an important contribution on the thematic area “international cooperation” of the ENAAC 2020. One of the outcomes of this project, is the establishment of a framework for cooperation between the bodies in charge of adaptation in Spain and Portugal in order to identify risks, vulnerabilities, priorities and common actions.

More global transboundary cooperation takes place under the UN Convention to Combat Desertification (UNCCD). Portugal participates in joint actions with several countries of the Mediterranean basin (also non-European ones), contributing to knowledge sharing and knowledge transfer on adaptation to climate change.

Finally, under the UNFCCC commitments, Portugal has also supported several adaptation projects meeting the priority targets of Portuguese Cooperation Policy, i.e. Portuguese Speaking African Countries (PALOP) and East Timor. Annual reporting of these actions take place under Article 16 of the EU's Mechanism for Monitoring and Reporting (MMR).

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

Observation systems are in place to monitor climate change, extreme climate events and their impacts. In Portugal, the IPMA²³ is the body responsible for carrying out observations for meteorological and climatological purposes. It has given continuity and development to its own scientific and technical activities which began in Portugal around the nineteenth century. These activities were mainly concerned about the availability and quality of long duration climate data series. These data are essential for studies of climate change, particularly in terms of trends and extreme temperatures. Furthermore IPMA is managing the project “MeteoGlobal”²⁴ that allows any citizen to report in almost real-time the occurrence of severe weather events.

IPMA is also responsible for monitoring extreme events, such as droughts, heatwaves, heavy rainfall and strong winds. It has established several indicators for climate modelling, which are available at Portugal's Climate Portal²⁵, including aridity, drought, fire risk, evapotranspiration and heatwave duration).

Apart from Climate Portal, there are two other related national databases focusing on extreme weather-related events:

²²

http://ec.europa.eu/environment/life/project/Projects/index.cfm?fuseaction=search.dspPage&n_proj_id=567

²³

Instituto português do mar e da atmosfera, <http://www.ipma.pt/en/index.html>

²⁴ <http://meteoglobal.ipma.pt/>

²⁵ <http://portaldoclima.pt/en/>

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- The National Authority of Civil Protection (ANPC)²⁶ has a national database on disaster response and losses since 2006 and publishes this information in the yearbooks of civil protection events;
- The Portuguese Environment Agency (APA) keeps the records of the historical marks of floods and of its network of meteorological and hydrological monitoring stations. This data is available on SNIAmb (National System of Environmental Information)²⁷.

Finally, Portugal participates in several European and international weather monitoring projects.

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

Yes / In progress / No

The "Climate Change in Portugal: Scenarios, Impacts, and Adaptation Measures" (SIAM)²⁸ projects are the most comprehensive and integrated assessments on the impacts and vulnerability associated with climate on mainland Portugal, Azores and Madeira. The first report was published in 2001 (SIAM I) for mainland Portugal, and was updated with information on Azores and Madeira in 2006 (SIAM II). The studies were based on future climate scenarios and associated effects on a number of socio-economic sectors and biophysical systems including hydrological resources, coastal areas, energy, forests and biodiversity, fishing, agriculture and health. A sociological analysis of climate change in Portugal was also performed.

The 'Strategic Plans in the face of Climate Change' of Sintra²⁹ and Cascais³⁰, two multi-sectoral studies aimed at characterizing impacts and opportunities at the municipal level in an integrated way, published socio-economic and climate scenarios for those municipalities in 2009 and 2010³¹.

Despite these projects not being very recent, they remain as references on scenarios and impacts of climate change in Portugal, and are still consistently used to support adaptation projects. In order to improve the quality and access to this kind of information, the Climate Portal was developed by IPMA under the Programme AdaPT, which updates climate change information to consider IPCC's Fifth Assessment Report results and has become an easy access platform³² with data from the historical time series, climate change projections and sectoral climatic indicators for the geographical coverage of mainland Portugal.

²⁶ <http://www.prociv.pt/en-us/Pages/default.aspx>

²⁷ <http://sniamb.apambiente.pt>

²⁸ In the SIAM project, phase 1 (2003) and phase 2 (2006), a series of scenarios and models were considered, including the IPCC 2002 SRES Scenarios, Global Climate Models and Hadley Centre regional climate models.

²⁹ http://www.cm-sintra.pt/index.php?option=com_phocadownload&view=category&download=500:plano-estrategico-do-csnt-face-as-alteracoes-climaticas&id=74:planos-municipais

³⁰ <http://cciam.fc.ul.pt/prj/pecac/>

³¹ <http://cciam.fc.ul.pt/prj/pecac/?id=cenarios;> http://www.cm-sintra.pt/index.php?option=com_phocadownload&view=category&download=500:plano-estrategico-do-csnt-face-as-alteracoes-climaticas&id=74:planos-municipais

³² <http://portaldoclima.pt/en/>

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Furthermore, within ClimAdaPT.Local, 27 Local Adaptation Strategies were developed and published in 2016, with the involvement of municipalities. These strategies used scenarios and projections to identify current and future geographical vulnerabilities as well as adaptation options, including their evaluation and integration in territorial management instruments.

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

Yes / In progress / No

The main impacts/risks identified in the SIAM projects (see indicator 3b above) include:

- changes in flood and drought regimes, as well as changes in the quality and availability of water;
- land loss in coastal areas;
- significant increase in the risk of fire hazards;
- considerable increase in air pollution levels and ecological disturbances, which may lead to significant changes in the dynamics of infectious disease transmission as well as regional variations in agricultural productivity;
- increase of the erosion processes and consequently of the flooded areas; increase in irrigation water requirements and in water stress in dryland crops.

The SIAM and CLIMAAT (for the latter see indicator 3d below) projects constitute an initial light pre-screening that identified priority sectors and some potential adaptation measures. Sound climate risks/vulnerability assessments for priority vulnerable sectors have been produced as part of the Sectoral Strategies under phase 1 of ENAAC³³.

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

Yes / In progress / No

The impacts of climate change in the coastal area of Spain bordering Portugal are briefly mentioned in SIAM I and then examined in SIAM II. The need for cooperation to avoid increased damage is underlined as an outcome of the project.

In the 2003 CLIMAAT project³⁴, a consortium of several institutions of the Azores and Canary Islands, which included Madeira in 2006 (under the CLIMAAT II Interreg IIIB Project) sought to improve methodologies and knowledge in the field of meteorology and climatology, including climate change, with a focus on those islands' environments. From this initiative some significant issues were identified as common climate impacts of the Atlantic Archipelagos.

In the revision of River Basin Management Plans, which is currently under development, climate change scenarios include data from the overall area of common river basins shared between Spain and Portugal. The data was collected by IPMA through the EURO-CORDEX programme³⁵.

A further example of transboundary cooperation is an initiative which joints regional authorities from Madeira, Azores and the Canary Islands: (Portugal and Spain). This is

³³ <https://www.apambiente.pt/index.php?ref=16&subref=81&sub2ref=118&sub3ref=391>

³⁴ <http://www.climaat.angra.uac.pt/>

³⁵ <http://www.euro-cordex.net/>

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called The Transnational Operational Programme for Madeira-Azores-Canary Islands (MAC 2014-2020)³⁶.

4. Knowledge gaps

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

Yes / In progress / No

In the 2013 ENAAC's Progress Report, very specific knowledge gaps were identified at sector level, in particular for the agriculture, water and spatial planning sectors. Furthermore, the report highlighted the need for a dedicated research programme on climate change for Portugal. In the interim, this gap was filled through adaptation focused research programmes within CIRCLE-2, under the EU's Seventh Framework Programme for research (FP7). CIRCLE-2 is a European network of 34 institutions from 23 committed countries that funds research and share knowledge on climate adaptation and promote long-term cooperation among national and regional climate change programmes.

This knowledge gap on research, temporarily filled by research under CIRCLE-2 is addressed now within ENAAC 2020 through a dedicated Thematic Area focusing on:

- Development of a research agenda.
- Cooperation between academia and ENAAC 2020 sectoral working groups.
- Support to the participation of Portuguese science in national adaptation projects.
- Promotion of the participation of ENAAC 2020 stakeholders in international adaptation networks.
- Knowledge transfer to the business community.

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

Information about adaptation policy is currently available within the APA's website.³⁷ IPMA's project (mentioned above) has also created an easy access platform³⁸ with data from the historical time series, climate change projections and sectoral climatic indicators for the geographical coverage of mainland Portugal. A project financed by

³⁶ <http://poacores2020.azores.gov.pt/en/noticias/azores-and-the-european-territorial-cooperation-2020-new-challenges-and-opportunity/>

³⁷ <http://www.apambiente.pt/index.php?ref=16&subref=81&sub2ref=118>

³⁸ <http://portaldoclima.pt/en/>

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Programme AdaPT consisted of a collaborative platform for the adoption of measures for adaptation to climate change in industry and services. This platform adaptIS³⁹ is now a reference platform that collects adaptation measures, tools and case studies.

In addition, ENAAC 2020 is preparing an application to ESIF funding to develop a national adaptation portal where all the relevant information will become available to all stakeholders and general public.

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

Yes / In progress / No

Capacity building is a specific objective that has been formulated in the ENAAC.

Capacity building is mainly taking place through projects, as part of the climate adaptation objectives in those projects. Several national and regional projects/activities have taken place in the past years in Portugal to raise awareness and understanding on adaptation and promote information sharing, including:

- INTERREG IVC project F:acts! (Forms for Adapting to Climate Change through Territorial Strategies)⁴⁰. The project exchanges good practices, and transfer knowledge about climate change adaptation. Key outcomes:
 - A handbook that provides a framework to define and implement territorial integrated strategies in the context of climate change adaptation in risk-prone areas.
 - A pilot study on adaptation directed to a specific coastal area Landscape Multi-functionality of Baixo Vouga Lagunar.
- Several events about climate adaptation through territorial strategies, including study visits, workshops to promote local stakeholders involvement, and coaching visits from foreign partners to increase adaptation capacity of local stakeholders.
- CLIMAAT I and II: this project developed specific methodologies for approaching the study of meteorology and climate regions of the Atlantic islands and its surroundings. The project produced information that was disseminated and spurred scientific cooperation.
- Programme AdaPT, developed under the EEA Grants 2009-2014 programming. AdaPT focused on two main activity areas:
 - a) Increasing capacity to assess vulnerability to climate change. The project ClimAdaPT.Local mentioned in indicator 9b is a key initiative for capacity building on adaptation issues for municipalities that provided local adaptation strategies for 27 participating municipalities (out of a total of 308 in Portugal) and guidelines for mainstreaming adaptation into municipal planning for use of other municipalities in the country. Several other sectoral pilot projects were also developed under the programme

³⁹ <http://www.adaptis.uc.pt/>

⁴⁰ http://www.factsproject.eu/SiteCollectionDocuments/201109_nieuwsbrief%20facts_english_WEB.pdf

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ClimAdaPT.Local, namely on water resources, forestry, tourism and biodiversity⁴¹.

b) Raising awareness and education on climate change. The University of Oporto developed a project with 30 schools all over the country, with the overall objective to communicate with, train and raise awareness in the school community on how to prevent the effects of climate change and implement adaptation measures⁴².

- Portuguese institutions participate in several relevant EU-funded research projects⁴³:

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

Adaptation options considered are consistent with the results of sectoral risk assessments, even if such sectoral risk assessments are sometimes based on a light screening (e.g. SIAM projects, ENAAC sectoral reports). Geographical issues are included, especially within the scope of local adaptation strategies and of sectors such as biodiversity and coastal areas.

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

⁴¹ <http://apambiente.wixsite.com/adapt/sectorial-projects>

⁴² <http://apambiente.wixsite.com/adapt/education-and-award-climate-change>

⁴³ a) BRIGAID⁴³ - BRIdges the GAp for Innovations in Disaster resilience (ongoing project); b) CERES⁴³ (ongoing project) - Climate change and European aquatic RESources; c) HYDRALAB+⁴³ (ongoing project) Adapting to climate change; d) PLACARD⁴³ (ongoing project) - PLATform for Climate Adaptation and Risk reduction; e) RESCCUE⁴³ (ongoing project) - RESilience to cope with Climate Change in Urban arEas - a multisectorial approach focusing on water; f) BINGO⁴³ (ongoing project) - Bringing INnovation to onGOing water management – A better future under climate change; g) KNOWHOW⁴³ (closed project) - Knowledge production, communication and negotiation for coastal governance under climate change; h) ERA4CS⁴³ (ongoing project) - European Research Area for Climate Services; i) MATRIX⁴³ (closed project) - New Multi-Hazard and MuTI-RiSk Assessment MethodS for Europe; j) CIRCLE-2⁴³ (closed project) - Climate Impact Research & Response Coordination for a Larger Europe - 2nd Generation ERA-Net -Science meets Policy; k) BASE⁴³ (closed project) - Bottom-up Climate Adaptation Strategies towards a Sustainable Europe; l) BRIDGE SMS⁴³ (ongoing project) - Intelligent Bridge Assessment Maintenance and Management System; m) IMPRESSIONS⁴³ (ongoing project) - Impacts and risks from higher-end scenarios: Strategies for innovative solutions; n) EnviCOP⁴³ (closed project) - Environmentally Friendly Coastal Protection in a Changing Climate.

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For the first phase of ENAAC, the methods and detail for prioritization of adaptation options varied from sector to sector. Actions were discussed with a large number of stakeholders (see 2a) but no clear set of priorities was fixed for most cases. For each sector a long list of measures is listed without indication of importance, possible outputs and impacts.

The choice of sectors for ENAAC and ENAAC 2020 have followed a methodology that sought to reconcile a fragmentation of the problem, and build on the knowledge and involvement of the stakeholders, to prepare a prioritised list of sectoral groups that would maintain the coherence of the strategy as a whole.

Some sectors already have existing work that is being developed, which either directly or indirectly contribute to the objectives of ENAAC 2020. Similarly, regional and local level assessments of the consequences of climate change were considered in the development of ENAAC 2020.

More work is ongoing under ENAAC 2020 to further streamline and develop these measures, including clearer implementation, monitoring and financing. Moreover, more effective sector cooperation is established under the thematic areas and through the coordination group to foster synergies and avoid inconsistencies. The Action Plan in development is a step in this direction.

6c. Mechanisms are in place to coordinate disaster risk management and climate change adaptation and to ensure coherence between the two policies

Yes/ In Progress / No

The establishment of the Portuguese National Platform for Disaster Risk Reduction, in May 2010, was a key measure towards better coordination of prevention, preparedness and response activities. The Platform is chaired by the Minister for Internal Affairs and composed of Delegates from other Ministries and other national entities⁴⁴. A consultative sub-committee was also created within this Platform to promote DRR activities. This sub-committee includes representatives from ministries and from private sector, academic institutions, cities and professional associations (e.g. engineers, architects). The national authority for civil protection (ANPC) is liaising with the work of the National Platform for DRR linked to climate change adaptation and coordinating one of the sectoral working groups that integrate ENAAC 2020. In this way, a close cooperation and articulation between disaster risk management and climate change adaptation is assured.

Under the first phase of ENAAC, the sector working group “safety of people and assets” developed several initiatives such as:

⁴⁴ Delegates of the Ministries responsible for the areas of: Defence; Justice; Economy, Transport and Communications; Public Works; Agriculture and Forests, Environment; Social Security; Health; Education and Scientific Research; The President of the National Authority for Civil Protection; Representatives of the National Association of Portuguese Municipalities, National Association of Portuguese Parishes, General Staff of the Armed Forces, National Guard, Public Security Police, Association of Professional Fire-fighters, League of Portuguese Fire-fighters (organisation representing the associations of Volunteer Fire-fighters), Judiciary Police, Security Coordination Office, Maritime and Aeronautical Authorities, National Institute for Medical Emergency, Madeira and the Azores Regional Governments.

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- Report on National Risks Assessment, including the ones related to climate change, published 2014⁴⁵.
- Acts to support disaster reduction policy at the sectorial level, namely in forest fires, floods, climate change adaptation and critical infrastructure protection.
- Good practices including early warning systems: under adverse weather conditions, monitoring of water resources (droughts and floods), heat waves, etc.

Since then, the working group on safety of people and assets has contributed to ENAAC 2020 with the publication of two manuals:

- best practices on flood risk management;
- best practices in risk prevention and management – resilient cities in Portugal 2016.

Another manual is being prepared about best practices for resilience within the private sector.

Portugal has adopted the Hyogo Framework for Action (HFA) in 2005 and the Sendai Framework in 2015.

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

The development of funding mechanisms and of selection criteria for applications are some of the issues to be addressed under the thematic area "Funding and implementing adaptation" of ENAAC 2020.

The Programme AdaPT was implemented under the EEA Grants 2009-2014⁴⁶ with a total budget of € 3,529,412 (€ 3,000,000 € from EEA + 529,412.00 from the Portuguese Carbon Fund – FPC). It was built from the needs identified by the 2013 ENAAC progress report.

Other adaptation financed is secured by the ESIF Common Strategic Framework 2014 – 2020, as well as programmes such as Horizon 2020, the Interreg IV-C and LIFE. Some significant programmes which implement the Common Strategic Framework at national level are:

- Several national Programmes (e.g. Portugal 2020⁴⁷).
- The most important programme for adaptation purposes in this context is the Operational Programme on Sustainability and Resource Use Efficiency, which foresees funding for awareness and implementing action in adaptation – Under Axis II – "Promote climate change adaptation and risk prevention and management", several planning instruments and tools are financed, along with

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http://www.prociv.pt/bk/RISCOSPREV/AVALIACAONACIONALRISCO/Documents/2016_Avaliacao_Nacional_Riscos.pdf

⁴⁶ <http://apambiente.wixsite.com/adapt>

⁴⁷ <https://www.portugal2020.pt/Portal2020/FAQs-Tema1#3>

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specific actions such as coastline protection and reinforcement of risk resilience, namely flood protection and forest fire risk⁴⁸

- Rural Development Programme 2020⁴⁹, which under heading 3 – "Environment, Resource Efficiency Use and Climate" supports several actions on soil conservation, water efficient use in agriculture, local breeds and plant varieties, forest management and forest fire preventions, among others.
- The Transnational Operational Programme for Madeira-Azores-Canary Islands (MAC 2014-2020).

Grants from the Foundation for Science and Technology (FCT) and from the Environmental Fund (which replaced the Portuguese Carbon Fund) -Decree-law No.42-A/2016) are also worth mentioning as finance sources at the national level. The Environmental Fund, in particular aims to support environmental policies, including adaptation to climate change, and with special focus on actions on coastal areas and on water resources.

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

Climate Change is considered in the Strategic Environmental Assessment (SEA) at the screening stage and is frequently identified as a Critical Factor for Decision-Making (CFD) in the scoping phase. When considered a CFD, both mitigation and adaptation are addressed (e.g. potential GHG emissions; flood risk plans/maps in the context of different land uses) and generally recognized as a relevant tool for considering climate change at an early stage of the decision-making process. Consideration of climate change at the SEA level also reflects on projects that may result from the implementation of the plan or programme, as well as the associated EIA.

For Environmental Impact Assessments (EIAs) the transposition process of Directive 2014/52/EU is still ongoing but in its final phases. The integration of climate change will be considered.

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

Yes / **No**

For this indicator, there is only the assessment "yes" or "no" possible.

Although a disaster risk assessment was carried out in January 2014⁵⁰, it is not clear how future climate extremes are covered in disaster risk management plans. The document provides a very comprehensive analysis and description of all the different types of risks Portugal can incur into, the areas that could be affected, a prioritisation of risks (on the basis of probability and extent of damages), measures to mitigate and

⁴⁸ <https://poseur.portugal2020.pt/en/investment-axes/axis-ii/>

⁴⁹ <http://www.pdr-2020.pt/site/O-PDR2020/Arquitetura>

⁵⁰ <http://www.prociv.pt/RiscosVulnerabilidades/Documents/Avaliação%20Nacional%20de%20Risco.pdf>

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adapt to risks. It should be noted that for every risk, the effect of climate change is considered.

The paragraph on adaptation of the above-mentioned risk assessment describes the different types of adaptation measures (autonomous, planned and anticipating) and indicates the need of a systematic analysis of past weather events, the development of an early warning system and the importance of building capacity to respond to climate extremes.

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

Yes / No

ENAAC 2020 addresses the difficulties and gaps identified in the former ENAAC through the introduction of 6 cross-cutting thematic areas, one of those being spatial planning.

Previously, adaptation knowledge and measures have been included in water management, and coastal management policies to a certain extent. However adaptation will only be properly integrated with the ongoing revision of the sectoral planning instruments and policies, especially those on water management, coastal management and spatial planning (at municipal level).

As for coastal management in particular, the Action Plan for the Protection and Enhancement of the Shore (PAPVL) 2012-2015 highlights the risks and impacts connected to climate change and population development for the coastal areas of Portugal. Adaptation measures are identified for all the zones at risk. The main aim is to carry out interventions which allow maintaining the value of people and goods eliminating or keeping the risk of damage under control. Rehabilitation interventions are also envisaged. Current developing Programmes for Coastal Areas take into consideration the results of a Specific Working Group that focused on coastal dynamics and climate change impacts⁵¹, and are progressively including climate change impacts for future interventions on the coastline⁵².

On Spatial Planning, a Resolution of the Council of Ministers⁵³ (RCM n.º44/2016) determines an update of the National Plan for Land Use Policies, which guides all land use instruments through a new Action Plan which will include, among others, adaptation to climate change and its integration on all land use policy instruments.

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 ENAAC's horizontal structure is a clear indication of the willingness to promote adaptation at sectoral level. The integration of adaptation into decision and planning processes of local and sectorial actors is one of the national priorities in this area. This trend is evidenced by the following sector level activities under ENAAC 2020:

Agriculture

⁵¹ http://sniamb.apambiente.pt/infos/geoportaldocs/docs/Relatorio_Final_GTL2015.pdf

⁵² <https://www.apambiente.pt/index.php?ref=16&subref=7&sub2ref=10&sub3ref=1193>

⁵³ https://dre.pt/web/guest/home/-/dre/75170441/details/maximized?p_auth=xM21HHUD

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By 2017, the agriculture working group plans to:

- 1) produce a report with the developments undertaken in ENAAC I, including the implementation of adaptation measures.⁵⁴
- 2) define a programme covering a) the identification of gaps in the impacts, measures and policy instruments, b) identification of best practices to address these gaps, c) definition of actions to be developed until 2020.

Biodiversity

For 2017/2018 the challenges facing the Biodiversity working group are essentially related to:

- Articulate the adaptation of biodiversity to climate change with other instruments of nature conservation and forest policy, at the level of monitoring and reporting.
- Articulate funding for adaptation of biodiversity to climate change with the funding of other nature conservation and forestry actions.

In the period of 2017/2018, the sector will maintain as a priority the adaptation of coastal ecosystems, aquatic ecosystems and areas of connectivity, both in the knowledge component and in the implementation of adaptation measures and integration of adaptation in relevant sectoral policies. In this context the support and monitoring of projects and the promotion of synergies with other sectors in the framework of national commitments on nature conservation and biodiversity are especially relevant. Another priority is research and knowledge acquisition on biodiversity vulnerability to climate change to support decision-making in adaptation.

The following implementation tasks are foreseen for 2017/2018:

1. Define an ENAAC BIODIV implementation plan for the period 2017/2018, according to priority lines of action up to 2020 and actions to be carried out or to be promoted in 2017/2018.
2. Monitor the implementation of adaptation measures of ENAAC BIODIV.
3. Review the implementation of ENAAC BIODIV until 2018, including the balance of plans, projects and actions relevant to the sector

Economy

The activities planned for the sector Economy under the framework of ENAAC 2020 include: a) identification of impacts, vulnerability and adaptation measures; b) mainstreaming of adaptation into sectoral policies; c) identification of needs and knowledge gaps; d) promotion of sectoral studies about the characterization of the problems and necessary measures, sources of funding and monitoring mechanisms; and e) dissemination of compiled information among sectoral stakeholders.

Energy

The implementation of adaptation measures is being assured by various energy policies and instruments. It is essential to develop climate proofing procedures in order to provide an overview of the adaptation performance of the energy sector, re-examine vulnerabilities and climate risks identified for the energy sector, and explore in more depth the prospect of energy demand as well as in the energy-water nexus.

⁵⁴ Under ENAAC 2013 (first phase of ENAAC) this sector was aggregated along with forests and fisheries and developed a National Adaptation Strategy for Agriculture and Forests (2013) that covered climate trends, sectoral characterization, assessment of climate change impacts and adaptive capacity, and definition of adaptation measures.

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Forests

Under the framework of ENAAC 2020 the next steps for this sectoral working group are: a) the adequacy assessment of the adaptation measures identified on the report "Forests Adaptation to Climate Change" (2013) according to the current situation of the Portuguese forest; and b) monitoring of the implementation of measures based on a system of established indicators.

Health

The health sector was also represented in ENAAC 2013 (first phase of ENAAC) where it produced a state of the art report on the effect of climate change in the sector. Since 2004 there is a Contingency Plan for heat waves, with warning system and responses to emergencies. Since 2007 there is a Surveillance System on Vector Borne Diseases.

Safety of people and assets

Besides the common responses of disaster risk reduction, the working group on safety of people and assets has contributed to ENAAC 2020 with the publication of two manuals, one dedicated to best practices on flood risk management and other dedicated to best practices in risk prevention and management – resilient cities in Portugal 2016. Another manual is being prepared about best practices for resilience within the private sector.

Transport and communications

Transport and communications is a new sector in the national adaptation strategy. The first steps still need to be taken in order to promote sectoral stakeholders involvement, vulnerability and impact assessment and adaptation measures, and integration of adaptation into sectoral activities.

Coastal areas and sea

ENAAC 2020 adds the sea dimension to the former sectoral group, with the intention to develop adaptation in this area. This sectoral group is expected to register significant progress because the sector is a significant component of the Operational Programme on Sustainable Use of Resources is specifically destined to fund coastal area protection and adaptation (200 million €). Activities include knowledge generation on coastal & marine systems, research on climate impacts, implementing identified adaptation measures and training/capacity building on adaptation policy.

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

Yes / No

The Portuguese Association of Insurers (APS) and the Foundation of the Faculty of Science, University of Lisbon (FFCUL) developed Flood Maps and Risk in Climate Change Scenarios (CIRAC). CIRAC allows the assessment of risk by providing benchmark indices that allow different types of vulnerability and assist the stakeholders in making strategic decisions. It defines what floods are, the links with climate change mitigation and adaptation and it maps vulnerability and risk in Portugal.

For the insurance industry, the CIRAC project can become a tool to assess hazards: insurance companies reacted to the publication of CIRAC report, by informing that they will adapt premiums according to the degree of flood risk linked to climate change in each of the country's zones.

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

ENAAC and ENAAC 2020 do not have an operational character of an action plan. Instead they promote mainstreaming to encourage the sectoral groups to develop and adopt their own adaptation action plans. However, as stated in B1, an Action Plan is currently under development building on the sectoral Action Plans, and based on the selection of actions on some sectors and on transversal areas. Furthermore, in ENAAC and ENAAC 2020, nine sectoral strategies have been prepared which identify a more precise set of possible adaptation actions: however neither clear timeframes nor indicators are defined.

The gaps concerning centralised strategic coordination do not imply that no adaptation projects are carried out. On the assumption that climate change impacts every sector and location differently and that a delocalised approach allows involving a more focused and heterogeneous platform of stakeholders, autonomous adaptation action is mostly occurring at the sector/local level. Support is provided towards the definition of local adaptation strategies, and municipalities are active in the implementation of local projects.

Additionally, the available fund for adaptation projects under Programme AdaPT was directed to the priorities set out by the sectoral groups of ENAAC. However the Programme budget was very limited and was only able to fund 5 adaptation sectoral projects and 3 structural projects addressing climate scenarios, education and local adaptation strategies.

Under POSEUR, several projects targeting Adaptation, namely on Coastal Protection, Efficient Use of Water and DRR are on development. Also under Rural Development funding, several projects on agriculture and forestry sectors are ongoing.

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

Yes / **No**

At subnational level, the Adaptation Strategy of the Autonomous Region of Madeira has been adopted⁵⁵ and implementation has been taking place through some projects across the territory. Also, an Adaptation Strategy is in place for Açores.

The municipalities of Almada, Cascais and Sintra were three of the 11 partners in the project financed by the Programme AdaPT program on local adaptation strategies called ClimAdaPT.Local. Their local developments in adaptation to climate change were used as a starting point for the work with the other 2627 municipalities across the country.

However, there is no formalized cooperation framework to support adaptation at subnational scales.

⁵⁵ <http://clima-madeira.pt/>

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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**

Climate change is one of the factors to be assessed, formally specified under the national legislation that transposes SEA Directive and reflected in the published guidance. No specific national guidance on the integration of climate change under EIA procedure is being developed by the national authorities.

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

Yes / No

Stakeholders (NGOs in particular) are encouraged to actively engage in implementing actions. As stated in the law, the composition of the sectoral groups of ENAAC includes relevant stakeholders such as major associations, NGO and biggest companies. They take active part in the development of all planning and action related to sectoral and transversal work.

The involvement of the private sector has also occurred on the basis of self-interest: for example EPAL, the largest production, transport and water distribution company in Portugal, is aware of the vulnerability of its activities under a likely climate change scenario and has completed a study to define medium and long term adaptation strategy for the company. In the water sector, the National Association for Quality in Building Services (ANQIP), a NGO that promotes quality and efficiency in the water cycle in buildings, has recently decided to develop a technical specification in this field, which regards reuse and recycling of grey water.

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

The 2013 Progress Report for the first phase of ENAAC identified the vulnerable sectors, the strengths and weaknesses⁵⁶ observed during the implementation of ENAAC and proposed measures. The report highlighted the main difficulties and gaps that should be addressed in ENAAC 2020.

Presently the monitoring has been guaranteed for reporting purposes through ENAAC's Coordination Group. The Strategy foresees 3 reports until 2020, to monitor the progress of work undertaken by the different sectoral groups and thematic areas, namely in terms

⁵⁶ An interesting strength/weaknesses analysis is made for the ENAAC in general, and for the work of the Coordination and Sectorial working groups.

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of the three objectives of the Strategy. The first interim report, regarding 2015-2016, has been published.⁵⁷

A more formal procedure is addressed in ENAAC 2020 under the Thematic Area 'Financing Adaptation', in order to establish a monitoring and review system for the overall adaptation process, particularly with close collaboration with sectoral groups following a mainstreaming approach. A Common Adaptation Indicator under POSEUR is currently on track, after the establishment of a methodology to determine the level of implementation of adaptation measures. This indicator is will be used to measure implementation of adaptation at national, regional and local level, and all organisations responsible for implementation will be addressed by a means of a questionnaire. Results are expected in the first quarter of 2018.

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

Yes / No

See 10a. The APA provides information through its website and via the publication of leaflets explaining the opportunities for funding and updates on implementation. A methodological approach has been developed to have a common indicator for all sectors and governance levels to measure progress on implementation of adaptation measures under plans or programmes. Results will be published at APA's website and will be reported under ESIF framework, since it is a Programme Result Indicator also.

The first interim report of ENAAC's coordination group (see 10a) lists the progress made towards integration of adaptation in prioritised policy sectors (indicating also the difficulties of limited available knowledge of climate change effects on many of these sectors).

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

Yes / **No**

Results from the aggregated Adaptation Indicator (under POSEUR) will be able to be interpreted at subnational or local level. The currently available ENAAC interim report does not seem to be reflecting a basis of sub-national or local monitoring and reporting.

11. Evaluation

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

Yes / No

The 2013 Progress Report for the first phase of ENAAC identified the vulnerable sectors, the strengths and weaknesses⁵⁸ observed during the implementation of ENAAC and

⁵⁷ <http://www.apambiente.pt/index.php?ref=16&subref=81&sub2ref=118&sub3ref=1375>

⁵⁸ An interesting strength/weaknesses analysis is made for the ENAAC in general, and for the work of the Coordination and Sectorial working groups.

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proposed measures, in some cases in a very extensive way. The report highlighted the main difficulties and gaps that should be addressed in ENAAC 2020, including the need to strengthen the interaction and coordination between sectors, the reinforcement of ENAAC's governance structure (better synergies), a better support on scientific knowledge, the need for a stronger focus on implementation of adaptation measures, the possible introduction of legal obligations and their alignment with the core of climate policy for the 2013-2020 period.

3 evaluations of the strategy have been foreseen in the Resolution of the council of Ministers; in 2016; 2018 and 2020. As stated in 10a., the 1st interim report, which corresponds to the first evaluation in 2016, is already available.

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

Yes / No

The analysis that led to the progress report was based on the sectoral groups contributions which, in turn, involved their sectoral stakeholders. The review undertaken since then is a further follow up to the strategy and a definition of the actions and measures that could be implemented at sector level, which build on the current involvement of stakeholders.

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SUMMARY TABLE

Adaptation Preparedness Scoreboard		
No.	Indicator	Met?
Step A: Preparing the ground for adaptation		
1 <i>Coordination structure</i>		
1a	A central administration body officially in charge of adaptation policy making	<u>Yes</u> / No
1b	Horizontal (i.e. sectoral) coordination mechanisms exist within the governance system, with division of responsibilities	<u>Yes</u> / In progress / No
1c	Vertical (i.e. across levels of administration) coordination mechanisms exist within the governance system, enabling lower levels of administration to influence policy making.	<u>Yes</u> /In progress /No
2 <i>Stakeholders' involvement in policy development</i>		
2a	A dedicated process is in place to facilitate stakeholders' involvement in the preparation of adaptation policies	<u>Yes</u> / No
2b	Transboundary cooperation is planned to address common challenges with relevant countries	<u>Yes</u> / No
Step B: Assessing risks and vulnerabilities to climate change		
3 <i>Current and projected climate change</i>		
3a	Observation systems are in place to monitor climate change, extreme climate events and their impacts	<u>Yes</u> /In progress/ No
3b	Scenarios and projections are used to assess the economic, social and environmental impacts of climate change, taking into account geographical specificities and best available science (e.g. in response to revised IPCC assessments) Yes / In progress / No (e.g. in response to revised IPCC assessments)	<u>Yes</u> /In progress/ No
3c	Sound climate risks/vulnerability assessments for priority vulnerable sectors are undertaken to support adaptation decision making.	<u>Yes</u> / In progress / No
3d	Climate risks/vulnerability assessments take transboundary risks into account, when relevant	<u>Yes</u> / In progress / No
4 <i>Knowledge gaps</i>		
4	Work is being carried out to identify, prioritise and address the knowledge gaps	<u>Yes</u> /In progress /No
5 <i>Knowledge transfer</i>		
5a	Adaptation relevant data and information is available to	<u>Yes</u> /In progress / No

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Adaptation Preparedness Scoreboard		
No.	Indicator	Met?
	all stakeholders, including policy makers (e.g. through a dedicated website or other comparable means).	
5b	Capacity building activities take place; education and training materials on climate change adaptation concepts and practices are available and disseminated	<u>Yes</u> / In progress / No
Step C: Identifying adaptation options		
6 Identification of adaptation options		
6a	Adaptation options address the sectoral risks identified in 3c, the geographical specificities identified in 3b and follow best practices in similar contexts	<u>Yes</u> / No
6b	The selection of priority adaptation options is based on robust methods (e.g. multi-criteria analyses, stakeholders' consultation, etc.) and consistent with existing decision-making frameworks	<u>Yes</u> / No
6c	Mechanisms are in place to coordinate disaster risk management and climate change adaptation and to ensure coherence between the two policies	<u>Yes</u> / In Progress / No
7 Funding resources identified and allocated		
7	Funding is available to increase climate resilience in vulnerable sectors and for cross-cutting adaptation action	<u>Yes</u> / In progress /No
Step D: Implementing adaptation action		
8 Mainstreaming adaptation in planning processes		
8a	Consideration of climate change adaptation has been included in the national frameworks for environmental impact assessments	<u>Yes</u> / No
8b	Prevention/preparedness strategies in place under national disaster risk management plans take into account climate change impacts and projections	Yes / <u>No</u>
8c	Key land use, spatial planning, urban planning and maritime spatial planning policies take into account the impacts of climate change	<u>Yes</u> / No
8d	National policy instruments promote adaptation at sectoral level, in line with national priorities and in areas where adaptation is mainstreamed in EU policies	<u>Yes</u> / In progress / No
8e	Adaptation is mainstreamed in insurance or alternative policy instruments, where relevant, to provide incentives for investments in risk prevention	<u>Yes</u> / No
9 Implementing adaptation		
9a	Adaptation policies and measures are implemented, e.g. as defined in action plans or sectoral policy documents	Yes / <u>In progress</u> / No

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