

Adaptation preparedness scoreboard:

Country fiche for Malta

NOTE TO THE READER

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

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

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

¹ The first versions of the fiches, prepared in consultation with the Member States in 2014-15, were unpublished and used to fine-tune the scoreboard.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

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

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

during its evaluation. Annex IX of the Commission's SWD(2018)461 on the evaluation of the Strategy presents a horizontal assessment of the 28 country fiches, while Annex X presents the list of scoreboard indicators and the methodology used in applying them.

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

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List of abbreviations

CCA	Climate Change Committee for Adaptation
CIP	Critical Infrastructure Protection
CRG	Climate Research Group
EAI	Environmental impact assessment
EDPA	Environment and Development Planning Act
ESD	Education for Sustainable Development
LCDS	Low Carbon Development Strategy
MIA	Malta International Airport
MWO	Meteorological Watch Office
NAS	National adaptation strategy
NBSAP	National Biodiversity Strategy and Action Plan
RCM	Regional climate models
RDP	Rural Development Plan
SEA	Strategic environmental assessment
SPED	Strategic Plan for the Environment and Development
UNFCCC	United Nations Framework Convention on Climate Change

POLICY FRAMEWORK

Adaptation strategies

A1. National adaptation strategy

The current national adaptation strategy (NAS)³ was adopted in 2012, under the authority of the Ministry for Resources and Rural Affairs. The NAS outlines recommendations for climate adaptation, and indicates which government entity or authority is responsible for its implementation and the timeframes within which such policy actions should be implemented. The NAS prescribes institutional, legislative, policy, communication, research and development measures, in addition to actions related to water, agriculture, human health, tourism, financing and insurance sectors.

Malta has initiated the process of developing a national Low Carbon Development Strategy (LCDS) in accordance with requirements under the United Nations Framework Convention on Climate Change (UNFCCC), European Union legislation and the Climate Action Act, 2015 (CAP543)⁴. Given, the particular specificities of the country and in view of being a vulnerable island in the Mediterranean, Malta's Low Carbon Development Strategy will also incorporate the NAS. The outcome to have the NAS within the LCDS was concluded in a scoping exercise, which was one of the phases in the process of adopting a LCDS for Malta. This is regarded as an important step in enhancing the coherence of broad policy frameworks and mainstreaming adaptation across the board. A consultation document, "Malta's Low Carbon Development Strategy: Our Vision" was published in May 2017 by the Ministry for Sustainable Development, the Environment and Climate Change⁵, which sets out a number of proposed broad principles for the NAS, and asks specific questions to stakeholders. While adaptation and climate resilience are mentioned in the document, they are not the focus of any of the consultation questions.

Following the publication of the vision document and public consultation in 2017, the Strategy is currently (June 2018) being developed, and the Maltese Government anticipates that it will be finalised within two years.

A2. Adaptation strategies adopted at subnational levels

The development of adaptation strategies at subnational level is irrelevant in Malta's case.

Adaptation action plans

B1. National adaptation plan

At the time of the development of the NAS, no separate action plan was published. Nevertheless, the NAS included measures and actions deriving from its overarching

³ Ministry for Resources and Rural Affairs (2012), National Climate Change Adaptation Strategy, <http://msdec.gov.mt/en/Document%20Repository/Malta%20Climate%20Change%20Adaptation%20Strategy/National%20Adaptation%20Strategy.pdf>

⁴ Climate Change Act, Laws of Malta Chapter 543:

<http://www.justiceservices.gov.mt/DownloadDocument.aspx?app=lom&itemid=12336&l=1>

⁵ MESDC (2017), Malta's Low Carbon Development Strategy: Our Vision https://meae.gov.mt/en/Public_Consultations/MSDEC/Documents/MSDEC%20LCDS%20Vision.PDF

objectives. In the development of the LCDS, the addition of a specific section on national adaptation action is being considered.

B2. Adaptation plans adopted at sub-national level

Local Councils are the only sub-national level of governance. While there are 24 Local Councils from Malta shown as signatories on the Covenant of Mayors website, adaptation planning at local level is not foreseen in the NAS,

B3. Sectoral adaptation plans

The following sector documents consider adaptation issues;

- The 2nd Water Catchment Management Plan for the Maltese Islands (2016)⁶
- The Malta National Biodiversity Strategy and Action Plan 2012-2020⁷
- The National Energy Efficiency Action Plan⁸
- The Malta's National Transport Master Plan 2025⁹, adopted in 2016
- The National Agricultural Policy for the Maltese Islands 2016-2025.¹⁰

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 Malta, the Ministry for the Environment, Sustainable Development, and Climate Change is in charge of adaptation policy-making in accordance with the Climate Action Act, 2015.¹¹ The Act stipulates that it is a duty and obligation of the Government to:

- Formulate, implement, publish and update policies regarding measures to prevent, avoid, and reduce vulnerability and enhance resilience to the adverse impacts of climate change
- To facilitate climate adaptation
- To promote research and observations of the climate system.
- To promote public awareness of climate change.

⁶ Sustainable Energy and Water Conservation Unit Environment and Resources Authority (2016), The 2nd Water Catchment Management Plan for the Malta Water Catchment District 2015–2021: <https://energywateragency.gov.mt/en/Documents/2nd%20Water%20Catchment%20Management%20Plan%20-%20Malta.pdf>

⁷ Available at: <https://www.cbd.int/doc/world/mt/mt-nbsap-01-en.pdf>

⁸ Ministry of Energy (2014), MALTA' s NATIONAL ENERGY EFFICIENCY ACTION PLAN (NEEAP), https://ec.europa.eu/energy/sites/ener/files/documents/2014_neeap_en_malta.pdf

⁹ Transport Malta (2016), Transport Master Plan, 2025, <http://www.transport.gov.mt/transport-strategies/strategies-policies-actions/national-transport-strategy-and-master-plan>
¹⁰https://meae.gov.mt/en/Public_Consultations/MSDEC/Documents/National%20Agricultural%20Policy%20for%20the%20Maltese%20Islands%202018%20-%202028.pdf

¹¹ See website at: <https://msdec.gov.mt/>

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

Yes / In progress / No

In order to ensure coordination between the relevant authorities and stakeholders for the development of the NAS, the Climate Change Committee on adaptation was established in 2009. This committee provided the necessary consultations for the drafting of the NAS, which was then presented to the former Ministry for Resources and Rural Development. After approval and publication of the NAS, the coordination role was taken up by that Ministry. In 2013, an Inter-Ministerial Committee on Climate Change was established to provide a forum for a cross-sectoral approach on climate change issues, including adaptation. This committee is also the responsible body for the current coordination of the development of the LCDS.

Later in 2015, the Climate Action Act provided for the establishment of a Climate Action Board, composed of representatives of ministries responsible for a wide range of affected sectors. The Climate Action Board's functions are related mainly to the supervision of the implementation of the Act together with any regulations that shall be eventually issued there, including development and implementation of mitigation and adaptation policies. This provision is designed to strengthen efficient collaborative action involving all stakeholders. One of the functions of the Climate Action Board is also to consult with the Malta Council for Economic and Social Development on climate action, including adaptation.

Currently, the coordination of climate change policy development and implementation is under the responsibility of the Ministry for the Environment, Sustainable Development and Climate change, as established by the Climate Action Act, 2015. The implementation of climate adaptation measures is the responsibility of the relevant sectoral ministries.

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

There is no regional level of subnational government in Malta. The process for development of the NAS involved effective consultation of local councils and other stakeholders. The Climate Change Consultative Council, which was proposed in the NAS as a forum for future coordination on adaptation and mitigation, has not been established. However, the role of the Climate Change Consultative Council was taken up by the Climate Action Board, as mandated in the Climate Action Act, 2015.

Local government is engaged in the development of adaptation-relevant policies in different sectors, for example in water catchment management. Twenty-four local councils are shown as signatories of the Covenant of Mayors on its website, representing 26 % of Malta's population.

Local government is part of the target audience for key planning tools in the water sector, particularly the National River Basin Management Plan¹², which incorporates the Flood Risk Management Plan¹³; which was backed up with a number of direct meetings with stakeholder in which the development and implementation of water management measures were discussed.

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 2012 NAS was prepared by the Climate Change Committee for Adaptation (CCCA), a body constituted by the former Ministry for Resources and Rural Affairs in 2009. The Committee was composed of representatives of the relevant government departments and agencies, academics and other experts, the private sector, and NGOs. The national consultation process held between November 2010 and June 2011 and the exchange between the Committee and the Government resulted in the NAS¹⁴. The 2012 NAS proposed the establishment of the Climate Change Consultative Council, a body tasked to provide input to policy design, implementation and review of the NAS and the mitigation strategy. The role of the Climate Change Consultative Council was then taken up by the Climate Action Board, as established by the Climate Action Act in 2015. The chair and members of the Climate Action Board were announced in February 2016¹⁵ and the function of the Board is in accordance with Regulation 11 of the Climate Action Act, as follows:

- a) “To supervise the implementation of this Act and, or any regulations made thereunder
- b) To monitor that Malta is in fulfilment of its obligations under the UNFCCC and its obligations as a Member State of the European Union
- c) To advise the Minister on the implementation of this Act and, or any regulations made thereunder and, or any international obligations relating to climate action which the Government may be bound to observe and, or any obligation relating to climate action which the Government may be bound to observe as a Member State of the European Union
- d) To facilitate Government’s adherence to the national low-carbon development strategy, the national adaptation strategy and any other strategy or policy which the Minister may issue in terms of this Act or any regulations made thereunder

¹² See “2nd Water Catchment Management Plan”, Environment and Resources Authority, 2016, downloaded at: <https://drive.google.com/file/d/1a50ui5yuv7RJsN-GpKK3DMIIQdklnF0b/view>

¹³ See: <https://www.energywateragency.gov.mt/wp-content/uploads/2017/12/Management-Plan-for-Extreme-Events.pdf>

¹⁴ CCCA (2010), National Climate Change Adaptation Strategy – Consultation Report, [http://msdec.gov.mt/en/Document%20Repository/Malta%20Climate%20Change%20Adaptation%20Strategy/National%20Climate%20Change%20Adaptation%20Strategy%20\(Consultation%20Report\).pdf](http://msdec.gov.mt/en/Document%20Repository/Malta%20Climate%20Change%20Adaptation%20Strategy/National%20Climate%20Change%20Adaptation%20Strategy%20(Consultation%20Report).pdf)

¹⁵ Government Gazette No. 19,528 of 26 January 2016: <https://gov.mt/en/Government/Government%20Gazette/Government%20Notices/Pages/2016/01/Gov-Notices-2601.aspx?IsPrintPrev=1&IsPrintPrev=1&IsPrintPrev=1&IsPrintPrev=1>

- e) To make recommendations to the Minister on any matter relating to this Act or any regulations made thereunder or on any matter relating to climate action
- f) To annually report to the Minister on the progress being registered in the field of climate change
- g) To consult with the Malta Council for Economic and Social Development on any matters relating to this Act or any regulations made hereunder
- h) To carry out such other functions as may be assigned to it by the Minister.”

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

Yes / No

While the 2012 NAS does not address transboundary challenges, Malta, together with neighbouring countries, participates in the main fora for regional cooperation on environmental and climate-related actions in the context of implementing the Barcelona Convention (The Barcelona Convention for the Protection of the Marine Environment and the Coastal Region of the Mediterranean) and the work of the Union for the Mediterranean which includes a focus on climate adaptation issues.

In April 2018, climate change, vulnerability and natural disasters were addressed in the Commonwealth¹⁶ Heads of Government Meeting Communique “Towards a Common Future¹⁷” with a view to adoption of a Blue Charter, which is meant to protect the oceans from the effects of climate change, pollution and over fishing. Malta signalled the availability of the Commonwealth Small States Centre of Excellence¹⁸ in offering opportunities for capacity building on ocean governance for small states of the Commonwealth.

Moreover, transnational cooperation with other Mediterranean countries and international cooperation in the area of climate science is developed and led by the University of Malta¹⁹.

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

Observations and forecasts on weather and climate conditions in Malta are conducted by the Malta International Airport (MIA) Meteorological Services Office²⁰ (Met Office).

¹⁶ See: <http://thecommonwealth.org/media/press-release/commonwealth-leaders-statement-climate-action>

¹⁷ See more at: <http://thecommonwealth.org/media/news/leaders-applaud-commonwealth-blue-charter-ocean-action>

¹⁸ A Commonwealth centre based in Malta.

¹⁹ For instance, the Physical Oceanography Research Group participates in several pan European projects and networks, some of which relevant to climate adaptation such as MedGLOSS (the Mediterranean regional subsystem of the Global Sea Level Observing System with a local station for real-time sea level, sea temperature and atmospheric pressure measurements in Portomaso), <http://www.um.edu.mt/science/geosciences/physicaloceanography>

The Met Office provides meteorological services to various stakeholders. The Met Office maintains a continuous observation and forecasting service with the function of a Meteorological Watch Office (MWO). Detailed weather information is also issued by this service provider, within the airspace covering the Maltese territory. Observations are conducted on a mandatory basis and these are provided by the automatic weather stations located across the islands.

The University of Malta carries out academic research and climate observation. It feeds data to the Sea Level Station Monitoring Facility that aims to provide (i) information about the operational status of global and regional networks of real time sea-level stations, and (ii) a display service for quick inspection of the raw data stream from individual stations²¹. The Climate Research Group (CRG) within the University of Malta, Department of Geosciences, has installed a numerical weather prediction model called WRF, which makes forecasts over the Maltese Islands, and two regional climate models (RCM) called PRECIS and RegCM4 on the super computer cluster, ALBERT, available at the University of Malta.

Climate impacts on Maltese society are not monitored yet.

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 NAS notes that it is difficult “to model climate change and adaptation scenarios on a geographical terrain as small as Malta.” The NAS relied on model runs used for the 2nd National Communication to the UNFCCC (2010). The national communication to the UNFCCC from 2014, continued to refer to these projections, while noting that there was then ongoing work at the University of Malta to adapt the modelling system to the needs of Malta with regards to projecting climate impacts²². The 7th National Communication²³ presents results based on a higher resolution RCM, although it notes that specific problems remain, including the lack of integrated sea-level rise projections.

The “Our Vision” consultation document from 2017 (see Section A1 above) refers briefly to the need “to create the appropriate governance framework through which Malta is able to react to anticipated climate change scenarios that are likely to test its resilience up to 2050”; but no information is available yet on the use of scenarios in the revised NAS currently under preparation.

²⁰ <https://www.maltairport.com/weather/>

²¹ See the Sea Level Station Monitoring Facility website:

<http://www.ioc-sealevelmonitoring.org/index.php>

²² The Malta Resources Authority on behalf of the Ministry for Sustainable Development, Environment and Climate Change (2014), The Third, Fourth, Fifth and Sixth National Communication of Malta to the United National Framework Convention on Climate Change: https://unfccc.int/files/national_reports/annex_i_natcom/submitted_natcom/application/pdf/mlt_nc3,4,5,6.pdf

²³ 7th National Communication of Malta under the UNFCCC, Malta Resources Authority, 2017: http://unfccc.int/files/national_reports/annex_i_natcom/submitted_natcom/application/pdf/42967815_malta-nc7-1-nc7_malta_2017_final.pdf

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

Yes / **In progress** / No

The 2014 National Communication to the UNFCCC draws relevant sectoral lessons on risk from the data available. Sectors addressed in the 7th National Communication Plan to the UNFCCC (Pages 125- 161) include the following:

- Water
- Infrastructure and land use
- Natural ecosystems
- Agriculture and fisheries
- Health
- Civil protection and vulnerable groups
- Tourism
- Migration.

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

Yes / In progress / **No**

While Malta relies on projections which, because of the scale issues referred to above, cover a broader Mediterranean area, there is no evidence from either the NAS or the National Communications to the UNFCCC that this has led to a more in-depth analysis or action regarding transboundary sectoral impacts. Malta's relative geographic isolation is likely to mean that this is a low priority for early action.

4. Knowledge gaps

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

Yes / In progress / No

The NAS prescribed specific measures for research and identifies relevant stakeholders for addressing them. The 2014 National Research and Innovation Strategy 2020 reaffirms the importance of research on climate change which should also 'valorise the findings and recommendations contained in Malta's Climate Change Adaptation Strategy of 2012'.

The University of Malta has an important role in generating knowledge about climate change through local and international research projects.

The University of Malta is engaged in promoting social sustainability and conducting interdisciplinary research in areas related to sustainable development and climate change, including mitigation and adaptation through the Institute for Climate Change and Sustainable Development. The Institute's main focus is to conduct research that enhances Malta's quality of life.

The Climate Change Platform was established by the Small Island States Institute of the University of Malta. Its main objectives are to facilitate collaboration between University of

Malta entities and individual University of Malta academics interested in climate change issues and to promote research and teaching initiatives relating to climate change.²⁴

The “Our Vision” consultation document from 2017 (see Section A1 above) contains several references to areas where further research is seen as a priority by the Government, including desalination of water supply, and building design.

To bridge gaps in data knowledge, Malta is taking part in several projects, such as the Horizon 2020 project SOCLIMPACT²⁵. The SoClimPact project aims at modelling and assessing downscaled climate impacts and low carbon transition pathways in European islands and archipelagos, complementing current available projections for Europe, and nourishing actual economic models with non-market assessment. The project will develop a thorough understanding of potential climate impacts on the EU islands located in different regions (Cyprus and Malta; Baltic Islands, Balearic Islands, Sicilia, Sardinia, Corsica, Crete, Azores, Madeira, Canary Islands and French West Indies). The project is focused on four Blue Economy sectors: tourism, marine energy, aquaculture and marine transportation. The project is divided into eight work packages. Two of the work packages take into account climate vulnerability assessments and adaptation strategies. Once the project is completed, the recommendations should help islands in the future to address knowledge gaps in policy areas related to tourism, marine energy, aquaculture and marine transportation.

The University of Malta has carried out a LIFE demonstration project on Green Roofs LIFEMEDGREENROOF (LIFE12 ENV/MT/000732)²⁶. It provided a baseline study of green roof technology in a Mediterranean environment, which aimed to reduce the carbon footprint of buildings through insulation and to use such rooves to mitigate flooding. It provided a baseline study with a set of recommendations for urban climate adaptation.

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

A brief description of climate change policies and relevant documents can be found on the website of the Ministry for the Environment, Sustainable Development and Climate Change²⁷. In the future, a specific section of the website may be developed to serve as a platform and repository of information on climate adaptation and mitigation.

The University of Malta disseminates knowledge through online media, publications, seminars, conferences and teaching programmes to the general public while also promoting best-practices to adapt to the impacts of climate change on business operations and markets²⁸.

²⁴ See the Climate Change Platform website: <https://www.um.edu.mt/islands/climate>

²⁵ See: www.soclimpact.org

²⁶ See: <http://www.lifemedgreenroof.org/>

²⁷ See: <https://msdec.gov.mt/en/Pages/Downloads.aspx>

²⁸ See the Institute for Climate Change and Sustainable Development website: <https://www.um.edu.mt/iccsd>

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 on climate-related activities is an ongoing activity within the Ministry for the Environment, Sustainable Development and Climate Change where a new Directorate on Environment and Climate Change was established. Currently activities related to capacity building are in place to enhance the participation in relevant courses and seminars of department employees involved in climate policy making. Further activities may be supported in the future.

Moreover, the Ministry supports development of studies on climate change at University level, providing scholarships for students of the University of Malta. Seminars are organised by the Climate Change Platform established by the Small Island States Institute of the University of Malta, in order to facilitate collaboration between University of Malta entities and individual University of Malta academics interested in climate change²⁹.

An emerging trend in university-based research is the focus on Education for Sustainable Development (ESD), which includes themes related to climate change education.

Step C: Identifying adaptation options

6. Adaptation options' identification

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

Yes / No

The identification of relevant climate adaptation measures in the NAS was based on expert judgement, informed by the consultative process used for the preparation of the NAS, and by sectoral reports which were drafted by designated experts specifically for the NAS development. The further analysis included in the 2014 National Communication to the UNFCCC³⁰ also identifies options for a number of sectors, as set out in relation to Indicator 3c above, although the basis on which they have been identified is unclear.

6b. The selection of priority adaptation options is based on robust methods (e.g. multi-criteria analyses, stakeholders' consultation, etc.) and consistent with existing decision-making frameworks

Yes / No

²⁹ Further information about upcoming seminars can be found at <https://www.um.edu.mt/islands/climate/newsandevents>

³⁰ The Malta Resources Authority on behalf of the Ministry for Sustainable Development, Environment and Climate Change (2014), The Third, Fourth, Fifth and Sixth National Communication of Malta to the United National Framework Convention on Climate Change: https://unfccc.int/files/national_reports/annex_i_natcom/submitted_natcom/application/pdf/mlt_nc3,4,5,6.pdf

The adaptation options identified in the current NAS were determined on the basis of expert judgement reports and stakeholder consultation. Options were chosen also based on the requirement for “no regret” choices, which would “deliver tangible environment and sustainable development results independently of climate change considerations”. The Climate Action Act lists (Article 6) a number of considerations and criteria that the Government should take into account in its decision-making on climate policy, which would effectively equate to a multi-criteria decision-making process. These criteria provide direction for the development of climate change policies.

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**

While the NAS does not address disaster risk management, the Malta Critical Infrastructure Protection (CIP) Unit, within the Cabinet Office at the Office of the Prime Minister, is responsible for the coordination of all Critical Infrastructure Protection and Emergency and Disaster Management issues on a national level. Another principal responsibility is to ensure that the necessary risk assessments and the drawing up of the security (contingency) plans are carried out, maintained and exercised on an ongoing basis by their respective owners/operators. In the context of the national disaster risk assessment exercise, an extensive consultation process has been undertaken by the CIP Unit involving all relevant stakeholders, including the Ministry for the Environment, Sustainable Development and Climate Change, as the responsible Ministry for climate change policy.

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 2012 NAS assesses in general terms (e.g. “low impact”, “medium impact”, “not known”, and “cost benefit impact required”) the financial impact of each measure identified, including cross-cutting actions, but does not identify funding sources, other than in cases where the future use of European funds is considered.

Malta supports several sectoral projects related to climate change through the use of EAFRD funds³¹. Funding is also available to increase climate resilience in water management and agriculture sectors, notably in the water management sector through implementation of Malta's River Basin Management Plan for 2009-2015, and the Water Catchment Management Plan from 2011³².

The second phase of the water catchment management plan will be implemented through an integrated LIFE project (IP LIFE16 IPE/MT/000008)³³ with a total budget of EUR 17 million

³¹ Available at: http://ec.europa.eu/contracts_grants/pa/partnership-agreement-malta-summary_en.pdf

³² Available at: <https://era.org.mt/en/Pages/Water-Catchment-Management-Plan.aspx>

³³ Available at: http://ec.europa.eu/environment/life/project/Projects/index.cfm?fuseaction=search.dspPage&n_proj_id=6523#B_ENEF

and an EU contribution of EUR 10 million. This integrated project started on the 1 January 2018 and will finish on the 31^t December 2025.³⁴

Another project contributing to delivery of the second River Basin Management Plan, which complements IP LIFE16 IPE/MT/000008, is the project, 'Enhancing National Monitoring and Public Engagement Capacity for improved Water Resources Management'. This project is funded by the Cohesion Fund and amounts to EUR 21.2million which is being implemented by the Energy and Water Agency within the Ministry for Energy and Water Management. This investment aims to optimise management of water resources in the Maltese islands. The project's actions seek to increase knowledge of the occurrence of natural water resources in the Maltese islands, and increase appreciation of the importance of water use by stakeholders. These two complementary actions will contribute to increased appreciation of the vulnerability of water resources in the Maltese islands, and to identification of the optimal tools for protecting these resources.

Malta has also benefitted from EU co-financing (ERDF, ESF) for an extensive flood management project³⁵.

Several projects under the Operational Programme I have been approved and implemented with the aim of developing sustainability and support actions in a number of sectors.³⁶

The Rural Development Programme 2014-2020 is focused on five main needs for the Maltese agriculture sector with a minimum of 30% of the total Rural Development Plan (RDP) budget earmarked for actions that will contribute to the achievement of EU-wide climate change targets.³⁷ The competent authority has launched schemes to fund interventions aimed at addressing non-productive investments linked to the achievement of agri-environment-climate objectives, as well as direct interventions aimed at the re-use of secondary water for agricultural purposes.

Sectoral projects and initiatives with adaptation co-benefits are also sustained by budget lines, which are not necessarily explicitly designated for climate adaptation action. For example, all of the projects that are tackling water scarcity and water waste reduction are developed by the Water and Energy Ministry and related authorities and agencies with different funding sources.

A Climate Action Fund was established under the 2015 Climate Change Act, to support *inter alia* the delivery of the Act's objectives. However, no information is available on the

³⁴ The development process of the second River Basin Management Plan (RBMP) has confirmed that there are still significant challenges ahead of Malta for achieving the good status objectives of the Water Framework Directive (2000/60/EC). These challenges are mainly linked to severe water scarcity and drought conditions, high population density, high urbanisation rates, saline water intrusion, contamination, and vulnerability of coastal waters.

³⁵ Available at: <https://investinyourfuture.gov.mt/project/waste-management-and-risk-prevention/national-flood-relief-project-nfrp-42041344>

³⁶ Available at: https://eufunds.gov.mt/en/Operational%20Programmes/Programming%20Period%202014%20-%202020/Operational%20Programme%201/Documents/Approved%20Projects%202016/Online%20List%20of%20Beneficiaries_OPI%20ERDF%20Malta_PPCD_November_2016%20updated.pdf

³⁷ Available at: <https://eufunds.gov.mt/en/EU%20Funds%20Programmes/European%20Agricultural%20Fund/Documents/RDP%202014-2020/Malta%27s%20Rural%20Development%20Programme%202014-2020.pdf>

Ministry's website on the operation of the fund, or of activities financed under it, so it is not possible to assess its contribution to the delivery of adaptation actions.

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

One of the measures foreseen in the 2013 national environmental policy was to integrate climate change assessment into environmental impact assessment (EIA) and strategic environmental assessment (SEA) processes³⁸. The revised EIA Directive (2014/52/EU) has been transposed in Malta by Legal Notice 412 of the 2017 Environmental Impact Assessments Regulations, 2017³⁹ published under the Environment Protection Act (Chapter 549), which require EIAs to consider climate-related disaster risk impacts and the impact of projects on climate adaptation.

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

Yes / No

In 2011, the Malta Critical Infrastructure Protection Unit⁴⁰ within the Office of the Prime Minister was created.

The 2nd Water Catchment Management Plan was adopted in April 2016. It provides an integrated water management framework for the Malta Water Catchment District, and considers challenges emerging from extreme water management events, such as droughts and floods. It covers the expected climate impacts, including those related to water scarcity and invasive alien species⁴¹.

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

Yes / No

The NAS refers to the need to mainstream adaptation measures in the “structure plan and the local plans”. The Structure Plan for the Maltese Islands, dating from 1990, was the key land-use planning document for the country. It has now been replaced by the 2014 Strategic Plan for the Environment and Development, adopted under the Environment and Development Planning Act (EDPA) 2010. While its planning prescriptions are at a very high level, it

³⁸ Available at: <https://era.org.mt/en/Pages/Strategic-Environmental-Assessment-.aspx>

³⁹ Available at: <http://www.justiceservices.gov.mt/DownloadDocument.aspx?app=lp&itemid=28859&l=1>

⁴⁰ See: <http://opm.gov.mt/en/MCIP/Pages/About-Us.aspx>

⁴¹ Sustainable Energy and Water Conservation Unit Environment and Resources Authority (2016), The 2nd Water Catchment Management Plan for the Malta Water Catchment District 2015 – 2021: <https://energywateragency.gov.mt/en/Documents/2nd%20Water%20Catchment%20Management%20Plan%20-%20Malta.pdf>

contains a statement of the risks to climate resilience of inappropriate development. However, the plan provides little detail on how this broad approach is to be put into practice. The individual local plans still in force predate the 2010 Act but are in the process of being updated.

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

There is good evidence of integration in high-level policy-making in some affected sectors. For example, Malta's National Transport Master Plan 2025⁴², adopted in 2016, identifies climate impacts, such as increased rainfall intensity and sea-level rise, as key threats for the transport infrastructure. The transport strategy refers specifically to the University of Malta's research on potential impacts. Responses identified include increased permeability, and improved storm-water management. Incorporating climate impacts at the design stage is included as a policy measure. Implementation of the Transport Master Plan commitments will be ongoing until 2025.

The Strategic Plan for the Environment and Development (SPED), approved in 2015, sets the context for national and sectoral plans, such as, water and energy policies, guiding the solar farm planning policy, and ensuring that subsidiary development plans are climate proofed. The SPED policy framework for the coastal zone and marine areas recognises that development proposals therein should be aimed to increase resilience to climate impacts.

Another sector which addresses climate change as a key issue is agriculture⁴³. The National Agricultural Policy for the Maltese Islands 2016-2025 is currently at a post-consultation stage with a view to fostering sustainability of farming activities by adapting to the local geo-climatic conditions through the implementation of a set of measures addressing Malta's specificities.⁴⁴ The measures aim to address research and innovation, training, best practices, water scarcity, green infrastructure (rubble walls) and the preservation of indigenous species.

The Rural Development Programme (RDP) for Malta 2014-2020⁴⁵ focuses on three main cross-cutting objectives, namely the environment, climate and innovation. The RDP for Malta⁴⁶ was amended on 01/03/2018 and is divided into seven priority areas. Priority Areas 4 and 5 address climate adaptation, with a set of measures covering investments in agricultural

⁴² Transport Malta (2016), Transport Master Plan, 2025, <http://www.transport.gov.mt/transport-strategies/strategies-policies-actions/national-transport-strategy-and-master-plan>

⁴³ Ministry for Sustainable Development, the Environment and Climate Change (2016), National Agricultural Policy for the Maltese Islands 2016 – 2025: Issues Paper: https://socialdialogue.gov.mt/en/Public_Consultations/MSDEC/Pages/Consultations/NationalAgriculturalPolicyfortheMalteseIslands2016-2025IssuesPaper.aspx

⁴⁴ Available at: <https://agriculture.gov.mt/en/agric/Pages/nationalAgriPolicy.aspx>

⁴⁵ Available at: <https://eufunds.gov.mt/en/EU%20Funds%20Programmes/European%20Agricultural%20Fund/Pages/Rural%20Development%20Programme%20for%20Malta%202007-2013/The-Rural-Development-Programme-for-Malta-2014---2020.aspx>

⁴⁶ Available at: https://eufunds.gov.mt/en/EU%20Funds%20Programmes/European%20Agricultural%20Fund/Documents/RDP%202014-2020/Programme_2014MT06RDNP001_3_1_en.pdf

holdings, infrastructure related to agriculture, agri- environmental measures and organic farming.

Climate adaptation measures are also addressed in the National Biodiversity Strategy and Action Plan (NBSAP), which defines a comprehensive framework for safeguarding Malta's biodiversity over the period 2012 to 2020, as required by the National Environmental Policy. The NBSAP aims to promote sustainable and more resource-efficient choices and actions by local communities and relevant sectors in order to contribute to a significant improvement in the status of Malta's biodiversity and associated ecosystem services. Ecologically-sensitive afforestation schemes, strategically located within the landscape, and measures on green infrastructure, are strengthened to improve the ecological coherence of Natura 2000 via integration into the broader landscape. Hence, such schemes curb habitat fragmentation, improve climate adaptation and aid integrated flood management.⁴⁷

The Green Economy Action Plan (2015)⁴⁸ sets out the Government's vision for the green economy in Malta, focusing particularly on achieving sustainable growth, the effective use of resources, ensuring ecosystem resilience. Climate adaptation considerations are integrated throughout the document and a resilient economy to climate change is one of the six points of the Government's vision.

Other sectoral documents consider climate impacts with regard to different sectors' needs. For example, climate change is a key issue identified in Malta's strategic plan for environment and development⁴⁹. The national environmental policy (2012) also includes adaptation objectives: its sixth objective tackles long-term sustainability issues, including enhancing the capacity of Malta to adapt to climate change.

Climate adaptation was already a focus of the Water Catchment Management Plan from 2011 for the Maltese Islands. Its successor, covering the period 2015-2021⁵⁰, also addresses climate impacts on a range of outcomes. Implementation of these plans is possible through the Integrated Life Project LIFE16 IPE/MT/000008.

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

Yes / **No**

Although climate change insurance is at an early stage of development in Malta. As in other countries, discussion on this topic has taken place at national level, for example, with specific seminars organised by the University of Malta's Climate Change Platform in November 2016 with the support of the Ministry for the Environment, Sustainable Development and Climate Change. The seminars sought to address linkages with the disaster risk management sector through the participation of insurance sector representatives among several other stakeholders.

⁴⁷ Available at: <https://www.cbd.int/doc/world/mt/mt-nbsap-01-en.pdf>

⁴⁸ Available at: <https://www.gov.mt/en/Government/Press%20Releases/Documents/pr152171a.pdf>

⁴⁹ Malta Environmental & Planning Authority (2015) Strategic Plan for Environment and Development, <http://www.mepa.org.mt/Documents/FinalVersion.pdf>

⁵⁰ Available at: <https://era.org.mt/en/Pages/Water-Catchment-Management-Plan.aspx>

Consultations in relation to the LCDS will consider incentives for investments in risk prevention in order to provide the necessary tools for the insurance sector to address climate adaptation.

9. Implementing adaptation

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

Yes / **In progress** / No

The review of the NAS, as well as the definition of a new coordination and implementation structure, will be undertaken in the context of the development of the LCDS.

In the meantime, there is evidence (see in particular Indicator 8d above) that, while detailed sectoral adaptation plans have not been published, climate adaptation issues are integrated in other policy areas, and that specific action is being undertaken. There is a systematic attempt to ensure that the full list of specific policies and measures outlined in the NAS is being pursued through the LCDS.

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

Yes / **No**

The Climate Change Consultative Council's role was taken up by the Climate Action Board. However, it should be noted that vertical coordination is not a significant issue for Malta, given the national government's responsibility for most aspects of policy and implementation, with a relatively limited role for local government.

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**

We have not identified any specific procedures or guidelines for assessing climate impacts on major projects or programmes and for facilitating their adaptation. However, the Climate Action Act now includes an obligation on Government to ensure that "policies, programmes and projects are, to the extent possible, designed in a manner that ensures resilience to the impacts of climate change". In theory, this creates the possibility of government decisions that do not integrate climate adaptation issues to be challenged in the courts. However, there do not appear to be any "procedures or guidelines" in place on how the obligation should be implemented.

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

Yes / No

The role of the Climate Change Consultative Council is currently covered by the Climate Action Board, which has the responsibility for ensuring consultation of relevant stakeholders in the implementation of the NAS and further policy actions.

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

There is no evidence of systematic collection and dissemination of information on implementation of the NAS.

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

Yes / No

There is no evidence of central monitoring of the integration of climate adaptation into sectoral policies.

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

Yes / No

Given the scale of Malta as a country and the nature of the remit of local government in Malta, implementation of adaptation action by local councils is a relatively minor issue, and such implementation is generally centralised to the central government entities.

11. Evaluation

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

Yes / No

The Climate Action Act 2015 places a duty on the Minister to “ensure that the national adaptation strategy is reviewed and updated periodically and at least every four years.” The NAS is currently under review in the context of the development of the LCDS.

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

Yes / No

The Climate Action Board has been established under the Climate Action Act 2015 and has a duty under the Act to consult with environmental stakeholders. In principle, this should provide for stakeholder involvement in the Board’s role in assessing and reviewing national adaptation policy; however, as noted above, there is no information on the activities of the Board available on the Ministry’s website.

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.	Yes / <u>In progress</u> / 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	Yes / <u>In progress</u> / 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 / <u>In progress</u> / No
3c	Sound climate risks/vulnerability assessments for priority vulnerable sectors are undertaken to support adaptation decision making.	Yes / <u>In progress</u> / No
3d	Climate risks/vulnerability assessments take transboundary risks into account, when relevant	Yes / In progress / <u>No</u>
4 <i>Knowledge gaps</i>		
4a	Work is being carried out to identify, prioritise and address the knowledge gaps	<u>Yes</u> / In progress / No

Adaptation Preparedness Scoreboard		
No.	Indicator	Met?
5	<i>Knowledge transfer</i>	
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 / <u>In progress</u> / No
5b	Capacity building activities take place; education and training materials on climate change adaptation concepts and practices are available and disseminated	Yes / <u>In progress</u> / No
Step C: Identifying adaptation options		
6	<i>Identification of adaptation options</i>	
6a	Adaptation options address the sectoral risks identified in 3c, the geographical specificities identified in 3b and follow best practices in similar contexts	<u>Yes</u> / No
6b	The selection of priority adaptation options is based on robust methods (e.g. multi-criteria analyses, stakeholders' consultation, etc.) and consistent with existing decision-making frameworks	<u>Yes</u> / No
6c	Mechanisms are in place to coordinate disaster risk management and climate change adaptation and to ensure coherence between the two policies	Yes / In progress / <u>No</u>
7	<i>Funding resources identified and allocated</i>	
7a	Funding is available to increase climate resilience in vulnerable sectors and for cross-cutting adaptation action	Yes / <u>In progress</u> / No
Step D: Implementing adaptation action		
8	<i>Mainstreaming adaptation in planning processes</i>	
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	Yes / <u>No</u>
8d	National policy instruments promote adaptation at	Yes/ <u>In progress</u>

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