

# Adaptation preparedness scoreboard:

## Country fiche for Cyprus

### NOTE TO THE READER

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

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

The fiches are based on internal work by the Commission and on targeted assistance from an external contractor. They also served as input to the assessment of Action 1 of the Strategy during its evaluation. Annex IX of the Commission's SWD(2018)461 on the evaluation of the

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 The first versions of the fiches, prepared in consultation with the Member States in 2014-15, were unpublished and used to fine-tune the scoreboard.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

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

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

Strategy presents a horizontal assessment of the 28 country fiches, while Annex X presents the list of scoreboard indicators and the methodology used in applying them.

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

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## **List of abbreviations**

ARI	Agricultural Research Institute
CCRA	Climate Change Risk Assessment
CYCOFOS	Cyprus Coastal Ocean Forecasting and Observing System
DFMR	Department of Fisheries and Marine Research
DRR	Disaster Risk Reduction
ESIF	European Structural and Investment Funds
MCA	Multi-Criteria Analysis
MS	Member States
NAP	National adaptation plan
NAS	National adaptation strategy
NOA	Greek National Observatory of Athens
NTUA	National Technical University of Athens
MARDE	Ministry of Agriculture, Rural Development and Environment
PA	Partnership Agreement
SGL	State General Laboratory

## **POLICY FRAMEWORK**

### **Adaptation strategies**

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

Cyprus prepared a combined national adaptation strategy (NAS) and national adaptation plan (NAP) in 2014<sup>3</sup>. An updated NAS has been developed recently and formally adopted by the Cypriot Government in 2017<sup>4</sup>, which includes an evaluation of the effects of climate change on 11 vulnerable policy areas (sectors) in Cyprus. Moreover, the updated NAS identifies adaptation measures and actions for each vulnerable sector and states clearly the need for revision and evaluation of the NAS at regular intervals.

The adaptation policy process<sup>5</sup> has been aided by the CYPADAPT<sup>5</sup> project, which was co-financed by the EU through the LIFE+ instrument. This project started in September 2011 and was completed in March 2014. The beneficiary was the Department of Environment of the Ministry of Agriculture, Rural Development and Environment (MARDE), the authority responsible for climate change in Cyprus.

#### **A2. Adaptation strategies adopted at sub-national levels**

For the time being there is no centralised information or evidence about adaptation strategies being developed at regional, sub-regional or local levels<sup>6</sup>. However, local actions are taking place. MARDE is in contact with the Union of Municipalities and the Union of Communities to collect this information and organise training days to inform the local authorities on the adaptation actions relevant to their regions.

### **Adaptation action plans**

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

An updated NAP was adopted in 2017<sup>7</sup>. The combined NAS/NAP mentioned the adaptation measures for each vulnerable policy area (sector) in Cyprus, as they were identified using the CYPADAPT software tool. The updated NAP follows the same methodology as the

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<sup>3</sup> CYPADAPT, 2014, Ανάπτυξη εθνικής στρατηγικής για την προσαρμογή στις αρνητικές επιπτώσεις της κλιματικής αλλαγής στην Κύπρο, URL: [http://cypadapt.uest.gr/wp-content/uploads/2014/1219/deliverable\\_5.1\\_greek.pdf](http://cypadapt.uest.gr/wp-content/uploads/2014/1219/deliverable_5.1_greek.pdf), Date accessed: 14/05/2018

<sup>4</sup> ΥΠΟΥΡΓΕΙΟ ΓΕΩΡΓΙΑΣ, ΑΓΡΟΤΙΚΗΣ ΑΝΑΠΤΥΞΗΣ ΚΑΙ ΠΕΡΙΒΑΛΛΟΝΤΟΣ, ΤΜΗΜΑ ΠΕΡΙΒΑΛΛΟΝΤΟΣ, Απρίλιος 2017, ΕΘΝΙΚΗ ΣΤΡΑΤΗΓΙΚΗ ΓΙΑ ΤΗΝ ΠΡΟΣΑΡΜΟΓΗ ΣΤΗΝ ΚΛΙΜΑΤΙΚΗ ΑΛΛΑΓΗ, URL: [Cyprus National Adaptation Strategy 2017](http://cypadapt.uest.gr/)

<sup>5</sup> CYPADAPT, URL: <http://cypadapt.uest.gr/>, Date accessed: 14/05/2018

<sup>6</sup> Personal communication with MS contact

<sup>7</sup> ΥΠΟΥΡΓΕΙΟ ΓΕΩΡΓΙΑΣ, ΑΓΡΟΤΙΚΗΣ ΑΝΑΠΤΥΞΗΣ ΚΑΙ ΠΕΡΙΒΑΛΛΟΝΤΟΣ, ΤΜΗΜΑ ΠΕΡΙΒΑΛΛΟΝΤΟΣ, ΠΑΡΑΡΤΗΜΑ ΙΙ, 2017, ΣΧΕΔΙΟ ΔΡΑΣΗΣ ΠΡΟΣΑΡΜΟΓΗΣ ΣΤΗΝ ΚΛΙΜΑΤΙΚΗ ΑΛΛΑΓΗ, URL: [Cyprus National Adaptation Plan 2017](http://cypadapt.uest.gr/), Date accessed: 14/05/2018

combined NAS/NAP but is a more detailed document that lists potential climate impacts along with their potential risk/hazard, the competent authority and the timeline for the completion of each measure.

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

No sub-national adaptation plans have been adopted. Some activities related to climate adaptation have taken place at the local level but not as part of a programmed/planned process under the framework of the NAP.

## **B3. Sectoral adaptation plans**

Sectoral adaptation plans have been included in the NAP for each of the 11 policy areas mentioned above, including a set of adaptation measures that have been prioritised.

## **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 Cyprus, MARDE is the central body coordinating the adaptation policy-making process and has led the preparation and adoption of the NAS. The adaptation policy process has been aided by the CYPADAPT project, (2011-2014), which was co-financed by the EU through the LIFE+ instrument and was coordinated by the Department of Environment of MARDE. The Ministry was also responsible for preparing a combined NAS/NAP in 2014, which was updated and formally adopted in May 2017.

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

**Yes** / In progress / No

As indicated above, the responsible authority for the development and implementation of the NAS and NAP is the Department of Environment of MARDE.

During the development of the NAS, an ad-hoc consultation process was in place with the relevant authorities, academic research institutions and the private sector.

The responsibility for the implementation of specific sectoral actions lies within the responsible authorities for each specific action (e.g. the Department of Agriculture for agricultural issues). In November 2017, meetings with all relevant stakeholders took place to

assess the status of implementation of the activities included in the NAP<sup>8</sup>. Previously, a CYPADAPT Adaptation Steering Committee (established in November 2011) facilitated and monitored the progress of NAS. The Committee was further divided into thematic sub-committees. The Environment Department was the coordinator, bringing together government departments, local authorities, universities, research institutions, consultants, NGOs and consumer organisations.

**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

Vertical coordination mechanisms are not currently operational beyond the national level coordination of cities and communities. It is anticipated that further vertical coordination will be applied by the responsible organisation for each thematic topic to support the implementation phase.

**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 active engagement of stakeholders and experts (relevant ministerial departments, associations, non- governmental organizations, universities, research institutes, etc.) was recognised from the beginning of the NAS development as a key element for the assessment of vulnerability, the identification and evaluation of adaptation measures and most importantly, for the development of the NAS. Stakeholders were involved in several phases of the CYPADAPT project, particularly during: Phases 2 and 3 (respectively, assessment of current and future impact; adaptation and vulnerability assessment); Phases 4 and 5 (identification and assessment of the adaptation measures); and Phase 6 (development of the NAS).

The 6<sup>th</sup> National Communication to the UN Framework Convention on Climate Change (UNFCCC)<sup>9</sup> indicates that the outcome of the evaluation of proposed adaptation measures would, after public consultation, be finalised and used for the elaboration of the NAS. The draft NAS went through two different consultation phases before it was published. The 1<sup>st</sup>

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<sup>8</sup> Personal communication with MS contact.

<sup>9</sup> Department of Environment Ministry of Agriculture, Rural Development and Environment, December 2013, Cyprus- Sixth National Communication accompanied by the Biennial Report under the UNFCCC, URL: [http://unfccc.int/files/national\\_reports/annex\\_i\\_natcom/submitted\\_natcom/application/pdf/cyp\\_nc6\[1\].pdf](http://unfccc.int/files/national_reports/annex_i_natcom/submitted_natcom/application/pdf/cyp_nc6[1].pdf), Date accessed: 14/05/2018

phase presented the draft NAS to the sectoral Steering Committees of the LIFE project for comments. The 2<sup>nd</sup> phase consisted of a public consultation for a period of 2 months, which sought feedback on the evaluation criteria, the scoring system and the adaptation measures as well as input to the Multi-Criteria Analysis (MCA) tool database.

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

Yes / **No**

Transboundary cooperation to address common challenges with relevant neighbouring countries (cooperation between Mediterranean countries) is currently under development. The NAS states that Cyprus will pursue cooperation with neighbouring countries with the aim to prevent and tackle sea pollution. However, no specific planned actions are described. Nevertheless, a proposal to support adaptation actions between EU and non-EU neighbouring countries has been recently submitted for EU funding under the LIFE Integrated Projects programme. Moreover, the cooperation agreements between Cyprus-Greece-Israel and Cyprus-Greece-Egypt consider climate adaptation.<sup>10</sup> However, the limited scope of plans for transboundary cooperation do not qualify for a positive score.

## **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 Meteorological Service of Cyprus has a well-established database on observed key climate variables (temperature, rainfall, sunshine) that provides valuable information for climate impact studies.

The Cyprus Oceanographic Centre carries out ocean research and studies, forecasts and monitors the deep-sea water characteristics. It operates the Cyprus Coastal Ocean Forecasting and Observing System (CYCOFOS) and the online marine database Cyprus Oceanographic Online Database (BYTHOS), providing scientific data on Eastern Mediterranean.

The Department of Fisheries and Marine Research (DFMR) carries out research and monitors marine ecology and biodiversity, the coastal/marine water quality and the marine aquaculture.

The Agricultural Research Institute (ARI) conducts research in agriculture, plant and livestock science, proposes and evaluates new scientific and technological methods and

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<sup>10</sup> Personal communication with MS contact.

suggests new procedures for the sustainable utilisation of natural resources and the improvement of animal and plant production.

The State General Laboratory (SGL) carries out research to support the development and application of policies and to provide solutions to existing or emerging problems mainly in the areas of food safety, environment and public health. Detailed analysis of observed and potential climate impacts has been included in the CYPADAPT project.

**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 Meteorological Service has acquired the PRECIS model from the UK for running climatic forecasts. Future climate has been projected by using PRECIS16 as the main Regional Climate Model and the A1B emissions scenario<sup>11</sup>. The climate projections were examined in two future periods: the near future period 2021-2050 and the distant future period 2071-2100. The derived values of various climatic parameters in Cyprus for both future stages were compared to the reference values for the control period 1960-1990. The climate projections for the 2021- 2050 period were made by using six additional simulation models of the ENSEMBLES prediction system beside PRECIS16, whereas for the 2071-2100 period the A2 and B2 emissions scenarios were used in addition to A1B. For scenarios and projections, the draft NAS considers the future period 2021-2050. This has been chosen specifically in order to assist stakeholders and policymakers to consider impacts, assess vulnerabilities and plan adaptation measures.

Geographical specificities have been taken into account on a country-wide basis in some sectors, such as water resources. Geographical issues within Cyprus have also been considered for some sectors, particularly in relation to biodiversity and forestry.

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

**Yes** / In progress / No

A first vulnerability assessment on the most important economic sectors was made within the CYPADAPT project. Key climate change risks and priority policy areas were identified. Past research had already indicated that the sectors that would require priority attention on the design and application of adaptation actions for Cyprus would be water resources, coasts, biodiversity and tourism.

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<sup>11</sup> Nakićenović and Swart, 2000: IPCC Special Report on Emissions Scenarios. A Special Report of Working Group III of the Intergovernmental Panel on Climate Change. Cambridge University Press, Cambridge, UK

Cyprus's first detailed Climate Change Risk Assessment (CCRA) was published in 2016<sup>12</sup>. It provides an overview of potential risks and opportunities of climate change for Cyprus until 2100 and its findings will inform the development of adaptation plans by the Government and the competent authorities. The vulnerability assessment<sup>13</sup> has focused on 11 priority sectors. These include water resources, land use, seaside areas, biodiversity, forestry, agriculture, fisheries, tourism, energy, infrastructure and public health.

The selection of the policy areas was based on the categorization of policy areas for integrating adaptation, as these were identified in the European Commission's White Paper entitled "Adapting to climate change: Towards a European framework for action". The general concept of the methodology followed was adopted by the "Impacts, Adaptation and Vulnerability" Assessment Reports of the IPCC (2001) while the assessment was further elaborated by the CYPADAPT project team. The main sources of information used at international and European levels were technical reports of the IPCC, the European Commission, the European Environment Agency and the Joint Research Centre. In addition, an extensive literature review was undertaken, several academic/research institutions and private companies in Cyprus were consulted, and communication with numerous national authorities and organizations in Cyprus was established. Finally, various departments contributed, such as the Ministry of Agriculture, Rural Development and Environment, the Ministry of Energy, Commerce, Industry and Tourism, the Ministry of Transport, Communications and Works, the Ministry of Health, the Ministry of Interior and the Ministry of Labour, Welfare and Social Insurance of Cyprus.

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

Yes / In progress / **No**

While there are transboundary cooperation mechanisms in place (see Indicator 2b) no specific assessments have yet been completed<sup>14</sup>. Transboundary cooperation is mentioned in the NAS with regard to tackling marine pollution, but without specific mechanisms being planned.

## **4 Knowledge gaps**

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<sup>12</sup> Ministry of Agriculture, Rural Development and Environment, Department of Environment, August 2016, The Cyprus Climate Change Risk Assessment Evidence Report, URL: [http://www.moa.gov.cy/moa/environment/environmentnew.nsf/276491E82F8428E1C22580C30034ABF2/\\$file/Evidence-Report-v1\\_final.pdf](http://www.moa.gov.cy/moa/environment/environmentnew.nsf/276491E82F8428E1C22580C30034ABF2/$file/Evidence-Report-v1_final.pdf), Date accessed: 14/05/2018

<sup>13</sup> Papadaskalopoulou, Assessment of Cyprus' vulnerability to climate change and development of a national adaptation strategy, URL: [http://uest.ntua.gr/adapttoclimate/proceedings/full\\_paper/papadaskalopoulou\\_et\\_al\\_v.pdf](http://uest.ntua.gr/adapttoclimate/proceedings/full_paper/papadaskalopoulou_et_al_v.pdf), Date accessed: 14/05/2018

<sup>14</sup> Personal communication with MS contact.

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

Yes / **In progress** / No

Some knowledge gaps were identified during the development of the NAS, and during the meetings with all stakeholders that took place after the adoption of the NAS. The combined NAS/NAP document states that: “An interdisciplinary team will conduct periodic reviews of the literature review on the climate change effects and the adaptation measures on the health sector” (p236)<sup>15</sup>.

The work carried out in the preparation of the Cyprus NAS under the CYPADAPT project had two research institutions as key partners, the National Technical University of Athens (NTUA), and the Greek National Observatory of Athens (NOA), working together with MARDE. The vulnerability assessment carried out to inform the NAS (see Indicator 3c) identifies many research needs to properly inform the country's adaptation policy.

Some research into the assessment of existing and future impacts on vulnerable economic sectors is being financed and carried out through one-off projects. It has been decided to assess all knowledge gaps related to climate impacts and adaptation and identify possible sources of funding for their 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

During the development of its NAS, Cyprus developed a CYPADAPT portal<sup>16</sup> to support the dissemination of information on climate adaptation. The platform was designed to be a knowledge base and communication platform for adaptation, linked to Climate-ADAPT and other platforms. The potential users identified were the government, local authorities, universities, research institutions, NGO's and other stakeholders and citizens. The platform was expected to provide access and share information and views on many different issues concerning adaptation options, climate impacts, vulnerability, case studies, research activities, legislation, financing opportunities, tools for adaptation planning and useful links. However, the platform has not been updated since 2014.

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<sup>15</sup> CYPADAPT, 2014, Ανάπτυξη εθνικής στρατηγικής για την προσαρμογή στις αρνητικές επιπτώσεις της κλιματικής αλλαγής στην Κύπρο, URL: [http://cypadapt.uest.gr/wp-content/uploads/2014/12/19/deliverable\\_5.1\\_greek.pdf](http://cypadapt.uest.gr/wp-content/uploads/2014/12/19/deliverable_5.1_greek.pdf), Date accessed: 14/05/2018

<sup>16</sup> CYPADAPT 2011, URL: <http://cypadapt.uest.gr/>, Date accessed: 16/05/2018

MARDE's Department of Environment launched an online blog in Greek (ClimateCY<sup>17</sup>), where news, information and positions relating to adaptation were uploaded. However, the latest news update was in 2012.

As part of the CYPADAPT project, in preparing development of the NAS, there has been wide interaction between academia and policymakers, including through steering committees and working groups. However, it is unclear how the NAS or NAP will facilitate further dialogue and exchange between academia, policy and decision-makers.

### **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 NAP mentions certain actions that support capacity building. More specifically, the NAP includes provisions for a campaign to raise awareness among farmers on the importance of preserving water and the opportunities from using recycled water, as well as appropriate plant and animal species for different climate conditions. However, education materials or specific training activities to build adaptation capacity or to help stakeholders to adapt to climate change are not yet available. The NAP also includes an action to use the media to raise awareness among the general public on how to protect against heatwaves and a campaign on the effects of climate change on human health.

## **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

Overall, over 200 measures for enabling adaptation to the impacts of climate change across 11 policy sectors are included in the NAS, which take account of the geographical specificities of Cyprus. The various measures identified in the NAS aim to address all of the identified policy sectors and risks identified in the 2016 CCRA. These measures range in character from policy plans, strategies, legislative actions, guidelines, economic incentives to new infrastructure, knowledge dissemination activities or research.

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<sup>17</sup> Link can't be found anymore, but a useful link is the following:  
<https://climate-adapt.eea.europa.eu/countries-regions/countries/cyprus>, Date accessed: 14/05/2018

**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

In order to prioritise the options and facilitate the choices per sector, an MCA tool was developed. The NAS development also involved opinion surveys for the qualitative prioritisation of adaptation options in all of the 11 selected sectors. The MCA tool covered all of the identified adaptation measures. The criteria selected for the evaluation of the adaptation measures were:

- Efficiency of the measure
- Environmental concerns
- Supporting the prevention of climate impacts
- Urgency for implementing the measure
- Usefulness of implementation irrespective of climate change
- Technical viability
- Economic viability
- Public acceptance

The MCA tool processes stakeholders' evaluations on the proposed adaptation measures and produces alternative adaptation scenarios, based on: the degree of climate vulnerability, the weights assigned to the evaluation criteria, and the weights assigned to the different stakeholder groups (competent national authorities, relevant national authorities, research institutes, NGOs, sectoral unions and associations and civil society organisations). The adaptation measures with the highest performance against the evaluation criteria are identified and integrated into the NAP.

In the NAS, a "Sustainable Adaptation Scenario" is presented, which assigns equal weight to the technical, environmental and social criteria. As the economic evaluation of measures is a more complicated process, economic criteria have not been taken into account during this phase. A separate cost-benefit analysis for the selected adaptation measures will be conducted.

**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

Disaster risk reduction practitioners are involved in adaption planning. The disaster risk reduction planning has started at a strategic level and is part of the responsibilities of the Department of Defence<sup>18</sup>.

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

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

Yes / **In Progress** / No

The NAS mentions budgetary allocations to climate adaptation actions, such as the development of a detailed risk assessment (see Indicator 3c) or the development of a national adaptation platform (see Indicator 5a). Other elements such as coordination, governance, capacity building, indicators and projections do not yet seem to have specific resources allocated in the NAS, as yet.

Costs of climate impacts and costs/benefits of adaptation, in general, have yet to be identified. The Cyprus Audit Office stressed that the CYPADAPT proposed measures should be prioritized according to a cost-benefit analysis, and those with the lower cost and the highest contribution to adaptation should be implemented first. According to the After-LIFE Communication Plan<sup>19</sup>, which complemented the NAS, the adaptation measures identified have been included under the funding priorities foreseen in the Partnership Agreement (PA) 2014-2020 of the Republic of Cyprus, a comprehensive strategic document for the utilisation of the European Structural and Investment Funds (ESIF).

## **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**

As the revised Environmental Impact Assessment (EIA) Directive<sup>20</sup> is now in place, the Cypriot authorities have started to harmonise national legislation and mainstream adaptation. The deadline for transposition was May 2017. A national law, reflecting the revised EIA

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<sup>18</sup> Personal communication with MS contact.

<sup>19</sup> CYPADAPT, After-LIFE Communication Plan DELIVERABLE 6.6, URL: [http://cypadapt.uest.gr/wp-content/uploads/2014/12/22/deliverable\\_6.6.pdf](http://cypadapt.uest.gr/wp-content/uploads/2014/12/22/deliverable_6.6.pdf), Date accessed: 14/05/2018

<sup>20</sup> Directive 2014/52/EU of the European Parliament and of the Council of 16 April 2014 amending Directive 2011/92/EU on the assessment of the effects of certain public and private projects on the environment

Directive, is drafted and is now undergoing a third reading in the House of Representatives<sup>21</sup>. Climate adaptation will be included in the next revision of the national law on Strategic Environmental Assessment (SEA).

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

Yes / **No**

Plans for disaster risk reduction do not factor in projected climate extremes that may occur in the future. In addition, the NAS does not mention specific disaster preparedness plans or how these account for climate adaptation. The NAP does, however, mention that emergency preparedness plans, in general, should account for managing injuries and diseases that may occur as a result of climate change.

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

Yes / **No**

A description of land use, spatial or urban planning policies where adaptation is mainstreamed is lacking. There is reportedly a coastal area management programme (CAMP-Cyprus) within the framework of implementing Integrated Coastal Zone Management in Europe. However, there is no evidence of the programme mainstreaming consideration of climate impacts and vulnerability.

**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

Specific measures have been included in the NAP, so that future updates to water policy (such as the Cyprus River Basin Management Plan<sup>22</sup>), spatial planning and infrastructure will take adaptation into account.

There is some initial progress in the forestry sector, as the Ministry's Department of Forests has been developing a 10-year action plan regarding the adaptation of Cyprus forests to climate change. In addition, the Cyprus Institute presented a Climate Change Adaptation Plan

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<sup>21</sup> Personal communication with MS contact.

<sup>22</sup> Ministry of Agriculture, Rural Development and Environment, April 2011, Cyprus River Basin Management Plan, URL: [http://www.moa.gov.cy/moa/wdd/wdd.nsf/all/1AE1F4E1B33E432CC22578AF002C0E71/\\$file/RBMP\\_EN.pdf?openelement](http://www.moa.gov.cy/moa/wdd/wdd.nsf/all/1AE1F4E1B33E432CC22578AF002C0E71/$file/RBMP_EN.pdf?openelement), Date accessed: 14/05/2018

for the Pedieos River Basin to the Environment Committee of the Cyprus Parliament in February 2017.

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

Yes / No

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

Cyprus has in place a separate NAP document to address sectoral adaptation measures. The implementation of several adaptation measures in the 11 vulnerable sectors has begun but there is no further information on the extent of their completion. The measures with an immediate deadline (by 2018) refer to soil resources, coastal zones, tourism, biodiversity, health and energy sectors. However, the timeline for other measures varies between end of 2020, 2040 or more vague deadlines and no start dates are specified.

Some autonomous adaptation actions are being undertaken at sectoral level. For example, the Institute of Agricultural Research and the Ministry's Department of Forests are undertaking projects which facilitate adaptation. Moreover, the Cyprus Institute presented a Climate Change Adaptation Plan for the Pedieos River Basin to the Environment Committee of the Cyprus Parliament in February 2017.

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

Yes / No

Even though some implementation is underway, co-operation mechanisms have not yet been fully developed. However, the NAP sets out a few actions for different government departments and other authorities, such as the Ministries of Environment, Health, Agriculture, Public Infrastructure, Planning and Housing, local authorities and the National Meteorological Service.

There are a number of instances of cooperation with wider regional authorities<sup>23</sup>, municipalities, community groups and private local enterprises, including:

- CAMP-Cyprus, which is implementing activities in the southern peri-urban coastal area of Larnaca town with regard to: (i) biodiversity, (ii) capacity assessment, (iii) strategic environmental assessment and (iv) environmental economics and economic instruments. It involves the co-operation of Larnaca municipality and the communities of Pervolia, Meneou and Kiti
- The COASTANCE project for coastal zone adaptation, which includes an assessment of the coastal risks and management measures for the pilot case of Mazotos area in Larnaca District
- The MAREMED project on adaptation in coastal areas in which the Larnaca District Development Agency is partnering with 14 regions from five countries.<sup>24</sup>

**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, there are no specific procedures or guidelines issued or used by the Cyprus authorities for assessing climate impacts on major projects or programmes and for facilitating their adaptation.

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

Yes / **No**

Stakeholders have been defined during the development of the NAS and NAP and were involved throughout the process of their development. The Department of Environment continuous to involve all relevant stakeholders in the process of developing the implementation and implementation of the NAS and NAP.

The active engagement of stakeholders and experts (from ministerial departments, associations, non-governmental organizations, universities, research institutes, etc.) was recognised from the beginning of the NAS development as key to the assessment of vulnerabilities, the identification and evaluation of adaptation measures and, most importantly, for the development of the NAS. Stakeholders were involved in several phases

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<sup>23</sup> Each wider region (District) comprise of a number of Municipalities

<sup>24</sup> Maritime Regions cooperation for the Mediterranean, URL: <http://www.maremed.eu/index.php?act=1,2,3>, Date accessed: 16/05/2018

of NAS development, particularly during: assessment of current and future impacts, assessment of vulnerabilities, identification and assessment of adaptation measures. Moreover, the MCA tool processes stakeholders' evaluations on the proposed adaptation measures.

## **Step E: Monitoring and evaluation of adaptation activities**

### **10 Monitoring and reporting**

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

Yes / **No**

A Monitoring Strategy<sup>25</sup> was developed to complement the NAS, and proposed the establishment of a Monitoring Team. The results of the Monitoring Strategy are expected to provide the basis for the preparation of the second NAP. Monitoring reports are scheduled every year from 2017 to 2019. The preparation of the 2018 update has just started but it has not yet been published. All the stakeholders have been included throughout the process and particularly during monitoring the progress of the implementation of the adaptation measures.

The preparation of four monitoring reports by the Monitoring Team was foreseen for the periods:

- T1: 01/09/2014 – 30/11/2015
- T2: 01/12/2015 – 28/02/2017
- T3: 01/03/2017 – 31/05/2018
- T4: 01/06/2018 – 31/08/2019

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

Yes / **No**

Evidence for monitoring of integration climate adaptation in sectoral policies has not been published yet.

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

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<sup>25</sup> CYPADAPT, 2014, Strategy for monitoring the implementation of the National Adaptation Plan of Cyprus to climate change (English summary), Deliverable 5.2, URL: [http://cypadapt.uest.gr/wp-content/uploads/2014/12/19/deliverable\\_5.2\\_english.pdf](http://cypadapt.uest.gr/wp-content/uploads/2014/12/19/deliverable_5.2_english.pdf), Date accessed: 14/05/2018

Yes / **No**

There is no mention in the NAS or NAP of a requirement or expectation for sub-national organisations to report on their progress on adaptation to the national Government or the general public.

## **11 Evaluation**

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

**Yes** / No

The Council of Ministers' decision, which adopted the NAS and NAP in May 2017, clearly states that the NAS will be reviewed annually.

Data are collected for each adaptation measure and a review is being prepared. The deadline for submitting the review to the Department of Environment was 15<sup>th</sup> May 2018. The preparation of an updated NAS and NAP will then follow, which will be sent to the relevant stakeholders and then to the Council of Ministers for adoption.

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

**Yes** / No

Reviews coordinated by the Department of Environment involve all stakeholders, as stated in the Council of Ministers' decision that adopted the NAS and the NAP in May 2017. The process of the review follows the following steps:

- Previous version of the NAP/NAS are sent to all involved stakeholders
- Sectoral meetings take place with directly involved stakeholders
- Overall meetings take place for the overview of the NAS/NAP review
- The final draft version of the reviewed NAS/NAP is forwarded for final comments to all stakeholders
- The final draft version of the reviewed NAS/NAP is forwarded to the Council of Ministers for adaptation.

## 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	<u>Yes</u> / No
1b	Horizontal (i.e. sectoral) coordination mechanisms exist within the governance system, with division of responsibilities	<u>Yes</u> / In progress / No
1c	Vertical (i.e. across levels of administration) coordination mechanisms exist within the governance system, enabling lower levels of administration to influence policy making.	Yes / <u>In progress</u> / No
<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	<u>Yes</u> / No
2b	Transboundary cooperation is planned to address common challenges with relevant countries	Yes / <u>No</u>
<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	<u>Yes</u> / In progress / No
3b	Scenarios and projections are used to assess the economic, social and environmental impacts of climate change, taking into account geographical specificities and best available science (e.g. in response to revised IPCC assessments)	<u>Yes</u> / In progress / No
3c	Sound climate risks/vulnerability assessments for priority vulnerable sectors are undertaken to support adaptation decision making.	<u>Yes</u> / In progress / No
3d	Climate risks/vulnerability assessments take transboundary risks into account, when relevant	Yes / In progress / <u>No</u>
<b>4      <i>Knowledge gaps</i></b>		
4a	Work is being carried out to identify, prioritise and	Yes / <u>In progress</u> /

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

<b>Adaptation Preparedness Scoreboard</b>		
<b>No.</b>	<b>Indicator</b>	<b>Met?</b>
8d	National policy instruments promote adaptation at sectoral level, in line with national priorities and in areas where adaptation is mainstreamed in EU policies	Yes / <b><u>In Progress</u></b> / No
8e	Adaptation is mainstreamed in insurance or alternative policy instruments, where relevant, to provide incentives for investments in risk prevention	Yes / <b><u>No</u></b>
<b>9 Implementing adaptation</b>		
9a	Adaptation policies and measures are implemented, e.g. as defined in action plans or sectoral policy documents	Yes / In Progress / <b><u>No</u></b>
9b	Cooperation mechanisms in place to foster and support adaptation at relevant scales (e.g. local, subnational)	Yes / <b><u>No</u></b>
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 / <b><u>No</u></b>
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 Monitoring and reporting</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 Evaluation</b>		
11a	A periodic review of the national adaptation strategy and action plans is planned	<b><u>Yes</u></b> / No
11b	Stakeholders are involved in the assessment, evaluation and review of national adaptation policy	<b><u>Yes</u></b> / No