



MINISTRY OF AGRICULTURE
RURAL DEVELOPMENT
AND THE ENVIRONMENT



National Climate Change Adaptation Action Plan

2025-2050

Adaptation Measures Impact Assessment

In support of the
National Strategy on Adaptation to Climate Change

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National Climate Change Adaptation Action Plan

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Agriculture measures impact assessment factsheets

| Name of the measure | Ensure that the next Cyprus CAP strategic plans make most out of the EU programs to adapt the sector to climate change |
|--|--|
| Number of the measure | AGRI 1n |
| Priority (high-medium-low) ¹ | High |
| Climate impact (s) addressed | All |
| Primary Sector | Agriculture |
| Secondary sector | Biodiversity, Water, Forestry |
| KTM category² | Governance and Institutional |
| Sub-KTM | Policy instruments |
| Goal of the measure | Make the sector more resilient to climate change |
| Description of the measure | The new CAP at EU level will come into force in 2027. It is expected that the overall structure will not change in comparison to the current one. The new rules should be mobilised as much as possible to adapt the sector to the impacts of climate change. To do so, a more detailed SWOT (Strengths, Weaknesses, Opportunities and Threats) assessment of the existing measures and a detailed CRVA should be ready. |
| Spatial scope of the measure | National |
| Implementation Cost (high-medium-low) ³ | High |
| Maintenance cost (high-medium-low) | High |
| Implications for society with special attention to vulnerable populations | Measures leading to sustainable and climate change resilient agriculture will improve food provision security and viability of the sector |
| Co-benefits for regional or local development priorities | Enhance development in rural communities |
| Co-benefits for climate mitigation | Depending on the measure details, links to mitigation can be established |
| Co-benefits for the environment | Depending on the measure details the measure will increase biodiversity and reduce water pollution/abstraction |
| Political and social acceptability | High (Depending on cost-benefit of obligations) |
| Barriers for implementation | Any measure that requires some energy to adapt the sector to CC, increases the national energy consumption |
| Maladaptation risks | Further increase of water abstraction for irrigation should be avoided |
| Responsible authority for implementation | Department of Agriculture |
| Other actors involved | Farmer unions and organizations |
| Other policy initiatives that align / synergies | Spatial planning; Natura 2000 sites Management Plans |
| Technical/institutional readiness | High |

¹ High: to implement within 2 years; Medium: to implement in 2 to 5 years; Low: to implement after 5 years

² See <https://climate-adapt.eea.europa.eu/en/knowledge/tools/adaptation-support-tool/step-3-0>

³ Low: €100,000 or less; Medium: €100,000 – €1,000,000; High: over €1 million



| Name of the measure | Ensure that the next Cyprus CAP strategic plans make most out of the EU programs to adapt the sector to climate change |
|---|--|
| (high-medium-low) | |
| Period of implementation (long-medium-short) ⁴ | 2025-2027 (CAP programming period) |
| Time to effectiveness (to have an effect or impact) | 2027 onwards (CAP implementation period 20207-2034) |
| Financing | CAP funding |
| Indicator for verification of implementation progress | <ul style="list-style-type: none">• For the CAP Programming period: started/ongoing/finalised• For the CAP implementation period the indicators used for CAP should be used |
| Relates to | BIODIV 2n BIODIV 4n BIODIV 5 BIODIV 6n AGRI 6 SOIL 1 |

⁴ Short: less than 2 years; Medium: between 2 to 5 years; Long: more than 5 years

| Name of the measure | Develop pilot projects on the use of desalinated water for irrigation with photovoltaic energy |
|--|---|
| Number of the measure | AGRI 2n |
| Priority (high-medium-low) ⁵ | High |
| Climate impact (s) addressed | Droughts and water scarcity |
| Primary Sector | Agriculture |
| Secondary sector | Energy Spatial planning Hydrological Regime and Water Management Biodiversity and Ecosystems |
| KTM category | Governance and Institutional |
| Sub-KTM | Management and planning |
| Goal of the measure | Provide water to the sector from sustainable desalination |
| Description of the measure | Desalination based on the use of renewable energy sources can provide a sustainable way to produce fresh water. It is expected to become economically attractive as the costs of renewable technologies continue to decline and the prices of fossil fuels continue to increase. |
| Spatial scope of the measure | Local |
| Implementation Cost (high-medium-low) ⁶ | High |
| Maintenance cost (high-medium-low) | Med |
| Implications for society with special attention to vulnerable populations | Desalination is an expensive technology and requires effective management of the brine, and should be used as an alternative in the absence of any other water supply options |
| Co-benefits for regional or local development priorities | The measure can ensure that local farmers can sustain their business ensuring also that local food production is possible |
| Co-benefits for climate mitigation | Use of photovoltaic energy instead of fossil fuels – reduced emissions |
| Co-benefits for the environment | If desalinated water comes from the sea and substitutes freshwater use, it benefits freshwater dependant ecosystems. |
| Political and social acceptability | High |
| Barriers for implementation | <ul style="list-style-type: none"> • There are cases where it might not be environmentally acceptable. If groundwater is used it can increase pressures on groundwater bodies. Seawater desalination can impact coastal ecosystems, while it will need pumping to transfer water to upstream irrigated fields. • Potential challenge to find adequate location for photovoltaic (PV) panels – conflict with spatial planning. • Need to ensure that desalination can work with PV energy |
| Maladaptation risks | <ul style="list-style-type: none"> • Generation of desalinated water requires energy and increased emissions. • Increased water supply can result in further increases in water demand and ongoing water scarcity. |

⁵ High: to implement within 2 years; Medium: to implement in 2 to 5 years; Low: to implement after 5 years

⁶ Low: €100,000 or less; Medium: €100,000 – €1,000,000; High: over €1 million

| Name of the measure | Develop pilot projects on the use of desalinated water for irrigation with photovoltaic energy |
|---|---|
| Responsible authority for implementation | Water Development Department to determine source of water for desalination and ensure desalinated water substitutes freshwater sources and does not create new demands. Energy Service: Ensure photovoltaic energy produced in Cyprus is fully used. Department of Agriculture: to develop pilot projects |
| Other actors involved | Department of Fisheries and Marine Research, Farmer unions and organizations, Department of Environment |
| Other policy initiatives that align / synergies | RBMP under the WFD 2000/60/EC |
| Technical/institutional readiness (high-medium-low) | Medium |
| Period of implementation (long-medium-short) ⁷ | Medium |
| Time to effectiveness (to have an effect or impact) | Short |
| Financing | Private funding Subsidy schemes for the use of RES in the agricultural sector are already in place. |
| Indicator for verification of implementation progress | <ul style="list-style-type: none"> • Number of pilot projects developed |
| Additional comments | <ul style="list-style-type: none"> • Solution should be adapted to local conditions based on site-specific studies. • Consider that photovoltaic energy production does not need to be located next to irrigation fields. PV could be on rooftops or urban areas and the energy is used for irrigation. • Focus on demand-side measures to reduce demand, not on supply-side measures to increase supply |
| Relates to | WAT 3 |

⁷ Short: less than 2 years; Medium: between 2 to 5 years; Long: more than 5 years

| Name of the measure | Encourage communities to adopt sound land management practices and change the use of soil, cultivation methods and varieties |
|---|--|
| Number of the measure | AGRI 3n |
| Priority (high-medium-low) ⁸ | High |
| Climate impact (s) addressed | Droughts; Extreme temperatures; Floods |
| Primary Sector | Agriculture |
| Secondary sector | Soil Spatial Planning |
| KTM category | Knowledge and behavioural change |
| Sub-KTM | Information and awareness raising |
| Goal of the measure | Make agriculture more resilient |
| Description of the measure | <p>A community-based Soil Health Program aims to empower local communities to adopt sustainable land management practices through education, incentives, and support. Key components:</p> <p>A. Soil health assessment:</p> <ul style="list-style-type: none"> ○ Comprehensive soil health assessments to determine baseline conditions and identify areas for improvement. ○ Provide farmers with detailed soil reports and recommendations. <p>B. Education and Training:</p> <ul style="list-style-type: none"> ○ Workshops, demonstrations, and field days on sustainable land management practices, including crop rotation, cover cropping, reduced tillage, precision agriculture, integrated pest management, nutrient management. ○ Partner with local universities or extension services to provide expert knowledge. <p>C. Financial Incentives:</p> <ul style="list-style-type: none"> ○ Implement cost-share programs to support farmers in adopting new practices. Offer tax breaks or rebates for implementing soil-building practices. ○ Provide access to low-interest loans for purchasing equipment or implementing conservation measures. <p>D. Peer-to-Peer Learning:</p> <ul style="list-style-type: none"> ○ Create a network of successful farmers who can mentor and share their experiences with others. ○ Organize farm tours and field visits to showcase successful practices. <p>E. Certification and market premiums:</p> <ul style="list-style-type: none"> ○ Develop a soil health certification program to recognise farmers who meet specific standards (link to tourism). ○ Establish market channels for certified products to command premium prices. <p>F. Data Collection and Monitoring:</p> <ul style="list-style-type: none"> ○ Track the adoption of sustainable practices and measure their impact on soil health. ○ Use data to refine program interventions and inform policy decisions. <p>G. Community Engagement:</p> |

⁸ High: to implement within 2 years; Medium: to implement in 2 to 5 years; Low: to implement after 5 years

| Name of the measure | Encourage communities to adopt sound land management practices and change the use of soil, cultivation methods and varieties |
|--|---|
| | <ul style="list-style-type: none"> ○ Involve local stakeholders, including farmers, landowners, and community leaders in program development and implementation. ○ Build partnerships with local businesses, organizations, and government agencies to support the program. |
| Spatial scope of the measure | National |
| Implementation Cost (high-medium-low) ⁹ | Low – it is largely already done |
| Maintenance cost (high-medium-low) | Low |
| Implications for society with special attention to vulnerable populations | Beneficial effect |
| Co-benefits for regional or local development priorities | The involvement of local stakeholders, including farmers, landowners, and community leaders can create synergies with other local activities and can strengthen the self-governance of communities. |
| Co-benefits for climate mitigation | Practicing sustainable land manage can mitigate climate change from the agriculture sector |
| Co-benefits for the environment | Practicing sustainable land manage can increase biodiversity and water retention |
| Political and social acceptability | High |
| Barriers for implementation | None besides limited human resources to provide capacity building and training programs |
| Maladaptation risks | None |
| Responsible authority for implementation | Department of Agriculture |
| Other actors involved | ARI – Agricultural Research Institute |
| Other policy initiatives that align / synergies | Rural Development Plan |
| Technical/institutional readiness (high-medium-low) | Medium |
| Period of implementation (long-medium-short) ¹⁰ | Short |
| Time to effectiveness (to have an effect or impact) | Directly |
| Financing | High |
| Indicator for verification of implementation progress | <ul style="list-style-type: none"> ● Area covered by the measure |
| Additional comments from bilateral meeting | There are intensive educational campaigns by the Department of Agriculture on several issues, e.g. agriculture practices, crop demands, land management practices etc. |
| Relates to | GOV 2n GOV 3n SOIL 3 |

⁹ Low: €100,000 or less; Medium: €100,000 – €1,000,000; High: over €1 million

¹⁰ Short: less than 2 years; Medium: between 2 to 5 years; Long: more than 5 years

| Name of the measure | Develop infrastructure that will facilitate the use of recycled water in agriculture and incentivise its use by farmers |
|--|---|
| Number of the measure | AGRI 4 |
| Priority (high-medium-low) ¹¹ | High |
| Climate impact (s) addressed | Droughts and water scarcity |
| Primary Sector | Agriculture |
| Secondary sector | Hydrological Regime and Water Management Economy, Industry and Finance |
| KTM category | Physical and Technological Knowledge and Behavioural Change Economic and finances |
| Sub-KTM | Grey options Information and awareness raising Policy instruments |
| Goal of the measure | Addressing the shortfall in water supply for irrigation purposes |
| Description of the measure | <p>A. Develop pipelines/network infrastructure that facilitates the use of recycled water in agriculture with a particular focus in areas high demands are located</p> <p>B. Incentivise its use in agriculture (i.e. through its lower pricing) and at the same time providing effective disincentives (e.g. fines) for the use of groundwater for irrigation of green areas.</p> <p>C. Implement strict preventive measures and monitor the quality of treated urban wastewater to avoid the burden on the environment, public health and agriculture.</p> <p>D. Campaigns informing farmers about:</p> <ol style="list-style-type: none"> The necessity of using the resource and the benefits arising from its use such as increasing production, the environmental costs of groundwater depletion and ensuring the quality of recycled water to increase social acceptance. |
| Spatial scope of the measure | National and local |
| Implementation Cost (high-medium-low) ¹² | High |
| Maintenance cost (high-medium-low) | High |
| Implications for society with special attention to vulnerable populations | None |
| Co-benefits for regional or local development priorities | Ensure availability of additional water resources to maintain local agricultural economy |
| Co-benefits for climate mitigation | Wastewater treatment is an energy intensive process. Distribution networks require energy to pump water. Increased energy consumption and emissions. |

¹¹ High: to implement within 2 years; Medium: to implement in 2 to 5 years; Low: to implement after 5 years

¹² Low: €100,000 or less; Medium: €100,000 – €1,000,000; High: over €1 million

| Name of the measure | Develop infrastructure that will facilitate the use of recycled water in agriculture and incentivise its use by farmers |
|--|---|
| Co-benefits for the environment | Reduced pressure on freshwater/groundwater resources Save fresh water for other uses (ecosystems, drinking, adaptation, etc.) |
| Political and social acceptability | Social: High Political: Medium |
| Barriers for implementation | Lack of infrastructure for wastewater treatment and its distribution Reservations regarding use of treated wastewater for irrigation. Requires pumping as the WWTP are usually downstream. |
| Maladaptation risks | That treated wastewater results in an increase in overall water demand for irrigation (creating new irrigated land instead of substituting irrigation water from other sources such as groundwater or reservoir water for currently irrigated crops) and increased overall water use and resulting water scarcity |
| Responsible authority for implementation | Water Development Department |
| Other actors involved | Farmer unions and organizations District Local Government Organizations Department of Agriculture |
| Other policy initiatives that align / synergies | Also helps biodiversity and water management Saves conventional fresh water for other uses |
| Technical/institutional readiness (high-medium-low) | High (technology is readily available) |
| Period of implementation (long-medium-short) ¹³ | Short |
| Time to effectiveness (to have an effect or impact) | As soon as distribution infrastructure is in place |
| Financing | Low |
| Indicator for verification of implementation progress | <ul style="list-style-type: none"> Cubic meters of reclaimed water used per year by the farming sector |
| Relates to | WAT 3 WAT 8 |

¹³ Short: less than 2 years; Medium: between 2 to 5 years; Long: more than 5 years

| | |
|--|---|
| Name of the measure | Identify and promote the use of indigenous and other genetic material (plant and animal) adapted to the soil-climatic conditions that will be brought about by climate change |
| Number of the measure | AGRI 5 |
| Priority (high-medium-low) ¹⁴ | High |
| Climate impact (s) addressed | Droughts; Extreme temperatures |
| Primary Sector | Agriculture |
| Secondary sector | Soil |
| KTM category¹⁵ | Knowledge and Behavioural change |
| Sub-KTM | Information and awareness raising |
| Goal of the measure | Addressing abiotic stresses (drought and high temperatures) and strengthening the resilience of agriculture and livestock to climate change |
| Description of the measure | <p>A. Promote research to identify appropriate indigenous or other abiotic stress-resistant genetic material through national genetic improvement programmes.</p> <p>B. Preserve native genetic material in the Seed Bank and promote its use.</p> <p>C. Inform farmers about the selection of genetic material that is most suitable for the climatic conditions of their region.</p> <p>D. Strengthen the incentives through the Rural Development Programs for their cultivation/breeding.</p> <p>E. Conserve and strengthen measures for the protection and rational management of local livestock breeds that have adapted to Cypriot conditions over time.</p> <p>F. Use of mixed systems for agricultural and livestock production, appropriate to the conditions of each region, and implement measures for their protection and sustainable conservation.</p> <p>G. Promote research to characterise and improve the resilience and adaptability to climate change of native livestock breeds.</p> <p>H. Strengthen production systems with biological tools that promote the resistance of varieties resulting from national abiotic stress improvement programmes.</p> |
| Spatial scope of the measure | National |
| Implementation Cost (high-medium-low) ¹⁶ | Low |
| Maintenance cost (high-medium-low) | Low |
| Implications for society with special attention to vulnerable populations | None |

¹⁴ High: to implement within 2 years; Medium: to implement in 2 to 5 years; Low: to implement after 5 years

¹⁵ See <https://climate-adapt.eea.europa.eu/en/knowledge/tools/adaptation-support-tool/step-3-0>

¹⁶ Low: €100,000 or less; Medium: €100,000 – €1,000,000; High: over €1 million

| Name of the measure | Identify and promote the use of indigenous and other genetic material (plant and animal) adapted to the soil-climatic conditions that will be brought about by climate change |
|--|---|
| Co-benefits for regional or local development priorities | Effective use of good agricultural land through smarter crop selection more resilient to changing conditions |
| Co-benefits for climate mitigation | None |
| Co-benefits for the environment | Increased use of natural systems (nature-based solutions) to address climate related challenges and resulting improved environmental health. |
| Political and social acceptability | High |
| Barriers for implementation | General perception of farmers and the public to use indigenous and other genetic material |
| Maladaptation risks | None |
| Responsible authority for implementation | Department of Agriculture |
| Other actors involved | Agriculture Research Institute (ARI) |
| Other policy initiatives that align / synergies | Will help local authorities to minimize water irrigation use |
| Technical/institutional readiness (high-medium-low) | Low |
| Period of implementation (long-medium-short) ¹⁷ | medium |
| Time to effectiveness (to have an effect or impact) | Short |
| Financing | High |
| Indicator for verification of implementation progress | <ul style="list-style-type: none"> • Agricultural area covered under the measures • Number of Livestock under the measure |
| Relates to | |

¹⁷ Short: less than 2 years; Medium: between 2 to 5 years; Long: more than 5 years

| | |
|--|--|
| Name of the measure | Improve efficiency in the use of water for irrigation by implementing rational irrigation planning, adopting more advanced irrigation systems and adequately maintaining existing systems |
| Number of the measure | AGRI 6 |
| Priority (high-medium-low) ¹⁸ | High |
| Climate impact (s) addressed | Droughts |
| Primary Sector | Agriculture |
| Secondary sector | Hydrological Regime and Water Management; |
| KTM category¹⁹ | Governance and Institutional Knowledge and Behavioural change Economic and Finance |
| Sub-KTM | Management and planning Information and awareness raising Financing and incentive instruments |
| Goal of the measure | Addressing the shortfall in water supply for irrigation purposes |
| Description of the measure | <p>A. Operation / enhancement of a system for informing farmers about irrigation planning and crops' water requirements.</p> <p>B. Strengthen incentives for implementing relevant measures through the Rural Development Programme.</p> <p>C. Maintenance of existing improved irrigation systems.</p> <p>D. Research for the adoption of new even more effective irrigation systems such as underground irrigation and control these in local conditions to select the most suitable technology for each crop.</p> <p>E. Explore the possibility of adopting the method of deficit irrigation for specific crops, in areas with reduced water availability.</p> <p>F. Continue to provide financial and technical support to farmers for the selection / installation / maintenance of irrigation systems.</p> |
| Spatial scope of the measure | National |
| Implementation Cost (high-medium-low) ²⁰ | Medium |
| Maintenance cost (high-medium-low) | Medium |
| Implications for society with special attention to vulnerable populations | Financial support to farmers ensures their increased resilience to drought risks. |
| Co-benefits for regional or local development priorities | Same as above |
| Co-benefits for climate mitigation | None |
| Co-benefits for the environment | Increased efficiency reduces water demand from the environment |
| Political and social acceptability | High |
| Barriers for implementation | Financing |

¹⁸ High: to implement within 2 years; Medium: to implement in 2 to 5 years; Low: to implement after 5 years

¹⁹ See <https://climate-adapt.eea.europa.eu/en/knowledge/tools/adaptation-support-tool/step-3-0>

²⁰ Low: €100,000 or less; Medium: €100,000 – €1,000,000; High: over €1 million

| | |
|--|--|
| Name of the measure | Improve efficiency in the use of water for irrigation by implementing rational irrigation planning, adopting more advanced irrigation systems and adequately maintaining existing systems |
| Maladaptation risks | Increased efficiency at the farm level can still result in increased overall water used in what is known as the rebound effect or Jevons Paradox. Critical to ensure monitoring and control of existing and new uses to ensure reduced overall water consumption. Improved water supply efficiency should not hinder water demand management efforts in agriculture (i.e. changing crop patterns into more water efficient crops, etc) |
| Responsible authority for implementation | Department of Agriculture, Water Development Department (until the stage of the producer) |
| Other actors involved | Farmer unions and organizations |
| Other policy initiatives that align / synergies | WFD implementation Excellent irrigation planning plays a largely important role in water management, and it all is highly beneficial for the wWater Development Department -> WDD Energy: this measure helps to reduce energy consumption in the agriculture sector Deputy Ministry of Tourism benefits from implementation of this measure because of improved rural landscapes. |
| Technical/institutional readiness (high-medium-low) | High – technology for increased efficiency is readily available. Agricultural extension offices can help disseminate knowledge and capacity building |
| Period of implementation (long-medium-short) ²¹ | Part of the next CAP 2027-2034 |
| Time to effectiveness (to have an effect or impact) | From 2027 onwards |
| Financing | Financing exists through schemes |
| Indicator for verification of implementation progress | <ul style="list-style-type: none"> Area covered by more efficient irrigation |
| Relates to | AGRI 1 |

²¹ Short: less than 2 years; Medium: between 2 to 5 years; Long: more than 5 years

| Name of the measure | | Promote research to study the effects of climate change on agriculture and livestock |
|---|---|--|
| Number of the measure | AGRI 7 | |
| Priority (high-medium-low) ²² | High | |
| Climate impact (s) addressed | All | |
| Primary Sector | Agriculture | |
| Secondary sector | Soils | |
| KTM category ²³ | Knowledge and Behavioural change | |
| Sub-KTM | Information and awareness raising | |
| Goal of the measure | Addressing changes in crop yield and livestock farming | |
| Description of the measure | <p>A. Promote research to update or expand knowledge on the assessment of risks (hazards, exposure, vulnerability) and impacts of climate change on:</p> <ul style="list-style-type: none"> • the main types of crops, and yield of specific crops of economic importance for Cyprus, using crop simulation models that combine climatic, meteorological, soil and crop data to determine the degree of impact; • livestock productivity and costs for farmers; • fish species; • pests and diseases; • the food sector, including the interrelationship of all elements of the food system. <p>B. Integrate this knowledge into plans, regulations and strategies of these sectors.</p> <p>C. Identify timely adaptation measures</p> | |
| Spatial scope of the measure | National | |
| Implementation Cost (high-medium-low) ²⁴ | Medium | |
| Maintenance cost (high-medium-low) | n.a. | |
| Implications for society with special attention to vulnerable populations | Make small family farms more resilient to climate change risks | |
| Co-benefits for regional or local development priorities | None | |
| Co-benefits for climate mitigation | None | |
| Co-benefits for the environment | None | |
| Political and social acceptability | High | |
| Barriers for implementation | Lack of Funding | |
| Maladaptation risks | None | |

²² High: to implement within 2 years; Medium: to implement in 2 to 5 years; Low: to implement after 5 years

²³ See <https://climate-adapt.eea.europa.eu/en/knowledge/tools/adaptation-support-tool/step-3-0>

²⁴ Low: €100,000 or less; Medium: €100,000 – €1,000,000; High: over €1 million

| Name of the measure | Promote research to study the effects of climate change on agriculture and livestock |
|--|--|
| Responsible authority for implementation | Agricultural Research Institute |
| Other actors involved | Research centres and universities |
| Other policy initiatives that align / synergies | Rural Development Program (RDP) |
| Technical/institutional readiness (high-medium-low) | High |
| Period of implementation (long-medium-short) ²⁵ | Short |
| Time to effectiveness (to have an effect or impact) | n.a |
| Financing | Agricultural Research Institute (ARI) Low to Med |
| Indicator for verification of implementation progress | <ul style="list-style-type: none"> Study has been started/ongoing/finalised |
| Relates to | |

²⁵ Short: less than 2 years; Medium: between 2 to 5 years; Long: more than 5 years

| Name of the measure | Development / improvement of early warning systems of extreme weather phenomena for agriculture |
|--|--|
| Number of the measure | AGRI 8 |
| Priority (high-medium-low) ²⁶ | High |
| Climate impact (s) addressed | Floods, hail, extreme heat, droughts |
| Primary Sector | Agriculture |
| Secondary sector | Disaster Risk Management, Civil protection and Critical Infrastructure |
| KTM category²⁷ | Physical and Technological |
| Sub-KTM | Technological options |
| Goal of the measure | Increase of protection measures taken by farmers whose decision is based on timely and valid information on extreme weather events |
| Description of the measure | For outdoor crops, the development or improvement of extreme weather early warning systems is considered an effective measure to address extreme weather events. Early warning systems help to inform farmers of the impending weather events to take the necessary measures to protect their crops in a timely manner. |
| Spatial scope of the measure | National |
| Implementation Cost (high-medium-low) ²⁸ | High |
| Maintenance cost (high-medium-low) | Med |
| Implications for society with special attention to vulnerable populations | Improved early warning systems will enable the implementation of measures that protect communities and economic activities from climate related risks – particularly vulnerable populations that are particularly exposed to climate risks. |
| Co-benefits for regional or local development priorities | Contribute to the viability of farming activities in face of climate change |
| Co-benefits for climate mitigation | None |
| Co-benefits for the environment | None |
| Political and social acceptability | Social: High. However, If the measure is implemented in a way that the farmer is responsible for the cost of developing such a system, then social acceptability would be low, even if they need it to better prepare. This also depends in the product's is high value, therefore it is a cost-benefit issue. Political: High. |
| Barriers for implementation | Lack of funding |
| Maladaptation risks | None |
| Responsible authority for implementation | By private initiative if deemed necessary. Department of Meteorology (DoM): close collaboration with the DoM to know the needs to provide early warnings specified to the agriculture sector. |

²⁶ High: to implement within 2 years; Medium: to implement in 2 to 5 years; Low: to implement after 5 years

²⁷ See <https://climate-adapt.eea.europa.eu/en/knowledge/tools/adaptation-support-tool/step-3-0>

²⁸ Low: €100,000 or less; Medium: €100,000 – €1,000,000; High: over €1 million

| Name of the measure | Development / improvement of early warning systems of extreme weather phenomena for agriculture |
|--|--|
| | Civil Protection (DRM) synergies required Prevention/Preparedness for population as well as emergency response |
| Other actors involved | Farmer unions and organizations. Local authorities to inform citizens. |
| Other policy initiatives that align / synergies | Floods Directive |
| Technical/institutional readiness (high-medium-low) | The technology is readily available and operational in many countries and locations. EU-wide climate monitoring and predictive systems are in place – Copernicus, ECMWS, etc. |
| Period of implementation (long-medium-short) ²⁹ | Medium |
| Time to effectiveness (to have an effect or impact) | As soon as the system is developed and in place. |
| Financing | National Funds or through EU funded research/demonstration projects |
| Indicator for verification of implementation progress | <ul style="list-style-type: none"> System implementation: started/ongoing/finalised |
| Additional comments | In high product value areas, the development of denser network of meteorological stations will produce data that will make more feasible to develop projections and early warning systems. |
| Relates to | DRM 4n |

²⁹ Short: less than 2 years; Medium: between 2 to 5 years; Long: more than 5 years

| | |
|--|---|
| Name of the measure | Provide site-specific advice and training on crop adaptation to climate change and create a forum for information exchange between the administration and agricultural professions |
| Number of the measure | AGRI 9 |
| Priority (high-medium-low) ³⁰ | High |
| Climate impact (s) addressed | All |
| Primary Sector | Agriculture |
| Secondary sector | Biodiversity, Water |
| KTM category | Knowledge and Behavioural change |
| Sub-KTM | Capacity building |
| Goal of the measure | Upgrade and strengthen the network of agricultural advice and training for adaptation of crops to climate change |
| Description of the measure | Farmers need multifaceted agricultural advice both in relation to the available adaptation measures they can apply to their growing systems, and in relation to weather or climate in general (e.g. weather reports, seasonal forecasts and long-term forecasts of climate change trends). With the effects of climate change becoming more pronounced, it becomes imperative to upgrade agricultural advice, given the need to adapt the agricultural sector to the effects of climate change. However, improved consulting services will no longer provide “one-size-fits-all” solutions or static advice (i.e. lubrication packages). On the contrary, there should be cooperation between the advisory service providers (provincial agricultural offices and private consultants) with public and private research centres to disseminate the knowledge generated more effectively to farmers. |
| Spatial scope of the measure | National |
| Implementation Cost (high-medium-low) ³¹ | Low (use existing dissemination channels and agricultural extension services and outputs from AGRI 5 and AGRI 7) |
| Maintenance cost (high-medium-low) | Low |
| Implications for society with special attention to vulnerable populations | None |
| Co-benefits for regional or local development priorities | Preservation/protection of agricultural crops, environment, biodiversity and farmers’ income. |
| Co-benefits for climate mitigation | None |
| Co-benefits for the environment | None |
| Political and social acceptability | High |
| Barriers for implementation | Financing |
| Maladaptation risks | None |

³⁰ High: to implement within 2 years; Medium: to implement in 2 to 5 years; Low: to implement after 5 years

³¹ Low: €100,000 or less; Medium: €100,000 – €1,000,000; High: over €1 million

| | |
|--|---|
| Name of the measure | Provide site-specific advice and training on crop adaptation to climate change and create a forum for information exchange between the administration and agricultural professions |
| Responsible authority for implementation | Department of Agriculture (DoA) |
| Other actors involved | Farmers; Farmer unions and organizations; Agricultural Extension Offices; research centres and universities; private consultants. |
| Other policy initiatives that align / synergies | Also related to water management – Crop adaptation to climate change also is related to water demands for irrigation and consequently to the water management -> Water Development Department Synergy between the Agriculture Department and academia to develop strategies and measures for professionals to protect their produce against these phenomena (union of Cyprus Municipalities) |
| Technical/institutional readiness (high-medium-low) | High |
| Period of implementation (long-medium-short) ³² | short |
| Time to effectiveness (to have an effect or impact) | As soon as training have been held |
| Financing | Via the Common Agricultural Policy |
| Indicator for verification of implementation progress | <ul style="list-style-type: none"> • Number of farmers participating per year |
| Additional comments from bilateral meeting | Already partially done by DoA through educational campaigns – radio broadcasts, announcements, etc. |
| Relates to | GOV 1 GOV 2n |

³² Short: less than 2 years; Medium: between 2 to 5 years; Long: more than 5 years

Biodiversity and ecosystems measures impact assessment factsheets

| Name of the measure | Create a database on the biodiversity of Cyprus with an emphasis on endemic, rare and vulnerable species and habitats |
|--|---|
| Number of the measure | BIODIV 1 |
| Priority (high-medium-low) ³³ | High |
| Climate impact (s) addressed | All |
| Primary Sector | Biodiversity and Ecosystems |
| Secondary sector | Forests Fisheries and Aquaculture – in line with FISH 1 Spatial planning |
| KTM category | Knowledge and behavioural change |
| Sub-KTM | Information and awareness raising |
| Goal of the measure | The purpose of this measure is to update and improve the knowledge base in Cyprus regarding biodiversity, and trends of species and habitats in relation to climate change, to inform the implementation of adaptation measures for their conservation in a timely manner. |
| Description of the measure | This measure proposes the creation of a digital and online database where data will be collected on ecosystem types, habitats, population data, population distribution, and genetic diversity of species living in Cyprus, with emphasis on endemic, rare and vulnerable species and priority species and habitat types. |
| Spatial scope of the measure | National |
| Implementation Cost (high-medium-low) ³⁴ | High – intensive human and financial resources required |
| Maintenance cost (high-medium-low) | High – periodic updates needed |
| Implications for society with special attention to vulnerable populations | None |
| Co-benefits for regional or local development priorities | Better knowledge of biodiversity (ecosystem types, habitats, population data, population distribution, genetic diversity) at local level, which includes a better integration into planning and development processes |
| Co-benefits for climate mitigation | Could also be used to map CO ₂ storage capacities |
| Co-benefits for the environment | Increased knowledge of Cyprus' biodiversity and vulnerability to climate change, which allows better management approaches and implementation of EU legislation |
| Political and cultural acceptability (high-medium-low) | High |
| Barriers for implementation | Fragmentation of competencies between relevant Authorities (Department of Forestry, Department of Environment, Game & Fauna Service, Department of Fisheries and Marine Research). Large-scale database needed, which requires a lot of resources to maintain |

³³ High: to implement within two years; Medium: to implement in 2 to 5 years; Low: to implement after 5 years

³⁴ Low: €100,000 or less; Medium: €100,000 – €1,000,000; High: over €1 million



| Create a database on the biodiversity of Cyprus with an emphasis on endemic, rare and vulnerable species and habitats | |
|--|--|
| Name of the measure | Critical to provide resources for monitoring and periodic update of the database. This measure is resource intensive since it requires a lot of fieldwork. Limited human resources available. |
| Maladaptation risks | None |
| Responsible authority for implementation | Department of the Environment, MARDE |
| Other actors involved | Competent authorities, universities/ research institutes and NGOs |
| Other policy initiatives that align / synergies | Article 12 and 17 Reporting under Habitats Directive and Birds Directive Biodiversity Strategy, Nature Restoration Law Habitats and Population data are important for strategic planning and to guide funding. |
| Technical/institutional readiness (high-medium-low) | High |
| Period of implementation | Part of the current NAS. The database is currently under development in the framework of LIFE IP Physis (action C.2) |
| Time to effectiveness | As soon as database is developed. |
| Financing (high-medium-low) | LIFE program |
| Indicator for verification of implementation progress | <ul style="list-style-type: none">• Database set up: started/ongoing/finalised• Number of regular updates |
| Relates to | BIODIV 3 FISH 1 |

| | |
|--|---|
| Name of the measure | Identify and develop contractual, regulatory and financial tools to enhance land use practices compatible with biodiversity conservation in the context of climate change adaptation |
| Number of the measure | BIODIV 2n |
| Priority (high-medium-low)³⁵ | High |
| Climate impact (s) addressed | Extreme Temperatures, Droughts, Flooding, Sea level rise |
| Primary Sector | Biodiversity and Ecosystems |
| Secondary sector (if any) | Agriculture Spatial Planning Economy, Industry and Finance Tourism Sea and Coast |
| KTM category³⁶ | Governance and Institutional Economic and Finance |
| Sub-KTM | Policy Instruments, Management and Planning Financing and incentive instruments |
| Goal of the measure | Create and maintain biodiversity-friendly habitats through working partnerships with private landowners. |
| Description of the measure | A great barrier for effective management of Natura 2000 areas and biodiversity conservation in Cyprus is the land ownership structure. Most areas, outside State Forests, have a high percentage of private owners. It is important to articulate mechanisms that allow for collaboration with private land stewardship. There are some relevant measures in the Rural Development Plans, but these need to be expanded. The implementation of this measure requires the following actions: A. Mapping private lands, B. perform economic valuations, C. develop a legal framework to enable Land Stewardship agreements D. develop financial incentives to encourage private land stewardship. See CAP strategic plan measures AA 4.3.3, AA 1.3 ³⁷ Some first steps are underway through LIFE IP Physis (e.g. actions A.3, C.6, C.11). |
| Spatial scope of the measure | National |
| Implementation Cost (high-medium-low)³⁸ | High |
| Maintenance cost (high-medium-low) | Medium |
| Implications for society with special attention to vulnerable populations | Improved land stewardship improves health and well being in local populations by improving environmental quality and biodiversity conservation. Potential impacts on land use prices need to be considered. |

³⁵ High: to implement within two years; Medium: implement in 2 to 5 years; Low: implement after 5 years

³⁶ See <https://climate-adapt.eea.europa.eu/en/knowledge/tools/adaptation-support-tool/step-3-0>

³⁷ Cyprus Strategic plan for the Common Agriculture Policy

<http://www.paa.gov.cy/moa/paa/paa.nsf/All/7CAC61CDF0EC6FC1C22589400045E432>

³⁸ Low: €100,000 or less; Medium: €100,000 – €1,000,000; High: over €1 million



| Name of the measure | Identify and develop contractual, regulatory and financial tools to enhance land use practices compatible with biodiversity conservation in the context of climate change adaptation |
|---|--|
| Co-benefits for regional or local development priorities | Enhances the incorporation of biodiversity protection goals within regional and local development plans. |
| Co-benefits for climate mitigation | land use practices that allow for adaptation and mitigation should be preferred (e.g. afforestation) |
| Co-benefits for the environment | Protection of biodiversity |
| Political and social acceptability (high-medium-low) | It is politically feasible. Social acceptability depends on the contractual agreements |
| Barriers for implementation | Low uptake of relevant RDP measures |
| Maladaptation risks (if any) | None |
| Responsible authority for implementation | Will need to be determined |
| Other actors involved | Local governments, private landowners, forest managers |
| Other policy initiatives that align / synergies | Synergy with MSP (Climate adapted MSP + MPAs) (Cyprus Marine and Maritime Institute) |
| Technical/institutional readiness | High |
| Period of implementation | 2025 |
| Time to effectiveness (to have an effect or impact) | In line with roll out of tools and negotiated agreements with private landowners. |
| Financing (high-medium-low) | LIFE Programme European Agricultural Fund for Rural Development (EARDF) |
| Indicator for verification of implementation progress | <ul style="list-style-type: none">• Number of contractual agreements signed• Area of land (in ha) managed under the scheme |
| Relates to | AGRI 1 |

| | |
|--|---|
| Name of the measure | Promote studies on the expected effects of climate change on Cyprus' flora, fauna and geological heritage, as well as on the structure and functioning of the terrestrial and marine ecosystems of which they are part. |
| Number of the measure | BIODIV 3 |
| Priority (high-medium-low) ³⁹ | High |
| Climate impact (s) addressed | All |
| Primary Sector | Biodiversity and Ecosystems |
| Secondary sector | Forest Sea and coast Hydrological Regime and Water Management |
| KTM category⁴⁰ | Knowledge and behavioural exchanges |
| Sub-KTM | Information and awareness raising |
| Goal of the measure | Recording of all impacts on biodiversity & ecosystem services. |
| Description of the measure | <p>Within the framework of this measure, it is proposed to promote research on biodiversity and climate change through the following actions:</p> <ul style="list-style-type: none"> A. Study on the vulnerability of ecosystems in the light of climate change B. Monitoring of biotic and abiotic parameters related to climate change. C. Monitoring the phenology of species in climate change. D. Monitoring the effects of climate change on the activity of microorganisms to which ecosystem services are due. E. Monitoring particularly vulnerable / sensitive habitat types and species and their habitats. F. Integration of research topics on the effects of climate change on biodiversity and adaptation, in the priorities of the relevant universities and Research Institutes of the country and in other co-financed European and international research programs. G. Ensuring the binding of necessary funds to finance research. |
| Spatial scope of the measure | National |
| Implementation Cost (high-medium-low) ⁴¹ | Depends on the extent of the studies |
| Maintenance cost (high-medium-low) | None |
| Implications for society with special attention to vulnerable populations | None |
| Co-benefits for regional or local development priorities | Increased knowledge for biodiversity conservation. |
| Co-benefits for climate mitigation | None |

³⁹ High: to implement within two years; Medium: implement in 2 to 5 years; Low: implement after 5 years

⁴⁰ See <https://climate-adapt.eea.europa.eu/en/knowledge/tools/adaptation-support-tool/step-3-0>

⁴¹ Low: €100,000 or less; Medium: €100,000 – €1,000,000; High: over €1 million

| | |
|--|--|
| Name of the measure | Promote studies on the expected effects of climate change on Cyprus' flora, fauna and geological heritage, as well as on the structure and functioning of the terrestrial and marine ecosystems of which they are part. |
| Co-benefits for the environment | Increased knowledge for biodiversity conservation. |
| Political and social acceptability (high-medium-low) | High |
| Barriers for implementation | None |
| Maladaptation risks (if any) | None |
| Responsible authority for implementation | All competent Authorities with the collaboration of the Deputy Ministry of Research, Innovation and Digital Policy |
| Other actors involved | Research institutions and universities Deputy Ministry of Research, Innovation and Digital Policy |
| Other policy initiatives that align / synergies | Synergy with Soil 5n / 6n; Synergy with FISH 1; Synergies with Hydrological regime and water management adaptation |
| Technical/institutional readiness (high-medium-low) | High |
| Period of implementation | Measure is being implemented as part of Cyprus current NAS |
| Time to effectiveness (to have an effect or impact) | Depending on the content and goals of the research projects |
| Financing (high-medium-low) | HORIZON, INTERREG |
| Indicator for verification of implementation progress | <ul style="list-style-type: none"> • Development of a Research Agenda for biodiversity and climate change: started/ongoing/finalised • Number of studies funded |
| Additional comments | There is a great need to implement a related Research Agenda with the Deputy Ministry of Research, Innovation and Digital Policy, that would address the needs of the relevant Departments. Moreover, cooperation with academia for relevant PhD and research projects with Research Institutes such as the Research and Innovation Foundation (https://www.research.org.cy/en/) |
| Relates to | BIODIV 1 BIODIV 8 BIODIV 9 BIODIV 10n |

| Name of the measure | Improve water quality, preserve aquatic ecosystems and integrate water ecosystem resilience into public policies and sectoral plans |
|--|--|
| Number of the measure | BIODIV 4n |
| Priority (high-medium-low) ⁴² | High |
| Climate impact(s) addressed | Flooding, Water Scarcity |
| Primary Sector | Biodiversity and ecosystems |
| Secondary sector (if any) | Hydrological Regime and Water Management Spatial Planning |
| KTM category⁴³ | Governance and Institutional |
| Sub-KTM | Policy Instruments |
| Goal of the measure | Achieve the objectives of the WFD. |
| Description of the measure | Fully implement the Program of Measures set out under the 3rd RBMP and the following management plans in order to meet the goals of WFD. |
| Spatial scope of the measure | National; River basin district |
| Implementation Cost (high-medium-low) ⁴⁴ | Medium |
| Maintenance cost (high-medium-low) | Medium |
| Implications for society with special attention to vulnerable populations | Improve water security by improving the health of aquatic ecosystems and thus availability of sufficient water – in quality and quantity – to meet human needs |
| Co-benefits for regional or local development priorities | Secured drinking water resources, protection of recreation sites |
| Co-benefits for climate mitigation | None |
| Co-benefits for the environment | Improve the health of aquatic ecosystems and the status of all waters |
| Political and social acceptability | Yes |
| Barriers for implementation | Water Scarcity and Droughts. Stronger legislation and control needed; fines should be dissuasive. Solve enforcement issues. Limited manpower and resources |
| Maladaptation risks (if any) | None |
| Responsible authority for implementation | Water Development Department, MARDE |
| Involved actors | Department of Environment, Department of Fisheries and Marine Research, Department of Agriculture, Geological Survey Department, Administrative Authority of the Rural Development Program |
| Other policy initiatives that align / synergies | Water Framework Directive, Floods Directive, Rural Development Program Spatial planning Nature Restoration Law (art. 4 and art 7) |

⁴² High: to implement within two years; Medium: to implement in 2 to 5 years; Low: implement after 5 years

⁴³ See <https://climate-adapt.eea.europa.eu/en/knowledge/tools/adaptation-support-tool/step-3-0>

⁴⁴ Low: €100,000 or less; Medium: €100,000 – €1,000,000; High: over €1 million

| | |
|--|---|
| Name of the measure | Improve water quality, preserve aquatic ecosystems and integrate water ecosystem resilience into public policies and sectoral plans |
| Technical/institutional readiness | High |
| Period of implementation | 2025-2028 |
| Time to effectiveness (to have an effect or impact) | Implementation period of third and fourth river basin management plans |
| Financing | LIFE Programme, INTERREG |
| Indicator for verification of implementation progress | <ul style="list-style-type: none"> • Number of water bodies in at least good status (according to WFD) |
| Additional comments | The Water Framework Directive River Basin Management Plan (RBMP) and associated Programme of measures include these objectives, and measures are partially being implemented – currently working on preparatory actions for the 4th RBMP). Environmental flows in impounded rivers are established but not implemented. The LIFE IP-Physis project also addresses environmental flows in impounded rivers in Natura 2000 areas. |
| Relates to | AGRI 1 FISH 1 WAT 7n WAT 9n |

| Name of the measure | Protection, conservation and proper management of the important natural wetlands of Cyprus |
|--|---|
| Number of the measure | BIODIV 5 |
| Priority (high-medium-low) ⁴⁵ | High |
| Climate impact(s) addressed | Drought |
| Primary Sector | Biodiversity and ecosystems |
| Secondary sector (if any) | Hydrological Regime and Water Management |
| KTM category ⁴⁶ | Governance and institutional |
| Sub-KTM | Policy instruments |
| Goal of the measure | Addressing the risk of degradation of water-dependent ecosystems, due to reduced soil moisture and drying, drought episodes, reduced water quantity and increased demand of society in water, but also due to other projects, such as tourist facilities and activities, urbanisation and related infrastructure (e.g. road network). |
| Description of the measure | Actions for strengthening and protecting wetlands, rivers (mainly estuaries) and coastal ecosystems, with emphasis on the Salt Marsh complex of Larnaca, the lakes of Paralimni and Oroklini, which are the three main natural wetlands of Cyprus, as well as coastal habitats, mainly sand dunes. |
| Spatial scope of the measure | National with a local focus |
| Implementation Cost (high-medium-low) ⁴⁷ | Medium |
| Maintenance cost (high-medium-low) | Low |
| Implications for society with special attention to vulnerable populations | None |
| Co-benefits for regional or local development priorities | Wetlands could be used for tourist attractions and as local recreation sites |
| Co-benefits for climate mitigation | All types of wetlands are carbon sequestering systems (aka “carbon sinks”), from temperate freshwater wetlands to boreal peatlands ⁴⁸ . |
| Co-benefits for the environment | Protection of valuable natural areas and biodiversity |
| Political and social acceptability | Yes |
| Barriers for implementation | Land ownership Inadequate legislation Illegal activities and low fines Limited human and financial resources |
| Maladaptation risks (if any) | None |
| Responsible authority for implementation | Department of the Environment, Ministry of Agriculture, Rural Development and the Environment |
| Involved actors | Water Development Department, Game & Fauna Service, Local Authorities, District Local Government Organisation |

⁴⁵ High: to implement within two years; Medium: to implement in 2 to 5 years; Low: to implement after 5 years

⁴⁶ See <https://climate-adapt.eea.europa.eu/en/knowledge/tools/adaptation-support-tool/step-3-0>

⁴⁷ Low: €100,000 or less; Medium: €100,000 – €1,000,000; High: over €1 million

⁴⁸ <https://www.nawm.org/science/wetlands-and-climate-change.html>



| Name of the measure | Protection, conservation and proper management of the important natural wetlands of Cyprus |
|--|--|
| Other policy initiatives that align / synergies | Water Framework Directive and nature restoration law, N2000 Positive synergies with hydrological regime and water resources adaptation |
| Technical/institutional readiness | High |
| Period of implementation | Included in Cyprus' current NAS |
| Time to effectiveness (to have an effect or impact) | Depending on the ambition and extent of the proposed actions. |
| Financing | LIFE Programme, INTERREG |
| Indicator for verification of implementation progress | <ul style="list-style-type: none">• Area of wetlands• Relevant indicators resulting from the NATURA 2000 legislation• Relevant indicators coming from the Nature Restoration Law |
| Additional comments | The Department of Environment is the coordinator of a LIFE IP project (LIFE IP Physis) which includes conservation actions targeted on the three main wetlands of Cyprus |
| Relates to | AGRI 1 |

| Preserve, restore and strengthen hydrogeomorphological and ecological continuities of river ecosystems | |
|--|--|
| Name of the measure | |
| Number of the measure | BIODIV 6n |
| Priority (high-medium-low) ⁴⁹ | Medium |
| Climate impact (s) addressed | Extreme Temperatures, Droughts, Flooding, Water Scarcity |
| Primary Sector | Biodiversity and Ecosystems |
| Secondary sector (if any) | Spatial planning, Agriculture, Hydrological Regime and Water Management |
| KTM category⁵⁰ | Nature Based Solutions and Ecosystem-based Approaches |
| Sub-KTM | Blue options |
| Goal of the measure | Restore hydro geomorphological continuity of river ecosystems |
| Description of the measure | <p>The best way of restoring ecological continuity is to implement actions such as:</p> <ul style="list-style-type: none"> A. Reducing the size of certain hydraulic structures. B. Enhance river continuity by removing weirs with priority given to obsolete barriers, as required by the Nature restoration law, improving road crossings. C. Creating gaps. D. Installing crossing devices for migratory fish (fish passes, ramps, bypass rivers, etc.). E. Rehabilitation of riverbeds and banks. F. Appropriate management measures, such as temporarily opening floodgates to encourage sediment transport. G. More environmentally friendly farming practices. H. Adoption of new road crossing designs that are less invasive in the river corridor and maintain in the long run the natural features, cross-section and connectivity of the river. |
| Spatial scope of the measure | National |
| Implementation Cost (high-medium-low) ⁵¹ | Medium to High |
| Maintenance cost (high-medium-low) | Low |
| Implications for society with special attention to vulnerable populations | None |
| Co-benefits for regional or local development priorities | reduces flood risks, local recreation sites |
| Co-benefits for climate mitigation | Improved environmentally friendly farming practices can help reduce emissions from the agricultural sector. |
| Co-benefits for the environment | Biodiversity conservation and improved health of aquatic ecosystems |
| Political and social acceptability | Yes |
| Barriers for implementation | Spatial planning, property ownership. |

⁴⁹ High: to implement within two years; Medium: to implement in 2 to 5 years; Low: to implement after 5 years

⁵⁰ See <https://climate-adapt.eea.europa.eu/en/knowledge/tools/adaptation-support-tool/step-3-0>

⁵¹ Low: €100,000 or less; Medium: €100,000 – €1,000,000; High: over €1 million

| Name of the measure | Preserve, restore and strengthen hydrogeomorphological and ecological continuities of river ecosystems |
|--|---|
| | Social resistance to removal of hydraulic infrastructures. |
| Maladaptation risks (if any) | None |
| Responsible authority for implementation | Department of the Environment, Ministry of Agriculture, Rural Development and the Environment |
| Involved actors | Department of Environment, Game and Faune Service, Department of Forestry |
| Other policy initiatives that align / synergies | Nature restoration law, Water Framework Directive (WFD), Floods Directive Synergy with Marine Spatial Planning + ICZM (Integrated Coastal Zone Management) (Cyprus Marine and Maritime Institute). Synergies with cities and regions Ministry of Health |
| Technical/institutional readiness | High |
| Period of implementation | Medium |
| Time to effectiveness (to have an effect or impact) | Within months of restoration action, depending on the type of action. |
| Financing | LIFE Programme, INTERREG, national/regional funding |
| Indicator for verification of implementation progress | <ul style="list-style-type: none"> Same indicators are for the WFD reporting and Nature restoration law |
| Additional comments | More feasible under blue infrastructure (i.e. river continuity, by removing weirs, improving road crossings, eel passages, etc.). |
| Relates to | AGRI 1 FISH 1 |

| Name of the measure | Action plans to protect species and their habitats threatened by climate change |
|--|--|
| Number of the measure | BIODIV 7 |
| Priority (high-medium-low) ⁵² | Medium |
| Climate impact(s) addressed | Droughts |
| Primary Sector | Biodiversity and ecosystems |
| Secondary sector (if any) | Water; Forestry |
| KTM category⁵³ | Nature Based Solutions and Ecosystem-based Approaches |
| Sub-KTM | Green options |
| Goal of the measure | Habitat and species protection considering the negative effects of climate change |
| Description of the measure | This measure provides for: A. Development of National Action Plans for the protection of Cyprus' habitats, flora and fauna, with an emphasis on threatened species and habitats and on those most vulnerable to climate change. B. Adaptation of existing action plans already available to consider the risk of climate change. |
| Spatial scope of the measure | National |
| Implementation Cost (high-medium-low) ⁵⁴ | Medium |
| Maintenance cost (high-medium-low) | Low (periodic review and update) |
| Implications for society with special attention to vulnerable populations | None |
| Co-benefits for regional or local development priorities | None |
| Co-benefits for climate mitigation | Protection of carbon sinks |
| Co-benefits for the environment | Biodiversity conservation |
| Political and social acceptability | Yes |
| Barriers for implementation | Lack of knowledge on the link between climate change and biodiversity |
| Maladaptation risks (if any) | None |
| Responsible authority for implementation | Ministry of Agriculture, Rural Development and the Environment |
| Other actors involved | Ministry of Agriculture, Rural Development and the Environment Farmers unions and organizations Environmental NGOs |
| Other policy initiatives that align / synergies | N2000, Water Framework Directive, Marine Strategy Framework Directive implementation |

⁵² High: to implement within two years; Medium: to implement in 2 to 5 years; Low: implement after 5 years

⁵³ See <https://climate-adapt.eea.europa.eu/en/knowledge/tools/adaptation-support-tool/step-3-0>

⁵⁴ Low: €100,000 or less; Medium: €100,000 – €1,000,000; High: over €1 million



| Name of the measure | Action plans to protect species and their habitats threatened by climate change |
|--|---|
| | Synergies: Spatial planning; Synergy with MSP + ICZM (Integrated Coastal Zone Management) (Cyprus Marine and Maritime Institute); In line with FISH 1 |
| Technical/institutional readiness | High to medium |
| Period of implementation | Included in the current Cyprus NAS. No progress has been made |
| Time to effectiveness (to have an effect or impact) | Upon implementation of Action Plans |
| Financing | National or EU Funds (LIFE IP) |
| Indicator for verification of implementation progress | <ul style="list-style-type: none">• Action plan: started/ongoing/finalised• Indicators as set under the NATURA 2000 Law |
| Additional comments | Action Plans are being prepared for habitats and Species within the LIFE – IP Physis project. Climate change adaptation is not being sufficiently considered in these plans. Some measures indirectly address water availability, primarily referring to environmental flows for riparian habitats and water dependent species, as a result to water stress. The lack of climate change adaptation measure relates to the lack of knowledge of the link between climate change and biodiversity |
| Relates to | BIODIV 3 BIODIV 10n |

| Analysis of the vulnerability of ecosystems (structure and functions) and their services to climate change, with an emphasis on protected areas and the Natura 2000 Network | |
|---|--|
| Name of the measure | |
| Number of the measure | BIODIV 8 |
| Priority (high-medium-low) ⁵⁵ | High |
| Climate impact(s) addressed | Droughts, Floods, Heat waves |
| Primary Sector | Biodiversity and ecosystems |
| Secondary sector (if any) | Spatial planning Agriculture Hydrological Regime and Water Management |
| KTM category ⁵⁶ | Knowledge and behavioural change |
| Sub-KTM | Information and awareness raising |
| Goal of the measure | Protection at the level of ecosystems (habitats and species) and their functions, considering the negative effects of climate change |
| Description of the measure | <p>Action 5 of the EU Biodiversity Strategy for 2020 calls Member States to map and assess the state of ecosystems and their services in their national territory with the assistance of the EC.</p> <p>A. Mapping and evaluating the ecological status of ecosystems and their services and updating biodiversity databases (e.g. SDFs). The Commission has developed a consistent approach for measuring the condition of 12 different terrestrial, freshwater and marine ecosystems covering the entire EU. The one developed for Cyprus in LIFE IP is of limited depth and spatial scale. Following these guidelines, this measure will revise Cyprus' MAES taking climate change risks and adaptation into consideration.</p> <p>B. Maintaining or strengthening ecological cohesion, both intraconnectivity – connectivity within the protected area (PA), ensuring each PA is not fragmented in view of climate change; and interconnectivity – ensuring that PAs are part of a well-connected network. Ecological corridors play a crucial part in facilitating movement/expansion/dispersal through suitable areas outside Natura 2000.</p> |
| Spatial scope of the measure | National |
| Implementation Cost (high-medium-low) ⁵⁷ | Medium |
| Maintenance cost (high-medium-low) | Medium (regular update) |
| Implications for society with special attention to vulnerable populations | None |
| Co-benefits for regional or local development priorities | None |
| Co-benefits for climate mitigation | Ecosystems contribute to climate change mitigation because of their capacity to remove carbon from the atmosphere and to store it. Ecosystems contribute also to CC adaptation because they provide services that can help people adapt to both current climate hazards and |

⁵⁵ High: to implement within two years; Medium: to implement in 2 to 5 years; Low: implement after 5 years

⁵⁶ See <https://climate-adapt.eea.europa.eu/en/knowledge/tools/adaptation-support-tool/step-3-0>

⁵⁷ Low: €100,000 or less; Medium: €100,000 – €1,000,000; High: over €1 million



| Name of the measure | Analysis of the vulnerability of ecosystems (structure and functions) and their services to climate change, with an emphasis on protected areas and the Natura 2000 Network |
|--|--|
| | <p>future climate change (e.g. climate regulation, protection of coastal areas and watersheds etc).</p> <p>This measure will investigate how ecosystems and ecosystem services are affected by climate change, and their potential role in strategies for tackling climate change mitigation and adaptation. The analysis of vulnerability will help Cyprus develop the adaptation measures needed to reduce negative impacts and maintain ecosystem functions ('adaptation for ecosystem services'). The identification of ecosystems and ecosystem services that contribute to CC adaptation & mitigation will help Cyprus plan ecosystem-based approaches to climate change, i.e. management can enhance the contribution of ecosystem services to adaptation and mitigation ('ecosystem-based adaptation and mitigation').</p> |
| Co-benefits for the environment | Biodiversity conservation; safeguarding ecosystem services. |
| Political and social acceptability | Yes |
| Barriers for implementation | Spatial Planning and Land Ownership |
| Maladaptation risks (if any) | None |
| Responsible authority for implementation | Department of Environment |
| Other actors involved | Competent authorities: Department of Forests, Department of Fisheries and Marine Research, Game and Fauna Service |
| Other policy initiatives that align / synergies | <p>Habitats Directive, Birds Directive, Restoration law and Water Framework Directive implementation</p> <p>FISH 5n contribute to this measure</p> <p>With regards to terrestrial actions for connecting biodiversity hotspot areas, this is strongly connected with Spatial Planning.</p> |
| Technical/institutional readiness | High |
| Period of implementation | Included in current Cyprus NAS |
| Time to effectiveness (to have an effect or impact) | n.a. |
| Financing | Low LIFE Program |
| Indicator for verification of implementation progress | <ul style="list-style-type: none"> Study: started/ongoing/finalised |
| Relates to | BIODIV 3 |

| Addressing the risk of invasive alien species | |
|--|---|
| Name of the measure | |
| Number of the measure | BIODIV 9 |
| Priority (high-medium-low) ⁵⁸ | High |
| Climate impact(s) addressed | Increase temperature |
| Primary Sector | Biodiversity and ecosystems |
| Secondary sector (if any) | Hydrological Regime and Water Management Sea and Coast Agriculture |
| KTM category | Information and behavioural changes |
| Sub-KTM | Information and awareness raising |
| Goal of the measure | Addressing the increased risks of introduction and spread of invasive alien species due to climate change. |
| Description of the measure | <p>A. Mapping and evaluation of the status of invasive alien species (<i>being done to some extent</i>).</p> <p>B. Establishment and implementation of action plans to address the pathways of introduction and spread of invasive alien species of Union concern (<i>being done</i>).</p> <p>C. Official controls are carried out at Official Border Control Posts. The Customs and Excise Department and the Department of Agriculture are involved in control procedures.</p> <p>D. Surveillance system and monitoring of invasive alien species of Union concern to prevent their spread (<i>being done</i>).</p> <p>E. National list of invasive alien species, and management measures to prevent their spread (<i>being prepared</i>).</p> <p>F. Management measures for invasive alien species of Union concern which have spread in Cyprus (<i>action plans are being prepared</i>).</p> |
| Spatial scope of the measure | National |
| Implementation Cost (high-medium-low) ⁵⁹ | High |
| Maintenance cost (high-medium-low) | High |
| Implications for society with special attention to vulnerable populations | No |
| Co-benefits for regional or local development priorities | none |
| Co-benefits for climate mitigation | No |
| Co-benefits for the environment | Protection of biodiversity and native species; safeguarding ecosystem resilience |
| Political and social acceptability | High |
| Barriers for implementation | Protection of marine ecosystems from the entry of alien species is not feasible due to the Suez Canal Need for cooperation between different public departments and other stakeholders. |

⁵⁸ High: to implement within two years; Medium: to implement in 2 to 5 years; Low: implement after 5 years

⁵⁹ Low: €100,000 or less; Medium: €100,000 – €1,000,000; High: over €1 million

| Name of the measure | Addressing the risk of invasive alien species |
|--|---|
| | Lack of expertise in identification of species that have no clear diagnostic features. |
| Maladaptation risks | None |
| Responsible authority for implementation | Department of the Environment, Ministry of Agriculture, Rural Development and the Environment, with other authorities |
| Involved actors | Cyprus Customs and Excise Department (for checking imports) Water authorities Local authorities |
| Other policy initiatives that align / synergies | Regulation 1143/2014 (EU), National law N.120(I)/2019 Synergies: Spatial planning Synergy with MSP + ICZM In line with FISH 1 |
| Technical/institutional readiness | High |
| Period of implementation | Included in current Cyprus NAS |
| Time to effectiveness (to have an effect or impact) | The control of invasive species is an ongoing activity due to the difficulty in controlling entry points and due to difficulty in controlling already established populations |
| Financing (high-medium-low) | Low European Regional Development Fund (ERDF), LIFE Programme |
| Indicator for verification of implementation progress | <ul style="list-style-type: none"> Reduction of import and spread of invasive alien species |
| Additional comments | It is an ongoing activity, things are being done, but there is room for improvement. |
| Relates to | BIODIV 3 |

| Promote the introduction of climate change adaptation criteria in the planning and management of protected areas | |
|---|--|
| Name of the measure | |
| Number of the measure | BIODIV 10n |
| Priority (high-medium-low)⁶⁰ | High |
| Climate impact(s) addressed | Droughts, floods, fires, sea level rise, heat waves |
| Primary Sector | Biodiversity and ecosystems |
| Secondary sector (if any) | Spatial planning |
| KTM category⁶¹ | Governance and institutional |
| Sub-KTM | Management and planning |
| Goal of the measure | Promotion of adaptive planning and management of protected areas |
| Description of the measure | <p>The promotion of adaptive planning and management of protected areas can include measures such as:</p> <ul style="list-style-type: none"> A. Promote the development of pilot projects to incorporate climate change adaptation criteria into the planning and/or management of protected areas. B. Facilitate the training of staff working in protected areas on impacts, risks and adaptation. C. Conduct a prospective review of protected area networks in the context of climate change. D. Analyse the foreseen effects of different climate change scenarios on the distribution of habitats of community interest. E. Update the Natura 2000 network conservation guidelines to better consider climate change. |
| Spatial scope of the measure | National |
| Implementation Cost (high-medium-low)⁶² | Medium |
| Maintenance cost (high-medium-low) | Low – regular updates |
| Implications for society with special attention to vulnerable populations | Ensuring the conservation of protected areas representative of Cyprus' diverse ecosystems ensures long-term access to natural environments. |
| Co-benefits for regional or local development priorities | None |
| Co-benefits for climate mitigation | None |
| Co-benefits for the environment | Protection of biodiversity and habitats; conservation of species and habitats |
| Political and social acceptability | High |
| Barriers for implementation | Limited Resources for planning and implementation Need for legally binding Management Plans for protected areas, and regular update/adaptation of measures Land Ownership |
| Maladaptation risks | None |

⁶⁰ High: to implement within two years; Medium: to implement in 2 to 5 years; Low: implement after 5 years

⁶¹ See <https://climate-adapt.eea.europa.eu/en/knowledge/tools/adaptation-support-tool/step-3-0>

⁶² Low: €100,000 or less; Medium: €100,000 – €1,000,000; High: over €1 million



| Promote the introduction of climate change adaptation criteria in the planning and management of protected areas | |
|---|--|
| Name of the measure | |
| Responsible authority for implementation | Department of Environment, Ministry of Agriculture, Rural Development and the Environment |
| Involved actors | Department of Environment, Department of Forestry, Department of Fisheries and Marine Research, Game and Fauna Service |
| Other policy initiatives that align / synergies | N2000 and nature restoration law In line with FISH 1 |
| Technical/institutional readiness | High |
| Period of implementation | 2025 and regular updates |
| Time to effectiveness (to have an effect or impact) | As soon as revised plans are legally approved. |
| Financing | Limited, National funds, LIFE Programme, INTERREG, HORIZON |
| Indicator for verification of implementation progress | <ul style="list-style-type: none">• Number of projects started per year• Number of Trained staff per year• Number of reviewed networks• Updates guidelines: started/ongoing/finalised |
| Additional comments | Not much is being done in this area, but there is an acknowledgement that it is critical. |
| Relates to | BIODIV 3 GOV 1 GOV 2n |

Cultural heritage measures impact assessment factsheets

| Name of the measure | Identify the elements of country's cultural heritage that are most vulnerable to climate change and define possible adaptation strategies |
|--|---|
| Number of the measure | CULT 1n |
| Priority (high-medium-low) ⁶³ | High |
| Climate impact (s) addressed | Floods, droughts, heat, fires, increasing aridity, sea levels, landslides, erosion and desertification |
| Primary Sector | Cultural Heritage |
| Secondary sector | Forestry Sea and Coast: MSP (Maritime Spatial Planning) + ICZM (Integrated Coastal Zone Management) Spatial Planning Tourism |
| KTM category ⁶⁴ | Knowledge and Behavioural change |
| Sub-KTM | Information and awareness raising |
| Goal of the measure | Gain a deeper, more localised understanding of the impacts of climate change on cultural heritage. Identify the elements of Cyprus' cultural heritage most vulnerable to climate change and identify adaptation strategies. |
| Description of the measure | <p>A. Conduct studies to gain a deeper, more localised understanding of the impacts of climate change on cultural heritage. Former risk assessments for Cyprus have linked the loss of cultural heritage mainly to an increase in flood events. However, other climate impacts like droughts, fires, rising temperatures, increasing aridity, rising sea levels, landslides, erosion and desertification will also, directly or indirectly, affect cultural heritage. Especially archaeological sites near coasts are threatened, as changes in atmospheric composition, i.e. salinity, sea level rise and storm surges occur.</p> <p>B. Map areas of intense erosion and landslide risk where cultural heritage is at high risk.</p> <p>C. Take steps to protect the structure of archaeological sites, monuments as well as moveable objects, e. g. museum exhibits, from damages compromising their authenticity. Restoration with different materials, reinforcement of drainage systems, walls, or roofs or sun covers, may impact the individual aesthetics of the sites.</p> |
| Spatial scope of the measure | National |
| Implementation Cost (high-medium-low) ⁶⁵ | High |
| Maintenance cost (high-medium-low) | Med |
| Implications for society with special attention to vulnerable populations | It is extremely vital to safeguard cultural heritage against threats, as it implies the protection of our identity and values transmitted through generations. Heritage also comprises a resource for sustainable development, given its social associations and through cultural tourism. It therefore provides support to communities that are more isolated (e.g. |

⁶³ High: to implement within 2 years; Medium: to implement in 2 to 5 years; Low: to implement after 5 years

⁶⁴ See <https://climate-adapt.eea.europa.eu/en/knowledge/tools/adaptation-support-tool/step-3-0>

⁶⁵ Low: €100,000 or less; Medium: €100,000 – €1,000,000; High: over €1 million

| Name of the measure | Identify the elements of country's cultural heritage that are most vulnerable to climate change and define possible adaptation strategies |
|--|---|
| | mountainous) and promotes values that are linked to social inclusion and awareness concerning more vulnerable populations. |
| Co-benefits for regional or local development priorities | The protection of cultural heritage reinforces cultural tourism and as such it benefits local development and growth. |
| Co-benefits for climate mitigation | None |
| Co-benefits for the environment | Improved biodiversity when measures taken to protect landscape and environmental cultural heritage |
| Political and social acceptability | High |
| Barriers for implementation | Implementation depends on the availability of resources |
| Maladaptation risks | None |
| Responsible authority for implementation | The Department of Antiquities (DoA) of the Deputy Ministry of Culture |
| Other actors involved | <p>Department of Forestry and the Fire Service (e.g. for the installation of fire extinguishers)</p> <p>Department of Geological Survey (e.g. for evaluating risks concerning landslides and erosion)</p> <p>Water authorities (concerning flood risks)</p> <p>Local authorities for the identification of local cultural heritage</p> <p>Academic institutions through research projects or other initiatives aiming at evaluating risks or documenting heritage assets.</p> |
| Other policy initiatives that align / synergies | <p>The strategic plan of the Department of Antiquities (DoA) which is the competent authority for the protection, research and promotion of cultural heritage focuses on strategic axes, policies and initiatives that aim at preserving and conserving cultural heritage against threats. The Initiative of the Republic of Cyprus against the impacts of climate change in the EMME (Eastern Mediterranean and Middle East) region comprises a significant action towards addressing CC risks. Moreover, the DoA is part of the Greek Initiative at UN level to protect cultural and natural heritage against the impacts of CC, while it also participated in the OMC (Open Method of Coordination) expert group of the EU to strengthen resilience of cultural heritage against CC.</p> <p>Apart from systematic conservation, the DoA collaborates with academic and research institutes to document, monitor and assess vulnerability of monuments and sites, while it follows recommendations proposed by UNESCO, ICCROM, ICOMOS and ICOM.</p> |
| Technical/institutional readiness (high-medium-low) | <p>Medium</p> <p>(The initiatives proposed are already in progress by the DoA, since there are ongoing related projects and conservation, and monitoring is systematic. However, due to limitations, such as in personnel and other urgent needs, it is only possible to conduct risk assessments eventually and based on priorities).</p> |
| Period of implementation (long-medium-short)⁶⁶ | <p>Long</p> <p>(It is an ongoing process)</p> |
| Time to effectiveness (to have an effect or impact) | <p>3-5 years</p> <p>(Period according to implementation of ongoing projects)</p> |

⁶⁶ Short: less than 2 years; Medium: between 2 to 5 years; Long: more than 5 years



| Name of the measure | Identify the elements of country's cultural heritage that are most vulnerable to climate change and define possible adaptation strategies |
|--|--|
| Financing | Med |
| Indicator for verification of implementation progress | <ul style="list-style-type: none">• Conservation reports• Number of cultural assets considered/year |
| Additional comments | The Department of Antiquities aims to establish a framework for targeted actions from various academic institutions involved in heritage research to encourage the implementation of adaptation measures (e.g. to bring together digital documentation strategies and satellite data for monitoring) |
| Related to | GOV 1n |

| Name of the measure | | Prioritise maintenance work on cultural heritage over restoration work |
|--|--|--|
| Number of the measure | CULT 2n | |
| Priority (high-medium-low) ⁶⁷ | High | |
| Climate impact (s) addressed | All | |
| Primary Sector | Cultural Heritage | |
| Secondary sector | Economy and finance Tourism | |
| KTM category | Governance and Institutional | |
| Sub-KTM | Management and planning | |
| Goal of the measure | Ensure the conservation of cultural heritage in the context of climate change | |
| Description of the measure | <p>A. Make small repairs regularly, rather than infrequent large interventions.</p> <p>B. Decide whether to relocate (physical) cultural assets away from sites threatened by climate change.</p> <p>C. Define long-term plans for the management of risky sites.</p> <p>D. Change management strategies in favour of more rigorous and frequent inspections, maintenance and monitoring of facilities.</p> <p>E. Promote different long-term financing strategies for maintenance, in particular:</p> <ul style="list-style-type: none"> • linking different funding resources and financial approaches; • recognising the insurance sector as a valuable ally; • introducing tax breaks for maintenance; directing resources in training on traditional and artisanal building techniques to complement advanced technologies to improve our understanding of cultural heritage in a period of change | |
| Spatial scope of the measure | National | |
| Implementation Cost (high-medium-low) ⁶⁸ | Med | |
| Maintenance cost (high-medium-low) | Med | |
| Implications for society with special attention to vulnerable populations | It is extremely vital to safeguard cultural heritage against threats, as it implies the protection of our identity and values transmitted through generations. Heritage also comprises a resource for sustainable development, given its social associations and through cultural tourism. It therefore provides support to communities that are more isolated (e.g. mountainous) and promotes values that are linked to social inclusion and awareness concerning more vulnerable populations. | |
| Co-benefits for regional or local development priorities | The protection of cultural heritage reinforces cultural tourism and as such it benefits local development and growth. | |
| Co-benefits for climate mitigation | None | |
| Co-benefits for the environment | Improved biodiversity when measures taken to protect landscape and environmental cultural heritage | |
| Political and social acceptability | Med | |

⁶⁷ High: to implement within 2 years; Medium: to implement in 2 to 5 years; Low: to implement after 5 years

⁶⁸ Low: €100,000 or less; Medium: €100,000 – €1,000,000; High: over €1 million

| Name of the measure | Prioritise maintenance work on cultural heritage over restoration work |
|---|--|
| Barriers for implementation | It is important to raise awareness concerning the need to invest in protecting cultural heritage at a higher political level to secure funding and long-term availability of resources, but also among heritage practitioners. In addition, it is necessary to develop synergies that will promote education to educate the population at a younger age on the need to safeguard heritage and the threats of the impact of CC. |
| Maladaptation risks | None |
| Responsible authority for implementation | The Department of Antiquities and the Deputy Ministry of Culture |
| Other actors involved | <p>Department of Forestry and the Fire Services (e.g. for the installation of fire extinguishers)</p> <p>Department of Geological Survey (e.g. for evaluating risks concerning landslides and erosion)</p> <p>Water authorities (concerning flood risks)</p> <p>Ministry of Transport, Communication and Works / Public Works</p> <p>Department: provide services to the maintenance of it (infrastructures, transport and buildings)</p> <p>Academic institutions through research projects or other initiatives aiming at evaluating risks or documenting heritage assets.)</p> <p>Planning depends on competent authorities</p> |
| Other policy initiatives that align / synergies | <p>The strategic plan of the Department of Antiquities (DoA) focuses on strategic axes, policies and initiatives that aim at preserving and conserving cultural heritage against threats. The Initiative of the Republic of Cyprus against the impacts of climate change in the EMME region comprises a significant action towards addressing CC risks. Moreover, the DoA is part of the Greek Initiative at UN level to protect cultural and natural heritage against the impacts of CC, while it also participated in the OMC expert group of the EU to strengthen resilience of cultural heritage against CC.</p> <p>Apart from systematic conservation, the DoA collaborates with academic and research institutes to document, monitor and assess vulnerability of monuments and sites, while it follows recommendations proposed by UNESCO, ICCROM, ICOMOS and ICOM.</p> |
| Technical/institutional readiness (high-medium-low) | High (The Department of Antiquities already puts forward the actions noted in the description of the measure; the funding issues are under the policies put forward together with the Deputy Ministry of Culture) |
| Period of implementation (long-medium-short) ⁶⁹ | Long (It is an ongoing process. The protection of cultural heritage always faces needs for protection, especially given the threats imposed by climate change.) |
| Time to effectiveness (to have an effect or impact) | Ongoing. We constantly assess the state of conservation as it results from these actions. It is needed to focus more on training on building techniques. |
| Financing | State resources – annual budget of DoA; research programmes where applicable |
| Indicator for verification of implementation progress | <ul style="list-style-type: none"> Conservation reports. |
| Additional comments | <p>Implementation costs are Medium in comparison to other governmental expenses, especially when heritage is systematically maintained. Maintenance work mainly involves tangible heritage, which is under the authority of the Department of Antiquities, but it is essential to consider the need to protect intangible heritage as well, often linked with tangible heritage. This holistic approach is promoted by UNESCO and ICCROM and the Deputy Ministry of Culture focuses at preserving all forms of heritage.</p> |

⁶⁹ Short: less than 2 years; Medium: between 2 to 5 years; Long: more than 5 years

| Name of the measure | |
|---|---|
| Support reassessment and adjustments in all stages of heritage practice including inventorying, documentation and monitoring, impact assessments, conservation and management planning | |
| Number of the measure | CULT 3n |
| Priority (high-medium-low) ⁷⁰ | High |
| Climate impact (s) addressed | All |
| Primary Sector | Cultural Heritage |
| Secondary sector | Spatial planning Tourism |
| KTM category⁷¹ | Governance and Institutional |
| Sub-KTM | Policy instruments |
| Goal of the measure | Integrate the impacts of climate change into cultural heritage management plans and preservation actions and ensure that cultural heritage safeguarding plans are adapted to foreseeable climatic hazards |
| Description of the measure | Incorporate climate change considerations into preventive conservation plans for cultural heritage (including cultural landscape conservation plans, like the Plan for the Conservation and Enhancement of the Intangible Cultural Heritage of Cyprus for the period 2016-2017), and the incorporation of climate change observations and projections into cultural heritage conservation plans. |
| Spatial scope of the measure | National |
| Implementation Cost (high-medium-low) ⁷² | Med |
| Maintenance cost (high-medium-low) | Med |
| Implications for society with special attention to vulnerable populations | It is extremely vital to safeguard cultural heritage against threats, as it implies the protection of our identity and values transmitted through generations. Heritage also comprises a resource for sustainable development, given its social associations and through cultural tourism. It therefore provides support to communities that are more isolated (e.g. mountainous) and promotes values that are linked to social inclusion and awareness concerning more vulnerable populations. |
| Co-benefits for regional or local development priorities | The protection of cultural heritage reinforces cultural tourism and as such it benefits local development and growth, |
| Co-benefits for climate mitigation | None |
| Co-benefits for the environment | Improved biodiversity when measures taken to protect landscape and environmental cultural heritage |
| Political and social acceptability | Med |
| Barriers for implementation | Implementation of management plans requires adequate resources and personnel. It is also important to educate all heritage practitioners on the need to include CC factors when monitoring the state of |

⁷⁰ High: to implement within 2 years; Medium: to implement in 2 to 5 years; Low: to implement after 5 years

⁷¹ See <https://climate-adapt.eea.europa.eu/en/knowledge/tools/adaptation-support-tool/step-3-0>

⁷² Low: €100,000 or less; Medium: €100,000 – €1,000,000; High: over €1 million

| Name of the measure | Support reassessment and adjustments in all stages of heritage practice including inventorying, documentation and monitoring, impact assessments, conservation and management planning |
|--|--|
| | conservation of monuments and sites (these types of heritage are more threatened by CC as they are exposed to climatic conditions) and practice how to do so. Following the work conducted by the aforementioned OMC group, this aspect has been identified as essential by representatives of all EU member states. |
| Maladaptation risks | None |
| Responsible authority for implementation | The Department of Antiquities |
| Other actors involved | Governmental Departments, such as the Department of Forestry and the Fire Services (e.g. for the installation of fire extinguishers), the Department of Geological Survey (e.g. for evaluating risks concerning landslides and erosion), the water authorities (concerning flood risks), and academic institutions through research projects or other initiatives aiming at evaluating risks or documenting heritage assets. |
| Other policy initiatives that align / synergies | The strategic plan of the Department of Antiquities (DoA) which is the competent authority for the protection, research and promotion of cultural heritage focuses on strategic axes, policies and initiatives that aim at preserving and conserving cultural heritage against threats. The Initiative of the Republic of Cyprus against the impacts of climate change in the EMME region comprises a significant action towards addressing CC risks. Moreover, the DoA is part of the Greek Initiative at UN level to protect cultural and natural heritage against the impacts of CC, while it also participated in the OMC expert group of the EU to strengthen resilience of cultural heritage against CC. Apart from systematic conservation, the DoA collaborates with academic and research institutes in order to document, monitor and assess vulnerability of monuments and sites, while it follows recommendations proposed by UNESCO, ICCROM, ICOMOS and ICOM. |
| Technical/institutional readiness (high-medium-low) | High The Department of Antiquities always adjusts documentation and monitoring needs accordingly and will do so for climate change threat as well. |
| Period of implementation (long-medium-short) ⁷³ | 2 years To include policies from international organisations, e.g. ICCROM, UNESCO, ICOMOS, ICOM |
| Time to effectiveness (to have an effect or impact) | 2-3 years |
| Financing | Med |
| Indicator for verification of implementation progress | <ul style="list-style-type: none"> Documentation and conservation reports |
| Relates to | |

⁷³ Short: less than 2 years; Medium: between 2 to 5 years; Long: more than 5 years

| | |
|--|---|
| Name of the measure | Train professionals involved in the study and conservation of cultural assets to incorporate the climate change dimension into their professional activity |
| Number of the measure | CULT 4 |
| Priority (high-medium-low) ⁷⁴ | High |
| Climate impact (s) addressed | All |
| Primary Sector | Cultural Heritage |
| Secondary sector | Tourism |
| KTM category ⁷⁵ | Knowledge and Behavioural change |
| Sub-KTM | Capacity building |
| Goal of the measure | Enhance the incorporation of climate change considerations into cultural heritage conservation work. |
| Description of the measure | Develop and offer training programs on the climate change risks and impacts for cultural heritage management professionals in both private and public sectors. |
| Spatial scope of the measure | National and Local |
| Implementation Cost (high-medium-low) ⁷⁶ | Low |
| Maintenance cost (high-medium-low) | Low |
| Implications for society with special attention to vulnerable populations | It is extremely vital to safeguard cultural heritage against threats, as it implies the protection of our identity and values transmitted through generations. Heritage also comprises a resource for sustainable development, given its social associations and through cultural tourism. It therefore provides support to communities that are more isolated (e.g. mountainous) and promotes values that are linked to social inclusion and awareness concerning more vulnerable populations. |
| Co-benefits for regional or local development priorities | The protection of cultural heritage reinforces cultural tourism and as such it benefits local development and growth |
| Co-benefits for climate mitigation | None |
| Co-benefits for the environment | Improved biodiversity when training results in measures taken to protect landscape and environmental cultural heritage |
| Political and social acceptability | High |
| Barriers for implementation | The multiple urgent tasks of the DoA in conjunction with limitations in personnel make the immediate organisation of such training workshops difficult; yet, its necessity is acknowledged by the staff. |
| Maladaptation risks | None |
| Responsible authority for implementation | The Department of Antiquities |
| Other actors involved | The governmental Departments noted in CULT 1 and research institutes Relevant staff of local authorities |

⁷⁴ High: to implement within 2 years; Medium: to implement in 2 to 5 years; Low: to implement after 5 years

⁷⁵ See <https://climate-adapt.eea.europa.eu/en/knowledge/tools/adaptation-support-tool/step-3-0>

⁷⁶ Low: €100,000 or less; Medium: €100,000 – €1,000,000; High: over €1 million



| Name of the measure | Train professionals involved in the study and conservation of cultural assets to incorporate the climate change dimension into their professional activity |
|--|---|
| Other policy initiatives that align / synergies | Training can be organised based on ICCROM propositions and synergies (as the organisation that establishes the impact and risk assessments for World Heritage Centre) and also through local research Institutes (eg the Cyprus Institute, the Cyprus University of Technology) that collaborate with the DoA on documentation and assessment issues. The synergies with the Hellenic Republic can be useful as the DoA participates in similar Cultural Heritage Schools for climate change impacts. |
| Technical/institutional readiness (high-medium-low) | High |
| Period of implementation (long-medium-short) ⁷⁷ | 2 years |
| Time to effectiveness (to have an effect or impact) | Impact results as soon as staff has participated in training and capacity building programs |
| Financing | State resources |
| Indicator for verification of implementation progress | <ul style="list-style-type: none">• Number of trained persons/year |
| Relates to | GOV 2n |

⁷⁷ Short: less than 2 years; Medium: between 2 to 5 years; Long: more than 5 years

| Name of the measure | Collect and transfer vernacular knowledge useful for climate change adaptation |
|--|--|
| Number of the measure | CULT 5n |
| Priority (high-medium-low) ⁷⁸ | High |
| Climate impact (s) addressed | All |
| Primary Sector | Cultural Heritage |
| Secondary sector | Spatial planning Tourism |
| KTM category ⁷⁹ | Knowledge and Behavioural change |
| Sub-KTM | Information and awareness raising |
| Goal of the measure | Recognising, collecting and enhancing the value of traditional vernacular knowledge useful for climate change adaptation. |
| Description of the measure | <p>Vernacular and traditional knowledge has clear potential value in the fight against climate change. The Paris Agreement recognises that adaptation should, where appropriate, build on and be inspired by traditional knowledge and local knowledge systems.</p> <p>Cyprus has an extensive heritage of vernacular knowledge that is closely adapted to the climate conditions that characterise each of our geographical regions. In the current context of climate change, this knowledge could be put to good use to provide inspiring solutions for territories that will need new solutions in the context of a changing climate. Actions required to foster progress in this regard could include:</p> <ul style="list-style-type: none"> A. Identifying good practices in the use of technologies and vernacular knowledge for adjusting to climate conditions. B. Developing a catalogue of useful traditional technologies and practices for adaptation. C. Organising training activities on the use of traditional technologies and practices for adaptation. |
| Spatial scope of the measure | National; Local |
| Implementation Cost (high-medium-low) ⁸⁰ | Med |
| Maintenance cost (high-medium-low) | Low |
| Implications for society with special attention to vulnerable populations | It is extremely vital to safeguard cultural heritage against threats, as it implies the protection of our identity and values transmitted through generations. Heritage also comprises a resource for sustainable development, given its social associations and through cultural tourism. It therefore provides support to communities that are more isolated (e.g. mountainous) and promotes values that are linked to social inclusion and awareness concerning more vulnerable populations.), it is vital to safeguard and transfer vernacular knowledge for the preservation of heritage |
| Co-benefits for regional or local development priorities | The protection of cultural heritage reinforces cultural tourism and as such it benefits local development and growth, |

⁷⁸ High: to implement within 2 years; Medium: to implement in 2 to 5 years; Low: to implement after 5 years

⁷⁹ See <https://climate-adapt.eea.europa.eu/en/knowledge/tools/adaptation-support-tool/step-3-0>

⁸⁰ Low: €100,000 or less; Medium: €100,000 – €1,000,000; High: over €1 million

| Name of the measure | Collect and transfer vernacular knowledge useful for climate change adaptation |
|--|---|
| Co-benefits for climate mitigation | None |
| Co-benefits for the environment | Improved biodiversity when measures taken to protect landscape and environmental cultural heritage as well as traditional land use practices |
| Political and social acceptability | High |
| Barriers for implementation | As in CULT 4 the multiple urgent tasks of the DoA in conjunction with limitations in personnel make it difficult to develop a catalogue on traditional knowledge. This can be achieved through a funded project, but it is important to note that the DoA through its long expertise, has already accumulated significant knowledge on traditional building techniques, used in restoring traditional buildings. It has also begun to collect good practices, while it supports local projects on dry-walling preservation and techniques, which comprise a significant source of traditional knowledge. |
| Maladaptation risks | None |
| Responsible authority for implementation | The Department of Antiquities |
| Other actors involved | The Deputy Ministry of Culture concerning the collection and preservation of intangible heritage |
| Other policy initiatives that align / synergies | The strategic plan of the Department of Antiquities (DoA) focuses on strategic axes, policies and initiatives that aim at preserving and conserving cultural heritage against threats. The Initiative of the Republic of Cyprus against the impacts of climate change in the EMME region comprises a significant action towards addressing CC risks. Moreover, the DoA is part of the Greek Initiative at UN level to protect cultural and natural heritage against the impacts of CC, while it also participated in the OMC expert group of the EU to strengthen resilience of cultural heritage against CC. Apart from systematic conservation, the DoA collaborates with academic and research institutes in order to document, monitor and assess vulnerability of monuments and sites, while it follows recommendations proposed by UNESCO, ICCROM, ICOMOS and ICOM. |
| Technical/institutional readiness (high-medium-low) | Medium Skilled workers on traditional techniques and materials (stone, wood etc) acquire and use such traditional knowledge but it is important to secure its transfer to the next generations of skilled workers. The limitations in personnel has prevented cataloguing such information in the past, but given the current threats the DoA will focus on training activities and the recording of such information. |
| Period of implementation (long-medium-short) ⁸¹ | 2 years |
| Time to effectiveness (to have an effect or impact) | 2-3 years |
| Financing | Med |
| Indicator for verification of implementation progress | <ul style="list-style-type: none"> Catalogues with data collected from vernacular knowledge and traditional techniques |
| Relates to | |

⁸¹ Short: less than 2 years; Medium: between 2 to 5 years; Long: more than 5 years

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| Name of the measure | Develop climate change adaptation plans in heritage cities through the “green heritage” approach, which uses nature-based solutions that consider the specific requirements for the conservation of cultural heritage |
| Number of the measure | CULT 6n |
| Priority (high-medium-low) ⁸² | Med |
| Climate impact (s) addressed | All |
| Primary Sector | Cultural Heritage |
| Secondary sector | Biodiversity and Ecosystems Spatial planning Hydrology and Water Management |
| KTM category ⁸³ | Governance and Institutional |
| Sub-KTM | Management and planning |
| Goal of the measure | Contribute to climate change adaptation in heritage cities using the “green heritage” approach: introducing nature-based solutions that take into consideration specific requirements of heritage buildings, streets, and public uses. |
| Description of the measure | <p>Within climate change adaptation plans in cities, heritage areas require specific measures and present different conditions. For instance, attention must be given to ensuring that exterior finishes on pavements and walls are compatible with historical assets, their preservation, and their appreciation; guarantee that vegetation does not cause structural damage or worsen humidity conditions. To achieve this, different actions can be implemented such as:</p> <ul style="list-style-type: none"> A. Develop an adaptation guide for historic buildings focusing on preservation, ensuring habitable interior conditions and taking into consideration specific materials and conservation requirements. B. Consider specific requirements of heritage areas when developing and implementing green and blue infrastructure for adaptation. C. Develop green corridors by using historic ways and spaces (for instance historic livestock routes). |
| Spatial scope of the measure | National |
| Implementation Cost (high-medium-low) ⁸⁴ | High |
| Maintenance cost (high-medium-low) | High |
| Implications for society with special attention to vulnerable populations | Heritage also comprises a resource for sustainable development, given its social associations and through cultural tourism. It therefore provides support to communities that are more isolated (e.g. mountainous) and promotes values that are linked to social inclusion and awareness concerning more vulnerable populations. However, the implications of CULT 6n in society will depend on the criteria that will be established and the associated economic or other benefits (eg related to taxation exemptions?). |

⁸² High: to implement within 2 years; Medium: to implement in 2 to 5 years; Low: to implement after 5 years

⁸³ See <https://climate-adapt.eea.europa.eu/en/knowledge/tools/adaptation-support-tool/step-3-0>

⁸⁴ Low: €100,000 or less; Medium: €100,000 – €1,000,000; High: over €1 million

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|---|--|
| Name of the measure | Develop climate change adaptation plans in heritage cities through the “green heritage” approach, which uses nature-based solutions that consider the specific requirements for the conservation of cultural heritage |
| Co-benefits for regional or local development priorities | The protection of cultural heritage reinforces cultural tourism and as such it benefits local development and growth, |
| Co-benefits for climate mitigation | The use of nature-based solutions can enhance carbon retention of green spaces in urban areas |
| Co-benefits for the environment | Enhanced urban biodiversity as a result of the implementation of nature-based solutions |
| Political and social acceptability | Medium: for the implementation of this strategy, it is important to make relevant political decisions and establish criteria that will make it possible. Currently, its importance may be politically accepted, but there is no framework that will enable its implementation. |
| Barriers for implementation | Coordination is needed between all competent authorities and political decisions. |
| Maladaptation risks | None |
| Responsible authority for implementation | The Department of Antiquities for the heritage that is under its authority, together with other competent authorities |
| Other actors involved | Department of Town Planning and Housing, Municipalities, Department of Environment, Department of Forestry |
| Other policy initiatives that align / synergies | The strategic plan of the Department of Antiquities (DoA) focuses on strategic axes, policies and initiatives that aim at preserving and conserving cultural heritage against threats. The Initiative of the Republic of Cyprus against the impacts of climate change in the Eastern Mediterranean and Middle East (EMME) region comprises a significant action towards addressing CC risks. Moreover, the DoA is part of the Greek Initiative at UN level to protect cultural and natural heritage against the impacts of CC, and participated in the OMC expert group of the EU to strengthen resilience of cultural heritage against CC. The DoA collaborates with academic and research institutes to document, monitor and assess vulnerability of monuments and sites, while it follows recommendations proposed by UNESCO, ICCROM, ICOMOS and ICOM. |
| Technical/institutional readiness (high-medium-low) | High The DoA already implements the activities described in the measure for areas such as the centres of traditional villages or areas in general declared as Ancient Monuments as per the Antiquities Law, Cap. 31. |
| Period of implementation (long-medium-short) ⁸⁵ | Ongoing |
| Time to effectiveness (to have an effect or impact) | Ongoing |
| Financing | Med |
| Indicator for verification of implementation progress | <ul style="list-style-type: none"> Number of plans developed per Year |
| Relates to | |

⁸⁵ Short: less than 2 years; Medium: between 2 to 5 years; Long: more than 5 years

| Name of the measure | Build synergies with other national policies and sectors to enhance the effective protection of cultural heritage and goods |
|--|--|
| Number of the measure | CULT 7n |
| Priority (high-medium-low) ⁸⁶ | High |
| Climate impact (s) addressed | All |
| Primary Sector | Cultural Heritage |
| Secondary sector | Biodiversity and ecosystems Economy and finance Spatial planning Sea and Coast Tourism (other sectors as additional synergies are identified) |
| KTM category⁸⁷ | Governance and Institutional |
| Sub-KTM | Policy instruments |
| Goal of the measure | Achieve coherence with other national policies by building synergies between the heritage sector and other sectors such as environment, urban and disaster risk management. |
| Description of the measure | Some potential actions include: A. Identification and mapping of relevant sectors that can collaborate and create shared data sources and benchmark methodologies. B. Promote collaboration to ensure that adequate financial resources are made available to support property-level climate action, including investment in infrastructure for adaptation. C. Work in partnership with relevant organisations, stakeholders and rightsholders in field activities to develop and implement adaptation strategies. D. Share methodologies and tools, respecting traditional knowledge and methods. |
| Spatial scope of the measure | National |
| Implementation Cost (high-medium-low) ⁸⁸ | Low |
| Maintenance cost (high-medium-low) | Low |
| Implications for society with special attention to vulnerable populations | Synergies between sectors and authorities are fundamental for securing the well-being and growth for societies. |
| Co-benefits for regional or local development priorities | Establishing synergies between sectors and their policies has obvious economic benefits and promotes a mutual understanding of the risks of CC and the need for action among policy makers and practitioners. It also encourages a holistic approach at a national level. |
| Co-benefits for climate mitigation | None |
| Co-benefits for the environment | Improved biodiversity when measures taken to protect landscape and environmental cultural heritage |
| Political and social acceptability | High |

⁸⁶ High: to implement within 2 years; Medium: to implement in 2 to 5 years; Low: to implement after 5 years

⁸⁷ See <https://climate-adapt.eea.europa.eu/en/knowledge/tools/adaptation-support-tool/step-3-0>

⁸⁸ Low: €100,000 or less; Medium: €100,000 – €1,000,000; High: over €1 million

| Name of the measure | Build synergies with other national policies and sectors to enhance the effective protection of cultural heritage and goods |
|--|--|
| Barriers for implementation | It is important that sectors share their policies to notify each other and develop synergies. |
| Maladaptation risks | None |
| Responsible authority for implementation | The Deputy Ministry of Culture and the Department of Antiquities for monuments, sites and museums |
| Other actors involved | Governmental Departments, such as the Department of Forestry and the Fire Services (e.g. for the installation of fire extinguishers), the Department of Geological Survey (e.g. for evaluating risks concerning landslides and erosion), the water authorities (concerning flood risks), and academic institutions through research projects or other initiatives aiming at evaluating risks or documenting heritage assets. |
| Other policy initiatives that align / synergies | International policies have been noted in CULT 1, as well as the Eastern Mediterranean and Middle East (EMME) Initiative. Synergies with Habitats Directive, Birds Directive, Maritime Spatial Planning & Integrated Coastal Zone Management Tree Rings Research for synergy between cultural heritage / climate change -> forestry and archaeology -> climate history |
| Technical/institutional readiness (high-medium-low) | High The DoA has always collaborated closely with other national departments and agencies aiming at enhancing protection of cultural heritage. |
| Period of implementation (long-medium-short) ⁸⁹ | Ongoing |
| Time to effectiveness (to have an effect or impact) | Ongoing |
| Financing | Med (because of limited personnel) |
| Indicator for verification of implementation progress | <ul style="list-style-type: none"> Holistic adaptation strategies |
| Relates to | |

⁸⁹ Short: less than 2 years; Medium: between 2 to 5 years; Long: more than 5 years

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|--|--|
| Name of the measure | Encourage international cooperation in knowledge transfer to protect cultural and architectural heritage in the face of climate change |
| Number of the measure | CULT 8n |
| Priority (high-medium-low) ⁹⁰ | High |
| Climate impact (s) addressed | All |
| Primary Sector | Cultural Heritage |
| Secondary sector | Spatial planning |
| KTM category⁹¹ | Knowledge and Behavioural change |
| Sub-KTM | Capacity building |
| Goal of the measure | Enhance cooperation and exchanges of information and experiences for the conservation of cultural heritage in the context of climate change. |
| Description of the measure | <p>Some possible actions include:</p> <ul style="list-style-type: none"> A. Incorporate climate change considerations in the work of the Technical Committee on Cultural Heritage and the collaborative conservation of cultural heritage on the island. B. Participate actively in international initiatives for heritage-based climate action (e.g. ICOMOS 2024 international conference, training courses; ICOMOS Climate Action Working Group; etc.). C. Standardise and share data gathering across World Heritage properties to facilitate identification and analysis of common hazards and impacts of climate change. D. Develop pilot projects that promote good practices in climate action for World Heritage properties, inclusive of diverse values and knowledge systems and disseminate these at international, national and property levels. |
| Spatial scope of the measure | National |
| Implementation Cost (high-medium-low) ⁹² | Med |
| Maintenance cost (high-medium-low) | Med |
| Implications for society with special attention to vulnerable populations | It is extremely vital to safeguard cultural heritage against threats, as it implies the protection of our identity and values transmitted through generations. Heritage also comprises a resource for sustainable development, given its social associations and through cultural tourism. It therefore provides support to communities that are more isolated (e.g. mountainous) and promotes values that are linked to social inclusion and awareness concerning more vulnerable populations. |
| Co-benefits for regional or local development priorities | The protection of cultural heritage reinforces cultural tourism and as such it benefits local development and growth, |
| Co-benefits for climate mitigation | None |
| Co-benefits for the environment | Improved biodiversity when measures taken to protect landscape and environmental cultural heritage |

⁹⁰ High: to implement within 2 years; Medium: to implement in 2 to 5 years; Low: to implement after 5 years

⁹¹ See <https://climate-adapt.eea.europa.eu/en/knowledge/tools/adaptation-support-tool/step-3-0>

⁹² Low: €100,000 or less; Medium: €100,000 – €1,000,000; High: over €1 million

| Name of the measure | Encourage international cooperation in knowledge transfer to protect cultural and architectural heritage in the face of climate change |
|--|---|
| Political and social acceptability | High |
| Barriers for implementation | Increasing needs for the protection of the local cultural heritage or international prevailing conditions such as conflict and other crises, but still the DoA focuses on the promotion and implementation of international cooperation and knowledge |
| Maladaptation risks | None |
| Responsible authority for implementation | The Deputy Ministry of Culture and the Department of Antiquities |
| Other actors involved | Governmental Departments, such as the Department of Forestry and the Fire Services (e.g. for the installation of fire extinguishers), the Department of Geological Survey (e.g. for evaluating risks concerning landslides and erosion), the water authorities (concerning flood risks), and academic institutions through research projects or other initiatives aiming at evaluating risks or documenting heritage assets.), where needed to promote the implementation of international policies and frameworks in which the Department of Antiquities (DoA) participates for climate action. |
| Other policy initiatives that align / synergies | The strategic plan of the DoA focuses on strategic axes, policies and initiatives that aim at preserving and conserving cultural heritage against threats. The Initiative of the Republic of Cyprus against the impacts of climate change in the EMME region comprises a significant action towards addressing CC risks. Moreover, the DoA is part of the Greek Initiative at UN level to protect cultural and natural heritage against the impacts of CC, while it also participated in the OMC expert group of the EU to strengthen resilience of cultural heritage against CC. Apart from systematic conservation, the DoA collaborates with academic and research institutes in order to document, monitor and assess vulnerability of monuments and sites, while it follows recommendations proposed by UNESCO, ICCROM, ICOMOS and ICOM. |
| Technical/institutional readiness (high-medium-low) | High – Cyprus is already an active member in regional and international initiatives regarding cultural heritage protection in the face of climate change risks. |
| Period of implementation (long-medium-short) ⁹³ | Ongoing |
| Time to effectiveness (to have an effect or impact) | Ongoing |
| Financing | High |
| Indicator for verification of implementation progress | <ul style="list-style-type: none"> • implementation of international projects; • participation in expert groups of the EU or other international organisations such as the World Heritage Centre, ICCROM etc. |
| Additional comments | The EU promotes synergies with Europa Nostra for-climate action and a Europa Nostra Hub has recently been established in Cyprus that may also facilitate such activities. |
| Relates to | |

⁹³ Short: less than 2 years; Medium: between 2 to 5 years; Long: more than 5 years

Disaster risk management, civil protection and critical infrastructure measures impact assessment factsheets

| Name of the measure | Develop and regularly update (wildfire/storm/heat) hazard maps |
|--|---|
| Number of the measure | DRM 1n |
| Priority (high-med-low) ⁹⁴ | High It can provide guidance to households and companies to take preventive measures |
| Climate impact (s) addressed | Wildfire, storms, heat, floods |
| Primary Sector | Disaster risk management, civil protection and critical infrastructure |
| Secondary sector | Spatial planning Hydrological regime and water management |
| KTM category⁹⁵ | Physical and Technological |
| Sub-KTM | Technological options |
| Goal of the measure | Strengthen the knowledge base on regional and local sensitivity regarding different risk typologies |
| Description of the measure | <p>Following the regular development and update of flood risk and flood hazard maps, which are part of the Floods Directive, other risk maps for forest and wildfire, storms or heat can unveil local vulnerabilities and be used as a communication and decision management tool for private, public and economic stakeholders. Hence, these maps are a spatially focussed analysis of data represented in the EFFIS Wildfire Risk Viewer, for example.</p> <p>Local risk maps should take local sensitivity and adaptive capacity, hazard, and exposure into account and have different focus areas, e.g. population, ecology, economy etc.</p> <p>Risk maps display the spatial distribution of people, nature or the economy at risk and uncover areas, where adaptation measures are needed, thus supporting well-informed decision-making and planning.</p> |
| Spatial scope of the measure | National |
| Implementation Cost (high-medium-low) ⁹⁶ | Medium |
| Maintenance cost (high-medium-low) | Medium |
| Implications for society with special attention to vulnerable populations | Beneficial to vulnerable areas and populations if Response Plans are regularly adjusted with the risk mapping. |
| Co-benefits for regional or local development priorities | Benefits to a more effective spatial planning and enhanced civil protection |
| Co-benefits for climate mitigation | None |
| Co-benefits for the environment | Improved understanding of climate risk exposure in natural areas facilitates early action and prevention, resulting in increased precautionary measures in areas of vulnerable/ protected species |

⁹⁴ High: to implement within 2 years; Medium: to implement in 2 to 5 years; Low: to implement after 5 years

⁹⁵ See <https://climate-adapt.eea.europa.eu/en/knowledge/tools/adaptation-support-tool/step-3-0>

⁹⁶ Low: €100,000 or less; Medium: €100,000 – €1,000,000; High: over €1 million

| Name of the measure | Develop and regularly update (wildfire/storm/heat) hazard maps |
|--|---|
| Political and social acceptability | High |
| Barriers for implementation | Resources – Needs funding and Personnel devoted into this. Effective coordination and communication |
| Maladaptation risks | None |
| Responsible authority for implementation | Decision for responsible authority will depend on the outputs and outcomes of the DG Reform project approved in 2024 for “Reforming, developing and enhancing the civil protection system” in Cyprus |
| Other actors involved | Civil Defence, Water Development Department, Department of Forests, Department of Environment, that is, authorities responsible for associated risks. Ministry of Transport, Communication and Works (MTCW): provide support and technical assistance in case of hazards at these areas (Public Works Department - PWD); infrastructure, buildings and transport. Department of Forestry can support disseminating daily fire hazard maps through the Media |
| Other policy initiatives that align / synergies | Other Initiatives producing such information that could be compiled together. DG Reform project approved in 2024 for “Reforming, developing and enhancing the civil protection system” |
| Technical/institutional readiness (high-medium-low) | Medium |
| Period of implementation (long-medium-short) ⁹⁷ | Medium to Long Expected Implementation Timeline: <ul style="list-style-type: none"> Initial hazard map creation can be achieved within 6-12 months for a foundational map. Minor updates are typically every 6-12 months. Major updates occur every 2-3 years for significant changes, and every 5 years for comprehensive evaluations and improvements. <p>Hazard maps are therefore part of a continual process rather than a one-time project, with regular updates required to adapt to dynamic climatic conditions and population changes.</p> |
| Time to effectiveness (to have an effect or impact) | <ul style="list-style-type: none"> Initial utility for emergency response: 9-12 months Operational effectiveness for local preparedness and effective emergency response: 1-2 years Full integration into planning and resilience strategies: 3-5 years <p>Hazard maps thus become effective incrementally, with full utility in disaster preparedness and risk reduction achieved through regular updates, community training, and institutional adoption.</p> |
| Financing | Low |
| Indicator for verification of implementation progress | <ul style="list-style-type: none"> Number of maps developed Number of updates per update cycle |
| Additional comments | The Department of Forests, based on Vegetation maps has Fire Risk Maps. The Water Development Department has Flood Risk Maps, The Fire Service has archives of all incidents that were involved, from which |

⁹⁷ Short: less than 2 years; Medium: between 2 to 5 years; Long: more than 5 years



| Name of the measure | Develop and regularly update (wildfire/storm/heat) hazard maps |
|---------------------|--|
| | <p>Hot spot areas per risk can be retrieved. Local Authorities have knowledge of where Illegal dumping sites exist, which are a major source of wildfires, etc.</p> <p>Re-evaluate Geohazard map based on climate change scenario</p> <p>Implementation should take into consideration the DG Reform project approved in 2024 for “Reforming, developing and enhancing the civil protection system”.</p> |
| Related to | DRM 4n EDU 5n FOR 3 GOV 2n WAT 6 |

| Review Cyprus' national DRM and civil protection system with updated climate change projections and scenarios | |
|---|--|
| Name of the measure | Review Cyprus' national DRM and civil protection system with updated climate change projections and scenarios |
| Number of the measure | DRM 2n |
| Priority (high-medium-low) ⁹⁸ | Med |
| Climate impact (s) addressed | All |
| Primary Sector | Disaster risk management, civil protection and critical infrastructure |
| Secondary sector | Hydrology and water resources (climate projections for water resources) |
| KTM category⁹⁹ | Governance and Institutional |
| Sub-KTM | Management and planning |
| Goal of the measure | Incorporate the latest knowledge on climate-related risks into DRM and civil protection policies and plans |
| Description of the measure | <p>Some actions in this measure include:</p> <p>A. Take into consideration the updated national climate risk and vulnerability assessment developed for this strategy in the DG Reform funded project: “Reforming, developing and enhancing the civil protection system” that started in 2024.</p> <p>B. Conduct vulnerability and risk assessments on the local/regional level based on climate change projections and scenarios and incorporate the conclusions of these studies and of the hazard maps (DRM 1n) into the development and updating of the National civil protection system – including Civil Defence Law and relevant regulations, programs and plans.</p> |
| Spatial scope of the measure | National |
| Implementation Cost (high-medium-low) ¹⁰⁰ | Med |
| Maintenance cost (high-medium-low) | Low |
| Implications for society with special attention to vulnerable populations | Updating Cyprus' DRM and civil protection system in response to climate change projections will contribute to building societal resilience, related to, among others: heatwaves and health risks; critical infrastructure protection; climate-resilient building standards; risk communication and education; and community-driven adaptation. |
| Co-benefits for regional or local development priorities | <ul style="list-style-type: none"> • Reduced Economic Losses: Investing in preventive measures through DRM updates is cost-effective compared to post-disaster recovery. This includes minimizing business disruptions from climate hazards and avoiding productivity loss from infrastructure failures. • Tourism Sector Adaptation: The tourism sector could suffer from extreme heat or wildfire threats. Updating DRM to make tourist areas more climate-resilient could help maintain tourist safety and thus support local and regional economy. • Agricultural Adaptation: With projected increases in water scarcity, DRM updates can drive policies that support crop diversification, |

⁹⁸ High: to implement within 2 years; Medium: to implement in 2 to 5 years; Low: to implement after 5 years

⁹⁹ See <https://climate-adapt.eea.europa.eu/en/knowledge/tools/adaptation-support-tool/step-3-0>

¹⁰⁰ Low: €100,000 or less; Medium: €100,000 – €1,000,000; High: over €1 million

| Name of the measure | Review Cyprus' national DRM and civil protection system with updated climate change projections and scenarios |
|---|---|
| | drought-resistant farming practices, and technology-assisted irrigation systems to enhance agricultural resilience. |
| Co-benefits for climate mitigation | <ul style="list-style-type: none"> Updated DRM can promote afforestation, reforestation, and sustainable land management practices that enhance carbon sequestration. Forest management efforts can include firebreaks and controlled burns, reducing the risk of wildfires and increasing forest resilience while capturing atmospheric carbon. Climate-adapted agricultural practices, such as cover cropping, crop rotation, and reduced tillage - also promoted within DRM frameworks - improve soil health, enhance carbon storage, and reduce greenhouse gas emissions. Updated DRM can promote renewable energy use as a part of resilience planning, reducing reliance on fossil fuels, lowering greenhouse gas emissions, and minimizing air and water pollution from energy production. |
| Co-benefits for the environment | <ul style="list-style-type: none"> Integrating ecosystem-based adaptation strategies (such as forest and wetland restoration) within DRM updates helps protect and restore natural habitats. This can mitigate risks like flooding and soil erosion while preserving biodiversity hotspots that might otherwise be degraded by extreme climate events. Given the threat of rising sea levels due to climate change, updated DRM can incorporate the restoration of natural coastal barriers like dunes, marshes, and reefs, which buffer coastal areas from storm surges and erosion, protecting marine biodiversity. With climate-adapted disaster planning, Cyprus can minimize the impact of land-based pollutants and runoff on marine ecosystems, supporting coral reefs, seagrasses, and coastal fisheries critical for maintaining marine biodiversity. |
| Political and social acceptability | High |
| Barriers for implementation | <p>For a thorough review and update of the DRM and civil protection systems, the following factors could constitute barriers:</p> <ul style="list-style-type: none"> Accessing international climate funds or securing loans can be complex and competitive. Limited financial resources may prevent Cyprus from proposing large-scale DRM improvements or accessing advanced technologies needed for robust climate adaptation. Urban and tourism development pressures may compete with DRM requirements, particularly in high-risk coastal or flood-prone areas. Investment in climate-adaptive DRM often yields benefits over the long term, while the costs are immediate. This can make it difficult to justify expenditure, especially if short-term economic pressures or fiscal constraints exist. The coordination of a significant number of competent authorities will be necessary and is challenging. |
| Maladaptation risks | None, given the review and update includes DRM measures that are robust enough to handle a range of accelerating climate extremes. |
| Responsible authority for implementation | Decision for responsible authority will depend on the outputs and outcomes of the DG Reform project approved in 2024 for “Reforming, developing and enhancing the civil protection system” in Cyprus |
| Other actors involved | Department of Environment, Department of Forestry, Water Development Department, Local Authorities |

| Name of the measure | Review Cyprus' national DRM and civil protection system with updated climate change projections and scenarios |
|---|--|
| Other policy initiatives that align / synergies | The new DG Reform project approved in 2024 for “Reforming, developing and enhancing the civil protection system” may provide some recommendations on this. |
| Technical/institutional readiness (high-medium-low) | Medium |
| Period of implementation (long-medium-short) ¹⁰¹ | Short to Medium |
| Time to effectiveness (to have an effect or impact) | The time to effectiveness will depend on several factors, including the complexity of the measures integrated, available resources, and the level of inter-sectoral coordination. Achieving noticeable effectiveness across all aspects of an updated DRM system can generally be expected within a 3–10-year timeframe (medium to long term) |
| Financing | Low |
| Indicator for verification of implementation progress | <ul style="list-style-type: none"> Review: started/ongoing/finalised |
| Additional comments | Implementation should take into consideration the DG Reform project approved in 2024 for “Reforming, developing and enhancing the civil protection system”. |
| Related to | DRM 4n |

¹⁰¹ Short: less than 2 years; Medium: between 2 to 5 years; Long: more than 5 years

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| Name of the measure | Secure financial resources for adapting essential networks and critical infrastructure providing basic services (e.g. electricity, water, health, education) from climate-related disasters, emphasising alternative solutions (e.g. nature-based solutions) |
| Number of the measure | DRM 3n |
| Priority (high-medium-low) ¹⁰² | Medium |
| Climate impact (s) addressed | All |
| Primary Sector | Disaster risk management, civil protection and critical infrastructure |
| Secondary sector | Biodiversity and Ecosystems Education Energy Finance Infrastructure, Transport and Buildings Health Hydrological Regime and Water Management |
| KTM category ¹⁰³ | Economic and Finance |
| Sub-KTM | Financing and incentive instruments |
| Goal of the measure | Ensure financial resources are available for climate-risk-proofing critical infrastructures |
| Description of the measure | <p>In order to identify funding resources for adapting essential networks and critical infrastructure from climate-related disasters, an update of the National Risk Assessment (2018) as well as an update of the identified critical infrastructure needs to be performed.</p> <p>The latest Report on DRM in Cyprus (Cyprus Civil Defence 2020) has identified critical infrastructure for the continuation of vital societal functions and lists the relevant managing authorities. Critical infrastructures include water (supply and distribution), electricity, ICT (telephone and internet access), finance (banking and government treasury), and transport (airports, ports, and highways).</p> <p>Climate-related disasters with the highest risk factor in Cyprus are wildfires, coastal floods, and temperature extremes. Climate change is expected to increase these risks in the future in Cyprus.</p> <p>Activities in this measure can include:</p> <ol style="list-style-type: none"> Update the 2018 Civil Defence National Risk Assessment to incorporate updated climate-change-related risks provided by the Department of Environment through the National Adaptation Strategy. Identify funding sources to address identified risks. Develop funding programs to fund strategies and plans to climate-proof critical infrastructure identified in the 2020 Cyprus Civil Defence report. |
| Spatial scope | National |
| Implementation Cost (high-medium-low) ¹⁰⁴ | Medium |
| Maintenance cost (high-medium-low) | Low |

¹⁰² High: to implement within 2 years; Medium: to implement in 2 to 5 years; Low: to implement after 5 years

¹⁰³ See <https://climate-adapt.eea.europa.eu/en/knowledge/tools/adaptation-support-tool/step-3-0>

¹⁰⁴ Low: €100,000 or less; Medium: €100,000 – €1,000,000; High: over €1 million

| Name of the measure | Secure financial resources for adapting essential networks and critical infrastructure providing basic services (e.g. electricity, water, health, education) from climate-related disasters, emphasising alternative solutions (e.g. nature-based solutions) |
|--|--|
| Implications for society with special attention to vulnerable populations | <p>Beneficial</p> <ul style="list-style-type: none"> • By funding the climate-proofing of essential facilities, such as water treatment plants and power grids, communities are more likely to maintain access to clean water, energy, and other critical services during disasters. • Funding programs that climate-proof health-related infrastructure, such as hospitals and public health facilities, ensure continued care during emergencies, reducing the risk of disease outbreaks and heat-related illnesses. • Climate-proofing ensures equitable access to critical services (e.g., healthcare, transportation, shelter) for all community members, including those in marginalized or low-income neighbourhoods that may be more vulnerable to climate impacts. |
| Co-benefits for regional or local development priorities | <ul style="list-style-type: none"> • Climate-proofing reduces the need for costly emergency repairs and rebuilds, saving public funds and reducing the financial strain on local economies after climate-related disasters. • A community that prioritizes infrastructure resilience becomes more attractive to businesses and investors, as it suggests stability and security, enhancing economic growth and job opportunities. • Climate-resilient infrastructure often qualifies for lower insurance premiums, saving local governments, businesses, and residents money over time. |
| Co-benefits for climate mitigation | <p>If funding programs incentivize the use of sustainable materials and renewable energy sources in climate-proofing projects, they may contribute to reduced carbon emissions.</p> |
| Co-benefits for the environment | <p>Climate-proofed infrastructure can incorporate nature-based solutions (e.g., green roofs, restored wetlands), which provide habitat, improve biodiversity, and enhance natural buffers against climate impacts like flooding and erosion.</p> |
| Political and social acceptability | <p>High</p> |
| Barriers for implementation | <ul style="list-style-type: none"> • Private investors often prioritize shorter-term returns, which can reduce interest in funding long-term climate adaptation projects that may not yield immediate profits. • Quantifying the long-term return on investment for climate adaptation can be difficult due to uncertain future benefits, leading to reluctance in investing in these initiatives. |
| Maladaptation risks | <ul style="list-style-type: none"> • Without proper coordination among funding programs, resources may be misallocated or duplicated across projects, leading to inefficiencies and wasted funds. • If funding programs do not include provisions for updating infrastructure based on the latest climate science, investments may quickly become outdated and ineffective against changing climate conditions. • Certain climate-proofing measures may require significant resource extraction and construction activities, contributing to greenhouse gas emissions and undermining climate adaptation goals. |

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| Name of the measure | Secure financial resources for adapting essential networks and critical infrastructure providing basic services (e.g. electricity, water, health, education) from climate-related disasters, emphasising alternative solutions (e.g. nature-based solutions) |
| Responsible authority for implementation | Competent Authorities per infrastructure involved |
| Other actors involved | Directorate General Growth, Ministry of Finance |
| Other policy initiatives that align / synergies | The new DG Reform project approved in 2024 for “Reforming, developing and enhancing the civil protection system” |
| Technical/institutional readiness (high-medium-low) | Medium |
| Period of implementation (long-medium-short) ¹⁰⁵ | Medium to Long |
| Time to effectiveness (to have an effect or impact) | The overall period for identifying funding sources and implementing funding programs to climate-proof critical infrastructure can range from approximately 3 to 10 years, depending, inter alia, on access to adequate financial, human, and technical resources, effective planning, stakeholder/community involvement, and adaptive management practices. |
| Financing | Low |
| Indicator for verification of implementation progress | <ul style="list-style-type: none"> • Specific budget line set up: started/ongoing/finalised |
| Additional comments | Implementation should take into consideration the DG Reform project approved in 2024 for “Reforming, developing and enhancing the civil protection system”. |
| Related to | ENER 3 EDU 5n HEAL 3 INFR 8n |

¹⁰⁵ Short: less than 2 years; Medium: between 2 to 5 years; Long: more than 5 years

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| Name of the measure | Support and reinforce disaster risk preparedness: Observation, early warning, communication and education with climate change adaptation criteria |
| Number of the measure | DRM 4n |
| Priority (high-medium-low)¹⁰⁶ | High |
| Climate impact (s) addressed | All |
| Primary Sector | Disaster risk management, civil protection and critical infrastructure |
| Secondary sector | Hydrology and water resources (synergies for monitoring) Deputy Ministry of Tourism Soil (protection of soil) |
| KTM category¹⁰⁷ | Physical and Technological |
| Sub-KTM | Technological options |
| Goal of the measure | Instruments related to disaster risk preparedness (observation, early warning, communication and education) incorporate climate risks and response. |
| Description of the measure | <p>Disaster preparedness is <i>'the knowledge and capacities developed by governments, response and recovery organisations, communities and individuals to effectively anticipate, respond to and recover from the impacts of likely, imminent or current disasters'</i> (UNDRR, 2017)¹⁰⁸.</p> <p>Some activities for this measure can include:</p> <ul style="list-style-type: none"> A. Promote the implementation of an alert system via SMS. The Civil Defence will operate the alert system for citizens, providing instructions in case of a disaster. In addition, through the relevant restructuring project, it will receive a study on other early warning systems, which it will distribute to relevant authorities, for consideration as regards possible implementation. In doing so, it will take into account any new risk maps that will be produced. B. Generate comprehensive, harmonised and interoperable databases of disaster losses to improve existing damage models. Involve statistical offices, national meteorological and hydrological services and civil protection authorities in data standardisation, quality assurance and data accessibility. C. Information campaign on the new alert system. |
| Spatial scope of the measure | National |
| Implementation Cost (high-medium-low)¹⁰⁹ | High |
| Maintenance cost (high-medium-low) | High |
| Implications for society with special attention to vulnerable populations | Improved alert system for the safety of citizens and possible incorporation of new early warning systems by the Republic of Cyprus, once they have been identified. |

¹⁰⁶ High: to implement within 2 years; Medium: to implement in 2 to 5 years; Low: to implement after 5 years

¹⁰⁷ See <https://climate-adapt.eea.europa.eu/en/knowledge/tools/adaptation-support-tool/step-3-0>

¹⁰⁸ <https://www.undrr.org/terminology/preparedness>

¹⁰⁹ Low: €100,000 or less; Medium: €100,000 – €1,000,000; High: over €1 million

| Name of the measure | Support and reinforce disaster risk preparedness: Observation, early warning, communication and education with climate change adaptation criteria |
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| Co-benefits for regional or local development priorities | Impact-based forecasts tailored to natural resource-dependent sectors, such as agriculture, forestry and fisheries, can facilitate early identification of weather, water and climate hazards posing environmental risks, and consequently inform effective actions that minimize potential loss and damage. |
| Co-benefits for climate mitigation | None |
| Co-benefits for the environment | Reduced vulnerability of natural areas to climate risks due to improved natural resource management, from climate risk-informed policymaking to nature conservation. |
| Political and social acceptability | Med |
| Barriers for implementation | <p>Needs a series of preparatory actions to be able to initiate such a project, especially the database creation.</p> <p>However, There are many global tools available to help countries bridge data gaps and strengthen EWS and its applications, including the Famine Early Warning Systems Network (FEWS NET), PreventionWeb.net, the World Meteorological Organization’s specialized Climate Risk and Early Warning Systems (CREWS) initiative, the integrated Earth System observation network, the United States National Oceanic and Atmospheric Administration (NOAA), the United States National Integrated Drought Information System (NIDIS), the Enhancing National Climate Services (ENACTS) initiative (International Research Institute for Climate and Society [IRI] 2014), the NextGen climate forecast approach (IRI 2020), and the Copernicus Emergency Management System (EMS).</p> <p>https://fews.net/ https://www.preventionweb.net/ https://public.wmo.int/en/climate-risk-and-early-warning-systems-crews https://public.wmo.int/en/our-mandate/what-we-do/observations https://cpo.noaa.gov/Serving-Society/NIDIS https://cpo.noaa.gov/Serving-Society/NIDIS https://emergency.copernicus.eu/</p> |
| Maladaptation risks | None |
| Responsible authority for implementation | Civil Defence |
| Other actors involved | Statistical Service, Department of Meteorology, WDD, Civil Defence, etc |
| Other policy initiatives that align / synergies | The new DG Reform project approved in 2024 for “Reforming, developing and enhancing the civil protection system”. |
| Technical/institutional readiness (high-medium-low) | Medium |
| Period of implementation (long-medium-short)¹¹⁰ | Medium A comprehensive disaster risk preparedness system may span 3-5 years for full implementation and require ongoing adjustments and improvements based on emerging risks and changing climatic conditions. |
| Time to effectiveness (to have an effect or impact) | As soon as the system is operational |

¹¹⁰ Short: less than 2 years; Medium: between 2 to 5 years; Long: more than 5 years



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| Name of the measure | Support and reinforce disaster risk preparedness: Observation, early warning, communication and education with climate change adaptation criteria |
| Financing | The new DG Reform project approved in 2024 for “Reforming, developing and enhancing the civil protection system” is expected to provide some recommendations on this. |
| Indicator for verification of implementation progress | The new DG Reform project approved in 2024 for “Reforming, developing and enhancing the civil protection system” is expected to provide some recommendations on this. |
| Additional comments from bilateral meeting | <ul style="list-style-type: none"> • Department of Meteorology (DoM): <ul style="list-style-type: none"> ○ There is constantly an improvement of predictive models into more localized data as new data can facilitate downscaling of events prediction. ○ Early warning currently is done through Announcements in the Dpt’s social media, and official announcements that are communicated to Media. • Civil Defence is running a new tender/project on an SMS alert system • The new DG Reform project approved in 2024 will include actions of this nature. • There is a mechanism in Civil Defence of collecting data from other competent authorities from natural disaster, from which National Disaster Indices are produced. The creation of the new Database could be an upgrading this. • Civil Defence has a Risk Assessment for Earthquakes which leads to an Assessment of Financial Losses, Casualties and Mortalities • These could be recommended to be upgraded within the new DG Reform project of Civil Defence. |
| Related to | AGRI 1 GOV 2n GOV 3n |

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| Name of the measure | Encourage the consideration of risk analyses associated with climate change in the study, analysis and definition of self-protection measures and promote self-protection for the different disaster risks related to climate change |
| Number of the measure | DRM 5n |
| Priority (high-medium-low) ¹¹¹ | Med |
| Climate impact (s) addressed | All |
| Primary Sector | Disaster risk management, civil protection and critical infrastructure |
| Secondary sector | n/a |
| KTM category¹¹² | Knowledge and Behavioural change |
| Sub-KTM | Information and awareness raising |
| Goal of the measure | Promote the consideration of climate projections in the study, analysis and definition of self-protection measures, and the promotion of their development for the different disaster risks related to climate change. |
| Description of the measure | <p>Self-protection advice and enhance understanding how to act in adverse situations are considered essential in reducing the impacts of disasters. The administrations usually study and recommend the self-protection measures considered most appropriate for each risk, providing, where necessary, training and technical or financial support for their uptake by interested parties.</p> <p>Self-protection measures depend on the type and category of the risk, so the specific characteristics of each type of risk must be identified before the self-protection measures can be defined. Identifying the specific conditions associated to each risk, requires taking various aspects into consideration, and these rarely include climate change..</p> |
| Spatial scope of the measure | National and Local |
| Implementation Cost (high-medium-low) ¹¹³ | Med |
| Maintenance cost (high-medium-low) | Low |
| Implications for society with special attention to vulnerable populations | Improved social capacities and public support can help vulnerable populations reduce their exposure to climate risks (e.g. extreme temperatures, floods, etc.) |
| Co-benefits for regional or local development priorities | <ul style="list-style-type: none"> • Self-protection strategies that address drought, temperature shifts, and extreme weather events help protect agricultural livelihoods, supporting food security and rural economic stability • Climate-inclusive self-protection strategies can lessen the demand on emergency response resources and services, leading to cost savings for local governments and reallocating resources toward long-term community development. • Proactive self-protection measures help preserve cultural heritage sites against damage from flooding, erosion, and extreme weather, supporting the tourism sector and local economies. |
| Co-benefits for climate mitigation | A variety of potential approaches for self-protection can provide co-benefits for climate mitigation, such as: |

¹¹¹ High: to implement within 2 years; Medium: to implement in 2 to 5 years; Low: to implement after 5 years

¹¹² See <https://climate-adapt.eea.europa.eu/en/knowledge/tools/adaptation-support-tool/step-3-0>

¹¹³ Low: €100,000 or less; Medium: €100,000 – €1,000,000; High: over €1 million

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| Name of the measure | Encourage the consideration of risk analyses associated with climate change in the study, analysis and definition of self-protection measures and promote self-protection for the different disaster risks related to climate change |
| | <ul style="list-style-type: none"> • Reducing the need for frequent repairs and rebuilding efforts after disasters, which cuts emissions related to construction, materials, and transport. • Investing in local food storage and production, which reduces the carbon footprint associated with the transportation of goods, particularly during emergencies. • Encouraging off-grid solar installations or microgrids, especially in remote or disaster-prone areas, decreasing reliance on centralized fossil-fuel-powered energy sources., • Promoting the use of water-saving techniques (e.g., rainwater harvesting and efficient irrigation), which reduces the energy-intensive reliance on water desalination and transport. |
| Co-benefits for the environment | <p>By prioritizing climate risk-informed self-protection, there can be several co-benefits for the environment, such as:</p> <ul style="list-style-type: none"> • Self-protection strategies, like green infrastructure and natural flood barriers, help filter pollutants and sediments from runoff before they reach rivers, lakes, and coastal waters, enhancing overall water quality. • By promoting water infiltration and natural groundwater recharge, these measures help maintain aquifers, which are essential in areas frequently affected by drought. • By managing and mitigating flood and erosion risks, self-protection measures prevent excessive sedimentation and pollution in marine waters, protecting coral reefs, seagrass meadows, and other marine ecosystems vital for biodiversity. |
| Political and social acceptability | High |
| Barriers for implementation | <ul style="list-style-type: none"> • Comprehensive risk analyses and the development of self-protection measures require significant initial investment. Many local governments and communities may lack the budget to fund these initiatives fully. • Many self-protection measures rely on advanced technologies (e.g., flood prediction models, early warning systems), which can be costly and require specialized training, creating a barrier for widespread implementation. • Local authorities and communities may need training to better understand and manage climate risk analyses and self-protection measures. Implementing ongoing training programs can be costly and time-consuming. • The drive for economic growth may prioritize development in vulnerable areas, such as coastal zones or floodplains, which can increase disaster risks and make it difficult to implement risk-informed land use planning. • Encouraging people to adopt self-protection measures, like flood-proofing homes or conserving water, may face resistance, especially if individuals do not perceive an immediate threat or believe adaptation measures are too costly or inconvenient. |
| Maladaptation risks | <ul style="list-style-type: none"> • Certain self-protection measures, such as water diversion projects, can negatively impact agriculture by altering water availability and soil quality, affecting livelihoods and food security. |

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| Name of the measure | Encourage the consideration of risk analyses associated with climate change in the study, analysis and definition of self-protection measures and promote self-protection for the different disaster risks related to climate change |
| | <ul style="list-style-type: none"> • Self-protection measures that disrupt ecosystems, such as draining wetlands, can lead to unintended public health consequences, such as increased risk of waterborne diseases, heat stress, or reduced air quality. • In some cases, physical barriers can create isolation for certain communities, especially those with limited mobility, reducing their access to essential services and resources, which can be critical during extreme weather events. • Certain measures, like canal-building or infrastructure near ecosystems, can facilitate the spread of invasive species, which may outcompete native species and disrupt ecological balance. • Single-hazard self-protection measures (e.g., flood-only barriers) may not account for the interconnected nature of climate risks, such as the combination of flooding and landslides, potentially leading to compounding impacts and unexpected vulnerabilities. |
| Responsible authority for implementation | Local Authorities with capacity building and support |
| Other actors involved | Union of Municipalities, Union of Communities Unit of Environmental education and sustainable development (EESD) of the Ministry of Education Sport and Youth (MoESY) |
| Other policy initiatives that align / synergies | Environmental education programs with a focus on climate change promoted by the Unit of Environmental education and sustainable development (EESD) of the Ministry of Education Sport and Youth (MoESY) The new DG Reform project approved in 2024 for “Reforming, developing and enhancing the civil protection system”. |
| Technical/institutional readiness (high-medium-low) | Medium |
| Period of implementation (long-medium-short) ¹¹⁴ | Medium |
| Time to effectiveness (to have an effect or impact) | Initial effectiveness can be reached within a short time frame of 1-2 years. This possibly includes: <ul style="list-style-type: none"> • Increased Awareness of climate risks and the importance of self-protection. Initial outreach and engagement efforts can start yielding benefits within the first year. • Training local authorities, emergency response teams, and community members to help establish a foundation for resilience and self-protection measures, with immediate improvements in knowledge and skills. • Small-scale pilot projects or risk mitigation efforts, such as emergency preparedness workshops or temporary barriers in high-risk areas, can demonstrate initial effectiveness by reducing vulnerability. As awareness grows and training deepens, effectiveness in the medium term will result in fewer or less severe losses from climate-related events, thanks to established, well-integrated self-protection practices. |
| Financing | Low |

¹¹⁴ Short: less than 2 years; Medium: between 2 to 5 years; Long: more than 5 years



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| Name of the measure | Encourage the consideration of risk analyses associated with climate change in the study, analysis and definition of self-protection measures and promote self-protection for the different disaster risks related to climate change |
| Indicator for verification of implementation progress | <ul style="list-style-type: none">• Project “Reforming, developing and enhancing the civil protection system” started/ongoing/finalised |
| Additional comments | The new DG Reform project approved in 2024 for “Reforming, developing and enhancing the civil protection system” has provisions for such measures for DRM. These could be supplemented with info on Climate Change Risks |
| Related to | DRM 4n EDU 1n, EDU 2n, EDU 4n GOV 2n |

| Review post-disaster recovery action plans to incorporate climate change adaptation considerations | |
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| Name of the measure | |
| Number of the measure | DRM 6n |
| Priority (high-medium-low) ¹¹⁵ | High |
| Climate impact (s) addressed | All |
| Primary Sector | Disaster risk management, civil protection and critical infrastructure |
| Secondary sector | Spatial planning |
| KTM category ¹¹⁶ | Governance and Institutional |
| Sub-KTM | Management and planning |
| Goal of the measure | Incorporate climate change adaptation into recovery actions aimed at restoring normality to the affected area after the immediate response to the emergency has been completed |
| Description of the measure | <p>Post-recovery action plans incorporate climate change adaptation considerations to avoid actions that increase vulnerability to climate change risks.</p> <p>Post-event assessment of the recovery action plans (attribution studies) are conducted to adapt future actions to evolving climate risks.</p> |
| Spatial scope of the measure | Local, regional and national (depending on the scope of the plans) |
| Implementation Cost (high-medium-low) ¹¹⁷ | Med |
| Maintenance cost (high-medium-low) | Med |
| Implications for society with special attention to vulnerable populations | <p>Reviewing post-disaster recovery action plans to incorporate climate change adaptation considerations has several significant implications for society. Integrating climate adaptation into recovery plans ensures that communities not only rebuild but also strengthen their resilience to future climate impacts. Different aspects may include:</p> <ul style="list-style-type: none"> • Building Back Better: Recovery plans that incorporate climate adaptation considerations encourage rebuilding infrastructure and homes to withstand future climate extremes, reducing damage and disruption from subsequent events. • Increased community preparedness fostering a proactive culture where communities are not only prepared for immediate recovery but are better equipped to handle evolving climate risks, improving overall societal resilience. • Stimulated investment in resilient infrastructure: Climate-adaptive recovery plans attract investment in sustainable infrastructure, such as flood-resistant buildings, green energy sources, and improved drainage systems, which are economically beneficial in the long run. • Enhanced Insurance and Financing Options: A focus on adaptation makes communities more eligible for favourable insurance premiums and disaster financing, as they are considered lower risk, helping local economies recover more quickly and efficiently. |

¹¹⁵ High: to implement within 2 years; Medium: to implement in 2 to 5 years; Low: to implement after 5 years

¹¹⁶ See <https://climate-adapt.eea.europa.eu/en/knowledge/tools/adaptation-support-tool/step-3-0>

¹¹⁷ Low: €100,000 or less; Medium: €100,000 – €1,000,000; High: over €1 million

| Name of the measure | Review post-disaster recovery action plans to incorporate climate change adaptation considerations |
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| | <ul style="list-style-type: none"> Equitable Distribution of Resources: Adaptation-focused recovery plans emphasize equitable resource distribution, ensuring that all communities have access to resilient infrastructure, safe housing, and emergency services. |
| Co-benefits for regional or local development priorities | <ul style="list-style-type: none"> A structured, adaptive recovery plan involves regular evaluation and accountability measures, ensuring that resources are used effectively and that recovery efforts genuinely enhance resilience. Climate-adaptive recovery often involves collaboration between government agencies, NGOs, private businesses, and community organizations, building a network of trusted relationships that can be leveraged in future emergencies. Climate-adaptive recovery plans promote the use of new technologies, such as resilient construction materials, advanced forecasting tools, and flood-resistant designs, fostering innovation in disaster recovery. Incorporating adaptation can lead to the installation of renewable energy sources (e.g., solar, wind) for rebuilding, which can provide reliable power even in emergencies and reduce reliance on fossil fuels. |
| Co-benefits for climate mitigation | Reduced Carbon Footprint of Recovery Efforts: Adaptation-focused recovery emphasizes green building practices, renewable energy, and sustainable materials, reducing the environmental impact of rebuilding and helping mitigate further climate change. |
| Co-benefits for the environment | <ul style="list-style-type: none"> Recovery plans that include climate adaptation often incorporate ecosystem-based solutions, such as restoring wetlands, which protect against floods, storm surges, and erosion while maintaining biodiversity. Climate-adaptive recovery promotes sustainable land use practices, reducing construction in high-risk zones (e.g., floodplains, coastal areas), which in turn minimizes environmental degradation. |
| Political and social acceptability | High |
| Barriers for implementation | Low Resources |
| Maladaptation risks | Those resulting from inadequate attribution studies |
| Responsible authority for implementation | All authorities dealing with associated risks. Could be coordinated by a Central Management Unit, if empowered accordingly and adequately. |
| Other actors involved | <p>Authorities related to relevant risks</p> <p>The Public Works Department can provide services for recovery actions in the areas of its responsibility: infrastructure, buildings and transport</p> |
| Other policy initiatives that align / synergies | Natura Restoration Law |
| Technical/institutional readiness (high-med-low) | Medium |
| Period of implementation (long-medium-short) ¹¹⁸ | <p>Short to Medium</p> <p>In the short term, implementation could include:</p> |

¹¹⁸ Short: less than 2 years; Medium: between 2 to 5 years; Long: more than 5 years

| Name of the measure | Review post-disaster recovery action plans to incorporate climate change adaptation considerations |
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| | <ul style="list-style-type: none"> • Immediate review of existing recovery plans: Conduct a detailed assessment of current recovery plans, focusing on gaps related to climate adaptation (e.g., consideration of future climate projections, flood resilience, and infrastructure durability). • Quick updates and amendments to recovery protocols based on recent climate-related disasters, incorporating lessons learned from those events. This can include adding specific climate adaptation actions, like improving early warning systems or prioritizing infrastructure resilience. <p>The medium term could entail:</p> <ul style="list-style-type: none"> • Pilot Adaptation Programs that test adaptive recovery strategies, such as using flood-resistant materials, designing disaster-resistant infrastructure, and creating green infrastructure to mitigate storm impacts. • Training programs for local emergency responders and community members on climate-adaptive practices, such as sustainable rebuilding methods and resilient land use. |
| Time to effectiveness (to have an effect or impact) | By strategically reviewing and implementing climate adaptation in post-disaster recovery action plans, communities can expect initial impacts within months, with full effectiveness in protecting public health, economic stability, and infrastructure sustainability emerging within 3-10 years. |
| Financing | Low |
| Indicator for verification of implementation progress | <ul style="list-style-type: none"> • Reviews of post-recovery action plans after events: started/ongoing/finalised |
| Additional comments | <p>Possibly one of the most important and useful measures in this list.</p> <p>Implementation should take into consideration the DG Reform project approved in 2024 for “Reforming, developing and enhancing the civil protection system”.</p> |
| Related to | |

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| Name of the measure | Apply the <i>Pluvial Hazard, Risk Assessment and Adaptation Tool</i> to assess pluvial flood risk hotspots and prioritise areas for adaptation solutions |
| Number of the measure | DRM 7n |
| Priority (high-medium-low) ¹¹⁹ | High (for Union of Municipalities, WDD) |
| Climate impact (s) addressed | Floods |
| Primary Sector | Disaster risk management, civil protection and critical infrastructure |
| Secondary sector | Hydrological Regime and Water Management Spatial planning |
| KTM category ¹²⁰ | Knowledge and behavioural change |
| Sub-KTM | Information and awareness raising |
| Goal of the measure | Provide a quick assessment of pluvial flood risk hotspots and support the prioritisation of areas for adaptation solutions, focused on nature-based approaches. |
| Description of the measure | <p>The Pluvial Hazard, Risk Assessment and Adaptation Tool is designed to assess flooding associated with intense rainfall in urban settings (pluvial flooding) and estimate benefits associated through the implementation of disaster risk reduction and climate adaptation solutions.</p> <p>The tool can assist cities in analysing risks and solutions under various scenarios and plan future actions according to their disaster risk reduction and climate adaptation goals.</p> <p>For example, nature-based solutions at the urban scale are aimed at reducing economic building damage and population exposure. The tool can be used to assess the benefits of nature-based and traditional solutions based on local criteria and priorities, including walking distance to existing green spaces, green space and green roof conversion feasibility, and population vulnerabilities to prioritise areas to implement solutions.</p> |
| Spatial scope of the measure | Local |
| Implementation Cost (high-medium-low) ¹²¹ | Low |
| Maintenance cost (high-medium-low) | Low |
| Implications for society with special attention to vulnerable populations | <ul style="list-style-type: none"> Reducing pluvial flood risk minimizes risks to public safety, especially in vulnerable urban areas, making cities safer for residents and visitors. Many adaptation solutions, such as rain gardens, permeable surfaces, and green roofs, contribute to urban greening, which enhances liveability, reduces urban heat, and improves air quality. Effective flood management reduces standing water and potential contamination, minimizing waterborne diseases and other health issues related to flooding. |

¹¹⁹ High: to implement within 2 years; Medium: to implement in 2 to 5 years; Low: to implement after 5 years

¹²⁰ See <https://climate-adapt.eea.europa.eu/en/knowledge/tools/adaptation-support-tool/step-3-0>

¹²¹ Low: €100,000 or less; Medium: €100,000 – €1,000,000; High: over €1 million

| Name of the measure | Apply the <i>Pluvial Hazard, Risk Assessment and Adaptation Tool</i> to assess pluvial flood risk hotspots and prioritise areas for adaptation solutions |
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| Co-benefits for regional or local development priorities | <ul style="list-style-type: none"> • Safer, well-maintained, and aesthetically improved urban and coastal areas are more appealing to tourists, supporting the tourism sector's growth • Flood-resilient areas tend to have higher property values, which can stimulate local economies and improve municipal revenues through property taxes. • By reducing flood exposure, the tool helps prevent frequent infrastructure damage, extending the life of roads, buildings, and public spaces, which is crucial for sustainable urban development |
| Co-benefits for climate mitigation | <p>Many flood adaptation solutions involve increasing green spaces, urban forests, and vegetated surfaces that naturally sequester carbon, reducing atmospheric CO₂, for example:</p> <ul style="list-style-type: none"> • Permeable surfaces, bioswales, and green roofs integrated into urban settings capture stormwater and store carbon in soil, contributing to reduced GHG concentrations. • Restoring or enhancing wetlands for flood management not only improves water storage but also promotes carbon sequestration, as wetlands are effective carbon sinks. • Flood adaptation measures that incorporate trees, parks, and other vegetation help reduce urban heat, lowering energy demand for air conditioning. • Integrating flood adaptation with sustainable building practices (e.g., green roofs, energy-efficient materials) can promote energy-saving retrofits in the construction industry, aligning with climate mitigation goals. |
| Co-benefits for the environment | <p>The use of nature-based solutions for flood risk management enhances urban and rural biodiversity. Examples may include:</p> <ul style="list-style-type: none"> • Green infrastructure solutions, such as bioswales, rain gardens, and permeable surfaces, help filter pollutants like oils, chemicals, and sediments before they reach waterways, improving the quality of streams, rivers, and coastal areas. • A reduction of flood-driven runoff indirectly helps protect marine environments by minimizing nutrient and sediment inflows that can lead to harmful algal blooms and disrupt marine ecosystems. • Nature-based solutions create habitats for various species and provide ecosystem services such as water purification, air quality improvement, and pollination, which support both urban sustainability and agricultural productivity. |
| Political and social acceptability | High |
| Barriers for implementation | More information and training on the Tool |
| Maladaptation risks | None |
| Responsible authority for implementation | District Local Government Organizations and Municipalities |
| Other actors involved | Water Development Department, Public Works Department, District Local Government Organisations and Municipalities |

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| Name of the measure | Apply the <i>Pluvial Hazard, Risk Assessment and Adaptation Tool</i> to assess pluvial flood risk hotspots and prioritise areas for adaptation solutions |
| Other policy initiatives that align / synergies | Flood Risk Management Plans for those areas identified in these as of High Risks (not many with pluvial flooding risks – more on fluvial) |
| Technical/institutional readiness (high-medium-low) | High – the tool is available, but local capacity building for its use is necessary |
| Period of implementation (long-medium-short) ¹²² | Short |
| Time to effectiveness (to have an effect or impact) | Depends on the implementation of adaptation measures after the assessment |
| Financing | Med given proper training |
| Indicator for verification of implementation progress | <ul style="list-style-type: none"> • No. of cases Tool was used when granting Planning Permits to new developments • Hotspot Identification Rate: Proportion of total flood-prone areas identified as hotspots. |
| Additional comments | <ul style="list-style-type: none"> • Needs to be presented and explained more to evaluate its usefulness. • Highly relevant for District Local Government Organizations and Municipalities |
| Related to | EDU 5n DRM 5n WAT 10n |

¹²² Short: less than 2 years; Medium: between 2 to 5 years; Long: more than 5 years

Economy, Industry and Finance measures impact assessment factsheets

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| Name of the measure | Conduct specific sectoral foresight studies to identify vulnerabilities of Cyprus' industry to climate change, develop sectoral adaptation strategies and revise Cyprus' 2019-2030 Industrial Policy accordingly |
| Number of the measure | ECON 1n |
| Priority (high-medium-low) ¹²³ | High |
| Climate impact (s) addressed | All |
| Primary Sector | Economy, Industry and Finance |
| Secondary sector | Spatial planning |
| KTM category ¹²⁴ | Governance and Institutional Knowledge and behavioural change |
| Sub-KTM | Policy instruments Information and awareness raising |
| Goal of the measure | Improve knowledge of adaptation needs of climate-vulnerable industrial sectors and develop appropriate adaptation strategies. |
| Description of the measure | <p>Cyprus' Industrial Policy 2019-2030 positions the industrial sector as central to the country's growth strategy. While the Industrial Policy 2019-2030 recognises the urgency of climate change, its focus is primarily directed towards mitigation efforts within industry, with no attention paid to climate adaptation action. Actions within this measure include:</p> <ul style="list-style-type: none"> A. Conduct a study to identify the vulnerability of Cyprus' industry and service sector arising from climate change. B. Develop adequate adaptation strategies in collaboration with sectoral actors and experts. C. Integrate adaptation into sectoral legislation and industrialisation plans, including Cyprus' 2019-2030 Industrial policy, incorporating findings and recommendations. |
| Spatial scope of the measure | National |
| Implementation Cost (high-medium-low) ¹²⁵ | Low-Medium |
| Maintenance cost (high-medium-low) | None – only the potential cost of periodic updates |
| Implications for society with special attention to vulnerable populations | None |
| Co-benefits for regional or local development priorities | Reinforce the resilience of the industrial sector and its viability |
| Co-benefits for climate mitigation | Depending on the specific measures adopted |
| Co-benefits for the environment | Depending on the specific measures adopted |

¹²³ High: to implement within 2 years; Medium: to implement in 2 to 5 years; Low: to implement after 5 years

¹²⁴ See <https://climate-adapt.eea.europa.eu/en/knowledge/tools/adaptation-support-tool/step-3-0>

¹²⁵ Low: €100,000 or less; Medium: €100,000 – €1,000,000; High: over €1 million

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|---|--|
| Name of the measure | Conduct specific sectoral foresight studies to identify vulnerabilities of Cyprus' industry to climate change, develop sectoral adaptation strategies and revise Cyprus' 2019-2030 Industrial Policy accordingly |
| Political and social acceptability | High |
| Barriers for implementation | Fiscal cost, companies' engagement and understanding of the importance of climate change impact |
| Maladaptation risks | Depending on the specific measures adopted, but maladaptation risks are plausible, especially concerning the potential disproportionate impact of adaptation strategies on very small SMEs |
| Responsible authority for implementation | Service of Industry and Technology of the Ministry of Energy, Commerce and Industry |
| Other actors involved | OEB (Cyprus Employers & Industrialists Federation), CCCI (Cyprus Chamber of Commerce and Industry), Professional Associations |
| Other policy initiatives that align / synergies | <ul style="list-style-type: none"> • Potential improvement of budgetary estimations. Depending on the results of the study. • It is crucial to identify risks in industry and align industrial policy if needed. Can help safeguard macroeconomic stability and economic growth and help redirect available public funds. • Very important for companies in Cyprus. Specifically, for those which their operation is affected by extreme weather conditions |
| Technical/institutional readiness (high-medium-low) | High |
| Period of implementation (long-medium-short) ¹²⁶ | Medium to long-term |
| Time to effectiveness (to have an effect or impact) | Short-term effectiveness that will lead to long-term positive impact |
| Financing | Medium |
| Indicator for verification of implementation progress | <ul style="list-style-type: none"> • Number of studies: started/ongoing/finalised • Number of sectoral adaptation strategy developed: started/ongoing/finalised • Revise Cyprus' 2019-2030 Industrial Policy started/ongoing/finalised |
| Additional comments | For this measure to be implemented, companies must first understand the impact of climate change on their operations. |
| Relates to | |

¹²⁶ Short: less than 2 years; Medium: between 2 to 5 years; Long: more than 5 years

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| Name of the measure | Develop a framework for project and investment assessment that includes climate vulnerability evaluation criteria to help inform investment decisions and redirect investments when necessary |
| Number of the measure | ECON 2n |
| Priority (high-medium-low) ¹²⁷ | Medium (Medium: Due the fact that it will apply in Cyprus in different phases, depending on the size of companies). |
| Climate impact (s) addressed | All |
| Primary Sector | Economy, Industry and Finance |
| Secondary sector | Tourism |
| KTM category ¹²⁸ | Knowledge and Behavioural change |
| Sub-KTM | Information and awareness raising |
| Goal of the measure | Avoid investments whose profitability would be significantly reduced due to climate change and redirect investments |
| Description of the measure | Develop a framework for project/investment assessment in collaboration with relevant stakeholders that incorporates climate vulnerability assessment parameters. |
| Spatial scope of the measure | National |
| Implementation Cost (high-medium-low) ¹²⁹ | Low |
| Maintenance cost (high-medium-low) | None |
| Implications for society with special attention to vulnerable populations | None |
| Co-benefits for regional or local development priorities | Improve project and investment decision making in a climate change context |
| Co-benefits for climate mitigation | None |
| Co-benefits for the environment | None |
| Political and social acceptability | High |
| Barriers for implementation | None |
| Maladaptation risks | None |
| Responsible authority for implementation | Ministry of Finance |
| Other actors involved | Professional Associations, Department of Registrar of Companies and Intellectual Property, Cyprus Chamber of Commerce and Industry (CCCI) |
| Other policy initiatives that align / synergies | Corporate Sustainability Reporting Directive to be incorporated in Commercial Law – Corporate Sustainability Due Diligence Directive to be adopted by Republic of Cyprus in 8 years' time for smaller companies. Tourism – can help guide investments in tourism sector |

¹²⁷ High: to implement within 2 years; Medium: to implement in 2 to 5 years; Low: to implement after 5 years

¹²⁸ See <https://climate-adapt.eea.europa.eu/en/knowledge/tools/adaptation-support-tool/step-3-0>

¹²⁹ Low: €100,000 or less; Medium: €100,000 – €1,000,000; High: over €1 million



| Name of the measure | Develop a framework for project and investment assessment that includes climate vulnerability evaluation criteria to help inform investment decisions and redirect investments when necessary |
|---|---|
| Technical/institutional readiness (high-medium-low) | High Already implemented for private big investments, through documentation for the granting of loans |
| Period of implementation (long-medium-short) ¹³⁰ | short |
| Time to effectiveness (to have an effect or impact) | Shortly after development of the assessment framework. |
| Financing | Medium |
| Indicator for verification of implementation progress | <ul style="list-style-type: none">• Framework developed: started/ongoing/finalised |
| Relates to | |

¹³⁰ Short: less than 2 years; Medium: between 2 to 5 years; Long: more than 5 years

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| Name of the measure | Promote the use of the DERRIS climate risk self-assessment tool for Small and Medium Enterprises (SMEs) to Increase the climate risk awareness of local SMEs |
| Number of the measure | ECON 3n |
| Priority (high-medium-low) ¹³¹ | Low to Medium |
| Climate impact (s) addressed | All |
| Primary Sector | Economy, Industry and Finance |
| Secondary sector | Spatial Planning |
| KTM category ¹³² | Knowledge and Behavioural Change |
| Sub-KTM | Information and awareness raising |
| Goal of the measure | Increase the climate risk awareness of local SMEs. Encourage the private and public sector/business entities to adapt to climate change. |
| Description of the measure | The self-assessment tool helps small and medium enterprises to first identify their exposure to climate hazards and secondly, measures to reduce negative climate impacts. The tool was developed in 2016 for SMEs in Turin. It has been used by SMEs in 14 municipalities all over Italy, such as Genoa and Padua. By the end of 2023, the tool had been used by almost 10,000 users for a total of almost 13,000 sessions (+1000 respect to 2022). |
| Spatial scope of the measure | National |
| Implementation Cost (high-medium-low) ¹³³ | Low (to Medium) |
| Maintenance cost (high-medium-low) | None |
| Implications for society with special attention to vulnerable populations | The use of the tool can make SMEs more resilient to climate change risks and thus reinforce their viability. SMEs are a critical source of employment and economic activity in Cyprus. |
| Co-benefits for regional or local development priorities | Same as above. |
| Co-benefits for climate mitigation | None |
| Co-benefits for the environment | None |
| Political and social acceptability | High |
| Barriers for implementation | Engagement of private sector, and how the private weights the benefit to be gained through this |
| Maladaptation risks | None |
| Responsible authority for implementation | Ministry of Finance to promote the adaptation of the tool to Cyprus Ministry of Agriculture, Rural Development and the Environment (Department of the Environment) for the development of the hazard maps [DERRIS was developed under a EU Life project and implemented for the Turin region in Italy and involves the leadership of the Unipol Group (insurance company) alongside partners including the City of |

¹³¹ High: to implement within 2 years; Medium: to implement in 2 to 5 years; Low: to implement after 5 years

¹³² See <https://climate-adapt.eea.europa.eu/en/knowledge/tools/adaptation-support-tool/step-3-0>

¹³³ Low: €100,000 or less; Medium: €100,000 – €1,000,000; High: over €1 million



| | |
|---|--|
| Name of the measure | Promote the use of the DERRIS climate risk self-assessment tool for Small and Medium Enterprises (SMEs) to Increase the climate risk awareness of local SMEs |
| | Turin, Cineas, National Association of Italian Municipalities (ANCI), Coordinamento Agende 21 and UnipolSai |
| Other actors involved | Private sector – SMEs, District Local Government Organizations Cyprus Employers & Industrialists Federation (OEB); Department of Lands and Surveys, Cyprus Chamber of Commerce and Industry Service of Industry and Technology Department of Town Planning and Housing |
| Other policy initiatives that align / synergies | Maybe with spatial planning |
| Technical/institutional readiness (high-medium-low) | High – but needs to be adapted to the Cypriot context |
| Period of implementation (long-medium-short) ¹³⁴ | Short |
| Time to effectiveness (to have an effect or impact) | Short |
| Financing | Low (subcontracting or agreements with research institutions) Currently the language of the tool is Italian, and the tool owners have the hazard maps only for Italy. To be replicated outside Italy, the hazard maps would have to be created by the tool owners, for around €10,000. Therefore, the tool owners would need to buy climate data and working hours to set the hazard maps. Other than that, the tool features can be transferred easily. The costs are therefore not related to technological modifications on the tool but only on developing the hazard maps. |
| Indicator for verification of implementation progress | <ul style="list-style-type: none"> • Number of Downloads of the self-assessment tool • Number of applications per year |
| Relates to | |

¹³⁴ Short: less than 2 years; Medium: between 2 to 5 years; Long: more than 5 years

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|--|---|
| Name of the measure | Promote frameworks for collaboration and coordination on adaptation among the different agents involved in the financial system, with special attention to insurance activity, and strengthen adaptation capacities in the sector. |
| Number of the measure | ECON 4n |
| Priority (high-medium-low) ¹³⁵ | Medium |
| Climate impact (s) addressed | All |
| Primary Sector | Economy, Industry and Finance |
| Secondary sector | Agriculture; Spatial Planning |
| KTM category ¹³⁶ | Governance and Institutional |
| Sub-KTM | Coordination, cooperation and networks |
| Goal of the measure | Mobilise all actors involved in the financial system, especially in the insurance business to develop frameworks for collaboration and coordination on climate change adaptation between public institutions, private entities, academic institutions and other key agents to promote, among other things, the exchange of information and knowledge |
| Description of the measure | <p>This line of action aims to consolidate permanent frameworks for collaboration and coordination on climate change adaptation. These frameworks for collaboration may be formalised, where appropriate, by the definition and signing of specific agreements with the competent bodies in areas particularly vulnerable to the impacts of climate change.</p> <p>These collaborative frameworks will seek to establish systems for the exchange and dissemination of finance, insurance and climate change indicators, which will provide an understanding of the evolving role of the financial and insurance sector in adaptation. They will also explore the different ways of using the information gathered in the field of insurance for the development of public policies and concrete measures related to climate change adaptation.</p> <p>Participate in EU and international networks – such as Climate Adapt or the UNFCCC Finance portal – to exchange experiences and information on adaptive financial and insurance practices.</p> |
| Spatial scope of the measure | National |
| Implementation Cost (high-medium-low) ¹³⁷ | Low – the measure needs to be better defined to estimate. |
| Maintenance cost (high-medium-low) | Low – the measure needs to be better defined to estimate. |
| Implications for society with special attention to vulnerable populations | Positive implications as it could potentially lead to better policy decisions |
| Co-benefits for regional or local development priorities | Potential to better align local government policies and actions with the overall National Adaptation Strategy and Objectives |
| Co-benefits for climate mitigation | None |

¹³⁵ High: to implement within 2 years; Medium: to implement in 2 to 5 years; Low: to implement after 5 years

¹³⁶ See <https://climate-adapt.eea.europa.eu/en/knowledge/tools/adaptation-support-tool/step-3-0>

¹³⁷ Low: €100,000 or less; Medium: €100,000 – €1,000,000; High: over €1 million



| | |
|---|---|
| Name of the measure | Promote frameworks for collaboration and coordination on adaptation among the different agents involved in the financial system, with special attention to insurance activity, and strengthen adaptation capacities in the sector. |
| Co-benefits for the environment | None |
| Political and social acceptability | High – it's a win-win proposal |
| Barriers for implementation | Unclear who would be the competent authority. |
| Maladaptation risks | None |
| Responsible authority for implementation | Ministry of Finance |
| Other actors involved | Insurance association of Cyprus, District Local Government Organisations |
| Other policy initiatives that align / synergies | None to the best available knowledge |
| Technical/institutional readiness (high-medium-low) | High |
| Period of implementation (long-medium-short) ¹³⁸ | Short to medium - the measure needs to be better defined to estimate |
| Time to effectiveness (to have an effect or impact) | Medium - the measure needs to be better defined to estimate |
| Financing | No financing required. |
| Indicator for verification of implementation progress | <ul style="list-style-type: none">• Number of meetings held |
| Relates to | |

¹³⁸ Short: less than 2 years; Medium: between 2 to 5 years; Long: more than 5 years

| Name of the measure | Capacity building on adaptation in the financial system and insurance business |
|--|---|
| Number of the measure | ECON 5n |
| Priority (high-medium-low) ¹³⁹ | Medium - Low |
| Climate impact (s) addressed | All |
| Primary Sector | Economy, Industry and Finance |
| Secondary sector | n/a |
| KTM category ¹⁴⁰ | Knowledge and Behavioural change |
| Sub-KTM | Capacity building, empowering and lifestyle practices |
| Goal of the measure | Promote the generation of knowledge and capacities on the impacts of climate change on the financial system and insurance activities, as well as on the identification of opportunities to contribute to climate change adaptation |
| Description of the measure | <p>Understanding the connections between the activity of the financial system and climate change adaptation is fundamental when considering measures to promote the active role of the sector in the construction of a more resilient economy and society, as well as for the stability of the financial system. This knowledge must also be integrated into decision-making by strengthening the capacities of all key actors involved. Potential specific actions include:</p> <ul style="list-style-type: none"> A. Continued assessment of the vulnerability and impact of climate change and adaptation options in those branches of insurance activity that are most closely linked to climate risks. B. Promote research to develop tools aimed at identifying investment opportunities that contribute to climate change adaptation and informed planning in the sector, for example, specific models combining risk and financial parameters to recreate historical events and estimate possible future losses. C. Develop training actions and resources on climate change adaptation in coordination with the sector. D. Promote and provide training on the EU taxonomy regulation. E. Create incentives for risk prevention by promoting the role of the financial system as a catalyst for climate change adaptation and continue to explore and promote the specific contributions of insurance activities to adaptation. |
| Spatial scope of the measure | National |
| Implementation Cost (high-medium-low) ¹⁴¹ | Medium. Depends on the enabling framework of the financial system and insurance business or if they will have to build a new one, by devoting the appropriate resources. |
| Maintenance cost (high-medium-low) | Same as above. |

¹³⁹ High: to implement within 2 years; Medium: to implement in 2 to 5 years; Low: to implement after 5 years

¹⁴⁰ See <https://climate-adapt.eea.europa.eu/en/knowledge/tools/adaptation-support-tool/step-3-0>

¹⁴¹ Low: €100,000 or less; Medium: €100,000 – €1,000,000; High: over €1 million

| Name of the measure | Capacity building on adaptation in the financial system and insurance business |
|--|---|
| Implications for society with special attention to vulnerable populations | <p>Designing and implementing appropriate insurance tools, the risk is distributed amongst stakeholders (government, households, businesses, local government).</p> <p>To the degree that these tools can guarantee that an extreme weather event will not result to long term financial damage (e.g. a house or a business can be quickly rebuilt or compensated for) it can have positive implications to the society and economy at large.</p> <p>However, vulnerable groups could be adversely impacted. For example, homeowners that cannot afford to make the necessary alterations to their homes that would shield them from extreme weather events or minimise their losses in case of such an event, could face higher risk insurance premia or receive lower payouts.</p> <p>The impact could also be negative if it results in more costly insurance products, or higher financing cost of specific projects.</p> |
| Co-benefits for regional or local development priorities | Same as above. |
| Co-benefits for climate mitigation | None |
| Co-benefits for the environment | None |
| Political and social acceptability | Medium (depending on its impact on insurance costs e.g. prices of insurances for specific areas) |
| Barriers for implementation | See above in polit. and soc. acceptability |
| Maladaptation risks | None |
| Responsible authority for implementation | <p>Ministry of Finance MARDE – Department of the Environment, to coordinate with other training needs on adaptation</p> |
| Other actors involved | <p>Ministry of Education (Unit for Education for the Environment and Sustainable Development) to support training programs</p> <p>Human Resource Development Authority of Cyprus (HRDA) for implementation of the measure (Ministry of Labour and Social Insurance)</p> <p>Private sector: Insurance Companies, Association of Cyprus Banks, Professional Associations etc</p> |
| Other policy initiatives that align / synergies | EU Adaptation Policy |
| Technical/institutional readiness (high-medium-low) | High |
| Period of implementation (long-medium-short)¹⁴² | Medium (developing research tools takes time) |
| Time to effectiveness (to have an effect or impact) | Short to medium term |
| Financing | <p>To be determined depending on the training needs identified</p> <p>Incorporated into wider training for adaptation.</p> <p>Can be partially covered by participants' fees</p> |
| Indicator for verification of implementation progress | <ul style="list-style-type: none"> Number of participants in the training per year |
| Relates to | GOV 2n |

¹⁴² Short: less than 2 years; Medium: between 2 to 5 years; Long: more than 5 years

Education measures impact assessment factsheets

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|--|--|
| Name of the measure | Integrate climate change adaptation into the revised curricula of Education for Sustainable Development and formal education curricula at all educational levels |
| Number of the measure | EDU 1n |
| Priority (high-medium-low)¹⁴³ | High |
| Climate impact (s) addressed | All |
| Primary Sector | Cross-sectoral |
| Secondary sector | Cross-sectoral |
| KTM category¹⁴⁴ | Knowledge and behavioural change |
| Sub-KTM | Capacity building, empowering and lifestyle practices |
| Goal of the measure | Raise awareness among young people about climate change and enhance their capacity to act through the integration of climate change adaptation into the revised curricula of Education for Sustainable Development at all educational levels. |
| Description of the measure | <p>A. <u>Primary education</u>: the <u>Curriculum of Environmental Education/Education for Sustainable Development (EE/ESD)</u>, an important innovation in the educational system of Cyprus in pre-primary and primary education, will continue to examine and integrate climate change adaptation through all related thematic units such as energy, production and consumption, urbanization, waste, water, transportation, as well as the Sustainable Development Goals; and as part of the curriculum of all the distinct subjects.</p> <p>B. <u>Secondary education</u>: has not yet introduced the EE/ESD curriculum. Thus, climate change adaptation will be examined and studied through various subjects such as Biology, Geography</p> <p>C. <u>Higher education</u>: Review relevant undergraduate and postgraduate programmes in Cypriot Universities – nursing, medical, engineering, biology, forestry, etc. – to assess climate change adaptation content and suggest improvements in line with identified needs in the NAS.</p> |
| Spatial scope of the measure | National |
| Implementation Cost (high-medium-low)¹⁴⁵ | Low – initiatives are already underway |
| Maintenance cost (high-medium-low) | Low |
| Implications for society with special attention to vulnerable populations | Invest on changing youth frame of mind, engage them in actions for climate adaptation for improving their quality of life. |

¹⁴³High: to implement within 2 years; Medium: to implement in 2 to 5 years; Low: to implement after 5 years

¹⁴⁴ See <https://climate-adapt.eea.europa.eu/en/knowledge/tools/adaptation-support-tool/step-3-0>

¹⁴⁵ Low: €100,000 or less; Medium: €100,000 – €1,000,000; High: over €1 million

| Name of the measure | Integrate climate change adaptation into the revised curricula of Education for Sustainable Development and formal education curricula at all educational levels |
|--|---|
| Co-benefits for regional or local development priorities | Promoting the environmental literacy of future generations will help develop more sustainable communities. |
| Co-benefits for climate mitigation | Education programs on climate change adaptation will help understand climate change impacts and potential mitigation measures, helping change behaviours that contribute to mitigation goals. |
| Co-benefits for the environment | Education will help promote and adopt sustainable practices that will improve the quality of life and environment |
| Political and social acceptability | High |
| Barriers for implementation | Teachers' capacities and knowledge of climate education; competing school priorities; resistance to change |
| Maladaptation risks | None |
| Responsible authority for implementation | Unit of Environmental education and sustainable development (EESD) of the Ministry of Education Sport and Youth (MoESY), |
| Other actors involved | parents, school community, professionals, NGO, academia |
| Other policy initiatives that align / synergies | Related with the EU recommendations for learning for environmental sustainability, the UNECE new implementation framework for the ESD Strategy 2021-2030, the UNESCO ESD Roadmap 2030 |
| Technical/institutional readiness (high-med-low) | High |
| Period of implementation (long-medium-short) ¹⁴⁶ | Medium |
| Time to effectiveness (to have an effect or impact) | Long term |
| Financing | Budget of the Environmental Education Unity of the Ministry of Education, Sports and Youth |
| Indicator for verification of implementation progress | <ul style="list-style-type: none"> • Number of climate change adaptation thematic units developed for the EE/ESD • Number of secondary school programs reviewed • Number of graduate programs reviewed |
| Related to | All NAS measures |

¹⁴⁶ Short: less than 2 years; Medium: between 2 to 5 years; Long: more than 5 years

| Name of the measure | Provide non-formal education programs for climate change adaptation |
|--|--|
| Number of the measure | EDU 2n |
| Priority (high-medium-low) ¹⁴⁷ | High |
| Climate impact (s) addressed | All |
| Primary Sector | Cross-sectoral |
| Secondary sector | Cross-sectoral |
| KTM category ¹⁴⁸ | Knowledge and behavioural change |
| Sub-KTM | Capacity building, empowering and lifestyle practices ¹⁸ |
| Goal of the measure | Utilize the Governmental Network of Environmental Education Centres to provide specialized programs on climate change adaptation and education for sustainable development for students, educators, professionals, and the wider civil society, thus raising awareness about climate change and enhance their capacity to act |
| Description of the measure | <p>The Governmental Network of Environmental Education Centres of the Cyprus Ministry of Education Sports and Youth, which operates as a complementary structure of schools, with the aim of bringing environmental issues into fields of environmental interest and of transferring the learning process in terms of the environmental issues beyond and outside the context of the classroom.</p> <p>Incorporate climate change adaptation programs in the Environmental Education Centres' of the Governmental Network (Pedoulas, Akrotiri, Athalassa, Salamiou, Kavo-Greko, Koilani, Panagia) under specific environmental educational programs implemented at each centre related to their specific geographic context and vulnerabilities – biodiversity of forests, urbanization, tourism development, wetland conservation, etc.</p> |
| Spatial scope of the measure | National and regional |
| Implementation Cost (high-medium-low) ¹⁴⁹ | Low |
| Maintenance cost (high-medium-low) | Low |
| Implications for society with special attention to vulnerable populations | Strengthen the intergenerational communication, the local communities which are isolated are vitalized and it provided real life experiences that strengthen students and citizens their appreciation and respect for the environment and the nature. Provide opportunities to all the students to have unique and individual experiences. |
| Co-benefits for regional or local development priorities | Networking with the local populations, synergies and collaboration with local markets, farmers and other professionals |
| Co-benefits for climate mitigation | First hand experiences and learning for climate adaptation measures |

¹⁴⁷ High: to implement within 2 years; Medium: to implement in 2 to 5 years; Low: to implement after 5 years

¹⁴⁸ See <https://climate-adapt.eea.europa.eu/en/knowledge/tools/adaptation-support-tool/step-3-0>

¹⁴⁹ Low: €100,000 or less; Medium: €100,000 – €1,000,000; High: over €1 million

| Name of the measure | Provide non-formal education programs for climate change adaptation |
|--|---|
| Co-benefits for the environment | Appreciation for the protection and conservation of the environment |
| Political and social acceptability | High |
| Barriers for implementation | None |
| Maladaptation risks | None |
| Responsible authority for implementation | Unit of Environmental education and sustainable development (EESD) of the Ministry of Education Sport and Youth (MoESY) |
| Other actors involved | Local population, professionals from other sectors facing climate-change risks: biodiversity, forestry, health, civil protection, agriculture, fisheries, etc. |
| Other policy initiatives that align / synergies | Related with the EU recommendations for learning for environmental sustainability, the UNECE new implementation framework for the ESD Strategy 2021-2030, the UNESCO ESD Roadmap 2030 |
| Technical/institutional readiness (high-medium-low) | High |
| Period of implementation (long-medium-short) ¹⁵⁰ | Short |
| Time to effectiveness (to have an effect or impact) | As soon as the measure will be implemented |
| Financing | Budget of the Environmental Education Unity of the Ministry of Education, Sports and Youth |
| Indicator for verification of implementation progress | <ul style="list-style-type: none"> • Number of climate change adaptation education programs developed in Environmental education centres • Number of participants in climate change adaptation education programs |
| Related to | All NAS measures |

¹⁵⁰ Short: less than 2 years; Medium: between 2 to 5 years; Long: more than 5 years

| Name of the measure | Update professional education and training programs for teachers and education staff taking into consideration the content of the revised National Adaptation Strategy |
|---|---|
| Number of the measure | EDU 3n |
| Priority (high-medium-low) ¹⁵¹ | High |
| Climate impact (s) addressed | All |
| Primary Sector | Cross-sectoral |
| Secondary sector | Cross-sectoral |
| KTM category ¹⁵² | Knowledge and behavioural change |
| Sub-KTM | Capacity building, empowering and lifestyle practices ¹⁸ |
| Goal of the measure | Expand and strengthen professional education and training programs for teachers and education staff on teaching and learning approaches that connect climate change with the social, environmental, economic, political, and cultural dimensions of sustainability |
| Description of the measure | Incorporate considerations of the revised National Adaptation Strategy into the climate change curricula of the obligatory and optional Professional Development Courses on Climate Change Education for education professionals offered by the Unit of Education for Environment and Sustainable Development (Unit of ESSD-Pedagogical Institute). |
| Spatial scope of the measure | National and regional |
| Implementation Cost (high-medium-low) ¹⁵³ | Low |
| Maintenance cost (high-medium-low) | Low |
| Implications for society with special attention to vulnerable populations | Effective, knowledgeable and competent teachers that will integrate climate change in their teaching and learning more effectively |
| Co-benefits for regional or local development priorities | Align with the national strategy for Continuous professional development, the EU climate pact and EU Education Climate Coalition |
| Co-benefits for climate mitigation | Learning about measures that will make their schools climate resilient and potential implementation of these measures |
| Co-benefits for the environment | Creation of green learning spaces in schools and promotion of climate-friendly measures |
| Political and social acceptability | High |
| Barriers for implementation | Lack of incentives and lack of connection of continuing professional development with career paths |
| Maladaptation risks | None |
| Responsible authority for implementation | Unit of Environmental education and sustainable development (EESD) of the Ministry of Education Sport and Youth (MoESY) |
| Other actors involved | NGOs |

¹⁵¹High: to implement within 2 years; Medium: to implement in 2 to 5 years; Low: to implement after 5 years

¹⁵² See <https://climate-adapt.eea.europa.eu/en/knowledge/tools/adaptation-support-tool/step-3-0>

¹⁵³ Low: €100,000 or less; Medium: €100,000 – €1,000,000; High: over €1 million

| | |
|--|---|
| Name of the measure | Update professional education and training programs for teachers and education staff taking into consideration the content of the revised National Adaptation Strategy |
| | Academia |
| Other policy initiatives that align / synergies | Related with the EU recommendations for learning for environmental sustainability, the UNECE new implementation framework for the ESD Strategy 2021-2030, the UNESCO ESD Roadmap 2030 |
| Technical/institutional readiness (high-medium-low) | High |
| Period of implementation (long-medium-short) ¹⁵⁴ | Short |
| Time to effectiveness (to have an effect or impact) | As soon as CPD training applied practically in schools |
| Financing | Budget of the Environmental Education Unity of the Ministry of Education, Sports and Youth |
| Indicator for verification of implementation progress | <ul style="list-style-type: none"> Number of revised training programs |
| Related to | All NAS measures |

¹⁵⁴ Short: less than 2 years; Medium: between 2 to 5 years; Long: more than 5 years

| Name of the measure | Produce educational and informational material on climate change adaptation |
|---|---|
| Number of the measure | EDU 4n |
| Priority (high-medium-low) ¹⁵⁵ | High |
| Climate impact (s) addressed | All |
| Primary Sector | Cross-sectoral |
| Secondary sector | Cross-sectoral |
| KTM category ¹⁵⁶ | Knowledge and behavioural change |
| Sub-KTM | Capacity building, empowering and lifestyle practices ¹⁸ |
| Goal of the measure | Increase awareness by improving access to educational and informational materials on climate change adaptation by generating materials available online |
| Description of the measure | Develop synchronous and asynchronous educational tools on climate change adaptation building on existing initiatives such as: “Issues in Education for Sustainable Development”; online teaching lessons and courses; education broadcasts on the TV web education channel; or “SDGs and Global Citizenship are travelling” initiative. |
| Spatial scope of the measure | National and regional |
| Implementation Cost (high-medium-low) ¹⁵⁷ | Low |
| Maintenance cost (high-medium-low) | Low |
| Implications for society with special attention to vulnerable populations | Learning tools are open access, inclusive and adaptable to diverse learning environments (synchronous and asynchronous learning), conventional and digital tools. |
| Co-benefits for regional or local development priorities | Related with the EU recommendations for learning for environmental sustainability, the UNECE new implementation framework for the ESD Strategy 2021-2030, the UNESCO ESD Roadmap 2030 |
| Co-benefits for climate mitigation | None |
| Co-benefits for the environment | Increased knowledge on climate change adaptation and sustainable practices. Reduction in the use of paper due to reliance on digital media |
| Political and social acceptability | High |
| Barriers for implementation | None |
| Maladaptation risks | None |
| Responsible authority for implementation | Unit of Environmental education and sustainable development (EESD) of the Ministry of Education Sport and Youth (MoESY) |
| Other actors involved | NGOs, Academia, teachers |

¹⁵⁵ High: to implement within 2 years; Medium: to implement in 2 to 5 years; Low: to implement after 5 years

¹⁵⁶ See <https://climate-adapt.eea.europa.eu/en/knowledge/tools/adaptation-support-tool/step-3-0>

¹⁵⁷ Low: €100,000 or less; Medium: €100,000 – €1,000,000; High: over €1 million

| Name of the measure | Produce educational and informational material on climate change adaptation |
|--|---|
| | Other sectors included in the NAS that have identified training and capacity building needs. |
| Other policy initiatives that align / synergies | Related with the EU recommendations for learning for environmental sustainability, the UNECE new implementation framework for the ESD Strategy 2021-2030, the UNESCO ESD Roadmap 2030 |
| Technical/institutional readiness (high-med-low) | High |
| Period of implementation (long-medium-short) ¹⁵⁸ | Short |
| Time to effectiveness (to have an effect or impact) | As soon as materials are generated |
| Financing | Budget of the Environmental Education Unity of the Ministry of Education, Sports and Youth |
| Indicator for verification of implementation progress | <ul style="list-style-type: none"> • Number of climate change adaptation education materials developed |
| Related to | All NAS measures Complements GOV 2n |

¹⁵⁸ Short: less than 2 years; Medium: between 2 to 5 years; Long: more than 5 years

| Name of the measure | Strengthen the climate resilience of educational institutions through targeted actions and programs to adapt infrastructure and school environments to new climate conditions |
|---|---|
| Number of the measure | EDU 5n |
| Priority (high-med-low) ¹⁵⁹ | High |
| Climate impact (s) addressed | All |
| Primary Sector | Education |
| Secondary sector | Infrastructure, Transport and Buildings Health |
| KTM category ¹⁶⁰ | Physical and technological |
| Sub-KTM | Gray options |
| Goal of the measure | Reduce the vulnerability of educational infrastructures to new climate conditions |
| Description of the measure | <p>This measure focuses on enhancing the capacity of educational institutions to withstand and adapt to the challenges posed by climate change. Schools, face growing risks from extreme weather events, such as heatwaves, flooding, and storms, which can disrupt learning environments, compromise infrastructure, and affect student and staff well-being. To address these risks, this measure will implement targeted actions to adapt both physical infrastructure and school operations to evolving climate conditions. Key actions include:</p> <ul style="list-style-type: none"> A. Upgrading buildings to improve their resistance to extreme weather, such as reinforcing roofs, installing energy-efficient cooling and ventilation systems to protect against heatwaves. B. Developing green spaces and shaded outdoor areas to reduce the urban heat island effect and provide healthier environments for students and staff. C. Identify if schools are in a flood risk area and take the necessary measures to reduce vulnerability to flood risk. |
| Spatial scope of the measure | National, regional and local |
| Implementation Cost (high-medium-low) ¹⁶¹ | High |
| Maintenance cost (high-medium-low) | Low |
| Implications for society with special attention to vulnerable populations | Creates schools that provide thermal comfort to students and teachers, improve the learning process and create a healthier and more resilient school environment that makes learning more effective, improving also learning outcomes |
| Co-benefits for regional or local development priorities | Align with the EU Green Deal for strengthening climate resilience in educational institutions supports regional and local development by promoting public health, creating jobs, enhancing disaster preparedness, and advancing climate education. It boosts environmental sustainability through green infrastructure and fosters community engagement. These actions contribute to safer, |

¹⁵⁹High: to implement within 2 years; Medium: to implement in 2 to 5 years; Low: to implement after 5 years

¹⁶⁰ See <https://climate-adapt.eea.europa.eu/en/knowledge/tools/adaptation-support-tool/step-3-0>

¹⁶¹ Low: €100,000 or less; Medium: €100,000 – €1,000,000; High: over €1 million

| Name of the measure | Strengthen the climate resilience of educational institutions through targeted actions and programs to adapt infrastructure and school environments to new climate conditions |
|--|--|
| | healthier, and more climate-resilient communities, supporting long-term social and economic well-being. |
| Co-benefits for climate mitigation | Strengthening climate resilience in educational institutions supports climate mitigation by incorporating energy-efficient technologies, reducing carbon emissions through sustainable infrastructure upgrades, and enhancing green spaces that absorb carbon. Climate education fosters awareness and sustainable behaviours, promoting long-term emission reductions. These efforts collectively contribute to a low-carbon, climate-smart future for local communities. |
| Co-benefits for the environment | Strengthening climate resilience in educational institutions benefits the environment by enhancing green spaces, reducing heat island effects, and improving biodiversity. Sustainable infrastructure upgrades, such as rainwater harvesting and eco-friendly materials, reduce resource consumption and pollution. These measures support healthier ecosystems, improve air and water quality, and promote long-term environmental sustainability. |
| Political and social acceptability | High |
| Barriers for implementation | Funding |
| Maladaptation risks | None |
| Responsible authority for implementation | Unit of Environmental education and sustainable development (EESD) of the Ministry of Education Sport and Youth (MoESY) |
| Other actors involved | Business, trades, professionals, Academia, Public and private sector |
| Other policy initiatives that align / synergies | This measure aligns with national climate action, sustainable urban development, and public health policies by enhancing resilient infrastructure and green spaces. It supports education strategies by fostering climate awareness and skills, complements disaster risk management by improving emergency preparedness, and promotes green economy policies through job creation and sustainable economic growth. |
| Technical/institutional readiness (high-med-low) | High |
| Period of implementation (long-medium-short) ¹⁶² | Long |
| Time to effectiveness (to have an effect or impact) | The time to effectiveness for this measure is medium to long-term, with immediate benefits from infrastructure upgrades and gradual improvements in resilience, health, and education outcomes. |
| Financing | Project THALEIA 2027 |
| Indicator for verification of implementation progress | <ul style="list-style-type: none"> • Number of educational buildings upgraded. • Number of green spaces and shaded outdoor areas developed. • Number of flood risk vulnerability reduction plans developed |
| Related to | HEAL 1n; HEAL 2n DRM 3n; DRM 5n INFR 2 WAT 10n |

¹⁶² Short: less than 2 years; Medium: between 2 to 5 years; Long: more than 5 years

| Name of the measure | Strengthen and leverage international collaboration networks related to climate and environmental education |
|---|--|
| Number of the measure | EDU 6n |
| Priority (high-med-low) ¹⁶³ | High |
| Climate impact (s) addressed | All |
| Primary Sector | Cross-sectoral |
| Secondary sector | Cross-sectoral |
| KTM category ¹⁶⁴ | Knowledge and behavioural change |
| Sub-KTM | Capacity building, empowering and lifestyle practices ¹⁸ |
| Goal of the measure | Formation of the international policies and regional policies by infusing also Cyprus policies and priorities in the field and exchange of good practices and expertise with other countries and regions enabling the implementation of national policies more effectively |
| Description of the measure | This measure aims to enhance Cyprus's engagement in global networks focused on climate and environmental education. By sharing best practices, resources, and expertise, it fosters collaboration among nations, promoting innovative teaching methods and awareness-raising initiatives to empower communities in addressing climate change and fostering sustainable practices. |
| Spatial scope of the measure | National and regional |
| Implementation Cost (high-med-low) ¹⁶⁵ | Low |
| Maintenance cost (high-medium-low) | Low |
| Implications for society with special attention to vulnerable populations | Strengthening international collaboration in climate education enhances global awareness, improves resilience, and provides vulnerable populations with access to resources, knowledge, and support systems for adapting to environmental challenges and climate risks. |
| Co-benefits for regional or local development priorities | Strengthening and leveraging international collaboration networks enhances regional and local development by fostering knowledge exchange, capacity building, and innovation. This measure supports climate and environmental education, improves local expertise, attracts funding, promotes sustainable practices, and creates opportunities for partnerships, ultimately driving green economic growth, resilience, and environmental stewardship within communities. |
| Co-benefits for climate mitigation | It fosters innovation in sustainable solutions, raises awareness of emission reduction strategies, and enhances capacity for green job creation. These efforts contribute to long-term carbon footprint reduction and a more sustainable economy. |
| Co-benefits for the environment | Strengthening and leveraging international collaboration networks in climate and environmental education enhances global knowledge sharing, boosts capacity-building, and fosters innovative |

¹⁶³ High: to implement within 2 years; Medium: to implement in 2 to 5 years; Low: to implement after 5 years

¹⁶⁴ See <https://climate-adapt.eea.europa.eu/en/knowledge/tools/adaptation-support-tool/step-3-0>

¹⁶⁵ Low: €100,000 or less; Medium: €100,000 – €1,000,000; High: over €1 million

| | |
|--|--|
| | solutions. This measure improves climate adaptation and mitigation strategies, promotes ecosystem protection, encourages sustainable development practices, and aligns global efforts, leading to better resilience, biodiversity conservation, and reduced carbon emissions worldwide |
| Political and social acceptability | High |
| Barriers for implementation | Different national priorities |
| Maladaptation risks | None |
| Responsible authority for implementation | Unit of Environmental education and sustainable development (EESD) of the Ministry of Education Sport and Youth (MoESY) |
| Other actors involved | Regional and international organizations Ministry of Foreign Affairs |
| Other policy initiatives that align / synergies | Paris Agreement (Article 12) – Promotes climate education, awareness, and capacity-building globally. UN Sustainable Development Goals (SDGs) – Particularly SDG 13 (Climate Action), SDG 4 (Quality Education), and SDG 17 (Partnerships for the Goals). UNESCO's Education for Sustainable Development (ESD) – Focuses on integrating sustainability into education. UNECE New implementation framework on ESD Strategy 2021-2030 |
| Technical/institutional readiness (high-med-low) | High |
| Period of implementation (long-med-short) ¹⁶⁶ | Continuous and long-term process |
| Time to effectiveness (to have an effect or impact) | It's a medium- and long-term process |
| Financing | Budget of the Environmental Education Unity of the Ministry of Education, Sports and Youth |
| Indicator for verification of implementation progress | <ul style="list-style-type: none"> • Number of international networks where Cyprus participates • Number of international conferences and meetings attended |
| Related to | All NAS measures |

¹⁶⁶ Short: less than 2 years; Medium: between 2 to 5 years; Long: more than 5 years



MINISTRY OF AGRICULTURE
RURAL DEVELOPMENT
AND THE ENVIRONMENT



Energy measures impact assessment factsheets

| | |
|---|--|
| Name of the measure | <p>Improve knowledge on the (potential) impacts of climate change (including extreme events) on:</p> <ul style="list-style-type: none"> a) the production potential of renewable energies and translate the results into energy planning; b) the functionality and resilience of energy generation, transmission, storage and distribution systems; c) energy demand and develop a strategy to avoid or limit spikes in demand, especially those associated with heat. |
| Number of the measure | ENER 1n |
| Priority (high-medium-low) ¹⁶⁷ | High |
| Climate impact (s) addressed | All |
| Primary Sector | Energy |
| Secondary sector | N/A |
| KTM category¹⁶⁸ | Knowledge and Behavioural change Governance and Institutional |
| Sub-KTM | Information and awareness raising Management and planning |
| Goal of the measure | Improve knowledge on the (potential) impacts of climate change on the energy sector and incorporate results into energy planning to increase the sector's resilience and avoid or limit spikes in demand. |
| Description of the measure | <p>Several measures are included in this line of action:</p> <ul style="list-style-type: none"> A. Carry out a detailed study that explores the diverse range of impacts on the energy sector resulting from gradual climate change and extreme weather events, and the potential ways to counter them. <ul style="list-style-type: none"> a. Explore all elements of the supply chain: resource base, extraction and transport of depletable energy sources, power generation, transmission and distribution. b. Identify the energy infrastructures that are highly vulnerable to extreme events and promote specific adaptation programmes. c. Incorporate this information into energy planning and develop adaptation measures to reduce or avoid identified risks. B. Conduct an analysis on the impact of changes in average and extreme temperatures on daily and seasonal electricity demand profiles by climate zones. <ul style="list-style-type: none"> a. Develop a strategy to incentivise the public not to increase energy demand in critical situations, especially in high heat. This work could draw on the work of the International Energy Agency (IEA), which is examining the possibilities of reducing electricity demand in critical periods without jeopardising the security of supply through blackouts and causing damage to the economy. b. Develop targeted at the most vulnerable sections of the population, to avoid increases in seasonal energy poverty rates in certain regions associated with cooling needs. |

¹⁶⁷ High: to implement within 2 years; Medium: to implement in 2 to 5 years; Low: to implement after 5 years

¹⁶⁸ See <https://climate-adapt.eea.europa.eu/en/knowledge/tools/adaptation-support-tool/step-3-0>



| | |
|--|---|
| Name of the measure | <p>Improve knowledge on the (potential) impacts of climate change (including extreme events) on:</p> <ul style="list-style-type: none"> a) the production potential of renewable energies and translate the results into energy planning; b) the functionality and resilience of energy generation, transmission, storage and distribution systems; c) energy demand and develop a strategy to avoid or limit spikes in demand, especially those associated with heat. |
| Spatial scope of the measure | National |
| Implementation Cost (high-medium-low) ¹⁶⁹ | Med |
| Maintenance cost (high-medium-low) | none |
| Implications for society with special attention to vulnerable populations | Ensured energy provision |
| Co-benefits for regional or local development priorities | Better understanding of local risk and impacts |
| Co-benefits for climate mitigation | Ensure production of renewable energies and its role in Cyprus' energy mix in the face of climate change risks |
| Co-benefits for the environment | None |
| Political and social acceptability | High |
| Barriers for implementation | Lack of motivation for implementation if it is not a legal obligation. |
| Maladaptation risks | None |
| Responsible authority for implementation | The Department of the Environment of the Ministry of Agriculture, Rural Development and the Environment |
| Other actors involved | Transmission System Operator (TSO), EAC (Electricity Authority of Cyprus), Energy Service of the Ministry of Energy, Commerce and Industry |
| Other policy initiatives that align / synergies | Public information on climate change related actions: impacts, vulnerability, mitigation and adaptation in compliance with EU regulations and UN requirements |
| Technical/institutional readiness (high-medium-low) | High |
| Period of implementation (long-medium-short) ¹⁷⁰ | short |
| Time to effectiveness (to have an effect or impact) | medium |
| Financing | Department of Environment budget |
| Indicator for verification of implementation progress | Number of studies: started/ongoing/finalised |
| Relates to | |

¹⁶⁹ Low: €100,000 or less; Medium: €100,000 – €1,000,000; High: over €1 million

¹⁷⁰ Short: less than 2 years; Medium: between 2 to 5 years; Long: more than 5 years

| Name of the measure | | “Energy efficiency – Upgrade Homes” program |
|---|---|---|
| Number of the measure | ENER 2n | |
| Priority (high-medium-low) ¹⁷¹ | Medium | |
| Climate impact (s) addressed | Extreme temperatures | |
| Primary Sector | Energy | |
| Secondary sector | Governance and institutional Infrastructure, Transport and Buildings | |
| KTM category ¹⁷² | Economic and Finance Management and Planning | |
| Sub-KTM | Financing and incentive instruments | |
| Goal of the measure | Incorporate the latest knowledge in updates of long-term climate change adaptation strategies, protect buildings from extreme temperatures and relevant material deterioration and apply adequate funding mechanisms | |
| Description of the measure | Promote insulation of buildings and use of renewable energy sources in houses and businesses through funding schemes. Eligible costs include thermal insulation of the building envelope (walls, beams, ceilings, etc.), replacement of windows and windows frames, installation of shading systems, installation of high energy efficiency heating/cooling systems as well as the installation of renewable energy systems (solar water heaters/photovoltaic systems operating on a net-billing basis). In addition, sponsorship may be granted for electricity storage batteries. | |
| Spatial scope of the measure | National | |
| Implementation Cost (high-medium-low) ¹⁷³ | High | |
| Maintenance cost (high-medium-low) | Low | |
| Implications for society with special attention to vulnerable populations | Improved comfort and reduced vulnerability to extreme temperatures. Increased use of renewable energy decreases domestic energy costs | |
| Co-benefits for regional or local development priorities | National funding is made available for local plans for building renovation and adaptation to climate change | |
| Co-benefits for climate mitigation | Increased insulation of buildings and increased use of renewable energies in homes results in decreased consumption of conventional energy sources and reduced emissions. | |
| Co-benefits for the environment | Reduced CO2 emissions. | |
| Political and social acceptability | Med | |
| Barriers for implementation | Availability of funding | |
| Maladaptation risks | None | |

¹⁷¹ High: to implement within 2 years; Medium: to implement in 2 to 5 years; Low: to implement after 5 years

¹⁷² See <https://climate-adapt.eea.europa.eu/en/knowledge/tools/adaptation-support-tool/step-3-0>

¹⁷³ Low: €100,000 or less; Medium: €100,000 – €1,000,000; High: over €1 million



| Name of the measure | |
|---|---|
| Responsible authority for implementation | “Energy efficiency – Upgrade Homes” program Service of Industry and Technology, Ministry of Energy Commerce and Industry |
| Other actors involved | Construction Products Sector of the Directorate of Technical Services and Development of the Ministry of Interior |
| Other policy initiatives that align / synergies | National Energy and Climate Plan |
| Technical/institutional readiness (high-medium-low) | High |
| Period of implementation (long-medium-short) ¹⁷⁴ | long |
| Time to effectiveness (to have an effect or impact) | Upon implementation |
| Financing | National Funds |
| Indicator for verification of implementation progress | <ul style="list-style-type: none">Number of updates |
| Relates to | |

¹⁷⁴ Short: less than 2 years; Medium: between 2 to 5 years; Long: more than 5 years

| Name of the measure | Good maintenance and possible upgrade of electricity transmission lines to account for climate adaptation to minimise losses in the system |
|---|--|
| Number of the measure | ENER 3 |
| Priority (high-medium-low) ¹⁷⁵ | High |
| Climate impact (s) addressed | Extreme temperatures; droughts; forest fires |
| Primary Sector | Energy |
| Secondary sector | Infrastructure, Transport and Buildings |
| KTM category ¹⁷⁶ | Physical and Technological |
| Sub-KTM | Grey options |
| Goal of the measure | Management related to transmission line overheating and adapting existing transport system to identified climate risks. |
| Description of the measure | Management of failures and damages caused by overheating of power transmission lines. |
| Spatial scope of the measure | National |
| Implementation Cost (high-medium-low) ¹⁷⁷ | High |
| Maintenance cost (high-medium-low) | Med - High |
| Implications for society with special attention to vulnerable populations | Reduced fire risk for communities near forests through which these lines pass. |
| Co-benefits for regional or local development priorities | Higher Power Provision Security enhances resilience to CC impacts |
| Co-benefits for climate mitigation | Reduced energy losses result in reduced global energy demand and reduced emissions |
| Co-benefits for the environment | none |
| Political and social acceptability | Medium |
| Barriers for implementation | Permitting High cost |
| Maladaptation risks | None |
| Responsible authority for implementation | Cyprus Transmission System Operator (TSOC), Electricity Authority of Cyprus (Transmission System-Owner) |
| Other actors involved | Department of Forests |
| Other policy initiatives that align / synergies | Forest Fire Prevention Actions by Department of Forests |
| Technical/institutional readiness (high-medium-low) | High |
| Period of implementation (long-medium-short) ¹⁷⁸ | Short |
| Time to effectiveness (to have an effect or impact) | Along with implementation |

¹⁷⁵ High: to implement within 2 years; Medium: to implement in 2 to 5 years; Low: to implement after 5 years

¹⁷⁶ See <https://climate-adapt.eea.europa.eu/en/knowledge/tools/adaptation-support-tool/step-3-0>

¹⁷⁷ Low: €100,000 or less; Medium: €100,000 – €1,000,000; High: over €1 million

¹⁷⁸ Short: less than 2 years; Medium: between 2 to 5 years; Long: more than 5 years



| Name of the measure | Good maintenance and possible upgrade of electricity transmission lines to account for climate adaptation to minimise losses in the system |
|--|---|
| Financing | Ten Year Network Development Plan - Transmission |
| Indicator for verification of implementation progress | <ul style="list-style-type: none">• Km of electricity transmission lines replaced.• Km of electricity transmission lines maintained. |
| Additional comments | Research and Innovation Foundation (RIF): Adjusts some programs in relation to these issues and promotes programs for this purpose. |
| Relates to | BIODIV 2n BIODIV 4n BIODIV 5 BIODIV 6n AGRI 6 |

| Increase Cyprus' energy security by increasing interconnection with international energy distribution networks | |
|--|--|
| Name of the measure | |
| Number of the measure | ENER 4 |
| Priority (high-medium-low) ¹⁷⁹ | High |
| Climate impact (s) addressed | Meeting higher energy demands (i.e. cooling) because of extreme temperatures and ensuring security of supply due to unexpected extreme weather events that may interrupt the supply from local production. |
| Primary Sector | Energy |
| Secondary sector | None |
| KTM category | Physical and Technological |
| Sub-KTM | Grey options |
| Goal of the measure | Interconnection of Cyprus with the Trans-European energy, electricity and gas networks as defined by European regulation 347/13. Interconnection contributes to: diversification of the country's energy mix; eliminate energy isolation; energy security; completion of the internal energy market. |
| Description of the measure | Projects of Common Interest: (a) EastMed Gas Pipeline; (b) Great Sea (former EuroAsia) Electricity Interconnector; (c) development of gas infrastructure in Cyprus Gas2EU. |
| Spatial scope of the measure | National |
| Implementation Cost (high-medium-low) ¹⁸⁰ | High |
| Maintenance cost (high-medium-low) | High |
| Implications for society with special attention to vulnerable populations | Ensure a continuous supply of affordable energy. |
| Co-benefits for regional or local development priorities | Ensure a continuous supply of affordable energy. |
| Co-benefits for climate mitigation | Reduced emissions due to increased use of natural gas |
| Co-benefits for the environment | Reduced emissions from local power generation due to increased use of natural gas |
| Political and social acceptability | High |
| Barriers for implementation | High Costs, geopolitical risks |
| Maladaptation risks | Possible use of non-renewable energy sources for electricity production. |
| Responsible authority for implementation | The Project Promoters are responsible for the implementation of the projects, namely "IPTO" for the Great Sea Interconnector, "IGI Poseidon S.A." for the EastMed Pipeline and "ETYFA" for the development of gas infrastructure in Cyprus Gas2EU. |
| Other actors involved | The national competent authority for Projects of Common Interest and the competent authorities responsible for the permitting. Specifically for Great Sea Interconnector. In the case that Cyprus will decide to participate in the share capital of the Great Sea |

¹⁷⁹ High: to implement within 2 years; Medium: to implement in 2 to 5 years; Low: to implement after 5 years

¹⁸⁰ Low: €100,000 or less; Medium: €100,000 – €1,000,000; High: over €1 million

| Name of the measure | Increase Cyprus' energy security by increasing interconnection with international energy distribution networks |
|---|--|
| | Interconnector, a State Entity will undertake this role along with other shareholders. |
| Other policy initiatives that align / synergies | National Climate and Energy Plan |
| Technical/institutional readiness (high-medium-low) | High |
| Period of implementation (long-medium-short) ¹⁸¹ | Expected 2029 (for the Great Sea Interconnector) |
| Time to effectiveness (to have an effect or impact) | Upon connection |
| Financing | EU Recovery and Resilience Plan, Connecting Europe Facility (CEF), EIB, other investment funds |
| Indicator for verification of implementation progress | <ul style="list-style-type: none"> Stress test successfully completed |
| Relates to | |

¹⁸¹ Short: less than 2 years; Medium: between 2 to 5 years; Long: more than 5 years

| | |
|--|--|
| Name of the measure | Promote new renewable energy technologies that are robust under changing climatic conditions incorporating waste to energy technologies |
| Number of the measure | ENER 5n |
| Priority (high-medium-low) ¹⁸² | Medium |
| Climate impact (s) addressed | Extreme weather events |
| Primary Sector | Energy |
| Secondary sector | Agriculture |
| KTM category ¹⁸³ | Physical and technological |
| Sub-KTM | Technological options |
| Goal of the measure | Enhance the energy sector's sustainability, ensure energy security, and support the transition toward a low-carbon economy (i.e., limit fossil fuel use and dependency) while adapting to climate change impacts such as extreme temperatures, fluctuating weather patterns, and water scarcity and contribute to improving the management of organic waste. |
| Description of the measure | <p>Adapt the funding scheme existing since 2018 to promote the installation of high efficiency cogeneration units up to 5 MW in the commercial, industrial and public sector to the requirements of the Directive (EU) 2023/1791 on energy efficiency.</p> <p>The planned update will make combined heat and power units fuelled by biomethane/biogas become eligible for funding.</p> <p>The Ministry of Agriculture, Rural Development and Environment should set the prerequisites/and make the necessary investments so that biomethane/biogas from organic waste to be available in the market in the coming years.</p> |
| Spatial scope of the measure | National coverage |
| Implementation Cost (high-medium-low) ¹⁸⁴ | Low |
| Maintenance cost (high-medium-low) | Low |
| Implications for society with special attention to vulnerable populations | <ul style="list-style-type: none"> • Promotes energy security by reducing reliance on imported fossil fuels and stabilizing energy prices. • Provides reliable power supply during extreme weather events, benefiting vulnerable populations who are disproportionately affected by power outages or disruptions. |
| Co-benefits for regional or local development priorities | <ul style="list-style-type: none"> • Promotes social equity: Bridging the energy divide by providing affordable and resilient energy solutions to underserved areas fosters inclusive development and reduces regional disparities. • Enhances resilience for productive sectors: Local agriculture and water resource management can benefit from renewable technologies, supporting sustainable rural development. • Supports job creation and skill development: Expanding renewable energy generates new employment opportunities, |

¹⁸²High: to implement within 2 years; Medium: to implement in 2 to 5 years; Low: to implement after 5 years

¹⁸³ See <https://climate-adapt.eea.europa.eu/en/knowledge/tools/adaptation-support-tool/step-3-0>

¹⁸⁴ Low: €100,000 or less; Medium: €100,000 – €1,000,000; High: over €1 million

| Name of the measure | Promote new renewable energy technologies that are robust under changing climatic conditions incorporating waste to energy technologies |
|---|--|
| | particularly in technology development, installation, maintenance, and operations. |
| Co-benefits for climate mitigation | <ul style="list-style-type: none"> Significantly cuts CO₂ emissions from fossil fuel use, contributing to Cyprus' national and EU climate targets. Has the potential to increase energy efficiency through applying advanced renewable technologies that integrate energy efficiency measures, thus overall reducing energy consumption and minimizing associated emissions. |
| Co-benefits for the environment | <ul style="list-style-type: none"> Reduces emissions of harmful pollutants, such as sulfur dioxide (SO₂), nitrogen oxides (NO_x), and particulate matter, improving air quality and benefiting ecosystems. Eliminate the risks of oil spills and chemical runoff associated with fossil fuels, protecting soil quality and marine environments. Effective organic waste management |
| Political and social acceptability | <ul style="list-style-type: none"> The measure aligns with EU climate targets and funding priorities, increasing political feasibility and credibility. High public support is likely, as renewable energy aligns with growing environmental awareness and concerns about climate change. |
| Barriers for implementation | <ul style="list-style-type: none"> Limited Technical Expertise to design, install, and maintain robust renewable energy systems could hinder implementation. Regulatory and bureaucratic challenges Lengthy permitting processes could delay or complicate single project approvals. |
| Maladaptation risks | <ul style="list-style-type: none"> Large-scale investments in Combined Heat and Power (CHP) Units may compete with agriculture and conservation when not carefully planned, leading to unintended negative impacts, such as: Increased demand for feedstock to produce biogas may lead to overextraction of agricultural residues, animal waste, or energy crops, potentially degrading soil quality and reducing agricultural productivity. Cultivating energy crops specifically for biogas production may compete with land and water resources needed for food production, exacerbating food security concerns. |
| Responsible authority for implementation | Ministry of Energy, Commerce and Industry Ministry of Agriculture, Rural Development and Environment – ensure the supply of biomethane/gas through establishing the prerequisites, making the necessary investments and developing the necessary policies. |
| Other actors involved | Cyprus Energy Regulatory Authority, Distribution System Operator |
| Other policy initiatives that align / synergies | Waste management |
| Technical/institutional readiness (high-med-low) | High |
| Period of implementation | Medium to Long Medium-term achievements: |

| Name of the measure | Promote new renewable energy technologies that are robust under changing climatic conditions incorporating waste to energy technologies |
|--|--|
| (long-medium-short) ¹⁸⁵ | <ul style="list-style-type: none"> • Adapting the Funding Scheme: Update the existing funding scheme to align with Directive (EU) 2023/1791, ensuring combined heat and power (CHP) units fueled by biomethane/biogas become eligible for funding. • Policy Development: Develop prerequisites and standards for biomethane/biogas production, storage, and use, led by the MARDE and relevant stakeholders. • Capacity Building: Initiate training programs for stakeholders, including farmers, waste management companies, and CHP operators, to ensure readiness for biomethane/biogas integration. <p>Long-term achievements:</p> <ul style="list-style-type: none"> • Establish the necessary infrastructure for biomethane/biogas production and distribution, including anaerobic digestion facilities and grid injection points. |
| Time to effectiveness (to have an effect or impact) | The measure will likely begin showing meaningful impacts within 4–5 years (medium-term) , with full effectiveness and significant results achieved in the 8+ year timeframe (long-term) , contingent upon the timely completion of prerequisites and infrastructure investments. |
| Financing | Medium MECI has in place, since 2018, a 20 MW capacity scheme based on net-billing principle. Moreover, CHP projects are eligible for funding under " I Save - I Upgrade in Small and Medium-sized Enterprises and Non-Profit Organizations (2024) " grant scheme. A subsidy scheme prepared by MARDE to ensure security of supply could be considered. |
| Indicator for verification of implementation progress | <ul style="list-style-type: none"> • Percentage of the existing funding scheme updated to align with Directive (EU) 2023/1791, including the eligibility criteria for biomethane/biogas-fueled CHP units. • Number of high-efficiency CHP units (up to 5 MW) installed in the commercial, industrial, and public sectors, specifically fueled by biomethane/biogas. • Total amount of funding allocated for the installation of biomethane/biogas-fueled CHP units. |
| Related to | |

¹⁸⁵ Short: less than 2 years; Medium: between 2 to 5 years; Long: more than 5 years

Fisheries and Aquaculture measures impact assessment factsheets

| Name of the measure | Protection of breeding habitats |
|--|--|
| Number of the measure | FISH 1 |
| Priority (high-medium-low) ¹⁸⁶ | High |
| Climate impact (s) addressed | Droughts, heat waves |
| Primary Sector | Fisheries and aquaculture |
| Secondary sector | Biodiversity and Ecosystems Forestry |
| KTM category ¹⁸⁷ | Nature Based Solutions and Ecosystem-based Approaches |
| Sub-KTM | Blue Options |
| Goal of the measure | Secure sustainable fish production |
| Description of the measure | <p>A. Establish closed areas and seasons to improve habitat protection, including non-fishing zones.</p> <p>B. Develop management plans for protected areas as required in the legislation, when a management plan has not yet been developed.</p> <p>C. Evaluate if the current protected marine areas network is a coherent and representative network in the face of climate change risks as required by the MSFD.</p> <p>D. Introduce and promote the use of selection tools that limit or eliminate by-catch of species not targeted by the fishing activity.</p> <p>E. Introduction and promotion of fishing methods which have limited physical effects on the environment.</p> <p>F. Raise awareness – both within the fishing sector but also in other sectors, such as tourism – about the impacts of climate change and the importance of marine protection as a critical factor for securing fishing and the fact that these measures gradually result in increasing yields in their operations.</p> |
| Spatial scope of the measure | National and local |
| Implementation Cost (high-medium-low) ¹⁸⁸ | High |
| Maintenance cost (high-medium-low) | Low (control) |
| Implications for society with special attention to vulnerable populations | By carefully considering the distribution of resources, infrastructure, and opportunities, it can help to address inequalities and create more equitable communities even under a changing climate. |
| Co-benefits for regional or local development priorities | Effective implementation of the measure will ensure that the objectives of the related policies Marine Strategy Framework Directive, Habitats Directive, and Common Fisheries Policy on good environmental status |

¹⁸⁶ High: to implement within two years; Medium: to implement in 2 to 5 years; Low: to implement after 5 years

¹⁸⁷ See <https://climate-adapt.eea.europa.eu/en/knowledge/tools/adaptation-support-tool/step-3-0>

¹⁸⁸ Low: €100,000 or less; Medium: €100,000 – €1,000,000; High: over €1 million

| Name of the measure | Protection of breeding habitats |
|--|--|
| | and conservation of habitats and biodiversity are met, leading to achieving and maintaining sustainable fish stocks. |
| Co-benefits for climate mitigation | Replenished fish populations would make marine ecosystems more resilient to the negative effects of climate change, lower greenhouse gas emissions and increase the ocean's carbon storage. |
| Co-benefits for the environment | These habitats will also be a valuable area for other species. |
| Political and social acceptability (high-medium-low) | The measure is politically feasible, but there are issues, e.g. when decisions affect professional fishermen or aquaculture businesses. The measure is socially acceptable but has some opposition from professional fishermen. However, they gradually begin to see the positive effects of some measures that gradually result in increasing yields in their operations. |
| Barriers for implementation | Opposition from the fishing sector. |
| Maladaptation risks | Ineffective implementation. |
| Responsible authority for implementation | Department of Fisheries and Marine Research, maybe with other competent authorities like for instance Marine Police for enforcing Fishing Regulations, etc. Forest: protection of breeding habitats -> water springs / streams through forest conservation |
| Other actors involved | Fishermen, aquaculture businesses. |
| Other policy initiatives that align / synergies | This measure is linked to measures related to the EU Marine Strategy Framework Directive, Habitats Directive, Birds Directive, the Water Framework Directive the Maritime Spatial Planning Directive implementation and the Nature Restoration Law. Synergies exist with Forestry – in protection of breeding habitats – and spatial planning. |
| Technical/institutional readiness (high-medium-low) | High |
| Period of implementation | 2025 and regular updates and adaptation to changing conditions [Already being implemented under the current NAS] |
| Time to effectiveness | As soon as plans are implemented |
| Financing (high-medium-low) | Low funding and staff |
| Indicator for verification of implementation progress | Number of management plans approved Increase in estimated fish stocks for target species |
| Additional comments | Even though a lot has been or is being implemented, there is always room for improvement, or adapt to new changes. The marine environmental conditions change dynamically over time, and measures should change accordingly e.g. the number or time constraints of trawl fishing might need to be changed and become even more strict in the future, in response to changing conditions. |
| Relates to | BIODIV 1 |

| Name of the measure | Improve enforcement of fishing legislation and monitor fishing activity |
|--|---|
| Number of the measure | FISH 2n |
| Priority | High |
| Climate impact (s) addressed | Heat waves, droughts |
| Primary Sector | Fisheries and aquaculture |
| Secondary sector | Biodiversity and Ecosystems |
| KTM category¹⁸⁹ | Governance and Institutional |
| Sub-KTM | Management and planning |
| Goal of the measure | Secure sustainable fisheries by controlling the activity of professional and recreational fisheries. |
| Description of the measure | <p>In certain periods of the year, fishing rate might be 50:50 between professional and recreational fishermen – including boats, fishing nets, spearguns, and other not acceptable fishing methods and tools. The measure's implementation includes the following activities / stages:</p> <p>A. Analysis of the administrative and technical capacity to monitor fishing activity; gap analysis of the legislation in force; findings and recommendations.</p> <p>B. Planning and phased implementation of the necessary activities to implement the recommendations developed within stage 1.</p> <p>Enforcing regulations and controlling recreational and preventing illegal fishing would result in a more sustainable fisheries sector, helping sustainable fish production.</p> |
| Spatial scope of the measure | National and local |
| Implementation Cost (high-medium-low)¹⁹⁰ | Medium |
| Maintenance cost (high-medium-low) | Medium |
| Implications for society with special attention to vulnerable populations | Enforcing Regulations and controlling fishing activity would result in a more sustainable fisheries sector, helping sustainable production of fish and trades off. |
| Co-benefits for regional or local development priorities | Implementation of the measure will prevent habitat damage through the use of unacceptable fishing methods and tools and the protection of fish populations, including by preventing the catch of small-sized individuals, etc., thus supporting achieving the objectives of the related policies Marine Strategy Framework Directive, Habitats Directive, and Common Fisheries Policy. |
| Co-benefits for climate mitigation | None |
| Co-benefits for the environment | Protection of habitats and fish populations. |
| Political and social acceptability (high-medium-low) | High |
| Barriers for implementation | Low on resources and tools/mechanisms |

¹⁸⁹ See <https://climate-adapt.eea.europa.eu/en/knowledge/tools/adaptation-support-tool/step-3-0>

¹⁹⁰ Low: €100,000 or less; Medium: €100,000 – €1,000,000; High: over €1 million

| Name of the measure | Improve enforcement of fishing legislation and monitor fishing activity |
|---|--|
| Maladaptation risks | None |
| Responsible authority for implementation | Department of Fisheries and Marine Research, maybe with other competent authorities (e.g. Coast Guard on enforcing Fishing Regulations). |
| Other actors involved | Fishermen Associations |
| Other policy initiatives that align / synergies | This measure is linked to measures related to the EU Marine Strategy Framework Directive, Habitats Directive, Birds Directive, and the Nature Restoration Law. Water sector: potential synergies in achieving management goals for species conservation in inland surface waters (eels) |
| Technical/institutional readiness (high-medium-low) | Medium |
| Period of implementation | Ongoing activity, that needs continuous improvement |
| Time to effectiveness | Ongoing with implementation |
| Financing (high-medium-low) | Low |
| Indicator for verification of implementation progress | <ul style="list-style-type: none"> • Performed analysis of the administrative and technical capacity to control fishing; gap analysis of the legislation in force; findings and recommendations. • Work program for the phased implementation of the necessary activities for implementation of the recommendations provided within stage 1. • Implemented recommendations, results. • Number of inspections performed. • Number of sanctions imposed /year for illegal fishing (including use of unauthorized fishing methods, catch of young, etc.) |
| Relates to | |

| Strengthen adaptation to climate change in the Common Fisheries Policy (CFP), national management and recovery plans and the aquaculture sector | |
|--|---|
| Name of the measure | |
| Number of the measure | FISH 3n |
| Priority (high-medium-low) ¹⁹¹ | High |
| Climate impact (s) addressed | Heat waves, droughts |
| Primary Sector | Fisheries and aquaculture |
| Secondary sector | Biodiversity and ecosystems |
| KTM category ¹⁹² | Governance and institutional |
| Sub-KTM | Policy instruments |
| Goal of the measure | Strengthen adaptation to climate change in Cyprus national fisheries policy in line with the revised CFP. |
| Description of the measure | <p>In 2023 the EC launched the communication: “The common fisheries policy today and tomorrow: a Fisheries and Oceans Pact towards sustainable, science-based, innovative and inclusive fisheries management”</p> <p>The EC has launched a consultation on the Common Fisheries Policy (CFP) which closed in September 2024. The results of the consultations, alongside other analyses and studies will be used to assess the CFP’s performance in achieving its objectives, economic implications, and relevance in the context of emerging needs. The Commission will publish a summary report of the consultations, including the evidence gathered, at the beginning of 2025.</p> <p>It is assumed that this will lead to a revised CFP also addressing challenges related to climate change more widely. It is therefore proposed that the effects of climate change continue to be considered in the design, implementation and monitoring of the future CFP in Cyprus. Similarly, the national fisheries policy will integrate climate change considerations in the design, implementation and monitoring of management and recovery plans, as well as in the aquaculture sector.</p> |
| Spatial scope of the measure | National and local |
| Implementation Cost (high-medium-low) ¹⁹³ | Depending on the explicit measures |
| Maintenance cost (high-medium-low) | Depending on the explicit measures |
| Implications for society with special attention to vulnerable populations | Depending on the explicit measures |
| Co-benefits for regional or local development priorities | Sustainability of the fisheries and aquaculture sectors. |
| Co-benefits for climate mitigation | None |

¹⁹¹ High: to implement within two years; Medium: to implement in 2 to 5 years; Low: to implement after 5 years

¹⁹² See <https://climate-adapt.eea.europa.eu/en/knowledge/tools/adaptation-support-tool/step-3-0>

¹⁹³ Low: €100,000 or less; Medium: €100,000 – €1,000,000; High: over €1 million

| Strengthen adaptation to climate change in the Common Fisheries Policy (CFP), national management and recovery plans and the aquaculture sector | |
|--|---|
| Co-benefits for the environment | Protection of marine biodiversity. |
| Political and social acceptability (high-medium-low) | Depending on the specific measures, but mostly high. |
| Barriers for implementation | Availability of resources |
| Maladaptation risks | Depending on the specific measures |
| Responsible authority for implementation | Department of Fisheries and Marine Research |
| Other actors involved | Depending on the specific measures |
| Other policy initiatives that align / synergies | EU Marine Strategy Framework Directive, Maritime Spatial Planning Directive and Nature Restoration Law. The implementation of this CCA measure will enable the further implementation of measure Fish 1. |
| Technical/institutional readiness (high-medium-low) | Pending approval of the new Common Fisheries Policy (CFP) |
| Period of implementation | 1 year after approval of the new CFP |
| Time to effectiveness | Depending on the specific measures |
| Financing (high-medium-low) | Low |
| Indicator for verification of implementation progress | <ul style="list-style-type: none"> • Climate change considerations included in the design, of the management and recovery plans under the national CFP. • Number of adaptation measures to climate change designed in the management and recovery plans under the national CFP. |
| Relates to | |

| Name of the measure | Value Chain Development |
|--|--|
| Number of the measure | FISH 4n |
| Priority | Medium |
| Climate impact (s) addressed | Heat waves, droughts |
| Primary Sector | Fisheries and aquaculture |
| Secondary sector | Tourism Economy, Industry and Finance |
| KTM category¹⁹⁴ | Governance and Institutional |
| Sub-KTM | Coordination, cooperation and networks |
| Goal of the measure | Secure and increase the added value of local fisheries and aquaculture production while ensuring social, ecological, and economic sustainability. |
| Description of the measure | <p>A. Invest in processing and marketing infrastructure to increase the value of local fisheries and aquaculture products.</p> <p>B. Support the development of local brands and certifications for quality and sustainability.</p> <p>C. Invest in making aquaculture fisheries more sustainable through improved management and other cost-reduction measures.</p> <p>D. Encourage diversification into value-added products, such as smoked, dried, or processed seafood. Support ongoing initiatives of the marine aquaculture private sector. Promote inland aquaculture – such as trout and sturgeon.</p> <p>E. Promote direct sales and e-commerce platforms to connect producers with consumers. Support the work already being done by the private sector.</p> <p>F. Raise awareness about the quality of local products to promote their consumption</p> |
| Spatial scope of the measure | National and local |
| Implementation Cost (high-medium-low)¹⁹⁵ | Medium |
| Maintenance cost (high-medium-low) | Medium |
| Implications for society with special attention to vulnerable populations | Improve the income of the fishing community and address the ongoing decrease in the number of professional fishermen in Cyprus. Provide an affordable, high-quality product to the consumer |
| Co-benefits for regional or local development priorities | Local job creation in the fisheries and aquaculture sector but also the tourism sector |
| Co-benefits for climate mitigation | None |
| Co-benefits for the environment | None |
| Political and social acceptability (high-medium-low) | High political acceptability. |

¹⁹⁴ See <https://climate-adapt.eea.europa.eu/en/knowledge/tools/adaptation-support-tool/step-3-0>

¹⁹⁵ Low: €100,000 or less; Medium: €100,000 – €1,000,000; High: over €1 million



| Name of the measure | Value Chain Development |
|---|---|
| | Medium social acceptability: people are hesitant to buy sometimes local products as there is the belief that the quality is not well controlled or regulated. |
| Barriers for implementation | Lack of social trust in the quality of local products and in the quality control mechanisms and regulations. Need to gain trust on the procedures of quality control. |
| Maladaptation risks | None |
| Responsible authority for implementation | Department of Fisheries and Marine Research (for inland aquaculture in cooperation with Water Development Department on promoting the good ecological/chemical status of river water bodies in order to ensure the safety of inland fish consumption) |
| Other actors involved | Fisheries and aquaculture businesses Retail businesses |
| Other policy initiatives that align / synergies | Common Fisheries Policy (CFP), European Maritime and Fisheries Fund |
| Technical/institutional readiness (high-medium-low) | Medium |
| Period of implementation | Ongoing activity, that needs continuous improvement |
| Time to effectiveness | Ongoing with implementation |
| Financing (high-medium-low) | Medium |
| Indicator for verification of implementation progress | Fund to support investments set up: started/ongoing/finalised Number of awareness activities per year |
| Relates to | GOV 3n |

| Name of the measure | Promote fishing and consumption of invasive alien species |
|--|--|
| Number of the measure | FISH 5n |
| Priority | High |
| Climate impact (s) addressed | Heat waves, droughts |
| Primary Sector | Fisheries and aquaculture |
| Secondary sector | Biodiversity and ecosystems |
| KTM category¹⁹⁶ | Economic and financing |
| Sub-KTM | Financing and incentive instruments |
| Goal of the measure | Control invasive fish species and protect marine biodiversity |
| Description of the measure | Promote fishing and awareness of invasive alien species through incentives (such as financial €/kg). This is currently being done for certain invasive alien species fish and should be continued with additional funds. Some fish (such as <i>Lagocephalus spp</i>) not edible are destructed, while others such as the lionfish are promoted to hotel and restaurant chefs on how to clean and cook them for consumption. There have been certain demo projects which need to be sustained. Need financial incentives – particularly important for promoting measure to businesses (especially SMEs). |
| Spatial scope of the measure | National |
| Implementation Cost (high-medium-low)¹⁹⁷ | Medium |
| Maintenance cost (high-medium-low) | Medium |
| Implications for society with special attention to vulnerable populations | The implementation of the measure will ensure the sustainability of the fishing sector and the fish and seafood trade, positively affecting tourism in parallel. |
| Co-benefits for regional or local development priorities | Reducing invasive species is necessary to restore the balance of populations of native fish species, but also other species at the different trophic levels, to preserve or restore biodiversity, and maintain sustainable fish stocks. |
| Co-benefits for climate mitigation | None |
| Co-benefits for the environment | Protection of marine biodiversity |
| Political and social acceptability (high-medium-low) | High |
| Barriers for implementation | Funding |
| Maladaptation risks | None |
| Responsible authority for implementation | Department of Fisheries and Marine Research |
| Other actors involved | Fishermen; Restaurants |
| Other policy initiatives that align / synergies | The measure is linked to measures related to the EU Marine Strategy Framework Directive, the Water Framework Directive the Maritime |

¹⁹⁶ See <https://climate-adapt.eea.europa.eu/en/knowledge/tools/adaptation-support-tool/step-3-0>

¹⁹⁷ Low: €100,000 or less; Medium: €100,000 – €1,000,000; High: over €1 million



| Promote fishing and consumption of invasive alien species | |
|--|---|
| Name of the measure | Spatial Planning Directive implementation and the Nature Restoration Law. |
| Technical/institutional readiness (high-medium-low) | High |
| Period of implementation | 2025 |
| Time to effectiveness | As soon as plan is implemented |
| Financing (high-medium-low) | Medium to High |
| Indicator for verification of implementation progress | <ul style="list-style-type: none">• Number of initiatives implemented to promote fishing and consumption of invasive alien species.• Implemented incentives to promote fishing of invasive alien species (€/kg; €/year).• Realized catch of invasive alien species (tons/year). |
| Relates to | GOV 6n |

Forestry measures impact assessment factsheets

| Name of the measure | Competent authorities aim to support forestry through tourism tax and stakeholder networks to develop sustainable tourist offers |
|--|---|
| Number of the measure | FOR 1n |
| Priority (high-medium-low) ¹⁹⁸ | High |
| Climate impact (s) addressed | Various |
| Primary Sector | Forestry |
| Secondary sector | Tourism |
| KTM category ¹⁹⁹ | Economic and Finance Governance and Institutional |
| Sub-KTM | Financing and incentive instruments Coordination, cooperation and networks |
| Goal of the measure | Generate a funding mechanism |
| Description of the measure | Through the tourism tax, municipalities could potentially finance sustainable tourism infrastructures; development and promotion of sustainable tourist offers; protection of ecosystem services in areas that are tourism resources. The measure requires a study of the legal, financial and budgetary implications. Create a stakeholder network (local authorities, NGOs etc.) to develop sustainable tourist offers. |
| Spatial scope of the measure | National/nation-wide |
| Implementation Cost (high-medium-low) ²⁰⁰ | Medium (?) (mainly depending on documentation study cost) |
| Maintenance cost (high-medium-low) | Medium |
| Implications for society with special attention to vulnerable populations | None |
| Co-benefits for regional or local development priorities | Support the development of local sustainable tourism activities and protection of forestry-related ecosystem services. |
| Co-benefits for climate mitigation | CO2 binding due to maintained forests |
| Co-benefits for the environment | Reduce negative impacts of unsustainable tourism. |
| Political and social acceptability | Only politically feasible in case there is a strong – robust documentation study Socially acceptable |
| Barriers for implementation | Ministry of Finance does not allow to establish Special Local Taxation Systems with local management units to manage the collection of this tax. |
| Maladaptation risks | Increased tourism pressure in protected areas and areas of high ecological value |
| Responsible authority for implementation | Ministry of Finance and the Ministry of Agriculture, Rural Development and the Environment |

¹⁹⁸ High: to implement within 2 years; Medium: to implement in 2 to 5 years; Low: to implement after 5 years

¹⁹⁹ See <https://climate-adapt.eea.europa.eu/en/knowledge/tools/adaptation-support-tool/step-3-0>

²⁰⁰ Low: €100,000 or less; Medium: €100,000 – €1,000,000; High: over €1 million



| Name of the measure | Competent authorities aim to support forestry through tourism tax and stakeholder networks to develop sustainable tourist offers |
|---|---|
| Other actors involved | Local authorities; NGOs; tourism operators and businesses: Cyprus Employers & Industrialists Federation (OEB) |
| Other policy initiatives that align / synergies | Biodiversity Protection Tourism tax could be important for other sectors as well. Connected with tourism: important for the companies in the tourism sector that operate only during the summer season |
| Technical/institutional readiness (high-medium-low) | Low (needs institutional innovation to reallocate tax streams) |
| Period of implementation (long-medium-short) ²⁰¹ | Medium |
| Time to effectiveness (to have an effect or impact) | As soon as plans and funding are in place |
| Financing | There will be need for extra resources which will create extra burden. |
| Indicator for verification of implementation progress | <ul style="list-style-type: none"> • Number of stakeholder networks set up: started/ongoing/finalised • Number of Euros generated • Number of Infrastructure constructed from specific tax |
| Relates to | GOV 6n |

²⁰¹ Short: less than 2 years; Medium: between 2 to 5 years; Long: more than 5 years

| Name of the measure | Increase firefighting staff in the Department of Forests |
|--|--|
| Number of the measure | FOR 2n |
| Priority (high-medium-low) ²⁰² | High |
| Climate impact (s) addressed | Extreme temperatures, Droughts, (Forest fires) |
| Primary Sector | Forestry |
| Secondary sector (if any) | DRM |
| KTM category ²⁰³ | Knowledge and Behavioural change |
| Sub-KTM | Capacity building, empowering and lifestyle practices |
| Goal of the measure | Reduce the impacts of forest fires |
| Description of the measure | See https://www.moa.gov.cy/moa/fd/fd.nsf/fd51_en/fd51_en?OpenDocument for further details. |
| Spatial scope of the measure | National |
| Implementation Cost (high-medium-low) ²⁰⁴ | Medium (Safeguarded budget) |
| Maintenance cost (high-medium-low) | Medium |
| Implications for society with special attention to vulnerable populations | Reduced fire risk in all communities – particularly in remote more vulnerable rural communities. |
| Co-benefits for regional or local development priorities | Local job creation |
| Co-benefits for climate mitigation | Improved firefighting capabilities and reduced emissions from forest fires. |
| Co-benefits for the environment | Reduced impact of forest fires |
| Political and social acceptability | Yes |
| Barriers for implementation | Non-approval by the Ministry of Finance for new hires |
| Maladaptation risks | Reducing staff in other necessary public services for fire protection and forest management |
| Responsible authority for implementation | Department of Forestry |
| Other actors involved | Ministry of Finance |
| Other policy initiatives that align / synergies | Soils: Protection of SOC (Soil Organic Carbon) in soils |
| Technical/institutional readiness (high-medium-low) | High |
| Period of implementation (long-medium-short) ²⁰⁵ | Short-term |
| Time to effectiveness (to have an effect or impact) | Short term |

²⁰² High: to implement within 2 years; Medium: to implement in 2 to 5 years; Low: to implement after 5 years

²⁰³ See <https://climate-adapt.eea.europa.eu/en/knowledge/tools/adaptation-support-tool/step-3-0>

²⁰⁴ Low: €100,000 or less; Medium: €100,000 – €1,000,000; High: over €1 million

²⁰⁵ Short: less than 2 years; Medium: between 2 to 5 years; Long: more than 5 years



| Name of the measure | Increase firefighting staff in the Department of Forests |
|--|--|
| Financing | Safeguarded budget |
| Indicator for verification of implementation progress | <ul style="list-style-type: none">• Number of additional staff employed |
| Additional comments | Useful. However, there is a need of extra staffing of DoF with personnel beyond firefighting responsibilities. |
| Relates to | |

| Name of the measure | Coping with increased forest fire risk |
|--|---|
| Number of the measure | FOR 3 |
| Priority (high-medium-low) ²⁰⁶ | High |
| Climate impact (s) addressed | Forest fires |
| Primary Sector | Forestry |
| Secondary sector (if any) | Biodiversity Disaster risk management |
| KTM category ²⁰⁷ | Physical and technological |
| Sub-KTM | Technological options |
| Goal of the measure | <ul style="list-style-type: none"> • Reduce the risk of forest fires occurring and spreading. • Protect important forest ecosystems and their dependent species of flora and fauna. |
| Description of the measure | <p>Proposed actions include</p> <p>A. Reduce the risk of forest fires occurring and spreading through measures such as:</p> <ul style="list-style-type: none"> ○ 100% funding of wood shredders to forest communities ○ Create more fire-breaking strips in forests in consultation with all competent authorities and taking into account potential impacts on wildlife conservation (See https://www.moa.gov.cy/moa/fd/fd.nsf/fd51_en/fd51_en?OpenDocument for further details) ○ Promote controlled grazing: Pilot project under study to use controlled grazing around forests to keep vegetation short (Grazing Capacity Study) <p>B. Early detection and effective and immediate suppression of forest fires.</p> <p>C. Effective post-fire management and restoration of burned areas, aiming to restore and enhance natural vegetation, reducing the risk of erosion and the future risk of fires.</p> <p>D. Creation and publication of a daily digital forest fire forecast map for Cyprus based on topography and meteorology.</p> <p>E. Public outreach campaigns: training and information to reduce activities that cause fires.</p> |
| Spatial scope of the measure | National |
| Implementation Cost (high-medium-low) ²⁰⁸ | High |
| Maintenance cost (high-medium-low) | High |
| Implications for society with special attention to vulnerable populations | Reduced risk of forest fires |
| Co-benefits for regional or local development priorities | Reduced risk of forest fires |
| Co-benefits for climate mitigation | Reduced emissions from forest fires |
| Co-benefits for the environment | Protection of forest ecosystems |

²⁰⁶ High: to implement within 2 years; Medium: to implement in 2 to 5 years; Low: to implement after 5 years

²⁰⁷ See <https://climate-adapt.eea.europa.eu/en/knowledge/tools/adaptation-support-tool/step-3-0>

²⁰⁸ Low: €100,000 or less; Medium: €100,000 – €1,000,000; High: over €1 million

| Name of the measure | Coping with increased forest fire risk |
|---|--|
| Political and social acceptability | High |
| Barriers for implementation | Funding. Extensive fire breaking strips are associated with ecological impact concerns. |
| Maladaptation risks | Fire-braking strips can create negatively impact nature protection and wildlife conservation. Every new proposed fire break needs to be clearly examined by all competent authorities, for instance, Fish and Game service. |
| Responsible authority for implementation | Department of Forestry, Ministry of Agriculture, Rural Development and the Environment |
| Other actors involved | Private landowners, forest managers Civil defence Law enforcement |
| Other policy initiatives that align / synergies | Indirectly Biodiversity Strategy, protection of human life, protection of assets, etc Synergy with Spatial Planning: we cannot talk about forest fires without tackling the isolated house policy. Rural Development Plans FOR 10n: Key measure to achieve forest habitat conservation |
| Technical/institutional readiness (high-medium-low) | High |
| Period of implementation (long-medium-short) ²⁰⁹ | The measure is included in the current NAS and announcement of Council of Ministers (2024) but not yet implemented |
| Time to effectiveness (to have an effect or impact) | It would need to be implemented on an annual basis |
| Financing | Ministry of Finance |
| Indicator for verification of implementation progress | <ul style="list-style-type: none"> Forest Fire Statistics for incidences within the affected area. i.e. area where the measures have implemented |
| Additional comments | Measure D: Is very important, but not fully implemented (elaboration Fire Risk Maps). There is potential for improvement if implemented in combination with a detailed knowledge of the vegetation in specific areas. Necessary political decision to find and allocate the necessary budget for this to be done. Average time of response within state forests and buffer area of 2km about is 12min. Areas with mix of human activity near/ within forests are considered as high-risk areas. |
| Relates to | DRM 2n FOR 10n GOV 2n |

²⁰⁹ Short: less than 2 years; Medium: between 2 to 5 years; Long: more than 5 years

| Integrate fire risk into regional planning harnessing the potential of nature-based solutions in the context of climate change adaptation | |
|---|--|
| Name of the measure | |
| Number of the measure | FOR 4n |
| Priority (high-medium-low) ²¹⁰ | High |
| Climate impact (s) addressed | Forest fires |
| Primary Sector | Forestry |
| Secondary sector (if any) | Biodiversity and Ecosystems Spatial Planning |
| KTM category²¹¹ | Governance and Institutional |
| Sub-KTM | Management and planning |
| Goal of the measure | Contribute to reducing the risk of fires and increasing resilience to this risk, as fires have a very negative effect on the carbon balance of forests and ecosystem resilience |
| Description of the measure | A. Mobilise all forest stakeholders, in particular competent local and regional authorities, to ensure that forest management is gradually adapted to the foreseeable increase in forest fire risk in terms of frequency of occurrences and areas affected. B. Ensure consistency in the mitigation and adaptation potential of forest management or conservation policies and wood and biomass recovery and recycling. |
| Spatial scope of the measure | National |
| Implementation Cost (high-medium-low) ²¹² | Medium |
| Maintenance cost (high-medium-low) | Medium |
| Implications for society with special attention to vulnerable populations | Specific focus can be given to vulnerable populations in the planning and DRM. |
| Co-benefits for regional or local development priorities | Incorporate fire protection plans into regional and local planning |
| Co-benefits for climate mitigation | Reduce risk of forest fires and therewith reduced CO2 emissions |
| Co-benefits for the environment | Protect forest ecosystems and increased biodiversity due to NbS. |
| Political and cultural acceptability | Yes. Communities will demand development rights to be maintained |
| Barriers for implementation | Funding and cooperation with other authorities and landowners, especially in the 2km areas outside forests |
| Maladaptation risks (if any) | None |
| Responsible authority for implementation | Department of Town Planning and Housing with relevant input and documentation from the Department of Forestry |
| Other actors involved | Local authorities, private landowners |
| Other policy initiatives that align / synergies | Spatial Planning and Regional Development Plans can address this Very helpful for civil protection to help reduce risk |

²¹⁰ High: to implement within 2 years; Medium: to implement in 2 to 5 years; Low: to implement after 5 years

²¹¹ See <https://climate-adapt.eea.europa.eu/en/knowledge/tools/adaptation-support-tool/step-3-0>

²¹² Low: €100,000 or less; Medium: €100,000 – €1,000,000; High: over €1 million



| Name of the measure | |
|--|---|
| Integrate fire risk into regional planning harnessing the potential of nature-based solutions in the context of climate change adaptation | |
| Technical/institutional readiness | High |
| Period of implementation (long-medium-short) ²¹³ | Long |
| Time to effectiveness (to have an effect or impact) | Long |
| Financing | Extra funding for the Department of Forestry |
| Indicator for verification of implementation progress | <ul style="list-style-type: none">• Number of revised spatial plans |
| Additional comments | Nature based solutions such as traditional agricultural practices or plantation of species more resilient to forest fires. Most fires are human caused. |
| Relates to | |

²¹³ Short: less than 2 years; Medium: between 2 to 5 years; Long: more than 5 years

| Name of the measure | Model fire-climate relationships to identify areas sensitive to forest fire risk |
|--|--|
| Number of the measure | FOR 5n |
| Priority (high-medium-low) ²¹⁴ | Low |
| Climate impact (s) addressed | Extreme temperatures, Droughts, (Forest fires) |
| Primary Sector | Forestry |
| Secondary sector (if any) | Disaster Risk Management, Civil Protection and Critical Infrastructure |
| KTM category ²¹⁵ | Knowledge and Behavioural change |
| Sub-KTM | Information and awareness raising |
| Goal of the measure | Reduce the risks of forest fires and the impact of these. |
| Description of the measure | Close current knowledge gaps identified in past and ongoing research projects. The model should include fire risk assessment, characterisation of ecologically sensitive areas etc. |
| Spatial scope of the measure | national |
| Implementation Cost (high-medium-low) ²¹⁶ | Low |
| Maintenance cost (high-medium-low) | Low |
| Implications for society with special attention to vulnerable populations | None |
| Co-benefits for regional or local development priorities | Improved fire risk planning and reduce exposure |
| Co-benefits for climate mitigation | None |
| Co-benefits for the environment | Improved protection of forest ecosystems from fire risks |
| Political and social acceptability | Yes |
| Barriers for implementation | Seems not to be of priority, or maybe not adequately valued |
| Maladaptation risks (if any) | None |
| Responsible authority for implementation | Department of Forestry with external assistance |
| Other actors involved | Private sector, academia, local authorities, Disaster Risk Management |
| Other policy initiatives that align / synergies | Existing Forest management Plans already consider forest fires. LIFE Projects “JUNIPERCY” and “KEDROS” already produced some type of model. Very helpful for civil protection Synergies with local authorities |
| Technical/institutional readiness (high-medium-low) | High |
| Period of implementation | Short |

²¹⁴ High: to implement within 2 years; Medium: to implement in 2 to 5 years; Low: to implement after 5 years

²¹⁵ See <https://climate-adapt.eea.europa.eu/en/knowledge/tools/adaptation-support-tool/step-3-0>

²¹⁶ Low: €100,000 or less; Medium: €100,000 – €1,000,000; High: over €1 million



| Name of the measure | Model fire-climate relationships to identify areas sensitive to forest fire risk |
|--|---|
| (long-medium-short) ²¹⁷ | |
| Time to effectiveness (to have an effect or impact) | Medium |
| Financing | Ministry of Finance – Extra funding to the Department of Forestry for Forest Fire Prevention |
| Indicator for verification of implementation progress | <ul style="list-style-type: none">• Number of studies tendered and completed• Model development: started/ongoing/finalised |
| Relates to | |

²¹⁷ Short: less than 2 years; Medium: between 2 to 5 years; Long: more than 5 years

| Name of the measure | Promote the recultivation of abandoned agricultural land |
|--|--|
| Number of the measure | FOR 6n |
| Priority (high-medium-low) ²¹⁸ | High |
| Climate impact (s) addressed | Forest fires |
| Primary Sector | Forestry |
| Secondary sector (if any) | Agriculture Soils Spatial planning |
| KTM category ²¹⁹ | Nature Based Solutions and Ecosystem-based Approaches |
| Sub-KTM | Green options |
| Goal of the measure | Reduce forest fire risk in abandoned agricultural lands |
| Description of the measure | Abandoned rural areas that undergo natural afforestation processes are more vulnerable to fire risks due to a lack of management. Promoting the recultivation and management of these lands reduces exposure to fire risk through improved management. |
| Spatial scope of the measure | National |
| Implementation Cost (high-medium-low) ²²⁰ | Low |
| Maintenance cost (high-medium-low) | Low |
| Implications for society with special attention to vulnerable populations | Depending on how this is done, it can be used for semi-substance cultivation activities which allow certain groups to generate additional income |
| Co-benefits for regional or local development priorities | Conservation of agricultural lands and agricultural production Enhance development in rural communities |
| Co-benefits for climate mitigation | Might be designed as carbon capture |
| Co-benefits for the environment | Protection of forest ecosystems due to reduced risk of forest fires |
| Political and social acceptability | Yes |
| Barriers for implementation | No interest from farmers Viability of the measure depends on at which stage the natural reforestation is at (Fisheries, Biodiversity) |
| Maladaptation risks (if any) | Might lead to increased water demand for irrigation. |
| Responsible authority for implementation | Town Planning and Housing Department, Department of Agriculture, Department of Forestry |
| Other actors involved | Farmers, Water Development Department |
| Other policy initiatives that align / synergies | Co-benefits on Agriculture, biodiversity and soils. Connected with spatial planning & has to address together. Soils: protection of soil degradation |
| Technical/institutional readiness (high-medium-low) | High |

²¹⁸ High: to implement within 2 years; Medium: to implement in 2 to 5 years; Low: to implement after 5 years

²¹⁹ See <https://climate-adapt.eea.europa.eu/en/knowledge/tools/adaptation-support-tool/step-3-0>

²²⁰ Low: €100,000 or less; Medium: €100,000 – €1,000,000; High: over €1 million



| Name of the measure | Promote the recultivation of abandoned agricultural land |
|---|--|
| Period of implementation (long-medium-short) ²²¹ | Long |
| Time to effectiveness (to have an effect or impact) | As soon as abandoned agricultural lands are farmed. |
| Financing | Low |
| Indicator for verification of implementation progress | <ul style="list-style-type: none">• Area recultivated after the implementation of the measure.• Verification via facilitating remote sensing. |
| Relates to | |

²²¹ Short: less than 2 years; Medium: between 2 to 5 years; Long: more than 5 years

| Name of the measure | Develop and implement a Strategic Plan for the adaptation of Cyprus' forests to climate change |
|--|--|
| Number of the measure | FOR 7 |
| Priority (high-medium-low) ²²² | High |
| Climate impact (s) addressed | All |
| Primary Sector | Forestry |
| Secondary sector | Biodiversity |
| KTM category ²²³ | Governance and institutional |
| Sub-KTM | Management and planning |
| Goal of the measure | Adaptation of forest ecosystems to climate change and contribution of forests to climate change adaptation |
| Description of the measure | Designing strategies for adapting forest ecosystems to climate change is essential to prevent larger changes and facilitate in situ forest adaptation and species migration. Such strategies should follow a preventive approach to avoid undesirable consequences and irreversible losses and damage to forest ecosystems. To this end, the Department of Forests proposes to develop and implement the "Medium-Term Strategic Plan for adaptation of Cyprus Forestry to climate change". According to the Forest Policy Statement of the DoF (2013), the Plan will include adaptation measures, covering the whole range of activities, such as forest status research and monitoring, forestry and plant health, afforestation and forestry, nurseries, production and use of forest propagating material, fauna, protection from forest fires and enlightenment. |
| Spatial scope of the measure | National |
| Implementation Cost (high-medium-low) ²²⁴ | High |
| Maintenance cost (high-medium-low) | Medium |
| Implications for society with special attention to vulnerable populations | Depends on the detailed strategy. To be elaborated in the development process. |
| Co-benefits for regional or local development priorities | The plan can be aligned with local activities and plans, in particular tourism. |
| Co-benefits for climate mitigation | Preservation of forest's carbon storage capacity, reduced risk of forest-fire emissions |
| Co-benefits for the environment | Conservation of forest ecosystems |
| Political and social acceptability | High |
| Barriers for implementation | Need for more human resources. Sometimes there are conflicts between competencies of authorities with regards to goals (e.g. forest thinning could be considered as habitat loss of protected bird species). |
| Maladaptation risks | None |

²²² High: to implement within 2 years; Medium: to implement in 2 to 5 years; Low: to implement after 5 years

²²³ See <https://climate-adapt.eea.europa.eu/en/knowledge/tools/adaptation-support-tool/step-3-0>

²²⁴ Low: €100,000 or less; Medium: €100,000 – €1,000,000; High: over €1 million



| Name of the measure | Develop and implement a Strategic Plan for the adaptation of Cyprus' forests to climate change |
|---|---|
| Responsible authority for implementation | Department of Forestry, Ministry of Agriculture, Regional Development and the Environment |
| Other actors involved | n.a. |
| Other policy initiatives that align / synergies | Forest Policy, Biodiversity Strategy |
| Technical/institutional readiness (high-medium-low) | High |
| Period of implementation (long-medium-short) ²²⁵ | Included in Cyprus' current NAS |
| Time to effectiveness (to have an effect or impact) | Forest Census every 10 years, continuous improvement efforts |
| Financing | Ongoing under the Department's annual budget |
| Indicator for verification of implementation progress | <ul style="list-style-type: none">• Strategic Plan for the adaptation of Cyprus' forests to climate change: started/ongoing/finalised• For the implementation the strategy should develop its own measures depending on the measures |
| Relates to | BIODIV 10n |

²²⁵ Short: less than 2 years; Medium: between 2 to 5 years; Long: more than 5 years

| | |
|--|--|
| Name of the measure | Research, data collection and systematic monitoring of the effects of biotic and abiotic factors related to climate change in forests/ selection and use of suitable forest species with high resistance to adverse climatic conditions (e.g., drought) |
| Number of the measure | FOR 8 |
| Priority (high-medium-low) ²²⁶ | High |
| Climate impact (s) addressed | Forest fires, heat waves, droughts |
| Primary Sector | Forestry |
| Secondary sector | Biodiversity |
| KTM category ²²⁷ | Knowledge and behavioural change |
| Sub-KTM | Information and awareness raising |
| Goal of the measure | Address the increased risk of drought damage/forest productivity decline and improve knowledge on the impact of climate change on forests |
| Description of the measure | <p>These measures are provided for:</p> <ul style="list-style-type: none"> A. The classification of forest species according to their adaptation potential to climate change. B. The identification of high-risk areas (with results from FOR 5n) where specific interventions and measures for the protection and adaptation of forests should be proposed. C. The use of native species in rehabilitation actions, which are well adapted to drought. D. Research on the selection of suitable reproductive material with drought and pest resistance characteristics. |
| Spatial scope of the measure | National |
| Implementation Cost (high-medium-low) ²²⁸ | High |
| Maintenance cost (high-medium-low) | High |
| Implications for society with special attention to vulnerable populations | none |
| Co-benefits for regional or local development priorities | Database / Ability for applied research |
| Co-benefits for climate mitigation | Preservation of forest's carbon storage capacities |
| Co-benefits for the environment | Conservation of forest ecosystems |
| Political and social acceptability | High |
| Barriers for implementation | Limited resources, not efficient cross cutting synergies, governance issues |
| Maladaptation risks | None |
| Responsible authority for implementation | Department of Forestry, Ministry of Agriculture, Rural Development and the Environment |

²²⁶ High: to implement within 2 years; Medium: to implement in 2 to 5 years; Low: to implement after 5 years

²²⁷ See <https://climate-adapt.eea.europa.eu/en/knowledge/tools/adaptation-support-tool/step-3-0>

²²⁸ Low: €100,000 or less; Medium: €100,000 – €1,000,000; High: over €1 million

| | |
|---|---|
| Name of the measure | Research, data collection and systematic monitoring of the effects of biotic and abiotic factors related to climate change in forests/ selection and use of suitable forest species with high resistance to adverse climatic conditions (e.g., drought) |
| Other actors involved | Academia |
| Other policy initiatives that align / synergies | <ul style="list-style-type: none"> • Required under the Forest Monitoring Law and LULUCF. • Afforestation in private lands through RDP and Forest thinning, |
| Technical/institutional readiness (high-medium-low) | High |
| Period of implementation (long-medium-short) ²²⁹ | Included in current NAS |
| Time to effectiveness (to have an effect or impact) | Long |
| Financing | Low |
| Indicator for verification of implementation progress | <ul style="list-style-type: none"> • Monitoring system developed: started/ongoing/finalised |
| Additional comments | <ul style="list-style-type: none"> • Ongoing with monitoring of biotic parameters, pollution parameters, International Co-operative Programme on the Assessment and Monitoring of Air Pollution Effects on Forests, ICP-FORESTS. • Needs to be done within the Ministry. • Remote sensing and ground monitoring. • Afforestation should not take place with a single species, to have better chances of being successful. • Currently collecting seeds from a specific area for nursing new trees to use in reforestation/ afforestation back in the same areas where the seeds were collected in order that trees are more easily adapted to the climate. |
| Relates to | |

²²⁹ Short: less than 2 years; Medium: between 2 to 5 years; Long: more than 5 years

| Name of the measure | Pest population monitoring for early detection of potential pest and disease epidemics |
|--|---|
| Number of the measure | FOR 9 |
| Priority (high-medium-low) ²³⁰ | High |
| Climate impact (s) addressed | All |
| Primary Sector | Forestry |
| Secondary sector | Biodiversity and Ecosystems |
| KTM category ²³¹ | Governance and Institutional |
| Sub-KTM | Management and planning |
| Goal of the measure | Addressing the increased risk of pest infestations, insect pathogens (diseases), etc. endemic to the forests of Cyprus or belonging to the category of quarantine organisms. |
| Description of the measure | This measure is provided for: A. The use of available data from the monitoring of populations of harmful forest organisms (organisms endemic in Cyprus or quarantine organisms that may be introduced such as e.g. <i>Ips sexdentatus</i> and <i>Bursaphelenchus xylophilus</i>) in the forests of Cyprus and the development of specific models to predict the displacement of the area of their spread based on various climate change scenarios in order to timely address the effects they cause. B. Pest population control in areas where serious problems occur. This control can be implemented through practices that do not disturb the ecological balance of forest ecosystems, such as the implementation of integrated plant protection." |
| Spatial scope of the measure | National |
| Implementation Cost (high-medium-low) ²³² | High |
| Maintenance cost (high-medium-low) | Low |
| Implications for society with special attention to vulnerable populations | none |
| Co-benefits for regional or local development priorities | Effectiveness of the measure can benefit local population |
| Co-benefits for climate mitigation | Increased health of forest ecosystems enhances CO2 capture |
| Co-benefits for the environment | Secured biodiversity |
| Political and social acceptability | High |
| Barriers for implementation | Need additional resources |
| Maladaptation risks (if any) | None |
| Responsible authority for implementation | Department of Forestry |
| Other actors involved | Veterinary Services |

²³⁰ High: to implement within 2 years; Medium: to implement in 2 to 5 years; Low: to implement after 5 years

²³¹ See <https://climate-adapt.eea.europa.eu/en/knowledge/tools/adaptation-support-tool/step-3-0>

²³² Low: €100,000 or less; Medium: €100,000 – €1,000,000; High: over €1 million



| Name of the measure | Pest population monitoring for early detection of potential pest and disease epidemics |
|---|---|
| Other policy initiatives that align / synergies | Biodiversity Strategy, Habitats Directive, Birds Directive |
| Technical/institutional readiness (high-medium-low) | High |
| Period of implementation (long-medium-short) ²³³ | Long |
| Time to effectiveness (to have an effect or impact) | On an annual basis and long-term |
| Financing | Extra funding needed |
| Indicator for verification of implementation progress | <ul style="list-style-type: none">Monitoring of pest outbreaks established: started/ongoing/finalised |
| Relates to | |

²³³ Short: less than 2 years; Medium: between 2 to 5 years; Long: more than 5 years

| | |
|--|--|
| Name of the measure | Develop forest management plans and strategies for Cyprus that take into account climate change adaptation to ensure the continued provision of ecosystem goods and services and the improvement of forest resources. |
| Number of the measure | FOR 10n |
| Priority (high-medium-low) ²³⁴ | High |
| Climate impact (s) addressed | All |
| Primary Sector | Forestry |
| Secondary sector | Biodiversity and Ecosystems Spatial planning |
| KTM category ²³⁵ | Governance and Institutional |
| Sub-KTM | Management and planning |
| Goal of the measure | Better and more holistic forest management |
| Description of the measure | Developing effective forest management plans and strategies is essential for ensuring the long-term health and sustainability of forests. Here's a general outline of the process: A. Define objectives and goals B. Conduct a comprehensive forest inventory C. Develop management zones D. Create management plans, that incorporate climate change adaptation E. Develop strategies to address the impacts of climate change on the forest F. Implement and monitor |
| Spatial scope of the measure | National |
| Implementation Cost (high-medium-low) ²³⁶ | High |
| Maintenance cost (high-medium-low) | High |
| Implications for society with special attention to vulnerable populations | Sometimes there are conflicts between competencies of authorities with regards to goals (e.g. forest thinning could be considered as habitat loss of protected bird species) |
| Co-benefits for regional or local development priorities | Allows to link to tourism activities that could increase income of regions. Securing and increasing areas for recreation |
| Co-benefits for climate mitigation | Could also be used to increase mitigation efforts |
| Co-benefits for the environment | Secured biodiversity |
| Political and social acceptability | High |
| Barriers for implementation | Sometimes there are conflicts between competencies of authorities with regards to goals (e.g. forest thinning could be considered as habitat loss of protected bird species) |
| Maladaptation risks (if any) | None |

²³⁴ High: to implement within 2 years; Medium: to implement in 2 to 5 years; Low: to implement after 5 years

²³⁵ See <https://climate-adapt.eea.europa.eu/en/knowledge/tools/adaptation-support-tool/step-3-0>

²³⁶ Low: €100,000 or less; Medium: €100,000 – €1,000,000; High: over €1 million



| Name of the measure | |
|---|--|
| Responsible authority for implementation | Department of Forestry |
| Other actors involved | Other forest owners i.e. local authorities, Department of Environment and Game and Fauna Service if it involves Natura 2000 area |
| Other policy initiatives that align / synergies | Spatial planning, Natura 2000 Management Plans |
| Technical/institutional readiness (high-medium-low) | High |
| Period of implementation (long-medium-short) ²³⁷ | Long |
| Time to effectiveness (to have an effect or impact) | Long |
| Financing | DG Reform Technical Assistance |
| Indicator for verification of implementation progress | <ul style="list-style-type: none">Number of forest management plans and strategies: started/ongoing/finalised |
| Relates to | |

²³⁷ Short: less than 2 years; Medium: between 2 to 5 years; Long: more than 5 years

Governance measures impact assessment factsheets

| Name of the measure | Expand and update knowledge on the impacts and risk of climate change on the different sectors (update CRV) |
|--|---|
| Number of the measure | GOV 1n |
| Priority (high-medium-low) ²³⁸ | High |
| Climate impact (s) addressed | All |
| Primary Sector | Cross-sectoral |
| Secondary sector | Cross-sectoral |
| KTM category ²³⁹ | Knowledge and Behavioural change |
| Sub-KTM | Information and awareness raising |
| Goal of the measure | Generate updated information to assess the impacts and risks of climate change on the different sectors according to the latest available climate models and scenarios. |
| Description of the measure | <p>Adaptation measures and decisions must be based on a comprehensive and updated understanding of climate change risks and impacts. In addition to the specific knowledge-generating actions proposed in sectoral measures, in the framework of the NAS, the following actions will be promoted:</p> <ul style="list-style-type: none"> A. Incorporate the contributions generated by successive IPCC into the risk and vulnerability assessments and the definition of adaptation measures. B. Update the national climate risk and vulnerability assessment every 6 years. C. Develop guidelines for the preparation of sectoral evaluations of climate change risks and impact assessments (contents and recommended methodologies for sectoral evaluations). D. Develop practical tools (projections, scenario viewers, guidelines for the use of the scenarios, manuals, etc.) for the preparation of sectoral studies of exposure and vulnerability. E. Detect pending knowledge gaps and develop action plans to address them. |
| Spatial scope of the measure | National |
| Implementation Cost (high-medium-low) ²⁴⁰ | Low |
| Maintenance cost (high-medium-low) | Low |
| Implications for society with special attention to vulnerable populations | Improved understanding of climate risks, vulnerabilities and impacts will help develop more effective adaptation measures that reduce society's resilience, particularly relevant for citizens especially vulnerable to climate change risks. |
| Co-benefits for regional or local development priorities | Improved knowledge and actions reduce impacts on local communities and thus minimize economic impacts. |
| Co-benefits for climate mitigation | None |

²³⁸ High: to implement within 2 years; Medium: to implement in 2 to 5 years; Low: to implement after 5 years

²³⁹ See <https://climate-adapt.eea.europa.eu/en/knowledge/tools/adaptation-support-tool/step-3-0>

²⁴⁰ Low: €100,000 or less; Medium: €100,000 – €1,000,000; High: over €1 million

| Name of the measure | Expand and update knowledge on the impacts and risk of climate change on the different sectors (update CRV) |
|---|--|
| Co-benefits for the environment | Potential risk to ecosystems might be detected earlier, so adaptation measures can be taken at an early stage |
| Political and social acceptability | High |
| Barriers for implementation | Availability of resources and technical expertise to develop guidelines |
| Maladaptation risks | None |
| Responsible authority for implementation | Department of the Environment & Department of Meteorology, Ministry of Agriculture, Rural Development and the Environment |
| Other actors involved | All ministerial departments with responsibilities on affected sectors, District Local Government Organisations, municipalities |
| Other policy initiatives that align / synergies | Synergies with all sectoral policies in their efforts to incorporate climate change adaptation |
| Technical/institutional readiness (high-medium-low) | High |
| Period of implementation (long-medium-short) ²⁴¹ | Short |
| Time to effectiveness (to have an effect or impact) | Medium – the time necessary for sectoral departments to incorporate the guidelines and knowledge generated through this measure |
| Financing | Medium, Department Budget |
| Indicator for verification of implementation progress | <ul style="list-style-type: none"> Updated Climate Risk and Vulnerability Assessment after six years and subsequently |
| Related to | All NAS measures |

²⁴¹ Short: less than 2 years; Medium: between 2 to 5 years; Long: more than 5 years

| Name of the measure | | Training and capacity building on adaptation to climate change |
|--|--|---|
| Number of the measure | | GOV 2n |
| Priority (high-medium-low) ²⁴² | | High |
| Climate impact (s) addressed | | All |
| Primary Sector | | Cross-sectoral |
| Secondary sector | | Cross-sectoral |
| KTM category | | Knowledge and Behavioural change |
| Sub-KTM | | Information and awareness raising |
| Goal of the measure | | Improve understanding of the implications and impacts related to climate change to enhance the implementation of climate adaptation actions at the regional and local level, and the resilience of individuals and communities to climate change risks. |
| Description of the measure | | <p>This measure encompasses the following activities:</p> <ul style="list-style-type: none"> A. Identify outreach, training and capacity-building needs. B. Develop (online) interactive presentations: Explain the local impacts of climate change, such as rising sea levels, heatwaves, and extreme weather events. C. Design discussion sessions that can be implemented at the local level (by DLGO, municipalities, businesses or citizen organisations): Encourage participants to share their experiences and concerns related to climate change. D. Practical solutions: Discuss, share and demonstrate adaptation strategies like water conservation, energy efficiency, and resilient infrastructure. <p>Target Audience: Staff at DLGOs, municipal and community governments; residents, community leaders, and businesses. Since different target groups are interested in different kinds of knowledge, the material needs to be developed and made relevant for the target audience - from generic knowledge (e.g. for school-age population) to very specific and in-depth information (e.g. for professionals, such as doctors and health care providers).</p> |
| Spatial scope of the measure | | National coverage, regional implementation |
| Implementation Cost (high-medium-low) ²⁴³ | | Low |
| Maintenance cost (high-medium-low) | | Low |
| Implications for society with special attention to vulnerable populations | | It is critical to involve the actors/target groups who shall benefit from capacity building in the development and design of the specific capacity building modes. This ensures that the content and messages prepared are targeting the user needs and are translated into the specific contexts within which the target group operates. Often, capacity building is an intrinsic component of wider stakeholder engagement processes. Access to elderly and disabled people should be ensured as well as to persons with limited literacy or language skills. |
| Co-benefits for regional or local development priorities | | The measure might also increase acceptance for local solutions |

²⁴² High: to implement within 2 years; Medium: to implement in 2 to 5 years; Low: to implement after 5 years

²⁴³ Low: €100,000 or less; Medium: €100,000 – €1,000,000; High: over €1 million

| Name of the measure | Training and capacity building on adaptation to climate change |
|---|---|
| Co-benefits for climate mitigation | Content related can be included in these workshops and events |
| Co-benefits for the environment | Content related can be included in these workshops and events |
| Political and social acceptability | High |
| Barriers for implementation | Lack of interest and lack of public communication activities |
| Maladaptation risks | None |
| Responsible authority for implementation | Department of the Environment, MARDE Unit of Environmental education and sustainable development (EESD) of the Ministry of Education Sport and Youth (MoESY) |
| Other actors involved | Local authorities, schools, universities, sectoral authorities (Ministerial departments) with competencies over identified training needs (e.g. Health, Cultural Heritage, Tourism, etc.) |
| Other policy initiatives that align / synergies | Commitments on climate change information and capacity building. |
| Technical/institutional readiness (high-medium-low) | High |
| Period of implementation (long-medium-short) ²⁴⁴ | Short. Deliverable 1.5 in the NAS project will develop training activities for climate change adaptation before November 2025. |
| Time to effectiveness (to have an effect or impact) | Depending on the uptake rate |
| Financing | Medium, Department Budget |
| Indicator for verification of implementation progress | <ul style="list-style-type: none"> Number of events held annually for different target groups |
| Related to | All NAS measures |

²⁴⁴ Short: less than 2 years; Medium: between 2 to 5 years; Long: more than 5 years

| Name of the measure | Communication and social outreach on climate change adaptation |
|--|--|
| Number of the measure | GOV 3n |
| Priority (high-medium-low) ²⁴⁵ | High |
| Climate impact (s) addressed | All |
| Primary Sector | Cross-sectoral |
| Secondary sector | Cross-sectoral |
| KTM category ²⁴⁶ | Knowledge and Behavioural change |
| Sub-KTM | Information and awareness raising |
| Goal of the measure | Increase the general understanding of the implications and impacts related to climate change |
| Description of the measure | <p>The campaigns should cover the following activities:</p> <ul style="list-style-type: none"> A. Share informative graphics and videos: Use visually appealing content to convey complex climate change concepts. B. Encourage user-generated content: Organise contests or challenges that invite people to share their experiences or ideas related to climate change. C. Partner with influencers: Collaborate with popular social media personalities to reach a larger audience and amplify the message. <p>Target Audience: A wide range of individuals, especially vulnerable population and younger generations.</p> |
| Spatial scope of the measure | National coverage |
| Implementation Cost (high-medium-low) ²⁴⁷ | Low |
| Maintenance cost (high-medium-low) | Low |
| Implications for society with special attention to vulnerable populations | It is critical to involve the actors/target groups who shall benefit from these campaigns in their development. This ensures that the content and messages prepared are targeting the user needs and are translated into the specific contexts within the target group operates. Access to persons with limited literacy and Greek language skills should be ensured. |
| Co-benefits for regional or local development priorities | The measure might also increase acceptance for local solutions |
| Co-benefits for climate mitigation | Content related can be included in these workshops and events |
| Co-benefits for the environment | Content related can be included in these workshops and events |
| Political and social acceptability | high |
| Barriers for implementation | Lack of resources – both personnel and financial. Staff need to be specifically appointed to implement the communication plan. |
| Maladaptation risks | none |
| Responsible authority for implementation | Department of the Environment |

²⁴⁵ High: to implement within 2 years; Medium: to implement in 2 to 5 years; Low: to implement after 5 years

²⁴⁶ See <https://climate-adapt.eea.europa.eu/en/knowledge/tools/adaptation-support-tool/step-3-0>

²⁴⁷ Low: €100,000 or less; Medium: €100,000 – €1,000,000; High: over €1 million

| Name of the measure | Communication and social outreach on climate change adaptation |
|---|--|
| Other actors involved | Other Sectoral ministries and District Local Government Organisations with competence in climate change adaptation measures |
| Other policy initiatives that align / synergies | Enhance information and knowledge on climate change |
| Technical/institutional readiness (high-medium-low) | High |
| Period of implementation (long-medium-short) ²⁴⁸ | Short As part of the NAS project a Communication Plan on Climate Change Adaptation will be developed in 2025. The communication strategy encompasses the duration of the implementation of the NAS. |
| Time to effectiveness (to have an effect or impact) | Depending on the uptake rate |
| Financing | Medium, Department budget |
| Indicator for verification of implementation progress | <ul style="list-style-type: none"> • Number of graphic materials created • Number of annual social media posts • Number of followers |
| Additional comments | <ul style="list-style-type: none"> • Communication is a critical part of implementation of the adaptation strategy. • An ambitious implementation of the Communication Strategy requires specifically appointed resources – staff and personnel. |
| Related to | All NAS measures |

²⁴⁸ Short: less than 2 years; Medium: between 2 to 5 years; Long: more than 5 years

| Name of the measure | | Promote the development of regional and local climate adaptation plans in coordination with the National Adaptation Strategy |
|--|--|--|
| Number of the measure | GOV 4n | |
| Priority (high-medium-low) ²⁴⁹ | Medium | |
| Climate impact (s) addressed | All | |
| Primary Sector | Cross-sectoral | |
| Secondary sector | Cross-sectoral | |
| KTM category ²⁵⁰ | Governance and institutional | |
| Sub-KTM | Management and planning | |
| Goal of the measure | Promote District Local Government Organisations and municipalities implement climate change adaptation measures within their respective areas of competence that are aligned with and contribute to Cyprus' National Climate Adaptation Strategy (NAS) goals | |
| Description of the measure | District Local Government Organisations, municipalities and communities are responsible for developing policies, plans and actions in various sectors – water supply and sanitation, urban transportation, tourism, cultural heritage, etc. – that are the focus of the NAS. These policies, plans and actions should be aligned with the NAS and be integrated into a regional/local climate adaptation plan to enhance synergies and complementarities and avoid contradictions. | |
| Spatial scope of the measure | Regional and municipal | |
| Implementation Cost (high-medium-low) ²⁵¹ | Low | |
| Maintenance cost (high-medium-low) | Low | |
| Implications for society with special attention to vulnerable populations | The development of regional and local adaptation plans will reduce social and communities' vulnerability to climate risks. | |
| Co-benefits for regional or local development priorities | Allows to combine changes that are needed for adaptation with other regional development activities resulting in cost reductions and allowing for transformative approaches. | |
| Co-benefits for climate mitigation | Climate resilient regional and local policies – transportation, building, infrastructure, water, etc. – will help reduce emissions. Furthermore, the implementation of Nature based solutions to address climate risks will enhance Co ₂ retention capabilities. | |
| Co-benefits for the environment | The implementation of Nature based solutions as part of municipal and regional adaptation plans to address climate risks will enhance biodiversity and environmental quality. | |
| Political and social acceptability | High | |
| Barriers for implementation | Lack of personnel and financial resources as well as technical expertise at the local and regional level to develop climate change adaptation strategies | |
| Maladaptation risks | None | |

²⁴⁹ High: to implement within 2 years; Medium: to implement in 2 to 5 years; Low: to implement after 5 years

²⁵⁰ See <https://climate-adapt.eea.europa.eu/en/knowledge/tools/adaptation-support-tool/step-3-0>

²⁵¹ Low: €100,000 or less; Medium: €100,000 – €1,000,000; High: over €1 million

| Promote the development of regional and local climate adaptation plans in coordination with the National Adaptation Strategy | |
|---|--|
| Name of the measure | |
| Responsible authority for implementation | District Local Government Organisations, municipalities |
| Other actors involved | Department of Environment to support synergies with the NAS Other sectoral departments with concurrent responsibilities – Ministry of Interior for spatial planning, Water Development Department, Deputy Ministry of Tourism |
| Other policy initiatives that align / synergies | NAS |
| Technical/institutional readiness (high-medium-low) | High |
| Period of implementation (long-medium-short) ²⁵² | Medium – regional and local plans should be developed after the national NAS is approved in 2025. |
| Time to effectiveness (to have an effect or impact) | Medium |
| Financing | Medium, Department budget |
| Indicator for verification of implementation progress | <ul style="list-style-type: none"> • Number of District Local Government Organisations that develop climate adaptation plans • Number of municipalities that develop climate adaptation plans |
| Related to | Hydrological Regime and Water Management measures Spatial planning measures |

²⁵² Short: less than 2 years; Medium: between 2 to 5 years; Long: more than 5 years

| Name of the measure | Develop an IT monitoring and reporting system for climate change adaptation |
|---|--|
| Number of the measure | GOV 5n |
| Priority (high-medium-low) ²⁵³ | High |
| Climate impact (s) addressed | All |
| Primary Sector | Cross sectoral |
| Secondary sector | Cross sectoral |
| KTM category ²⁵⁴ | Physical and technological |
| Sub-KTM | Technological options |
| Goal of the measure | Facilitate monitoring and evaluation of implementation of the National Adaptation Strategy |
| Description of the measure | A. Definition of an IT monitoring and reporting platform that allows local, regional and national authorities to report online on progress in the implementation of adaptation measures based on the indicators developed. The platform will comply with EEA reporting requirements. B. Implementation of the IT platform within the IT framework of the Department of the Environment. |
| Spatial scope of the measure | National |
| Implementation Cost (high-medium-low) ²⁵⁵ | Low |
| Maintenance cost (high-medium-low) | Low |
| Implications for society with special attention to vulnerable populations | None |
| Co-benefits for regional or local development priorities | None |
| Co-benefits for climate mitigation | None |
| Co-benefits for the environment | None |
| Political and social acceptability | High |
| Barriers for implementation | None |
| Maladaptation risks | None |
| Responsible authority for implementation | Department of the Environment, Ministry of Agriculture, Rural Development and the Environment |
| Other actors involved | All reporting authorities |
| Other policy initiatives that align / synergies | Compliance with European Environmental Agency reporting requirements |
| Technical/institutional readiness | High |

²⁵³ High: to implement within 2 years; Medium: to implement in 2 to 5 years; Low: to implement after 5 years

²⁵⁴ See <https://climate-adapt.eea.europa.eu/en/knowledge/tools/adaptation-support-tool/step-3-0>

²⁵⁵ Low: €100,000 or less; Medium: €100,000 – €1,000,000; High: over €1 million



| Name of the measure | Develop an IT monitoring and reporting system for climate change adaptation |
|---|---|
| (high-medium-low) | |
| Period of implementation (long-medium-short) ²⁵⁶ | Short: The measure will be implemented in 2025-2026 as part of the NAS project (development of the Terms of Reference) and broader Department of Environment IT reform. |
| Time to effectiveness (to have an effect or impact) | Medium: As soon as the IT platform is implemented reporting authorities can be granted access and start using it for the first NAS reporting period (2025-2027) |
| Financing | Development of the IT Terms of Reference under the NAS project financed by DG Reform, Implementation under the general Department of Environment IT reform project. |
| Indicator for verification of implementation progress | <ul style="list-style-type: none">• Development of the IT monitoring and reporting platform |
| Related to | All NAS measures |

²⁵⁶ Short: less than 2 years; Medium: between 2 to 5 years; Long: more than 5 years

| | |
|--|---|
| Name of the measure | Create an Intergovernmental Working Group on Adaptation to Climate Change and designate focal points for adaptation in competent ministries, District Local Government Organizations and municipal representatives |
| Number of the measure | GOV 6n |
| Priority (high-medium-low) ²⁵⁷ | High |
| Climate impact (s) addressed | All |
| Primary Sector | Cross sectoral |
| Secondary sector | Cross sectoral |
| KTM category ²⁵⁸ | Governance and Institutional |
| Sub-KTM | Coordination, cooperation and networks |
| Goal of the measure | Strengthen the consideration of climate change in all ministries and competent authorities and ensure a coordinated and effective implementation of the National Adaptation Strategy (NAS) |
| Description of the measure | <p>The Intergovernmental Working Group on Adaptation to Climate Change (IWGACC) oversees the work on:</p> <ul style="list-style-type: none"> A. Monitoring and evaluation of the NAS. B. Updating the NAS within the national government. C. Further development of the National Adaptation Plan (NAP). D. Improve inter-administrative cooperation – both cross-sector and across levels of government. E. Promote public outreach/participation processes, when necessary, for instance, to disseminate the biennial implementation evaluation reports. <p>To achieve this, each competent Ministry and DLGO will designate a climate change adaptation strategy focal point (CCASFP). The Union of Municipalities will also designate a CCASFP to represent municipal governments and communities.</p> <p>All competent authorities will work together in the IWGCCAS under the leadership of MARDE, regularly inform each other about their activities and continuously set new goals in order to create the conditions for effective climate adaptation in Cyprus. The Department of Meteorology regularly accompanies the IWGCCAS to provide new information on observed climatic changes.</p> <p>In addition to regular communication between focal points, the full IWGCCAS will meet at least once a year.</p> <p>The IWGCCAS will coordinate with the Disaster Risk Management governance body that is currently being developed under the EU-funded <i>Reforming, Developing and Enhancing the Civil Protection System in Cyprus</i> project (September 2024-September 2026).</p> |
| Spatial scope of the measure | National coverage |
| Implementation Cost (high-medium-low) ²⁵⁹ | Low |
| Maintenance cost | Low |

²⁵⁷ High: to implement within 2 years; Medium: to implement in 2 to 5 years; Low: to implement after 5 years

²⁵⁸ See <https://climate-adapt.eea.europa.eu/en/knowledge/tools/adaptation-support-tool/step-3-0>

²⁵⁹ Low: €100,000 or less; Medium: €100,000 – €1,000,000; High: over €1 million

| | |
|--|---|
| Name of the measure | Create an Intergovernmental Working Group on Adaptation to Climate Change and designate focal points for adaptation in competent ministries, District Local Government Organizations and municipal representatives |
| (high-medium-low) | |
| Implications for society with special attention to vulnerable populations | Indirect benefits from improved implementation of NAS and NAP |
| Co-benefits for regional or local development priorities | Indirect benefits from improved implementation of NAS and NAP |
| Co-benefits for climate mitigation | Indirect benefits from improved implementation of NAS and NAP |
| Co-benefits for the environment | Indirect benefits from improved implementation of NAS and NAP |
| Political and social acceptability | High |
| Barriers for implementation | n/a |
| Maladaptation risks | None |
| Responsible authority for implementation | Department of the Environment, Ministry of Agriculture, Rural Development and the Environment |
| Other actors involved | Sectoral ministries, District Local Government Organisations, Union of Municipalities |
| Other policy initiatives that align / synergies | All sectoral activities that relate to adaptation |
| Technical/institutional readiness (high-medium-low) | High |
| Period of implementation (long-medium-short) ²⁶⁰ | Short |
| Time to effectiveness (to have an effect or impact) | Immediately |
| Financing | Ministerial budgets |
| Indicator for verification of implementation progress | <ul style="list-style-type: none"> • Designation of climate change adaptation focal points • Creation of the Intergovernmental Working Group on Adaptation to Climate Change • Number of annual meetings |
| Related to | All NAS measures |

²⁶⁰ Short: less than 2 years; Medium: between 2 to 5 years; Long: more than 5 years

| Name of the measure | Develop legislation for mandatory reporting requirements of public administrations on implementation of adaptation measures |
|---|---|
| Number of the measure | GOV 7n |
| Priority (high-medium-low) ^[1] | High |
| Climate impact (s) addressed | All |
| Primary Sector | Cross sectoral |
| Secondary sector | Cross sectoral |
| KTM category ^[2] | Governance and Institutional |
| Sub-KTM | Coordination, cooperation and networks |
| Goal of the measure | Facilitate the collection the information regarding the implementation of the National Adaptation Strategy to inform the Biennial Progress Reports to be shared with the Council of Ministers, the Intergovernmental Working Group on Adaptation to Climate Change, and the public on MARDE's website. |
| Description of the measure | As part of the New National Climate Law include an article for mandatory reporting of implementation of adaptation measures. Reporting requirements will be facilitated through the new monitoring and reporting system (measure GOV 5n) and be streamlined with EU reporting requirements by making reporting infrastructure compatible with REPORTNET 3.0 of the European Environmental Agency (EEA). |
| Spatial scope of the measure | National coverage |
| Implementation Cost (high-medium-low) ^[3] | Low |
| Maintenance cost (high-medium-low) | Low |
| Implications for society with special attention to vulnerable populations | Indirect benefits from improved implementation of NAS and NAP |
| Co-benefits for regional or local development priorities | Indirect benefits from improved implementation of NAS and NAP |
| Co-benefits for climate mitigation | Indirect benefits from improved implementation of NAS and NAP |
| Co-benefits for the environment | Indirect benefits from improved implementation of NAS and NAP |
| Political and social acceptability | High |
| Barriers for implementation | Political support for new legislation |
| Maladaptation risks | None |
| Responsible authority for implementation | Department of the Environment, Ministry of Agriculture, Rural Development and the Environment |
| Other actors involved | Sectoral ministries, District Local Government Organisations, Union of Municipalities, and other institutions responsible for implementing NAS measures |



| | |
|---|---|
| Other policy initiatives that align / synergies | All sectoral activities that relate to adaptation |
| Technical/institutional readiness (high-medium-low) | High |
| Period of implementation (long-medium-short)^[4] | Medium |
| Time to effectiveness (to have an effect or impact) | In the first NAS reporting period |
| Financing | Not necessary |
| Indicator for verification of implementation progress | <ul style="list-style-type: none">• Approval of legislative instrument making reporting mandatory for competent authorities |
| Related to | All NAS measures |

Health measures impact assessment factsheets

| Name of the measure | Identify the risks of climate change on human health and develop the most effective adaptation measures by integrating climate change into national health policy |
|--|---|
| Number of the measure | HEAL 1n |
| Priority (high-medium-low)²⁶¹ | High |
| Climate impact (s) addressed | Extreme temperatures, air quality, natural disasters |
| Primary Sector | Health |
| Secondary sector | Economy, Industry and Finance (to the extent that worker's health is affected by climate change) Disaster Risk Management |
| KTM category | Governance and Institutional |
| Sub-KTM | Management and Planning |
| Goal of the measure | Reducing the health risks posed by climate change |
| Description of the measure | <p>Climate change generates diverse impacts on the health of the population, aggravating existing health risks or creating new ones (for example, by altering the geographical distribution of vector-borne diseases). For this reason, the effects of climate change, already observed or foreseeable, should be identified and incorporated into national health plans – at the national, regional and local levels – and in its various dimensions: extreme temperatures, air quality, natural disasters, sanitary quality of water and food, and disease-transmitting vectors. The Cyprus general Strategic Plan 2024 – 2026 does not incorporate these considerations. Some of the main lines of intervention to be addressed by the plans can include:</p> <ul style="list-style-type: none"> A. Research to improve knowledge on the health impacts of climate change and the effectiveness of adaptation measures B. Training and risk communication to improve the knowledge of both health professionals and the public C. Identifying actions to address short-, medium- and long-term risks D. Develop and implement an information system for applying the Social Vulnerability Index (SVI) to assess a community's vulnerability to climate hazards and impacts such as flooding, extreme heat and drought events. Focus should be given on Heat Vulnerability Index Mapping. |
| Spatial scope of the measure | National, regional and local |
| Implementation Cost (high-medium-low)²⁶² | Medium (needs to be discussed with all relevant actors) |
| Maintenance cost (high-medium-low) | Low |
| Implications for society with special attention to vulnerable populations | Decrease climate-related health risks, particularly relevant for vulnerable populations that are particularly vulnerable to climate risks |
| Co-benefits for regional or local development priorities | A healthy population helps in building a productive workforce for the country. Even the non-productive age group needs to be healthy to reduce the burden of healthcare. |

²⁶¹ High: to implement within two years; Medium: to implement in 2 to 5 years; Low: implement after 5 years

²⁶² Low: €100,000 or less; Medium: €100,000 – €1,000,000; High: over €1 million

| Name of the measure | Identify the risks of climate change on human health and develop the most effective adaptation measures by integrating climate change into national health policy |
|---|--|
| Co-benefits for climate mitigation | None |
| Co-benefits for the environment | None |
| Political and social acceptability (high-med-low) | High |
| Barriers for implementation | <p>Geopolitical Barriers: The Republic of Cyprus does not exercise effective control in the northern part of the island due to Turkish occupation. Thus, we are unable to enforce vector control measures, conduct surveillance, or implement disease prevention strategies in those areas, leading to potential gaps in managing vector-borne diseases.</p> <p>Understaffing: Limited human resources, especially in key fields such as epidemiology, entomology, and public health, can hinder the effective implementation of surveillance, vector control, and public education initiatives. Lack of personnel also impacts training, research, and coordination efforts necessary for a multi-sectoral approach.</p> <p>Difficulty in interdepartmental and interministerial collaboration: The national strategy requires the involvement of various sectors, such as health, agriculture, environment, and municipalities. Coordinating efforts across these different ministries and departments can be challenging.</p> |
| Maladaptation risks | None |
| Responsible authority for implementation | Ministry of Health - This action needs a coordinated response from various Ministries, actors and departments and needs to be addressed at the level of the Crisis Management Team of the Ministry of Health |
| Other actors involved | Ministry of Agriculture, Rural Development and the Environment, municipalities, regional governments, State Health Services Organisation (SHSO), Health monitoring unit, Health Insurance Organisation (HIO), municipalities, meteorological services, academia and research institutions. |
| Other policy initiatives that align / synergies | <p>Improving preparedness and response to cross-border health threats. National preparedness plans plot out involved actors in scenarios such as flood, earthquake etc.</p> <p>Improve worker's health that is affected by climate change.</p> <p>Good for DRM: also include adaptation measures for specific stakeholders dealing with the impacts of climate change, e.g. firefighters, civil defence officers, etc. The measure could include upgrading their uniforms or tools to help them in terms of resilience during their operations.</p> |
| Technical/institutional readiness (high-medium-low) | Medium |
| Period of implementation (long-medium-short) ²⁶³ | Medium |
| Time to effectiveness | Upon finishing the Risk Analysis and adjusting National Health Plans |
| Financing (high-medium-low) | Low |
| Indicator for verification of implementation progress | <ul style="list-style-type: none"> Number of National Health Plans Updated |
| Relates to | GOV 2n GOV 3n |

²⁶³ Short: less than 2 years; Medium: between 2 to 5 years; Long: more than 5 years

| | |
|----------------------------|--|
| Name of the measure | Identify the risks of climate change on human health and develop the most effective adaptation measures by integrating climate change into national health policy |
| | EDU 5n |

| | |
|--|---|
| Name of the measure | Improve the governance of heat waves to reduce their impacts on human health: Establish a National Heat-Health Action Plan |
| Number of the measure | HEAL 2n |
| Priority (high-medium-low) ²⁶⁴ | Med |
| Climate impact (s) addressed | Heat waves |
| Primary Sector | Health |
| Secondary sector | Disaster Risk Management |
| KTM category ²⁶⁵ | Governance and institutional Knowledge and Behavioural change |
| Sub-KTM | Management and planning Information and awareness raising |
| Goal of the measure | Act upon state-of-the-art heat-health action plans fed by scientifically sound data monitoring and evaluation and monitor compliance with existing safety legislation. |
| Description of the measure | <p>A. Develop and strengthen the early warning system for heat waves throughout Cyprus through an online platform where the relevant information will be published. This system should use the available climate information to quantify specific climate indicators that express a person's thermal comfort, such as the Humidex index (Masterton and Richardson, 1979) which expresses the level of discomfort experienced by a person as a function of temperature and humidity and suggests taking relevant precautions according to the level of discomfort.</p> <p>B. Provide guidance through mass media to protect against heatwaves. Consider tourists and vulnerable groups.</p> <p>C. Obligate each employer and each self-employed person to apply measures in accordance with the provisions of the legislation to avoid, or reduce to an acceptable level, the risks arising from exposure of workers to heat-burdened workplaces. Ensure compliance with the provisions of Decrees 291/2014, 206/2020 and 231/2023 regarding heat waves and thermal conditions.</p> <p>D. Re-evaluate the governance of Heat-Health Action Plan (HHAP) based on monitoring and evaluation principles</p> |
| Spatial scope of the measure | National |
| Implementation Cost (high-medium-low) ²⁶⁶ | Medium |
| Maintenance cost (high-medium-low) | Low |
| Implications for society with special attention to vulnerable populations | Vulnerable populations are affected by heat waves. These include elderly people, people with chronic diseases, children, people in poor living |

²⁶⁴ High: to implement within two years; Medium: to implement in 2 to 5 years; Low: to implement after 5 years

²⁶⁵ See <https://climate-adapt.eea.europa.eu/en/knowledge/tools/adaptation-support-tool/step-3-0>

²⁶⁶ Low: €100,000 or less; Medium: €100,000 – €1,000,000; High: over €1 million

| Name of the measure | Improve the governance of heat waves to reduce their impacts on human health: Establish a National Heat-Health Action Plan |
|---|--|
| | conditions. This measure will reduce the impact of heat waves on human health. |
| Co-benefits for regional or local development priorities | N/A |
| Co-benefits for climate mitigation | None |
| Co-benefits for the environment | None |
| Political and social acceptability (high-medium-low) | High |
| Barriers for implementation | Language barrier in social media communication campaigns (need to be addressed) |
| Maladaptation risks | n/a |
| Responsible authority for implementation | Medical and Public Health Services, Ministry of Health |
| Other actors involved | Department of Labour Inspection, Ministry of Labour and Social Insurance, State Health Service Organisation, Health Insurance Organisation, Pancyprian Medical Association, meteorological services, Cyprus Sports Organisation Early warning system is coordinated by the Department of Meteorology of the Ministry of Agriculture, Rural Development and Environment. |
| Other policy initiatives that align / synergies | Consider transportation options for isolated and vulnerable communities. |
| Technical/institutional readiness (high-medium-low) | High |
| Period of implementation (long-medium-short) ²⁶⁷ | Included in 2017 National Adaptation Strategy. Pending implementation |
| Time to effectiveness | Upon approval and implementation of the Plan. |
| Financing (high-medium-low) | Med |
| Indicator for verification of implementation progress | <ul style="list-style-type: none"> • Number of heat-wave related deaths • Number of heat-wave related hospitalizations |
| Related to | EDU 5n GOV 1n |

²⁶⁷ Short: less than 2 years; Medium: between 2 to 5 years; Long: more than 5 years

| Name of the measure | Operation of community centres in each municipality/community (e.g., town halls, schools, Open Elderly Protection Centres, etc.) to provide protection (air conditioning, shade, fluids) to the population at risk |
|--|--|
| Number of the measure | HEAL 3 |
| Priority (high-medium-low) ²⁶⁸ | High |
| Climate impact (s) addressed | All |
| Primary Sector | Health |
| Secondary sector | Transport, Infrastructure and Buildings DRM, Civil protection & Critical infrastructure |
| KTM category ²⁶⁹ | Governance and Institutional |
| Sub-KTM | Management and planning |
| Goal of the measure | Climate change impact management on mortality and morbidity |
| Description of the measure | Operation of community centres in each municipality / community to provide protection to the population at risk. |
| Spatial scope of the measure | Local |
| Implementation Cost (high-medium-low) ²⁷⁰ | Low |
| Maintenance cost (high-medium-low) | Low |
| Implications for society with special attention to vulnerable populations | Reduced exposure and vulnerability to climate change risks |
| Co-benefits for regional or local development priorities | Save bed capacity, consumables and generally minimise health expenses |
| Co-benefits for climate mitigation | None |
| Co-benefits for the environment | None |
| Political and cultural acceptability (high-medium-low) | High |
| Barriers for implementation | Absence of coordination leadership |
| Maladaptation risks | None |
| Responsible authority for implementation | Municipalities and communities, through the Union of Cyprus Communities and Union of Cyprus Municipalities |
| Other actors involved | Ministry of the Interior; Ministry of Welfare; Civil Defence |
| Other policy initiatives that align / synergies | None |
| Technical/institutional readiness (high-medium-low) | High |

²⁶⁸ High: to implement within two years; Medium: to implement in 2 to 5 years; Low: to implement after 5 years

²⁶⁹ See <https://climate-adapt.eea.europa.eu/en/knowledge/tools/adaptation-support-tool/step-3-0>

²⁷⁰ Low: €100,000 or less; Medium: €100,000 – €1,000,000; High: over €1 million



| | |
|---|---|
| Name of the measure | Operation of community centres in each municipality/community (e.g., town halls, schools, Open Elderly Protection Centres, etc.) to provide protection (air conditioning, shade, fluids) to the population at risk |
| Period of implementation (long-medium-short) ²⁷¹ | Short |
| Time to effectiveness | Short |
| Financing (high-medium-low) | Maybe through Horizon or Horizon Europe Projects |
| Indicator for verification of implementation progress | <ul style="list-style-type: none">• Number of community centres operational as climate shelters |
| Related to | GOV 1n |

²⁷¹ Short: less than 2 years; Medium: between 2 to 5 years; Long: more than 5 years

| Name of the measure | Empower and prepare medical/nursing and municipal staff to deal with climate change emergencies and serve an increased number of patients/incidents related to climate change |
|---|--|
| Number of the measure | HEAL 4 |
| Priority (high-medium-low) ²⁷² | High |
| Climate impact (s) addressed | All |
| Primary Sector | Health |
| Secondary sector | Disaster Risk Management |
| KTM category ²⁷³ | Knowledge and Behavioural change |
| Sub-KTM | Capacity building |
| Goal of the measure | Manage impacts of climate change in relation to mortality and morbidity. |
| Description of the measure | <p>A. Create an interdisciplinary team to monitor the effects of climate change on health and provide early warnings to alert relevant health stakeholders. Based on the data gathered in HEAL1, notify the competent authorities and provide recommendations for further research, training, monitoring and adaptation measures</p> <p>B. Develop contingency plans in the health and social care systems as well as in the municipalities to serve an increased number of patients/incidents related to climate change (e.g. bed capacity, consumables, staff availability). Consider increased needs during tourist season.</p> <p>C. Develop specific information material and organize training seminars on the effects of climate change on health and ways to address them.</p> <p>D. Advocate for the introduction of climate change theme in training curriculum for health care professionals including the correlation/impact on Health issues.</p> |
| Spatial scope of the measure | National |
| Implementation Cost (high-medium-low) ²⁷⁴ | Low |
| Maintenance cost (high-medium-low) | Low |
| Implications for society with special attention to vulnerable populations | Reduced vulnerability of the population to human health-related climate impacts |
| Co-benefits for regional or local development priorities | Creating a safe environment and minimise citizen risks and costs |
| Co-benefits for climate mitigation | None |
| Co-benefits for the environment | None |
| Political and cultural acceptability (high-medium-low) | High |

²⁷² High: to implement within two years; Medium: to implement in 2 to 5 years; Low: implement after 5 years

²⁷³ See <https://climate-adapt.eea.europa.eu/en/knowledge/tools/adaptation-support-tool/step-3-0>

²⁷⁴ Low: €100,000 or less; Medium: €100,000 – €1,000,000; High: over €1 million

| Empower and prepare medical/nursing and municipal staff to deal with climate change emergencies and serve an increased number of patients/incidents related to climate change | |
|--|--|
| Name of the measure | |
| Barriers for implementation | Absence of coordination leadership |
| Maladaptation risks | None |
| Responsible authority for implementation | Ministry of Health; Health Insurance Organisation |
| Other actors involved | This action needs a coordinated response from various Ministries of Health departments (Nursing services (education and training), Health Monitoring Unit of the Ministry of Health, Medical and Public Health services) in addition to other involved actors. Municipalities. The Unit for Education for the Environment and Sustainable Development (EESD) of the Ministry of Education, Culture, Sports and Youth can support Action C and D in coordination with the Ministry of Health. |
| Other policy initiatives that align / synergies | Synergy with DRM 4 |
| Technical/institutional readiness (high-medium-low) | High |
| Period of implementation (long-medium-short) ²⁷⁵ | Short |
| Time to effectiveness | Short |
| Financing (high-medium-low) | Maybe through EU funding / Horizon Project |
| Indicator for verification of implementation progress | <ul style="list-style-type: none"> • Creation of a monitoring interdisciplinary team • Number of contingency plans developed to serve an increased number of patients/incidents related to climate change • Number of training seminars conducted • Number of health care training curricula that incorporate climate change |
| Related to | GOV 1n |

²⁷⁵ Short: less than 2 years; Medium: between 2 to 5 years; Long: more than 5 years

| | |
|--|---|
| Name of the measure | Develop a national strategy to prevent the health risks from vector-borne and non-vector-borne infectious and parasitic diseases favoured by climate change |
| Number of the measure | HEAL 5n |
| Priority (high-medium-low) ²⁷⁶ | High |
| Climate impact (s) addressed | Heat waves, temperature rise, climate extremes, seasonal shifts |
| Primary Sector | Health |
| Secondary sector | Hydrological Regime and Water Management |
| KTM category ²⁷⁷ | Governance and Institutional |
| Sub-KTM | Management and planning |
| Goal of the measure | Prevent the health risks from vector-borne and non-vector-borne infectious and parasitic diseases favoured by climate change and have the best available knowledge at hand to appropriately react to emerging health risks if required |
| Description of the measure | <p>Climate change favours the spread of several vector-borne and non-vector-borne infectious and parasitic diseases in southern Europe such as Dengue, Chikungunya and Zika, all of which are transmitted by Aedes mosquitoes, which are expanding due to climate change. Diseases already present in some areas of southern Europe that will require attention in this regard include leishmaniasis, tularaemia, Crimean-Congo haemorrhagic fever, West Nile fever and Lyme disease, and among the vectors, ticks and other species of mosquito.</p> <p>Tackling emerging risks will require a multi-sectoral coordinated approach, pooling expertise from different medical specialties and other areas of expertise – ecology, entomology, etc.- to tackle both the vectors and their distribution as well as the health implications.</p> <p>There is a need to address this risk by improving the following lines of action:</p> <ul style="list-style-type: none"> A. epidemiological and microbiological surveillance to detect, diagnose and treat all patients as quickly as possible. B. entomological surveillance to detect the presence of the vector. C. vector management to prevent and control its presence and, if possible, eradicate it. D. individual protection of the population. E. training and information and, if necessary, research, on various fields – epidemiology, public health, taxonomy, entomology, ecology, etc. F. promote communication, networking and coordination between the administrations and agents involved, without which the activities contemplated in the plan could not be carried out. <p>It is also worth highlighting the interest of citizen science initiatives for the evaluation and control of the presence of the vectors that cause these diseases. These lines of action could be included in a National Preparedness and Response Plan or Strategy for Vector-borne Diseases.</p> |
| Spatial scope of the measure | National |

²⁷⁶ High: to implement within two years; Medium: to implement in 2 to 5 years; Low: implement after 5 years

²⁷⁷ See <https://climate-adapt.eea.europa.eu/en/knowledge/tools/adaptation-support-tool/step-3-0>

| Name of the measure | Develop a national strategy to prevent the health risks from vector-borne and non-vector-borne infectious and parasitic diseases favoured by climate change |
|--|---|
| Implementation Cost (high-medium-low) ²⁷⁸ | The cost of implementing this strategy is not high for the Epidemiological Surveillance Unit (mainly laboratory preparedness) The cost, if we consider the actions of the Public Health Services, is high. To be completed by Public Health Services |
| Maintenance cost (high-medium-low) | See above |
| Implications for society with special attention to vulnerable populations | Reduced exposure to vector and non-vector borne infectious and parasitic diseases |
| Co-benefits for regional or local development priorities | Minimise health risks. |
| Co-benefits for climate mitigation | None |
| Co-benefits for the environment | None |
| Political and cultural acceptability (high-medium-low) | Medium |
| Barriers for implementation | <p>Geopolitical Barriers: The Republic of Cyprus does not exercise effective control in the northern part of the island due to Turkish occupation. Thus, we are unable to enforce vector control measures, conduct surveillance, or implement disease prevention strategies in those areas, leading to potential gaps in managing vector-borne diseases.</p> <p>Understaffing: Limited human resources, especially in key fields such as epidemiology, entomology, and public health, can hinder the effective implementation of surveillance, vector control, and public education initiatives. Lack of personnel also impacts training, research, and coordination efforts necessary for a multi-sectoral approach.</p> <p>Difficulty in interdepartmental and interministerial collaboration: The national strategy requires the involvement of various sectors, such as health, agriculture, environment, and municipalities. Coordinating efforts across these different ministries and departments can be challenging.</p> |
| Maladaptation risks | Medium |
| Responsible authority for implementation | Medical and Public Health Services and Environmental Health Offices |
| Other actors involved | <ul style="list-style-type: none"> • State Health Services Organisation (SHSO) • Airport/Port authorities • Municipalities • Ministry of Agriculture, Rural Development and Environment • Doctors and other Health professionals • Health Insurance Organisation (HIO) • Cyprus Institute of Neurology & Genetics |
| Other policy initiatives that align / synergies | <p>Improving epidemiological surveillance systems, Improving preparedness and response for Health threats.</p> <p>Vector-borne diseases related to inland waters and wetlands connect this issue to the water management sector.</p> <p>Link air quality issues. No study on air quality and health effects in CY available</p> |

²⁷⁸ Low: €100,000 or less; Medium: €100,000 – €1,000,000; High: over €1 million

| Name of the measure | Develop a national strategy to prevent the health risks from vector-borne and non-vector-borne infectious and parasitic diseases favoured by climate change |
|---|--|
| Technical/institutional readiness (high-medium-low) | A national action plan for diseases transmitted by <i>Aedes aegypti</i> and <i>Aedes albopictus</i> , has been recently developed. Furthermore, an action plan for mosquito population management (prevent and control) is under development |
| Period of implementation (long-medium-short) ²⁷⁹ | Long |
| Time to effectiveness | Long |
| Financing (high-medium-low) | For the Epidemiological Surveillance Unit - High, as it's a small cost. Public Health Services? |
| Indicator for verification of implementation progress | <ul style="list-style-type: none"> • Development of a national strategy |
| Related to | GOV 3n |

²⁷⁹ Short: less than 2 years; Medium: between 2 to 5 years; Long: more than 5 years

| | |
|---|---|
| Name of the measure | Establish an effective multilevel governance system that identifies a lead agency, defines clear roles and responsibilities of the various health and social care services, and facilitates intersectoral and intergovernmental coordination to manage climate change impacts on public health |
| Number of the measure | HEAL 6n |
| Priority (high-medium-low) ²⁸⁰ | Medium |
| Climate impact (s) addressed | All |
| Primary Sector | Health |
| Secondary sector | n/a |
| KTM category²⁸¹ | Governance and Institutional |
| Sub-KTM | Management and planning |
| Goal of the measure | Improve the health care system response to climate related health-risks, improve the flow of information and enhance capacities of competent authorities and communities to respond to climate-related health risks |
| Description of the measure | <p>This measure includes:</p> <ul style="list-style-type: none"> A. Develop a comprehensive strategy that defines the responsibilities of the various health and social care services for the direct control of the effects of climate change on health in the event of an outbreak of disease or the occurrence of extreme weather events (heatwaves, floods, fires). B. Establish a multilevel governance system involving national, regional and local authorities, that defines clear roles and responsibilities formally and in advance, identifying a lead agency. Promote formal and informal intersectoral coordination mechanisms, such as working groups. C. Provide all relevant actors with the necessary information and resources to implement the actions under their responsibility, ensuring bi-directional information flows as close to real-time as possible and provide opportunities for stakeholder engagement. Specifically: <ul style="list-style-type: none"> ○ Define effective routes of information flows for different climate-related related risks, competent authorities and stakeholders ○ Organize awareness campaigns to develop and disseminate educational messages on the effects of climate change on health and how to deal with and protect it ○ Develop appropriate channels of communication to receive real-time on-the-ground information on health risks. ○ Create forums for stakeholder involvement in the development of plans and procedures |
| Spatial scope of the measure | National |
| Implementation Cost | Medium |

²⁸⁰ High: to implement within two years; Medium: to implement in 2 to 5 years; Low: to implement after 5 years

²⁸¹ See <https://climate-adapt.eea.europa.eu/en/knowledge/tools/adaptation-support-tool/step-3-0>

| Establish an effective multilevel governance system that identifies a lead agency, defines clear roles and responsibilities of the various health and social care services, and facilitates intersectoral and intergovernmental coordination to manage climate change impacts on public health | |
|---|--|
| (high-medium-low) ²⁸² | |
| Maintenance cost (high-medium-low) | Low |
| Implications for society with special attention to vulnerable populations | Reduced vulnerability to climate related health risks in the population |
| Co-benefits for regional or local development priorities | Improved the efficiency of health care services |
| Co-benefits for climate mitigation | None |
| Co-benefits for the environment | None |
| Political and social acceptability (high-medium-low) | High |
| Barriers for implementation | None |
| Maladaptation risks | None |
| Responsible authority for implementation | Ministry of Health |
| Other actors involved | This action needs a coordinated response from various departments within the Ministry of Health in addition to other involved actors. Multilevel governance is coordinated by the Ministry of interior |
| Other policy initiatives that align / synergies | n/a |
| Technical/institutional readiness (high-medium-low) | High |
| Period of implementation (long-medium-short) ²⁸³ | Medium |
| Time to effectiveness | Long |
| Financing (high-medium-low) | Medium – Maybe through Horizon or Horizon Europe projects |
| Indicator for verification of implementation progress | <ul style="list-style-type: none"> • Development of a comprehensive strategy to manage the effects of climate change on health • Development a multilevel governance system with attribution of roles and responsibilities |
| Related to | GOV 3n |

²⁸² Low: €100,000 or less; Medium: €100,000 – €1,000,000; High: over €1 million

²⁸³ Short: less than 2 years; Medium: between 2 to 5 years; Long: more than 5 years

Hydrological Regime and Water Management measures impact assessment factsheets

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|--|--|
| Name of the measure | Periodic reviews of progress and priorities of water policies and plans, and adaptation of objectives, instruments and resources, considering climate change. |
| Number of the measure | WAT 1 |
| Priority (high-medium-low) ²⁸⁴ | High or Medium based on legal requirements (every six years) |
| Climate impact (s) addressed | Droughts, Floods |
| Primary Sector | Hydrological Regime and Water Management |
| Secondary sector | All water-dependent sectors |
| KTM category ²⁸⁵ | Governance and Institutional |
| Sub-KTM | Management and planning |
| Goal of the measure | Integrate climate change adaptation into water policy and planning – River Basin Management Plans, Flood risk management plans, Drought Management Plans – giving special priority to the management of extreme events (droughts and floods). |
| Description of the measure | Periodic reviews of the water policies and plans should consider the effects of climate change at the stage of assessing and monitoring the status of water bodies and of planning and selecting adaptation measures. Information on climate impacts, risks and vulnerability must be readily available. The periodic review should take place when reviewing River Basin Management Plans (Water Framework Directive) and Flood risk management plans (Floods Directive). |
| Spatial scope of the measure | River basin district |
| Implementation Cost (high-medium-low) ²⁸⁶ | Med to high |
| Maintenance cost (high-medium-low) | Not applicable |
| Implications for society with special attention to vulnerable populations | Effectively integrating climate change adaptation considerations into water resources policies and plans decreases vulnerability and exposure to hydroclimatic risks and increases water security |
| Co-benefits for regional or local development priorities | Improved drought and flood risk management reduces local exposure and vulnerability to these risks |
| Co-benefits for climate mitigation | N/A |
| Co-benefits for the environment | Improved consideration of climate change impacts can help ensure the needs of water-dependent ecosystems and species in the context of floods and droughts. |

²⁸⁴ High: to implement within 2 years; Medium: to implement in 2 to 5 years; Low: to implement after 5 years

²⁸⁵ See <https://climate-adapt.eea.europa.eu/en/knowledge/tools/adaptation-support-tool/step-3-0>

²⁸⁶ Low: €100,000 or less; Medium: €100,000 – €1,000,000; High: over €1 million

| Name of the measure | Periodic reviews of progress and priorities of water policies and plans, and adaptation of objectives, instruments and resources, considering climate change. |
|---|--|
| Political and social acceptability | It depends on the new measures some will be highly acceptable some others not. After extreme events political and social feasibility increases. |
| Barriers for implementation | Depending on the measure Political Cost Elaboration of reviews is limited by available human resources |
| Maladaptation risks | None |
| Responsible authority for implementation | Water Development Department |
| Other actors involved | Other competent authorities such as Department of Agriculture, Town Planning |
| Other policy initiatives that align / synergies | All others relevant Spatial planning |
| Technical/institutional readiness (high-medium-low) | High |
| Period of implementation (long-medium-short) ²⁸⁷ | Legally mandated periodic reviews – for instance every 6 years for WFD and Floods Directive |
| Time to effectiveness (to have an effect or impact) | Depending on the measure, but short to medium |
| Financing | Limited human resources, some availability of funds |
| Indicator for verification of implementation progress | <ul style="list-style-type: none"> • Number of Plans reviewed |
| Additional comments | Partly covered by the 6-year periodic reviews of the Water Framework Directive-river basin management plans and the flood risk management plans. Climate change is considered in these reviews. There are a lot of measures but there is always room for improvement |
| Relates to | |

²⁸⁷ Short: less than 2 years; Medium: between 2 to 5 years; Long: more than 5 years

| | |
|--|---|
| Name of the measure | Improve, upgrade, modernise and repair the water supply and distribution networks and related infrastructure to reduce water losses |
| Number of the measure | WAT 2 |
| Priority (high-medium-low) ²⁸⁸ | Low for Water Development Department (WDD) networks. High for District Local Government Organisations. |
| Climate impact (s) addressed | Droughts |
| Primary Sector | Hydrological Regime and Water Management |
| Secondary sector | Infrastructure, Transport and Buildings |
| KTM category ²⁸⁹ | Physical and technological |
| Sub-KTM | Grey options |
| Goal of the measure | Water savings to address water scarcity and high water costs due to increased demand for desalinated water |
| Description of the measure | <p>Water losses in water distribution networks, also known as unaccounted-for water, are estimated to range from 15% to 20% in urban areas and from 30% to 50% in rural areas. Water savings from network replacement or upgrade are expected to be more effective than other water saving measures.</p> <p>The measure aims to replace and repair all old and poorly maintained water distribution networks and improve leak detection by adopting appropriate technologies.</p> |
| Spatial scope of the measure | Regional and local |
| Implementation Cost (high-medium-low) ²⁹⁰ | High |
| Maintenance cost (high-medium-low) | High |
| Implications for society with special attention to vulnerable populations | Improve water security for domestic water supply and other uses – commercial, tourism, etc. |
| Co-benefits for regional or local development priorities | Ensure water supply for various uses and reduce risk of water shortages. |
| Co-benefits for climate mitigation | Reduced water losses result in a reduction of overall water consumption and therefore potabilization and treatment needs, thus reducing energy demand and emissions. |
| Co-benefits for the environment | Improved efficiency in distribution network reduces overall demand from natural ecosystems. |
| Political and social acceptability | Legally obligated so politically acceptable, Social acceptability depends on the impact on water tariffs |
| Barriers for implementation | Availability of Resources |

²⁸⁸ High: to implement within 2 years; Medium: to implement in 2 to 5 years; Low: to implement after 5 years

²⁸⁹ See <https://climate-adapt.eea.europa.eu/en/knowledge/tools/adaptation-support-tool/step-3-0>

²⁹⁰ Low: €100,000 or less; Medium: €100,000 – €1,000,000; High: over €1 million

| | |
|---|--|
| Name of the measure | Improve, upgrade, modernise and repair the water supply and distribution networks and related infrastructure to reduce water losses |
| Maladaptation risks | None |
| Responsible authority for implementation | Water Development Department for the main conveyors. District Local Government Organisations for distribution networks. |
| Other actors involved | District Local Government Organisations |
| Other policy initiatives that align / synergies | Drinking Water Directive Leakage Index per water supply area, to define priorities and costs for maintenance based on funds availability. Energy efficiency: Reduced leakage in water distribution network reduces energy consumption. |
| Technical/institutional readiness (high-medium-low) | High |
| Period of implementation (long-medium-short) ²⁹¹ | Depending on availability of human and financial resources |
| Time to effectiveness (to have an effect or impact) | Immediately after upgrade and maintenance works have been completed. |
| Financing | Medium |
| Indicator for verification of implementation progress | <ul style="list-style-type: none"> • Annual % Reduction in water losses • Km of upgraded/replaced pipeline |
| Relates to | |

²⁹¹ Short: less than 2 years; Medium: between 2 to 5 years; Long: more than 5 years

| | |
|--|---|
| Name of the measure | National Investment Plan for Water Works considers the revised National Adaptation Strategy and addressing the identified strategic and specific objectives |
| Number of the measure | WAT 3 |
| Priority (high-medium-low) ²⁹² | High |
| Climate impact (s) addressed | Droughts and floods |
| Primary Sector | Hydrological Regime and Water Management |
| Secondary sector | Finance |
| KTM category ²⁹³ | Economic and Finance |
| Sub-KTM | Financing and incentive instruments |
| Goal of the measure | The targeted allocation of resources for the implementation of infrastructure projects for water protection and the sustainable satisfaction of water needs, taking into consideration climate change adaptation. |
| Description of the measure | In the context of fulfilling the essential conditions for the approval of the Cohesion Policy Programme "THALIA 2021-2027", the Water Development Department (WDD) and the Council of Ministers has approved the National Investment Plan for Water Works, which applies to projects of WDD and other water supply and sewerage institutes (Water Supply Boards + Sewerage Boards now under the District Local Government Organisations, Municipalities, Communities, etc.) which are either in progress or planned for implementation within the decade. |
| Spatial scope of the measure | National and Local |
| Implementation Cost (high-medium-low) ²⁹⁴ | High |
| Maintenance cost (high-medium-low) | None |
| Implications for society with special attention to vulnerable populations | Improved water security through improved water infrastructure planning considering adaptation to climate change. |
| Co-benefits for regional or local development priorities | Legal framework implementation |
| Co-benefits for climate mitigation | None |
| Co-benefits for the environment | Depending on the measures implemented and their contribution to improve the status of all waters – surface, groundwater and coastal. |
| Political and social acceptability | High |
| Barriers for implementation | Availability of funds |
| Maladaptation risks | Depending on the content of the revised Investment Plan and the measures considered. Emphasis should be placed in adaptive options. |
| Responsible authority for implementation | District Local Government Organisation, Water Development Department |

²⁹² High: to implement within 2 years; Medium: to implement in 2 to 5 years; Low: to implement after 5 years

²⁹³ See <https://climate-adapt.eea.europa.eu/en/knowledge/tools/adaptation-support-tool/step-3-0>

²⁹⁴ Low: €100,000 or less; Medium: €100,000 – €1,000,000; High: over €1 million

| | |
|---|---|
| Name of the measure | National Investment Plan for Water Works considers the revised National Adaptation Strategy and addressing the identified strategic and specific objectives |
| Other actors involved | District Local Government Organisation, Ministry of Finance |
| Other policy initiatives that align / synergies | Legal Requirements |
| Technical/institutional readiness (high-medium-low) | high |
| Period of implementation (long-medium-short) ²⁹⁵ | 2025-2030 |
| Time to effectiveness (to have an effect or impact) | Directly upon implementation |
| Financing | High |
| Indicator for verification of implementation progress | <ul style="list-style-type: none"> Number of Projects funded per year |
| Additional comments | <p>The plan has been approved by the Council of Ministers 3.4.2024 (1.17 billion EUR for projects to implemented in 2 phases, (a) for ongoing projects to be completed within 2024-2029, and (b) for planned/ under examination projects, estimated to start by 2025 and be completed by 2030. Projects are planned (infrastructure), together with RRF.</p> <p>https://www.moa.gov.cy/moa/wdd/wdd.nsf/All/9C95FC3F1264EADAC2258B3B003D6654/\$file/Ethniko_Ependitiko_Plano_Ydatikon_Ergon_June2024.pdf</p> |
| Relates to | AGRI 4 |

²⁹⁵ Short: less than 2 years; Medium: between 2 to 5 years; Long: more than 5 years

| | |
|--|---|
| Name of the measure | Create an early leak detection tool and a digital platform (app) to inform consumers about their consumption, submit applications and pay bills |
| Number of the measure | WAT 4 |
| Priority (high-medium-low) ²⁹⁶ | High |
| Climate impact (s) addressed | Droughts |
| Primary Sector | Hydrological Regime and Water Management |
| Secondary sector | None |
| KTM category ²⁹⁷ | Physical and Technological Knowledge and behavioural change |
| Sub-KTM | Technological options Information and capacity building |
| Goal of the measure | Early detection of leaks in domestic water supply systems. Behavioural change of consumers concerning water protection, resulting in water savings. Consumer facilitation. Upgrading of services. Increased reliability of the water supply operator. |
| Description of the measure | <p>A. Creation of a platform (application) to inform consumers about their consumption, if there is a smart metering system (for any increased consumption, leaks, etc.), to submit applications and to pay bills.</p> <p>B. Creation of an early detection system tool through the formation of a Digital Twin of the water supply distribution network. This tool can be achieved by installing pressure sensors and water quality sensors to efficiently monitor the water supply to different serving areas. Furthermore, the development of such a tool will provide water supply authorities with a useful resource that will offer live-streaming data regarding the water supply and indicate possible anomalies in the network, potential malfunctions, and water losses. This will allow for preventive measures to be taken for such events, helping to reduce water losses.</p> |
| Spatial scope of the measure | National and Local |
| Implementation Cost (high-medium-low) ²⁹⁸ | High |
| Maintenance cost (high-medium-low) | Medium |
| Implications for society with special attention to vulnerable populations | Increased reliability of the water supply system |
| Co-benefits for regional or local development priorities | Reduced losses in water distribution networks and decreased water production and distribution costs. |
| Co-benefits for climate mitigation | Reduced losses result in reduced consumption, reduced volumes of water lost, reduced energy consumption for water and wastewater treatment and reduced emissions. |
| Co-benefits for the environment | Reduced water demand and reduced quantitative pressure on water bodies. |

²⁹⁶ High: to implement within 2 years; Medium: to implement in 2 to 5 years; Low: to implement after 5 years

²⁹⁷ See <https://climate-adapt.eea.europa.eu/en/knowledge/tools/adaptation-support-tool/step-3-0>

²⁹⁸ Low: €100,000 or less; Medium: €100,000 – €1,000,000; High: over €1 million

| | |
|---|--|
| Name of the measure | Create an early leak detection tool and a digital platform (app) to inform consumers about their consumption, submit applications and pay bills |
| Political and social acceptability | High |
| Barriers for implementation | Financing and human resources |
| Maladaptation risks | None |
| Responsible authority for implementation | District Local Government Organisations for domestic water demand. |
| Other actors involved | Water Development Department |
| Other policy initiatives that align / synergies | Enhance compliance with revised Drinking Water Directive |
| Technical/institutional readiness (high-medium-low) | Depending on the status of development of the app. |
| Period of implementation (long-medium-short) ²⁹⁹ | Depending on the status of development of the app. |
| Time to effectiveness (to have an effect or impact) | Shortly after implementation of the app. |
| Financing | Funding from the District Local Government Organisations |
| Indicator for verification of implementation progress | <ul style="list-style-type: none"> Platform created: started/ongoing/finalised |
| Relates to | |

²⁹⁹ Short: less than 2 years; Medium: between 2 to 5 years; Long: more than 5 years

| Name of the measure | Expand the use of water meters |
|--|---|
| Number of the measure | WAT 5 |
| Priority (high-medium-low) ³⁰⁰ | High |
| Climate impact (s) addressed | Droughts |
| Primary Sector | Hydrological Regime and Water Management |
| Secondary sector | Infrastructure, Transport and Buildings Agriculture |
| KTM category ³⁰¹ | Physical and Technological |
| Sub-KTM | Technological options |
| Goal of the measure | <ul style="list-style-type: none"> • Improve monitoring of water uses. • Reduce losses in water distribution networks. • Reduce overall water use and water scarcity. |
| Description of the measure | Expand the use of water supply meters and water pressure monitors in distribution networks. Install water supply meters for all users and water providers. Install automatic centralised data and meter readings collection systems for effective monitoring. |
| Spatial scope of the measure | National |
| Implementation Cost (high-medium-low) ³⁰² | Cost is on the consumer |
| Maintenance cost (high-medium-low) | Cost by consumer |
| Implications for society with special attention to vulnerable populations | Financial impacts of the cost of the meters. Improved water management and water security. |
| Co-benefits for regional or local development priorities | Improved data and information on consumption patterns can facilitate identification and reduction of losses, reduce overall water demand and reduced costs of water supply services. |
| Co-benefits for climate mitigation | Reduced consumption results in reduced energy use and reduced emissions |
| Co-benefits for the environment | Reduced consumption results in reduced quantitative impacts on water bodies. |
| Political and social acceptability | Political: High Social: Initial reticence and gradually acceptable |
| Barriers for implementation | Scarce Human Resources for inspecting meter status and consumption measurements – unless smart meters are installed. Smart meters to be installed on large consumers (mostly from boreholes) |
| Maladaptation risks | None |
| Responsible authority for implementation | Water Development Department for non-domestic users District Local Government Organisations for domestic users |
| Other actors involved | District Local Government Organisations |
| Other policy initiatives that align / synergies | Compliance with revised Drinking Water Directive |

³⁰⁰ High: to implement within 2 years; Medium: to implement in 2 to 5 years; Low: to implement after 5 years

³⁰¹ See <https://climate-adapt.eea.europa.eu/en/knowledge/tools/adaptation-support-tool/step-3-0>

³⁰² Low: €100,000 or less; Medium: €100,000 – €1,000,000; High: over €1 million



| Name of the measure | Expand the use of water meters |
|---|--|
| Technical/institutional readiness (high-medium-low) | High |
| Period of implementation (long-medium-short) ³⁰³ | It has been implemented to a significant extent in some regions. |
| Time to effectiveness (to have an effect or impact) | Shortly after deployment of water meters. |
| Financing | Water tariffs |
| Indicator for verification of implementation progress | <ul style="list-style-type: none">• Number of water meters installed every year• Percentage of households covered |
| Relates to | |

³⁰³ Short: less than 2 years; Medium: between 2 to 5 years; Long: more than 5 years

| | |
|--|---|
| Name of the measure | Implementation and regular reviews of the Drought Management Plan (DMP) incorporating information on climate change impacts on water resources and integrate contingent drought risk management into water planning and management |
| Number of the measure | WAT 6 |
| Priority (high-medium-low) ³⁰⁴ | High |
| Climate impact (s) addressed | Droughts |
| Primary Sector | Hydrological Regime and Water Management |
| Secondary sector | Biodiversity, Agriculture |
| KTM category ³⁰⁵ | Physical and Technological |
| Sub-KTM | Technological options |
| Goal of the measure | Implementation and regular revisions of Drought Management Plan. |
| Description of the measure | <p>A. Implementation of the measures required for the implementation of the Drought Management Plan.</p> <p>B. Implementation and strengthening of early warning systems.</p> <p>C. Periodic reassessment of indicators and limits assigned to them.</p> <p>D. Drought indexes are based on stochastic modelling of historical flows and propose management of water resources in advance on a 5-year future probable drought scenario. Climate projections based on climate models are not yet included in the Drought Management Plans – they are based on statistical analyses of historical data.</p> <p>The review should be carried out every 6 years in accordance with the Water Framework Directive.</p> |
| Spatial scope of the measure | National – River basin district |
| Implementation Cost (high-medium-low) ³⁰⁶ | Depending on measures included in the Drought Management Plans |
| Maintenance cost (high-medium-low) | Depending on measures included in the Drought Management Plans |
| Implications for society with special attention to vulnerable populations | Reduced vulnerability to drought risks and enhanced water security |
| Co-benefits for regional or local development priorities | Reduced impacts of drought in water supply for different uses |
| Co-benefits for climate mitigation | None |
| Co-benefits for the environment | Ensured environmental flows through improved drought risk management |
| Political and social acceptability | High |
| Barriers for implementation | If grey measures are needed to address droughts, some of these are expensive. |
| Maladaptation risks | Some reactive measures implemented to address drought emergencies can lead to increased vulnerability to future droughts – for instance |

³⁰⁴ High: to implement within 2 years; Medium: to implement in 2 to 5 years; Low: to implement after 5 years

³⁰⁵ See <https://climate-adapt.eea.europa.eu/en/knowledge/tools/adaptation-support-tool/step-3-0>

³⁰⁶ Low: €100,000 or less; Medium: €100,000 – €1,000,000; High: over €1 million

| | |
|---|---|
| Name of the measure | Implementation and regular reviews of the Drought Management Plan (DMP) incorporating information on climate change impacts on water resources and integrate contingent drought risk management into water planning and management |
| | uncontrolled groundwater use, or reduction of environmental flows during droughts. |
| Responsible authority for implementation | Water Development Department |
| Other actors involved | Department of the Environment, Department of Forestry, Department of Agriculture |
| Other policy initiatives that align / synergies | Compliance with Water Framework Directive |
| Technical/institutional readiness (high-medium-low) | High |
| Period of implementation (long-medium-short) ³⁰⁷ | The Drought Management Plan is updated every 6 years in line with River Basin Management Plans (RBMPs). It will be updated in parallel with the 4 th RBMP. Drought Indices are monitored monthly. |
| Time to effectiveness (to have an effect or impact) | Concurrent with Plan's implementation |
| Financing | Low availability |
| Indicator for verification of implementation progress | <ul style="list-style-type: none"> Climate Change predictions and projections are incorporated in to DMPs |
| Relates to | DRM 2n GOV 1n |

³⁰⁷ Short: less than 2 years; Medium: between 2 to 5 years; Long: more than 5 years

| Name of the measure | Improve application of the polluter pays principle to improve water quality |
|--|---|
| Number of the measure | WAT 7n |
| Priority (high-medium-low) ³⁰⁸ | Medium |
| Climate impact (s) addressed | Droughts |
| Primary Sector | Hydrological Regime and Water Management |
| Secondary sector | Industry; Economy and Finance; Agriculture |
| KTM category ³⁰⁹ | Economic and Finance |
| Sub-KTM | Financing and incentive instruments |
| Goal of the measure | Reduce pollution and improve water quality |
| Description of the measure | The polluter pays principle is at the core of EU environmental policy: those responsible for environmental damage should pay to cover the costs. This applies to prevention of pollution, remediation, liability (criminal, civil and environmental liability) and the costs imposed on society of pollution that does happen. Incorporating environmental costs into water fees in Cyprus can contribute to reducing pollution, improving water quality through better water use practices. Urban water use fees can incorporate the cost of advanced water treatment to enhance wastewater reuse in agriculture – because of reduced costs – to replace freshwater sources and improve water quality. |
| Spatial scope of the measure | National |
| Implementation Cost (high-medium-low) ³¹⁰ | Medium (costs of monitoring and enforcement) |
| Maintenance cost (high-medium-low) | Low |
| Implications for society with special attention to vulnerable populations | Benefits from improved water quality for water security and recreational water use |
| Co-benefits for regional or local development priorities | Enhanced quality of life, including resilience to CC |
| Co-benefits for climate mitigation | None |
| Co-benefits for the environment | Improved water quality |
| Political and social acceptability | Medium |
| Barriers for implementation | Need better enforcement. There are measures, the results show there is room for improvement, due to lack of human resources. |
| Maladaptation risks | None |
| Responsible authority for implementation | Water Development Department, Department of the Environment, Department of Agriculture, Service of Industry and Technology, Mine Service |

³⁰⁸ High: to implement within 2 years; Medium: to implement in 2 to 5 years; Low: to implement after 5 years

³⁰⁹ See <https://climate-adapt.eea.europa.eu/en/knowledge/tools/adaptation-support-tool/step-3-0>

³¹⁰ Low: €100,000 or less; Medium: €100,000 – €1,000,000; High: over €1 million



| Name of the measure | Improve application of the polluter pays principle to improve water quality |
|---|---|
| Other actors involved | Local Authorities |
| Other policy initiatives that align / synergies | Compliance with Water Framework Directive. Water Reuse Regulation |
| Technical/institutional readiness (high-medium-low) | High |
| Period of implementation (long-medium-short) ³¹¹ | Short |
| Time to effectiveness (to have an effect or impact) | Upon implementation |
| Financing | Limited human resources |
| Indicator for verification of implementation progress | <ul style="list-style-type: none">• Change in water body status |
| Relates to | WAT 9n |

³¹¹ Short: less than 2 years; Medium: between 2 to 5 years; Long: more than 5 years

| | |
|--|--|
| Name of the measure | Reuse of treated urban wastewater after strict control of its suitability; and provide incentive schemes for sectoral uptake of water reuse (farming, livestock, other uses) |
| Number of the measure | WAT 8 |
| Priority (high-medium-low) ³¹² | High |
| Climate impact (s) addressed | Droughts |
| Primary Sector | Hydrological Regime and Water Management |
| Secondary sector | Economy, Industry and Finance Agriculture Spatial planning |
| KTM category ³¹³ | Physical and Technological Economic and finance |
| Sub-KTM | Grey options Finance and incentive instruments |
| Goal of the measure | Reuse of treated urban wastewater with strict control of their suitability in compliance with existing regulations |
| Description of the measure | Develop the necessary infrastructure to make treated urban wastewater available for irrigation of green areas, sports fields and crops, where these infrastructures are not available. Conduct the necessary studies (technical, cost-benefit, etc.) for the development of the water distribution networks. |
| Spatial scope of the measure | National and Local |
| Implementation Cost (high-medium-low) ³¹⁴ | High |
| Maintenance cost (high-medium-low) | Medium – high for the existing infrastructure. Consumers pay for maintenance, but it is heavily subsidized. Maintenance costs for the upcoming network to be defined. |
| Implications for society with special attention to vulnerable populations | Recycled water is a secure supply of water. |
| Co-benefits for regional or local development priorities | Boosting of agricultural sector, rural economy etc. |
| Co-benefits for climate mitigation | None |
| Co-benefits for the environment | Water savings- reduce environmental impact by reusing water in lieu of freshwater sources |
| Political and social acceptability | High |
| Barriers for implementation | The quality of reclaimed water originating from Urban Wastewater Treatment Plants in some coastal areas – for instance Larnaca - has high salinity and can be used only in tolerant crops. Measures are taken to reduce the conductivity. New areas will be connected in three years, and it is expected to reduce the conductivity. |
| Maladaptation risks | Reclaimed water meets new or increased demands, instead of substituting existing uses and reducing pressure on surface and groundwater bodies. |

³¹² High: to implement within 2 years; Medium: to implement in 2 to 5 years; Low: to implement after 5 years

³¹³ See <https://climate-adapt.eea.europa.eu/en/knowledge/tools/adaptation-support-tool/step-3-0>

³¹⁴ Low: €100,000 or less; Medium: €100,000 – €1,000,000; High: over €1 million

| | |
|---|---|
| Name of the measure | Reuse of treated urban wastewater after strict control of its suitability; and provide incentive schemes for sectoral uptake of water reuse (farming, livestock, other uses) |
| Responsible authority for implementation | Water Development Department is responsible for the tertiary treated effluent (this may change to District Local Government Organisations) |
| Other actors involved | Department of Agriculture District Local Government Organisations responsible to treat wastewater up to secondary treatment |
| Other policy initiatives that align / synergies | Compliance with Regulation (EU) 2020/741 of 25 May 2020, on minimum requirements for water reuse Groundwater / treated water can be used for irrigation in cities – synergy with tree planting measure in cities Soils: good quality of water also protects soil |
| Technical/institutional readiness (high-medium-low) | High |
| Period of implementation (long-medium-short) ³¹⁵ | Short |
| Time to effectiveness (to have an effect or impact) | Shortly after wastewater treatment and transportation infrastructure is operational. |
| Financing | Low |
| Indicator for verification of implementation progress | <ul style="list-style-type: none"> Cubic meters of reused water per year |
| Additional comments | <p>Cyprus has yet to fully meet its legal obligations regarding the Urban Wastewater Treatment Directive (UWWTD) 91/271/EC, which is a priority now. Stricter wastewater treatment standards are proposed under the revised UWWTD.</p> <p>While tertiary urban wastewater treatment plants (WWTP) already are in operation in some places, plans include expanding WWTP in other agglomerations, and WDD intends to invest for its tertiary treatment and reuse reclaimed water in agriculture, to release freshwater reserves etc.</p> |
| Relates to | AGRI 4 |

³¹⁵ Short: less than 2 years; Medium: between 2 to 5 years; Long: more than 5 years

| | |
|---|--|
| Name of the measure | Protect groundwater resources from pollution and overuse and promote the reduction of groundwater abstractions where sustainability limits are exceeded |
| Number of the measure | WAT 9n |
| Priority (high-medium-low) ³¹⁶ | High (Directive 2000/60/EC establishing a framework for Community action in the field of water policy and Directives 2008/105/EC and 2006/118/EC on environmental quality standards in the field of water policy, have been incorporated in the National legislation) |
| Climate impact (s) addressed | Droughts |
| Primary Sector | Hydrological Regime and Water Management |
| Secondary sector | Agriculture Spatial Planning |
| KTM category ³¹⁷ | Governance and institutional |
| Sub-KTM | Management and planning |
| Goal of the measure | Improve the status of groundwater bodies |
| Description of the measure | <p>Groundwater is a strategic resource for water management in situations of drought since it typically responds more slowly to changes in precipitation. It plays a fundamental role in ensuring water supply in times of drought and in the maintenance of aquatic ecosystems, providing the base flow of river systems. Its deterioration jeopardises the environmental status of rivers and the sustainability of their water supply and flow maintenance services. The recovery of groundwater bodies is a priority objective in terms of adaptation. The reduction of groundwater abstractions should be promoted where sustainability limits are exceeded, and the effective reduction of pollution should be encouraged, particularly that related to agricultural and livestock farming.</p> <p>Measures in this line of action can include:</p> <ul style="list-style-type: none"> A. Improved characterisation of groundwater bodies / understanding of annual renewable resources and groundwater dynamics. B. Require all groundwater uses to install water meters (smart meters if funds are available) and periodically report to the Water Development Department. C. Improve monitoring and control of groundwater uses to enhance the aquifer's sustainability. This requires the review of the existing monitoring network to check and improve its representativeness, resources for periodic monitoring, data gathering, processing, and (semi-automatic) regular reporting. It could potentially be implemented on a pilot base. D. Limit non-essential groundwater uses – landscaping, irrigation – when sustainability limits are exceeded taking into consideration socioeconomic and environmental criteria. |
| Spatial scope of the measure | National / River basin district |
| Implementation Cost | Medium |

³¹⁶ High: to implement within 2 years; Medium: to implement in 2 to 5 years; Low: to implement after 5 years

³¹⁷ See <https://climate-adapt.eea.europa.eu/en/knowledge/tools/adaptation-support-tool/step-3-0>

| Name of the measure | Protect groundwater resources from pollution and overuse and promote the reduction of groundwater abstractions where sustainability limits are exceeded |
|--|--|
| (high-medium-low) ³¹⁸ | |
| Maintenance cost (high-medium-low) | Low |
| Implications for society with special attention to vulnerable populations | Traditional crop production, resistance by farmers to change crops to reduce irrigation water demand and water scarcity hinders the effective implementation of this measure |
| Co-benefits for regional or local development priorities | Reverse trends of bad quantitative and chemical groundwater body statuses. |
| Co-benefits for climate mitigation | None |
| Co-benefits for the environment | Improved status of groundwater bodies and groundwater dependent aquatic ecosystems |
| Political and social acceptability | High |
| Barriers for implementation | Need to compensate farmers for income loss for decreasing groundwater abstraction. |
| Maladaptation risks | None |
| Responsible authority for implementation | Water Development Department / Geological Survey Department |
| Other actors involved | Local Authorities, District Local Government Organisation, Farmer unions and organizations |
| Other policy initiatives that align / synergies | Compliance with WFD; Groundwater directives. Forest habitat conservation Soils: good quality of water also protects soil |
| Technical/institutional readiness (high-medium-low) | Medium |
| Period of implementation (long-medium-short) ³¹⁹ | Short |
| Time to effectiveness (to have an effect or impact) | Depending on monitoring and enforcement capabilities as well as the type of pressure – groundwater bodies recuperate from bad quantitative status but more slowly from bad qualitative status. |
| Financing | Low |
| Indicator for verification of implementation progress | <ul style="list-style-type: none"> Change in Groundwater status in accordance with the Water Framework Directive |
| Relates to | WAT 7n |

³¹⁸ Low: €100,000 or less; Medium: €100,000 – €1,000,000; High: over €1 million

³¹⁹ Short: less than 2 years; Medium: between 2 to 5 years; Long: more than 5 years

| Name of the measure | Reduce flood risks through river ecosystem restoration and rewilding in rural and urban areas |
|--|---|
| Number of the measure | WAT 10n |
| Priority (high-medium-low) ³²⁰ | High |
| Climate impact (s) addressed | Floods |
| Primary Sector | Hydrological Regime and Water Management |
| Secondary sector | Biodiversity and Ecosystems Infrastructure, Transport and Buildings Spatial Planning Soils Agriculture |
| KTM category ³²¹ | Nature Based Solutions and Ecosystem-based Approaches |
| Sub-KTM | Green options |
| Goal of the measure | Adapt planning practices so that ecological and hydrological continuities and ecosystem functionality inform spatial planning (regional, urban), the approval of projects impacting inland waters and strengthening the resilience of territories to the impacts of climate change |
| Description of the measure | <p>National, regional and local authorities collaborate to develop medium- and long-term balanced land strategies that:</p> <ul style="list-style-type: none"> A. Limit the consumption of natural, agricultural and forestry areas to reduce artificialisation and favour infiltration of precipitation B. Recuperate the floodplain – providing “room to the river” C. Promote the restoration of aquatic ecosystems and hydromorphological restoration of rivers through the removal and/or improvement of longitudinal and horizontal barriers – weirs, dams that are not used anymore, etc. D. In urban areas, identify and rewild riverbeds and other areas that have the potential to evolve into “green corridors”, functioning not only as flood zones but also offering advantages for residents and acting as a haven for wildlife. Some actions include: <ul style="list-style-type: none"> ○ Restoring the slopes of the valley and the riverbed. ○ Rebuilding trails using natural materials. ○ Planting native trees and plant species. ○ Install flexible and adaptable infrastructure. E. Use the Climate Resilient City Tool (CRCTool) to explore spatial planning adaptation options (mainly NBS) in urban areas to facilitate the exploration and selection of nature-based adaptation options for urban planning. F. Actively involve residents and space users, such as landowners, and their knowledge of past flooding events to inform the plans. <p>These actions contribute to reducing runoff, flood risks and soil erosion and enhance biodiversity conservation.</p> |
| Spatial scope of the measure | Local |
| Implementation Cost | Medium (depending on assessment of needs) |

³²⁰ High: to implement within 2 years; Medium: to implement in 2 to 5 years; Low: to implement after 5 years

³²¹ See <https://climate-adapt.eea.europa.eu/en/knowledge/tools/adaptation-support-tool/step-3-0>

| Name of the measure | Reduce flood risks through river ecosystem restoration and rewilding in rural and urban areas |
|--|---|
| (high-medium-low) ³²² | |
| Maintenance cost (high-medium-low) | Low |
| Implications for society with special attention to vulnerable populations | These measures in urban environments are often associated with locally a better quality of life, tied to increased green spaces and enhanced biodiversity in urban areas. |
| Co-benefits for regional or local development priorities | Increased flood protection, decreased insurance costs |
| Co-benefits for climate mitigation | None |
| Co-benefits for the environment | Improved biodiversity; improved functionality of aquatic ecosystems |
| Political and social acceptability | High |
| Barriers for implementation | Natural Water Retention Measures (NWRM) require greater space/land availability. Sometimes private land needs to be expropriated/confiscated which comes with a financial and political cost. Low human and financial resources availability Conflict with forestry (FOR 6n) |
| Maladaptation risks | n.a. |
| Responsible authority for implementation | For the measures of hydromorphological restoration of rivers included in the Water Framework Directive—River Basin Management Plan-programme of measures, the Department of Environment and Water Development Department are the implementing bodies For actions in urban areas: Department of Environment, District Local Government Organisations |
| Other actors involved | Department of Town Planning and Housing, District Local Government Organisations, District administration |
| Other policy initiatives that align / synergies | Floods Directive; Water framework directive MTCW (Ministry of Transport, Communications and Works): use flood relief infrastructure in the urban areas in combination with other projects, e.g., cycling paths (for cooling), green urban spaces etc. Synergy with Infrastructure sector measures since water features could be combined with cycling infrastructure, since the creation of running water channels under cycle paths can create cool conditions for cyclists, while at the same time being urban flood protection works Synergy with Infrastructure sector measures: urban green spaces, as the creation of fountains and other water features in urban green spaces can create cool conditions for residents who enjoy green spaces in such areas, while also providing urban flood relief protection |
| Technical/institutional readiness (high-medium-low) | High |
| Period of implementation (long-medium-short) ³²³ | Short – implementation is ongoing and several measures for river hydromorphological restoration are included in the programme of measures of the 3 rd River Basin Management Plan |

³²² Low: €100,000 or less; Medium: €100,000 – €1,000,000; High: over €1 million

³²³ Short: less than 2 years; Medium: between 2 to 5 years; Long: more than 5 years



| | |
|---|--|
| Name of the measure | Reduce flood risks through river ecosystem restoration and rewilding in rural and urban areas |
| Time to effectiveness (to have an effect or impact) | Upon Implementation |
| Financing | Low |
| Indicator for verification of implementation progress | <ul style="list-style-type: none">• Reduced number of adverse consequences in accordance with Art 6(5) Floods Directive. |
| Relates to | DRM 8n EDU 5n INFR 3 SPAT 1 SPAT 4n SPAT 5n |

| Name of the measure | | Enhance the efficient use of water in buildings, industry and agriculture |
|--|---|---|
| Number of the measure | WAT 11 | |
| Priority (high-medium-low) ³²⁴ | High | |
| Climate impact (s) addressed | Droughts | |
| Primary Sector | Hydrological Regime and Water Management | |
| Secondary sector | Infrastructure, Transport and Buildings Economy, Industry and Finance Agriculture | |
| KTM category ³²⁵ | Governance and Institutional | |
| Sub-KTM | Policy instruments | |
| Goal of the measure | Water savings to address water scarcity / high water costs due to increased demand for desalination / energy from water suppliers. | |
| Description of the measure | <p>A. Strengthen efficient use of water in buildings, industry and agriculture (e.g. more efficient household appliances, installation of water-saving devices, water recycling in industries, promotion of improved irrigation systems in crops).</p> <p>B. Propose the mandatory adoption of WAT 11 by large private businesses and the public sector and provide incentives for the residential sector and small and medium-sized enterprises (provision of free equipment, subsidies, discounts on fees and taxes). Make the measure mandatory for new buildings.</p> <p>C. Conduct a feasibility study on the potential of rainwater harvesting for certain domestic and agricultural uses and promote it through a grant scheme, if viable.</p> | |
| Spatial scope of the measure | National and Local | |
| Implementation Cost (high-medium-low) ³²⁶ | Med | |
| Maintenance cost (high-medium-low) | Med | |
| Implications for society with special attention to vulnerable populations | Subsidies for more water and energy efficiency appliances would help reduce utility costs | |
| Co-benefits for regional or local development priorities | High capital costs but lower operational costs (due to a decreased water bill) | |
| Co-benefits for climate mitigation | More efficient appliances and production processes also imply lower energy consumption and less emissions | |
| Co-benefits for the environment | Improved efficiency can help reduce overall water demand and decrease quantitative pressure on freshwater sources. | |
| Political and social acceptability | Med, due to implementation costs | |

³²⁴ High: to implement within 2 years; Medium: to implement in 2 to 5 years; Low: to implement after 5 years

³²⁵ See <https://climate-adapt.eea.europa.eu/en/knowledge/tools/adaptation-support-tool/step-3-0>

³²⁶ Low: €100,000 or less; Medium: €100,000 – €1,000,000; High: over €1 million



| Name of the measure | |
|---|---|
| Barriers for implementation | Enhance the efficient use of water in buildings, industry and agriculture Low funding resources. |
| Maladaptation risks | None |
| Responsible authority for implementation | Water Development Department with Ministry of Interior For Buildings: District Local Government Organisations Agriculture: there are many measures promoted – farmers education: Department of Agriculture Deputy Ministry of Tourism |
| Other actors involved | Local Authorities |
| Other policy initiatives that align / synergies | Compliance with Water Framework Directive Helps energy efficiency in general |
| Technical/institutional readiness (high-medium-low) | High |
| Period of implementation (long-medium-short) ³²⁷ | Medium |
| Time to effectiveness (to have an effect or impact) | Shortly after installation of improved appliances, equipment, irrigation systems, etc. |
| Financing | Low |
| Indicator for verification of implementation progress | <ul style="list-style-type: none">Number of developments adopting water efficiency measures |
| Relates to | INF 1n |

³²⁷ Short: less than 2 years; Medium: between 2 to 5 years; Long: more than 5 years

| | |
|--|---|
| Name of the measure | Control and limit intensive water demand activities (e.g., golf courses, tourist facilities, water-intensive crops) in water-scarce areas |
| Number of the measure | WAT 12 |
| Priority (high-medium-low) ³²⁸ | High |
| Climate impact (s) addressed | Droughts |
| Primary Sector | Hydrological Regime and Water Management |
| Secondary sector | Agriculture Spatial planning Tourism |
| KTM category ³²⁹ | Governance and Institutional |
| Sub-KTM | Management and planning |
| Goal of the measure | Water savings to address water scarcity and high water costs due to increased desalination demand |
| Description of the measure | A. Redefine the criteria for permitting water-intensive developments. B. Develop and consider adaptation scenarios for controlling water-intensive developments in areas with insufficient water resources. C. Incorporate Planning Permitting procedures for new developments. |
| Spatial scope of the measure | National and Local |
| Implementation Cost (high-medium-low) ³³⁰ | On private sector – high |
| Maintenance cost (high-medium-low) | N/A |
| Implications for society with special attention to vulnerable populations | N/A |
| Co-benefits for regional or local development priorities | Increased water availability locally and regionally |
| Co-benefits for climate mitigation | None |
| Co-benefits for the environment | Reduced pressure on water dependent ecosystems and quantitative status of water bodies |
| Political and social acceptability | Politically: Low Socially – high (eg. Farmers) |
| Barriers for implementation | Investors groups/lobbies/ political Existing policy regime and licencing (on golf course development) |
| Maladaptation risks | None |
| Responsible authority for implementation | Water Development Department in collaboration with the Department of Town Planning and Housing, Ministry of Interior |
| Other actors involved | Tourist operators |
| Other policy initiatives that align / synergies | Existing Plans for promoting such big and water-intensive developments (golf courses, tourism developments, etc). Helps reduce energy consumption |

³²⁸ High: to implement within 2 years; Medium: to implement in 2 to 5 years; Low: to implement after 5 years

³²⁹ See <https://climate-adapt.eea.europa.eu/en/knowledge/tools/adaptation-support-tool/step-3-0>

³³⁰ Low: €100,000 or less; Medium: €100,000 – €1,000,000; High: over €1 million



| Name of the measure | Control and limit intensive water demand activities (e.g., golf courses, tourist facilities, water-intensive crops) in water-scarce areas |
|---|---|
| Technical/institutional readiness (high-medium-low) | High |
| Period of implementation (long-medium-short) ³³¹ | Short |
| Time to effectiveness (to have an effect or impact) | Directly upon implementation |
| Financing | It is a matter of political will |
| Indicator for verification of implementation progress | <ul style="list-style-type: none">Water Demand Indicators (% reduction per water use, % of demand met by supply etc) |
| Relates to | |

³³¹ Short: less than 2 years; Medium: between 2 to 5 years; Long: more than 5 years

| | |
|--|---|
| Name of the measure | Develop future water availability and demand scenarios (for 2050, 2070) under climate change projections and develop strategic plans to adapt demands to projections |
| Number of the measure | WAT 13n |
| Priority (high-medium-low) ³³² | High |
| Climate impact (s) addressed | Droughts; Floods |
| Primary Sector | Hydrological Regime and Water Management |
| Secondary sector | Agriculture Economy, industry and Finance Spatial planning |
| KTM category ³³³ | Knowledge and behavioural change Governance and institutional |
| Sub-KTM | Information and awareness raising Management and planning |
| Goal of the measure | Generate updated information to assess the effects of climate change on water resources, extreme events, water uses and the status of water bodies and associated aquatic ecosystems, according to the latest available climate models and scenarios. Develop plans to adjust current and future water demands to available resources in a climate change context in consultation with affected sectors and actors. |
| Description of the measure | Promote and fund studies and research project that generate the following information: <ul style="list-style-type: none"> • Effects of climate change on water resources. • Effects of climate change on extreme events (droughts and floods). • Effects of climate change on water uses. • Effects of climate change on the status of water bodies and associated aquatic ecosystems. <p>These studies will feed/help inform measure WAT 1 “Periodic reviews of the water policies and plans should consider the effects of climate change”.</p> <p>Actions to adjust demands to current and projected available resources include:</p> <p>A. Adjust water use permit allocation to expected future available resources.</p> <p>B. Co-develop solutions in each region that are adapted to local needs and contexts, through public consultation processes.</p> <p>C. Develop publicly managed water reallocation mechanisms in situations of scarcity or droughts based on equity, socioeconomic, territorial and environmental criteria in consultation with stakeholders.</p> |
| Spatial scope of the measure | National |
| Implementation Cost (high-medium-low) ³³⁴ | Medium - High |
| Maintenance cost | Low |

³³² High: to implement within 2 years; Medium: to implement in 2 to 5 years; Low: to implement after 5 years

³³³ See <https://climate-adapt.eea.europa.eu/en/knowledge/tools/adaptation-support-tool/step-3-0>

³³⁴ Low: €100,000 or less; Medium: €100,000 – €1,000,000; High: over €1 million

| Name of the measure | Develop future water availability and demand scenarios (for 2050, 2070) under climate change projections and develop strategic plans to adapt demands to projections |
|--|--|
| (high-medium-low) | |
| Implications for society with special attention to vulnerable populations | No short-term benefits but long-term enhancement of water security |
| Co-benefits for regional or local development priorities | Improved understanding of climate related risks for water resources planning and management |
| Co-benefits for climate mitigation | None |
| Co-benefits for the environment | Information on impacts of climate change on aquatic ecosystems allows for the planning and development of adequate adaptation measures |
| Political and social acceptability | High |
| Barriers for implementation | Cost |
| Maladaptation risks | None |
| Responsible authority for implementation | Water Development Department |
| Other actors involved | Academia, consulting companies |
| Other policy initiatives that align / synergies | Climate law Water Framework Directive, Floods Directive |
| Technical/institutional readiness (high-medium-low) | High |
| Period of implementation (long-medium-short) ³³⁵ | It is being implemented now through a Contract awarded to Private Consultants |
| Time to effectiveness (to have an effect or impact) | Long |
| Financing | EU Funding through THALIA |
| Indicator for verification of implementation progress | <ul style="list-style-type: none"> Study on future water availability and demand scenarios (for 2050, 2070) under climate change projections and develop strategic plans to adapt demands to projections carried out: started/ongoing/finalised |
| Relates to | GOV 1n |

³³⁵ Short: less than 2 years; Medium: between 2 to 5 years; Long: more than 5 years

Infrastructure, transport and buildings measures impact assessment factsheets

| Name of the measure | Adapt building codes towards climate change adaptation |
|--|---|
| Number of the measure | INFR 1n |
| Priority (high-medium-low) ³³⁶ | Medium |
| Climate impact (s) addressed | Various |
| Primary Sector | Infrastructure, Transport and Buildings |
| Secondary sector | Spatial Planning Hydrological Regime and Water Management: adapted building codes should include water saving measures |
| KTM category ³³⁷ | Governance and Institutional |
| Sub-KTM | Management and planning Coordination, cooperation and networks |
| Goal of the measure | Increase the resilience of infrastructures |
| Description of the measure | <p>Climate-proofing of building codes involves various aspects of the building sector related to construction, manufacturing, maintenance and provision of services. Beyond improving adaptation to climate change and contributing to mitigation, climate-proofing of building codes also has the potential to contribute to improving of the quality of urban spaces and the lives of their inhabitants. In exemplary cases the implementation of building codes is carried out by administrative technicians, practitioners and researchers, and updates are disseminated through citizen involvement and information channels. Making buildings more resilient also requires progress in:</p> <ul style="list-style-type: none"> A. the deployment of the urban green infrastructure, B. the recovery of rainwater and greywater from buildings and innovations both in terms of materials (for example, permeable road surfaces, timber constructions) and building solutions (for example, bioclimatic architecture, green facades or roofs, seasonal shading solutions, night cooling strategies), C. addressing the cooling/heating effects of buildings on the surrounding public spaces, taking into consideration the impact of the building materials used; the number and types of trees to be planted, etc. <p>Create a forum for information exchange between administrations and managers of infrastructure and transport systems.</p> |
| Spatial scope of the measure | National |
| Implementation Cost (high-medium-low) ³³⁸ | Medium |
| Maintenance cost (high-medium-low) | None |
| Implications for society with special attention to vulnerable populations | Improvements in buildings' climate resilience will have positive impacts on the population in the face of heat waves and reduce energy costs. |

³³⁶ High: to implement within 2 years; Medium: to implement in 2 to 5 years; Low: to implement after 5 years

³³⁷ See <https://climate-adapt.eea.europa.eu/en/knowledge/tools/adaptation-support-tool/step-3-0>

³³⁸ Low: €100,000 or less; Medium: €100,000 – €1,000,000; High: over €1 million

| Name of the measure | Adapt building codes towards climate change adaptation |
|---|---|
| Co-benefits for regional or local development priorities | Will support local goals of making urban development climate resilient. |
| Co-benefits for climate mitigation | Could lead also to reduced CO ₂ emission due to more resource efficient approaches |
| Co-benefits for the environment | Reduced water consumption |
| Political and social acceptability | High |
| Barriers for implementation | Financing and Human Resources |
| Maladaptation risks | None |
| Responsible authority for implementation | Coordinated among competent authorities for building codes, water, energy and spatial planning |
| Other actors involved | Ministry of Transport, Communications and Works; Public Works Department Ministry of Interior: Directorate of Technical Services, Construction Product Sector, and Town, Planning and Housing Department Ministry of Energy, Commerce and Industry: Energy Service Department of Environment, MARDE |
| Other policy initiatives that align / synergies | Hydrological Regime and Water Management: adapted building codes should include water efficiency and saving measures |
| Technical/institutional readiness (high-medium-low) | High |
| Period of implementation (long-medium-short) ³³⁹ | Medium |
| Time to effectiveness (to have an effect or impact) | Within 5 years of approval of new building codes, as soon as these are implemented at the local level. |
| Financing | Short |
| Indicator for verification of implementation progress | <ul style="list-style-type: none"> Percentage of building codes reviewed and adapted. |
| Relates to | WAT 11 |

³³⁹ Short: less than 2 years; Medium: between 2 to 5 years; Long: more than 5 years

| Create and maintain urban parks and other green spaces to reduce the urban heat island effect | |
|--|--|
| Name of the measure | |
| Number of the measure | INFR 2 |
| Priority (high-medium-low) ³⁴⁰ | High |
| Climate impact (s) addressed | Heat waves, droughts |
| Primary Sector | Infrastructure, Transport and Buildings |
| Secondary sector | Spatial Planning |
| KTM category ³⁴¹ | Nature Based Solutions and Ecosystem-based Approaches |
| Sub-KTM | Green options |
| Goal of the measure | Management of the urban heat island effect |
| Description of the measure | <p>This measure includes several activities:</p> <ul style="list-style-type: none"> A. Conduct a survey of planned Green Spaces, assess their status and promote their development as green spaces. These could include undeveloped Planning Zones planned for green areas, existing bike lanes/paths, and storm drain protection areas that may be landscaped. B. Conduct a study of best practices for limiting the urban heat island phenomenon. The findings of this study will be adapted and integrated into the appropriate institutional frameworks (development plans, building regulations etc.) to avoid/reduce the phenomenon of urban heat islands, reduce energy consumption for cooling and outdoor shading etc. C. Include shading in cycling and pedestrian infrastructures through tree planting, installing solar panels, and other bioclimatic shading options (pergolas, etc). D. Use stormwater and flood risk management projects to create “climatic havens” through landscaping, permeable pavements, fountains, channels and other blue infrastructure, etc. <p>Possible sources of good practices: Adaptation Stories Building heat resilience in Zagreb: After the 2020 earthquake, the process of rebuilding was an opportunity to address increasing heat stress. As a first step, a heat map for one city district was developed, and the impacts of heat on different sectors analysed. The spatial distribution of heat showed significant temperature variations of up to 4°C in a same building block, primarily determined by the existence or absence of green infrastructure. In general, areas rich in green infrastructure were cooler than those without. Based on the analysis of urban heat distribution at the block level, green infrastructure and NBS were included in the rebuilding process.</p> <p>Refreshing the city of Toulouse</p> |
| Spatial scope of the measure | National, Local |
| Implementation Cost (high-medium-low) ³⁴² | Med |
| Maintenance cost (high-medium-low) | Med |

³⁴⁰ High: to implement within 2 years; Medium: to implement in 2 to 5 years; Low: to implement after 5 years

³⁴¹ See <https://climate-adapt.eea.europa.eu/en/knowledge/tools/adaptation-support-tool/step-3-0>

³⁴² Low: €100,000 or less; Medium: €100,000 – €1,000,000; High: over €1 million

| Name of the measure | Create and maintain urban parks and other green spaces to reduce the urban heat island effect |
|--|--|
| Implications for society with special attention to vulnerable populations | Protect the population most vulnerable to heat waves, including children. |
| Co-benefits for regional or local development priorities | LULUCF (land use, land use change and forestry) goals, decrease of emissions, promotion of micromobility (commuting cycling and pedestrian traffic) |
| Co-benefits for climate mitigation | Decreased emissions because of increased use of public spaces and public transport and micromobility. Increased CO ₂ absorption capacity of green spaces. |
| Co-benefits for the environment | Improved habitat for urban biodiversity. |
| Political and social acceptability | High |
| Barriers for implementation | Availability of trees to be planted, availability of space in the urban areas, availability of personnel from the Local Authorities to plant trees / implement green practices, priority of green practices /infrastructure over other ones (e.g., parking lots, roads, etc.). |
| Maladaptation risks | None |
| Responsible authority for implementation | Local Authorities, since it is at a local level, but it could be managed and coordinated from a central authority (e.g., Ministry of Agriculture, Rural Development and Environment, Ministry of Transport, Communications and Works) |
| Other actors involved | Department of Environment, Department of Forestry, Public Works Department, Town Planning and Housing Department, NGOs, Cyprus Energy Agency |
| Other policy initiatives that align / synergies | Cycling and pedestrians' infrastructure extensions and completion of network (needs to have proper shadow for comfortable cycling conditions especially during summer) |
| Technical/institutional readiness (high-medium-low) | High |
| Period of implementation (long-medium-short) ³⁴³ | Medium |
| Time to effectiveness (to have an effect or impact) | Within months of development of green spaces. |
| Financing | Medium |
| Indicator for verification of implementation progress | <ul style="list-style-type: none"> • Total area of urban parks and green spaces created • Percentage increase in green space coverage • Number of green roofs and walls implemented • Percentage of urban parks with sustainable water management systems. |
| Relates to | EDU 5n HEAL 2n SPAT 1n |

³⁴³ Short: less than 2 years; Medium: between 2 to 5 years; Long: more than 5 years

| Name of the measure | |
|--|---|
| Number of the measure | INFR 3 |
| Priority (high-medium-low) ³⁴⁴ | High |
| Climate impact (s) addressed | Floods |
| Primary Sector | Infrastructure, Transport and Buildings |
| Secondary sector | Spatial Planning |
| KTM category ³⁴⁵ | Nature Based Solutions and Ecosystem-based Approaches |
| Sub-KTM | Blue options |
| Goal of the measure | Reduce flood risk particularly of transport infrastructure, critical utilities and archaeological sites, and reduce the number of people and property owners exposed to significant flood risk. |
| Description of the measure | <p>A. Conduct studies to find appropriate areas for the development of flood decongestion projects and select appropriate implementation methods. These projects can be carried out in the wider context of sustainable stormwater management policies by including a range of measures, such as permeable surfaces, green spaces, green roofs, retention ponds, absorbent wells, and culverts.</p> <p>B. Use flood relief projects to develop water features for cycling infrastructures – for instance running water channels under cycle paths to create cool conditions for cyclists; or fountains and other water features in urban green spaces to create cool conditions for citizens while providing flood relief protection.</p> <p>C. Build on the experience from the implementation of similar or relevant projects in other areas of Cyprus.</p> <p>D. Provide for the creation of such projects when establishing or extending development zones.</p> |
| Spatial scope of the measure | Local |
| Implementation Cost (high-medium-low) ³⁴⁶ | High |
| Maintenance cost (high-medium-low) | Med |
| Implications for society with special attention to vulnerable populations | Mainly affects the most vulnerable for the climate change |
| Co-benefits for regional or local development priorities | Minimizing the cost after a flooding event (financial and social cost) |
| Co-benefits for climate mitigation | None |
| Co-benefits for the environment | Nature based solutions for flood risk management enhance biodiversity and ecosystem services. |
| Political and social acceptability | High |

³⁴⁴ High: to implement within 2 years; Medium: to implement in 2 to 5 years; Low: to implement after 5 years

³⁴⁵ See <https://climate-adapt.eea.europa.eu/en/knowledge/tools/adaptation-support-tool/step-3-0>

³⁴⁶ Low: €100,000 or less; Medium: €100,000 – €1,000,000; High: over €1 million

| Name of the measure | Develop flood relief projects in cities to complement existing and new flood relief solutions |
|---|---|
| Barriers for implementation | The cost for the implementation of this kind of infrastructure, which is new in Cyprus, should be allocated among the responsible departments, as well as gain the expertise needed to implement. Limited space in urban areas for sustainable drainage projects. |
| Maladaptation risks | None |
| Responsible authority for implementation | Water Development Department, Department of Town Planning and Housing, Local Authorities |
| Other actors involved | Public Works Department, NGOs |
| Other policy initiatives that align / synergies | Water shortage in Cyprus, as the collected rainwater can be used in agriculture (after the appropriate treatment), as well as the implementation of green/ blue infrastructure in the urban areas |
| Technical/institutional readiness (high-medium-low) | High (but relatively new in Cyprus, and thus capacity building needed) |
| Period of implementation (long-medium-short) ³⁴⁷ | Medium |
| Time to effectiveness (to have an effect or impact) | Shortly after implementation |
| Financing | Medium |
| Indicator for verification of implementation progress | <ul style="list-style-type: none"> • Number of flood relief projects implemented, • Percentage of urban areas covered by flood relief solutions, • Reduction in flood damage costs after project implementation, • Average response time to flood events in areas with new relief systems, • Average time to restore normal operations after a flood event |
| Additional comments | Due to space limitation in the urban area, the flood relief measures could be combined with other infrastructures, e.g., parks, micromobility infrastructure (e.g. canals beneath bike roads to offer cooling benefits), etc. |
| Relates to | WAT 10n |

³⁴⁷ Short: less than 2 years; Medium: between 2 to 5 years; Long: more than 5 years

| Name of the measure | Change public procurement practices to incorporate climate change adaptation criteria in the development of calls for tenders and the establishment of allocation criteria |
|--|--|
| Number of the measure | INFR 4n |
| Priority (high-medium-low) ³⁴⁸ | Medium |
| Climate impact (s) addressed | Various |
| Primary Sector | Infrastructure, Transport and Buildings |
| Secondary sector | Economy, Industry and Finance |
| KTM category ³⁴⁹ | Governance and Institutional |
| Sub-KTM | Policy instruments |
| Goal of the measure | Incorporate climate change adaptation criteria in infrastructure public procurement processes |
| Description of the measure | This line of action includes the following possible measures: A. Promote the incorporation of CCA criteria in the development of call for tenders. B. Promote the incorporation of CCA considerations in the development of the public procurement allocation processes, so that climate-related technical criteria are incorporated and adequately weighted. For this to be implemented, a study has to be conducted in order to find the ways to do this possible and reliable. |
| Spatial scope of the measure | National |
| Implementation Cost (high-medium-low) ³⁵⁰ | Med |
| Maintenance cost (high-medium-low) | Low |
| Implications for society with special attention to vulnerable populations | Long-term implication (no direct or obvious impact, which might decrease the priority of the measure) |
| Co-benefits for regional or local development priorities | Multiple benefits on all project to be implemented |
| Co-benefits for climate mitigation | If combined with mitigation aspects (e.g. climate neutral products) could lead to reduced CO ₂ emissions |
| Co-benefits for the environment | None |
| Political and social acceptability | Med. Developers might resist this measure due to the potential increase in costs. |
| Barriers for implementation | High administrative cost |
| Maladaptation risks | None |
| Responsible authority for implementation | Centrally the Treasury of the Republic of Cyprus, and also the Procurement Sectors of each Department |

³⁴⁸ High: to implement within 2 years; Medium: to implement in 2 to 5 years; Low: to implement after 5 years

³⁴⁹ See <https://climate-adapt.eea.europa.eu/en/knowledge/tools/adaptation-support-tool/step-3-0>

³⁵⁰ Low: €100,000 or less; Medium: €100,000 – €1,000,000; High: over €1 million

| Name of the measure | Change public procurement practices to incorporate climate change adaptation criteria in the development of calls for tenders and the establishment of allocation criteria |
|---|--|
| Other actors involved | Department of Environment (guidelines for the criteria to include), Deputy Ministry of Transport, Communication and Works (contribution to the criteria and give guidelines to all Departments of the Ministry to incorporate the criteria to their procurements) |
| Other policy initiatives that align / synergies | NATURA 2000 (especially for these areas) Synergy with ECON 6 |
| Technical/institutional readiness (high-medium-low) | Med (lack of qualified personnel to decide the criteria and shortage of personnel in general to the involved departments) |
| Period of implementation (long-medium-short) ³⁵¹ | Short (the changes can be decided and adapted within 2 years, but the time needed for the governmental departments to use them, may be more) |
| Time to effectiveness (to have an effect or impact) | Shortly after approval. |
| Financing | Med |
| Indicator for verification of implementation progress | <ul style="list-style-type: none"> • Percentage of tenders with CCA criteria. • Average weighting of CCA criteria in tender evaluation. • Savings or cost increased linked to CCA in procurement. • M&E of environmental footprint of projects implemented with tenders with CCA criteria. |
| Relates to | SOIL 7n |

³⁵¹ Short: less than 2 years; Medium: between 2 to 5 years; Long: more than 5 years

| Name of the measure | Extensive tree planting |
|--|--|
| Number of the measure | INFR 5 |
| Priority (high-medium-low) ³⁵² | High to Medium (some projects are planned to be implemented within the next 5 years) |
| Climate impact (s) addressed | Extreme Temperatures; Urban heat island effect |
| Primary Sector | Infrastructure, Transport and Buildings |
| Secondary sector | Biodiversity and ecosystems Forestry Spatial planning |
| KTM category ³⁵³ | Nature Based Solutions and Ecosystem-based Approaches |
| Sub-KTM | Green options |
| Goal of the measure | <ul style="list-style-type: none"> • Shading and temperature reduction • Aesthetic improvement and urban landscaping • CO₂ absorption • Improved conditions for walking and cycling |
| Description of the measure | <p>This measure can include:</p> <ol style="list-style-type: none"> Tree planting along roads in towns and villages Tree planting along intercity and rural roads Tree planting in public places and state lands Tree planting along existing and planned cycling / pedestrians' infrastructure for comfortable conditions <p>The measure should be implemented as part of a strategic plan that:</p> <ol style="list-style-type: none"> Gives priority to sidewalks, public open spaces (including squares, parks, etc.), schools, camps and other public buildings, Considers urban and spatial planning as well as other possible needs for the development of State land. Chooses appropriate tree species, adapted to the local climate, to withstand pollution, poor soil quality, limited space and in general the specificities/challenges of the urban landscape. Includes a tree maintenance program that ensures the continuous care, survival and growth of the trees. |
| Spatial scope of the measure | Local |
| Implementation Cost (high-medium-low) ³⁵⁴ | Medium |
| Maintenance cost (high-medium-low) | Medium |
| Implications for society with special attention to vulnerable populations | Mainly in service of more vulnerable people and more affected by the increased heat due to climate change, as well as children (passengers of active modes of transport) |
| Co-benefits for regional or local development priorities | LULUCF goals, decrease of emissions, promotion of micromobility (commuting cycling and pedestrian traffic) |
| Co-benefits for climate mitigation | Decreased emissions due to increased use of alternative modes of transportation (public, cycling, etc.) Increased CO ₂ absorption by new planted trees. |
| Co-benefits for the environment | Improved urban biodiversity and urban microclimate |

³⁵² High: to implement within 2 years; Medium: to implement in 2 to 5 years; Low: to implement after 5 years

³⁵³ See <https://climate-adapt.eea.europa.eu/en/knowledge/tools/adaptation-support-tool/step-3-0>

³⁵⁴ Low: €100,000 or less; Medium: €100,000 – €1,000,000; High: over €1 million

| Name of the measure | Extensive tree planting |
|--|---|
| Political and social acceptability | High |
| Barriers for implementation | Availability of trees to be planted, availability of space in the urban areas, availability of personnel from the Local Authorities to plant trees, priority of the use of the pre-decided areas (according to the urban planning) to be used as green spaces in the urban environment against other uses |
| Maladaptation risks | Increase risk for the public if strong winds and storms occur when planted at inappropriate locations Selection of endemic species New plantations have significant irrigation water demand, hence careful planning is needed |
| Responsible authority for implementation | Local Authorities, since it is at a local level, but it could be managed and coordinated from a central authority (e.g., Ministry of Agriculture, Rural Development and Environment, Ministry of Transport, Communications and Works) |
| Other actors involved | Department of Environment, Department of Forestry, Public Works Department, Town Planning and Housing Department, NGOs, Cyprus Energy Agency |
| Other policy initiatives that align / synergies | <ul style="list-style-type: none"> • This measure should be coordinated with: <ul style="list-style-type: none"> ○ Measure proposed by the TPHD and included in the NECP: “Draw up a strategic planting plan giving priority to sidewalks, public open spaces (including squares, parks, etc.), schools, camps and other public buildings, taking into account urban and spatial planning as well as other possible needs for the development of State land.” ○ The development of transport routes since it can help create walk-friendly and other outdoor activities. Cycling and pedestrians’ infrastructure extensions and completion of network (needs to have proper shadow for comfortable cycling conditions especially during summer) • Contributes to meeting the objective of increasing greenery in the urban environment and thus mitigating the urban heat island effect, since it improves the microclimate of urban areas, but also promotes urban cycling, since it ensures suitable cycling conditions, especially in high temperature. • Contributes to enhancing the tourist experience • Water sector: positive effects on water cycle |
| Technical/institutional readiness (high-med-low) | High |
| Period of implementation (long-medium-short) ³⁵⁵ | Short |
| Time to effectiveness (to have an effect or impact) | Depending on the size of the planted trees, but medium to long. |
| Financing | Financing options via the CAP need to be elaborated |
| Indicator for verification of implementation progress | <ul style="list-style-type: none"> • Number of trees planted annually • Tree survival rate after one year • Canopy coverage increase in urban areas (especially when serve additional purposes, like shading for cycling infrastructure) |
| Relates to | SPAT 1n, SPAT 5n |

³⁵⁵ Short: less than 2 years; Medium: between 2 to 5 years; Long: more than 5 years

| Incorporate climate change adaptation criteria into the strategic planning of the transport sector, including the support and strengthening of climate change adaptation capacities in public administrations and other key sectors and actors | |
|---|---|
| Name of the measure | |
| Number of the measure | INFR 6n |
| Priority (high-medium-low) ³⁵⁶ | Medium due to its long-term effect and administrative cost |
| Climate impact (s) addressed | Droughts, Heat waves, Floods, sea level rise |
| Primary Sector | Infrastructure, Transport and Buildings |
| Secondary sector | Spatial planning |
| KTM category ³⁵⁷ | Governance and Institutional |
| Sub-KTM | Management and planning |
| Goal of the measure | Improve climate resilience of the transportation sector |
| Description of the measure | Incorporate climate change adaptation criteria into the strategic planning of the transport sector. Support and strengthen climate change adaptation capacities in public administrations and other key sectors and actors. Create a forum for information exchange between administrations and managers of infrastructure and transport systems. |
| Spatial scope of the measure | National |
| Implementation Cost (high-medium-low) ³⁵⁸ | Medium |
| Maintenance cost (high-medium-low) | Medium |
| Implications for society with special attention to vulnerable populations | Long-term implication (no direct or obvious impact, which might decrease the priority of the measure) |
| Co-benefits for regional or local development priorities | Multiple benefits on all project to be implemented and the transport sector especially |
| Co-benefits for climate mitigation | Smart planning approaches could also reduce the CO ₂ emissions due to shorter transport routes and waiting periods, as well as transport with sustainable modes of transport |
| Co-benefits for the environment | Reduction of emissions and energy consumption in the transport sector |
| Political and social acceptability | Medium |
| Barriers for implementation | High administrative cost for the change, lack of proper expertise for the implementation of the measure |
| Maladaptation risks | None |
| Responsible authority for implementation | Ministry of Transport, Communications and Works (general guidelines, coordination, and responsibility), as well as all its Departments for the Strategies they study |
| Other actors involved | Department of Environment (assistance, approval, Strategic Environmental Assessment processes) |

³⁵⁶ High: to implement within 2 years; Medium: to implement in 2 to 5 years; Low: to implement after 5 years

³⁵⁷ See <https://climate-adapt.eea.europa.eu/en/knowledge/tools/adaptation-support-tool/step-3-0>

³⁵⁸ Low: €100,000 or less; Medium: €100,000 – €1,000,000; High: over €1 million

| Name of the measure | Incorporate climate change adaptation criteria into the strategic planning of the transport sector, including the support and strengthening of climate change adaptation capacities in public administrations and other key sectors and actors |
|---|--|
| Other policy initiatives that align / synergies | NATURA 2000 (especially for these areas), Monitoring and Evaluation Obligations from the European Commission for the Green Deal Regulations (Fit-for-55) |
| Technical/institutional readiness (high-medium-low) | Medium (there are some personnel with the knowledge to incorporate CCA criteria in the transport strategies, nonetheless not at responsible positions and not totally experts on the topic. They have the background for further training. Additionally, the strategy and policy of the Ministry of Transport, Communications and Works needs to be better informed to accept and promote the incorporation of CCA criteria) |
| Period of implementation (long-medium-short) ³⁵⁹ | Medium (training of personnel to prepare the strategies may require short period, nonetheless the incorporation of CCA criteria in the Strategy of Ministry and its Departments needs more time) |
| Time to effectiveness (to have an effect or impact) | Medium to Long term, since the Strategies are usually every and for 10 years and the impact of their measures requires time to show their effect. |
| Financing | Med |
| Indicator for verification of implementation progress | <ul style="list-style-type: none"> • Number of strategies including climate risk assessments and CCA criteria, • Number of personnel trained (percentage of total personnel of each department / increase annually), • Reduction of climate change impacts from transport projects |
| Relates to | |

³⁵⁹ Short: less than 2 years; Medium: between 2 to 5 years; Long: more than 5 years

| Name of the measure | Improve public transport by adapting it to new climatic conditions, especially heat stress |
|--|---|
| Number of the measure | INFR 7n |
| Priority (high-medium-low) ³⁶⁰ | High |
| Climate impact (s) addressed | Extreme temperatures |
| Primary Sector | Infrastructure, Transport and Buildings |
| Secondary sector | Health |
| KTM category ³⁶¹ | Nature Based Solutions and Ecosystem-based Approaches |
| Sub-KTM | Green options; Grey options |
| Goal of the measure | Reduce the heat stress in public transport |
| Description of the measure | Some measures in this line of action include: A. Public transport stops in cities are transformed into self-sufficient short-stay climate shelters. B. Radiant cooling and nature-based solutions can be used in an innovative way for thermal conditioning in urban open spaces. C. Materials and designs that minimise heat absorption are employed to enhance passenger comfort. D. Cooling mechanisms are employed – AC cooling, cooling panels, fans, etc. – are used for vehicles and stations. E. Capacity building is required prior to implementation to design effective measures. |
| Spatial scope of the measure | Local |
| Implementation Cost (high-medium-low) ³⁶² | High |
| Maintenance cost (high-medium-low) | Medium |
| Implications for society with special attention to vulnerable populations | High implication especially to the most vulnerable people, in the urban and rural areas |
| Co-benefits for regional or local development priorities | Rearrangement of the urban environment to facilitate sustainable mobility, become more friendly and accessible, decreasing the traffic and pollution issues, as well as provide equal opportunities to all citizens regarding their daily transportation |
| Co-benefits for climate mitigation | Improve comfort in public transport leads to increased use and decreased use of cars and motorbikes. |
| Co-benefits for the environment | Reduction of emissions and energy consumption in the transport sector |
| Political and social acceptability | Medium |
| Barriers for implementation | Political will to adapt and support measures over sustainable mobility, behavioural change and acceptance from the public, spatial limitation in the urban areas, coordination of the various Departments for the implementation of the measures related to sustainable mobility |
| Maladaptation risks | None |

³⁶⁰ High: to implement within 2 years; Medium: to implement in 2 to 5 years; Low: to implement after 5 years

³⁶¹ See <https://climate-adapt.eea.europa.eu/en/knowledge/tools/adaptation-support-tool/step-3-0>

³⁶² Low: €100,000 or less; Medium: €100,000 – €1,000,000; High: over €1 million

| Name of the measure | Improve public transport by adapting it to new climatic conditions, especially heat stress |
|---|--|
| Responsible authority for implementation | Ministry of Transport, Communications and Works, Local Authorities |
| Other actors involved | Public Works Department, Road Transport Department, Department of Electric and Mechanical Services, Town Planning and Housing Department |
| Other policy initiatives that align / synergies | Public Transport and Micromobility Policy, ITS (Intelligent Transport Systems) Policy, Electrification of the fleet Policy Improve the tourist experience; Deputy Ministry of Tourism |
| Technical/institutional readiness (high-medium-low) | High |
| Period of implementation (long-medium-short) ³⁶³ | Medium |
| Time to effectiveness (to have an effect or impact) | It requires some time after implementation for the passengers to adapt to the new public transport services |
| Financing | Med |
| Indicator for verification of implementation progress | <ul style="list-style-type: none"> • Percentage of public buses retrofitted for heat resilience, • Percentage of sustainable mobility infrastructure (e.g., cycling paths) improved for heat resilience, • Passengers' satisfaction, • Percentage of bus stops with advanced features, • Passengers load capacity during heatwaves measured for all sustainable modes of transport, • Cooling zones or green infrastructure near public transport and micromobility infrastructure |
| Additional comments | Measures for the promotion of sustainable mobility (public transport, micromobility) are all included in the SUMP (Sustainable Urban Mobility Plan) of cities, which are a complete package of measures for the total transformation of cities, adapting to climate change and providing sustainable mobility solutions. SUMP propose profound changes in the urban environment, that is why they meet such resistance from the public, as well as they are costly and slow to pay off, that is why it is difficult to be implemented. Nonetheless the consequences from the non-implementation, will be highly costly and disproportional punishing in the next decades. However, SUMP seem to work more in favour of mitigation, i.e. less use of cars, lower CO ₂ emissions. |
| Relates to | GOV 2n, SPAT 1n |

³⁶³ Short: less than 2 years; Medium: between 2 to 5 years; Long: more than 5 years

| Name of the measure | Review maintenance protocols for the transport infrastructure considering the risks arising from climate change |
|--|---|
| Number of the measure | INFR 8n |
| Priority (high-medium-low) ³⁶⁴ | Medium |
| Climate impact (s) addressed | Extreme temperatures, floods, sea level rise. |
| Primary Sector | Infrastructure, Transport and Buildings |
| Secondary sector | Health |
| KTM category ³⁶⁵ | Governance and Institutional |
| Sub-KTM | Management and planning |
| Goal of the measure | Increase the lifetime of infrastructure |
| Description of the measure | The main objectives of the systematic standard reviews are: A. Adapt technical requirements of transport infrastructure to expected changes in climate. B. Provide an unbiased review and identification of revision needs and priorities. C. Address transport infrastructure resilience comprehensively, including design, maintenance and operations. D. Update climate parameters and indicators commonly used in transport standards, to take account of potential changes in Cyprus' climate. |
| Spatial scope of the measure | National |
| Implementation Cost (high-medium-low) ³⁶⁶ | Medium |
| Maintenance cost (high-medium-low) | Medium |
| Implications for society with special attention to vulnerable populations | Long-term implication (no direct or obvious impact, which might decrease the priority of the measure) |
| Co-benefits for regional or local development priorities | Multiple benefits on all project to be implemented and the transport sector especially |
| Co-benefits for climate mitigation | Use of CO2 friendly materials could reduce the resources intensity of the sector |
| Co-benefits for the environment | Reduction of emissions and energy consumption in the transport sector |
| Political and social acceptability | High |
| Barriers for implementation | Administrative cost for the change, lack of proper expertise for the implementation of the measure |
| Maladaptation risks | None |
| Responsible authority for implementation | Ministry of Transport, Communications and Works (general guidelines, coordination, and responsibility), as well as all its departments responsible for each standard separately |
| Other actors involved | Department of Environment (assistance, approval) |

³⁶⁴ High: to implement within 2 years; Medium: to implement in 2 to 5 years; Low: to implement after 5 years

³⁶⁵ See <https://climate-adapt.eea.europa.eu/en/knowledge/tools/adaptation-support-tool/step-3-0>

³⁶⁶ Low: €100,000 or less; Medium: €100,000 – €1,000,000; High: over €1 million

| Name of the measure | Review maintenance protocols for the transport infrastructure considering the risks arising from climate change |
|---|--|
| Other policy initiatives that align / synergies | Monitoring and Evaluation Obligations from the European Commission for the Green Deal Regulations (Fit-for-55) |
| Technical/institutional readiness (high-medium-low) | Medium (there are some personnel with the knowledge review the maintenance protocols and test the materials to become more resilient, nonetheless not specifically trained for CCA. They have the background for further training). Additionally, the strategy and policy of the Ministry of Transport, Communication and Works needs to be better informed to accept and promote the review of maintenance protocols. |
| Period of implementation (long-medium-short) ³⁶⁷ | Medium (training and review of the protocols will not take long when decided to be implemented) |
| Time to effectiveness (to have an effect or impact) | Short to medium (training will allow for immediate impacts to the maintenance protocols and practices, but the impact will be obvious in the long term) |
| Financing | Medium |
| Indicator for verification of implementation progress | <ul style="list-style-type: none"> • Percentage of maintenance protocols reviewed, • Average time of maintenance need report for project (increase), • Percentage of infrastructure meeting new resilience standards, • Training sessions annually to personnel on this topic, • Reduction in maintenance cost annually, • Monitoring and evaluation of response of infrastructure during extreme heatwaves (comparison of the ones maintained according to the reviewed protocols and the ones not) |
| Additional comments | According to current material specifications for roads, life span should be 8 years but due to high temperatures this happens much earlier, in 2 years! – Direct relevance with the measures that proposes change of material specifications, change of procurement procedure. |
| Relates to | |

³⁶⁷ Short: less than 2 years; Medium: between 2 to 5 years; Long: more than 5 years

| Grant Scheme for adaptation to climate change of community infrastructures | |
|--|--|
| Name of the measure | |
| Number of the measure | INFR 9 |
| Priority (high-medium-low) ³⁶⁸ | High |
| Climate impact (s) addressed | All |
| Primary Sector | Transport, Infrastructure and Buildings |
| Secondary sector | Economy, Industry and Finance |
| KTM category ³⁶⁹ | Economic and Finance |
| Sub-KTM | Financing and incentive instruments |
| Goal of the measure | Mitigation of climate change impact to community infrastructure |
| Description of the measure | <p>Funding of investments in community infrastructures for climate change adaptation.</p> <p>A. Investments that enhance the resilience of communities to high temperatures (greening) and flooding (permeable materials)</p> <p>B. Investments in sustainable mobility infrastructure (construction of cycling paths and walking trails connecting communities including cycles parking, as well as better connection with public transport services and improve services of the intercity public transport)</p> <p>C. Consultancy costs for participation in the Scheme and successful implementation of the interventions</p> |
| Spatial scope of the measure | National |
| Implementation Cost (high-medium-low) ³⁷⁰ | Med |
| Maintenance cost (high-medium-low) | Low |
| Implications for society with special attention to vulnerable populations | <p>Short term implication with the direct funding received for infrastructure</p> <p>Long-term implication after the implementation of projects</p> |
| Co-benefits for regional or local development priorities | Multiple benefits on all project to be implemented and communities |
| Co-benefits for climate mitigation | If coupled to approaches that also include mitigation aspects reduced CO2 emissions |
| Co-benefits for the environment | If coupled with greening efforts to increase NbS applications, leading to increased biodiversity |
| Political and social acceptability | High |
| Barriers for implementation | Administrative cost associated to searches for funding and bureaucracy. |
| Maladaptation risks | None |
| Responsible authority for implementation | Centrally the Ministry of Finance and especially Directorate General Growth for European Funding |
| Other actors involved | Local Authorities, Private Sector, Industries (related to transport sector) |

³⁶⁸ High: to implement within 2 years; Medium: to implement in 2 to 5 years; Low: to implement after 5 years

³⁶⁹ See <https://climate-adapt.eea.europa.eu/en/knowledge/tools/adaptation-support-tool/step-3-0>

³⁷⁰ Low: €100,000 or less; Medium: €100,000 – €1,000,000; High: over €1 million

| Name of the measure | Grant Scheme for adaptation to climate change of community infrastructures |
|---|---|
| Other policy initiatives that align / synergies | Support to communities, promotion of sustainable mobility |
| Technical/institutional readiness (high-medium-low) | High |
| Period of implementation (long-medium-short) ³⁷¹ | Medium (short for the training of personnel to apply and application for funding and medium to long for implementation of the projects) |
| Time to effectiveness (to have an effect or impact) | Applications have short time (immediate receiving funding), implementation of the project has medium to long time |
| Financing | Med |
| Indicator for verification of implementation progress | <ul style="list-style-type: none"> • Total funding allocated to CCA infrastructure from communities, • Number of communities that apply and implement CCA infrastructure, • Satisfaction of locals in communities by the implementation of CCA infrastructure, • M&E of funded projects, • Percentage of personnel of the communities trained to apply to EU instruments for funding |
| Additional comments | <p>Funding mainly comes through EU and not state. This also shows priorities of state, not so much oriented on CC adaptation. There are EU funding schemes. The documenting requirements to ensure such a fund are high, and this is a barrier due to limited human and financial resources, e.g. for small organizations such as communities/ municipalities. Either (a) it will be good that this funding could come through state (lower documenting requirements to ensure/get the fund), or (b) in the case it remains on EU level, a person at each organisation should be dedicated for the relevant job, a person with better expertise and time availability (documentation, monitoring, reporting etc) or the application from the communities are submitted to the central government (e.g., DG Growth) and application to EU instruments is submitted by DG Growth or with the assistance of it to the communities and other small organizations.</p> |
| Relates to | |

³⁷¹ Short: less than 2 years; Medium: between 2 to 5 years; Long: more than 5 years

| | |
|--|--|
| Name of the measure | Provide training and capacity building to staff from competent authorities – planning department, municipalities, new regional organizations – on the benefits of green spaces and nature-based solutions for climate adaptation |
| Number of the measure | INFR 10n |
| Priority (high-medium-low) ³⁷² | High |
| Climate impact (s) addressed | Floods, extreme events, heat waves |
| Primary Sector | Infrastructure, Transport and Buildings |
| Secondary sector | Biodiversity and Ecosystems Spatial planning |
| KTM category ³⁷³ | Knowledge and Behavioural change |
| Sub-KTM | Information and awareness raising Capacity building, empowering and lifestyle practices |
| Goal of the measure | Improve the resilience of cities and communities to climate related risks by training staff on available measures. |
| Description of the measure | Train staff at planning department, municipalities, and new regional organisations (DLGOs) on how nature-based solutions can contribute to address societal challenges and achieve sustainable development, particularly in the context of water security, sustainable mobility, climate action, and nature-based livelihoods. |
| Spatial scope of the measure | National |
| Implementation Cost (high-medium-low) ³⁷⁴ | Medium |
| Maintenance cost (high-medium-low) | Medium (if training activities are repeated regularly) |
| Implications for society with special attention to vulnerable populations | Improved urban planning, public transportation facilities, micromobility facilities, shared mobility services, building codes will result in more liveable cities and reduced climate related impacts. |
| Co-benefits for regional or local development priorities | Improved urban planning, public transportation facilities, micromobility facilities, shared mobility services, building codes will result in more liveable cities and reduced climate related impacts. |
| Co-benefits for climate mitigation | Reduced emissions from increased use of public transport and micromobility, because of increased comfort; increased CO2 absorption from increased green areas in cities. |
| Co-benefits for the environment | Increased urban biodiversity because of the implementation of green infrastructure and other nature-based solutions |
| Political and social acceptability | High |
| Barriers for implementation | Unwillingness to participate in capacity building workshops. Understaffed competent authorities to provide dedicated staff for the training. Difficult communication and cooperation between the authorities (conflict of interest) for the optimum result. |
| Maladaptation risks | None |
| Responsible authority for implementation | Department of Environment |

³⁷² High: to implement within 2 years; Medium: to implement in 2 to 5 years; Low: to implement after 5 years

³⁷³ See <https://climate-adapt.eea.europa.eu/en/knowledge/tools/adaptation-support-tool/step-3-0>

³⁷⁴ Low: €100,000 or less; Medium: €100,000 – €1,000,000; High: over €1 million

| | |
|---|---|
| Name of the measure | Provide training and capacity building to staff from competent authorities – planning department, municipalities, new regional organizations – on the benefits of green spaces and nature-based solutions for climate adaptation |
| Other actors involved | Ministry of Transport, Communications and Works; Town Planning and Housing Department, Local Authorities, District Local Government Organisations, Academia; NGO; Research institutions; consulting companies with experience of implementation of these solutions |
| Other policy initiatives that align / synergies | Spatial Plans |
| Technical/institutional readiness (high-medium-low) | High |
| Period of implementation (long-medium-short) ³⁷⁵ | Short |
| Time to effectiveness (to have an effect or impact) | Medium, as lessons learned are incorporated into new plans, codes, public procurement processes, etc. |
| Financing | Low |
| Indicator for verification of implementation progress | <ul style="list-style-type: none"> • Number of participating authorities per year • Number of training sessions conducted per year • Percentage of trainee authorities which reported progress at the practices • Percentage of authorities applying principles learned |
| Relates to | GOV 2n SPAT 1n SPAT 2n SPAT 5n |

³⁷⁵ Short: less than 2 years; Medium: between 2 to 5 years; Long: more than 5 years

Sea and Coastal Areas measures impact assessment factsheets

| Name of the measure | Elaboration of a study to identify coastal areas vulnerable to climate change |
|--|---|
| Number of the measure | SEA 1 |
| Priority (high-medium-low) ³⁷⁶ | High |
| Climate impact (s) addressed | Sea level rise; extreme events |
| Primary Sector | Sea and Coast Areas |
| Secondary sector | Spatial planning Soils Fisheries and Aquaculture |
| KTM category ³⁷⁷ | Knowledge and Behavioural change |
| Sub-KTM | Information and awareness raising |
| Goal of the measure | Protection of tourist assets at risk of flooding due to sea level rise / impacts on coastal development. |
| Description of the measure | <p>This study will include:</p> <ul style="list-style-type: none"> A. Calculation of the soil that will be eroded or lost up to the years 2050 and 2100 based on different climate scenarios, in order to estimate the land losses due to sea level rise, soil erosion and wave storms in coastal areas of Cyprus, which have increased vulnerability (either due to low soil slope or high erosion rates). B. Develop appropriate databases and digital maps of the coasts to more effectively monitor existing pressures. C. Assess adaptation measures already taken and identify additional necessary measures. D. Reevaluate coastal geohazards as a result of climate change. E. Provide information for the definition of the coastal setback zone. Article 22 of the ICZM Protocol establishes that “undertake vulnerability and hazard assessments of coastal zones and take prevention, mitigation and adaptation measures to address the effects of natural disasters, in particular of climate change”. Articles 22, 23 and 24 of the ICZM Protocol provide more info on the risks affecting the coastal zone. |
| Spatial scope of the measure | National |
| Implementation Cost (high-medium-low) ³⁷⁸ | Low |
| Maintenance cost (high-medium-low) | None |
| Implications for society with special attention to vulnerable populations | Improved information of vulnerability of coastal areas to sea level rise will facilitate measures to protect coastal communities. |

³⁷⁶ High: to implement within 2 years; Medium: to implement in 2 to 5 years; Low: to implement after 5 years

³⁷⁷ See <https://climate-adapt.eea.europa.eu/en/knowledge/tools/adaptation-support-tool/step-3-0>

³⁷⁸ Low: €100,000 or less; Medium: €100,000 – €1,000,000; High: over €1 million

| Name of the measure | Elaboration of a study to identify coastal areas vulnerable to climate change |
|---|---|
| Co-benefits for regional or local development priorities | The measure is important for households and companies in these areas; |
| Co-benefits for climate mitigation | None |
| Co-benefits for the environment | Preventing loss or degradation of terrestrial habitats in the coastal area due to sea level rise. Preventing benthic marine habitats loss due to smothering caused by coastal erosion. |
| Political and social acceptability (high-medium-low) | High |
| Barriers for implementation | Lack of/untimely funding – Not clear jurisdiction assigned to a competent authority? |
| Maladaptation risks | None |
| Responsible authority for implementation | Department of Town Planning and Housing |
| Other actors involved | Public Works Department |
| Other policy initiatives that align / synergies | <p>Synergies with: Flood Risk Management Plans, Biodiversity protection, Marine Strategy, Cultural Heritage protection</p> <p>Synergies with Integrated Coastal Zone Management protocol, Article 22 “the member states (parties) should undertake vulnerability and hazard assessments of coastal zones and take prevention, mitigation and adaptation measures to address the effects of natural disasters, in particular of climate change”</p> <p>Synergies with efforts for Protection of breeding habitats to secure the sustainable production of fish (measure FISH 1)</p> <p>This measure could be important in defining where offshore wind turbines could be installed (Energy)</p> <p>Provide information to the Department of Town Planning for vulnerability assessment and the definition of the coastal setback zone.</p> |
| Technical/institutional readiness (high-medium-low) | Medium |
| Period of implementation (long-medium-short) ³⁷⁹ | Short – for the development of the study. Medium – to translate the results of the study into measures |
| Time to effectiveness | Upon implementing the measures |
| Financing (high-medium-low) | Study – Low, Measures - High |
| Indicator for verification of implementation progress | <ul style="list-style-type: none"> • Study deliverables, based on the different climate scenarios • Identified coastal areas vulnerable to sea level rise, maps and attribute data. • Identified coastal areas susceptible to soil erosion, estimated potential soil losses; maps and attribute data; • Assessment of the existing measures and new measures suggested. |

³⁷⁹ Short: less than 2 years; Medium: between 2 to 5 years; Long: more than 5 years



| Name of the measure | Elaboration of a study to identify coastal areas vulnerable to climate change |
|----------------------------|--|
| | <ul style="list-style-type: none">• Revaluation of the coastal geohazards as a result of climate change. |
| Additional comments | The DoE and Department of Town Planning and Housing have discussed the need to implement a Vulnerability Assessment, for the Coastal Setback Zone and it's expected that one of the deliverables of such assessment would be the preparation of specific maps where the different levels of vulnerability significance of the coastal areas will be illustrated. With the completion of the Vulnerability Assessment, it would be expected that the Coastal Setback zone will be identified. |
| Relates to | FISH 1 GOV 1n |

| Develop adaptation initiatives and promote nature-based solutions for stabilising and enhancing the coastline resilience against climate risks | |
|--|---|
| Name of the measure | |
| Number of the measure | SEA 2n |
| Priority (high-medium-low) ³⁸⁰ | High |
| Climate impact (s) addressed | Extreme weather events, sea level rise, floods |
| Primary Sector | Sea and coast |
| Secondary sector | Biodiversity and Ecosystems Fisheries and Aquaculture Spatial planning Tourism |
| KTM category ³⁸¹ | Economic and Finance |
| Sub-KTM | Financing and incentive instruments |
| Goal of the measure | <p>a. Maintain and restore the natural capacity of the coast to adapt to changes by increasing the application of nature-based solutions aiming for: the protection of land affected by coastal erosion and wave action; addressing impacts on coastal development; preventing loss of seabed habitats.</p> <p>b. Reduce the negative impact of existing hydro-technical facilities – for instance, dams – that prevent the natural flow of sediments to the coast causing a change of hydrodynamic conditions in the adjacent area and siltation of seabed habitats.</p> |
| Description of the measure | <p>A. Set up a fund (mainly based on EU funding) that finances projects that employ nature-based solutions and ecosystem-based adaptation) to help vulnerable communities adapt to the impacts of climate change, including:</p> <ul style="list-style-type: none"> • protecting the coast from erosion, wave impacts, and storm overflows • restoring negatively impacted areas • restoring habitats (such as coastal forests, Posidonia beds) • reducing the negative impact of existing hydro-technical facilities in the coastal area. <p>B. Include NbS in Strategic plans for coastal protection.</p> <p>C. Provide capacity building/training and financial incentives for local authorities regarding climate risks and potential adaptation options on the coast.</p> <p>D. Public information campaigns on:</p> <ul style="list-style-type: none"> • the importance of natural habitats for coastal resilience and the need to further protect them • coastal risk from climate change to private property developers. <p>E. Involve local stakeholders in coastal monitoring (e.g. recording illegal practices which can be linked to increased coastal erosion, such as the removal of sand and rocks).</p> |
| Spatial scope of the measure | National and local |
| Implementation Cost | High |

³⁸⁰ High: to implement within 2 years; Medium: to implement in 2 to 5 years; Low: to implement after 5 years

³⁸¹ See <https://climate-adapt.eea.europa.eu/en/knowledge/tools/adaptation-support-tool/step-3-0>

| Develop adaptation initiatives and promote nature-based solutions for stabilising and enhancing the coastline resilience against climate risks | |
|---|---|
| Name of the measure | |
| (high-medium-low)³⁸² | |
| Maintenance cost (high-medium-low) | Low |
| Implications for society with special attention to vulnerable populations | Strengthening the coasts and preventing the loss of land and property is of utmost importance to the population and businesses in vulnerable areas. |
| Co-benefits for regional or local development priorities | Protecting and restoring biodiversity has a direct effect on maintaining sustainable fish stocks and for recreational activities. |
| Co-benefits for climate mitigation | Effectively prevented and mitigated the adverse impacts on the coastal areas due to climate change related risks through application of nature-based solutions. |
| Co-benefits for the environment | <p>The measure will help:</p> <ul style="list-style-type: none"> • Prevent the loss of terrestrial habitats and benthic marine habitats loss due to smothering caused by coastal erosion and siltation due to coastal facilities. • Improve the natural resilience of the coast against erosion. • Reduce the need to construct hard coastal protection measures, such as breakwaters and groins. • Restore hydro-morphological conditions, benthic marine habitats, and biodiversity through mitigation of the negative impact of existing hard coastal protection measures already existing in Cyprus' coastline. |
| Political and social acceptability (high-medium-low) | High |
| Barriers for implementation | <ul style="list-style-type: none"> • Low or insufficient initiative, scarce knowledge and/or limited information and communication activities regarding the importance of nature-based solutions and their effectiveness towards improving coastal resilience. • Pressure from local stakeholders to construct hard coastal protection measures such as breakwaters and groins for the protection and improvement of their coastal front. |
| Maladaptation risks | It is important to carry out a careful evaluation of the expected effect when choosing the appropriate nature-based solutions to avoid unwanted effects or low efficiency. In this regard, it is essential to ensure the awareness of all stakeholders and to allow sufficient reaction time to provide opinions and discuss the most effective solutions possible. |
| Responsible authority for implementation | Public Works Department |
| Other actors involved | Local authorities, NGOs, Cyprus Marine and Maritime Institute, Department of Environment, Department of Fisheries and Marine Research |
| Other policy initiatives that align / synergies | Maritime Spatial Planning; Biodiversity protection; Marine strategy; Water Framework Directive/River Basin Management Plans; Habitats Directive; Common Fisheries Policy . Synergies with efforts for Protection of breeding habitats to secure the sustainable production of fish (measure FISH 1). |

³⁸² Low: €100,000 or less; Medium: €100,000 – €1,000,000; High: over €1 million

| Develop adaptation initiatives and promote nature-based solutions for stabilising and enhancing the coastline resilience against climate risks | |
|---|---|
| Name of the measure | Synergies with local authorities (educate local authorities and give financial incentives) |
| Technical/institutional readiness (high-medium-low) | Medium |
| Period of implementation (long-medium-short)³⁸³ | Medium |
| Time to effectiveness | The actual effectiveness of the measure is expected only after the implementation of specific initiatives. Depending on the type of nature-based solution chosen, the effect can be immediate or delayed (e.g., when restoring/creating seagrass beds, in order to act as a natural wave-breaker and strengthen the substrate in the littoral zone, or when planting species of coastal plant communities). While it may take time for effectiveness to be recorded, the duration of its positive impacts would be long term. |
| Financing (high-medium-low) | Medium |
| Indicator for verification of implementation progress | <ul style="list-style-type: none"> • Established financing and incentive instruments • Number of national/local authorities/experts trained • Number of implemented projects applying nature-based solutions for stabilizing and protecting the coastline. • Total area (m²)/percentage (%) of the vulnerable area of the coastline protected/restored through implementation of nature-based solutions. |
| Additional comments | The Priority Actions Programme/Regional Activity Centre (PAP/RAC) of UNEP has published a guideline document on “Nature-Based Solutions for Adaptation to Climate Change in Different Coastal Typologies of the Mediterranean” (https://paprac.org/news/item/resilient-mediterranean-coasts-guidelines-nature-based-adaptation-strategies) It has been uploaded in DoE’s website and a Greek version will also be made available within 2025. |
| Relates to | GOV 2n SPAT 1n SPAT 3n |

³⁸³ Short: less than 2 years; Medium: between 2 to 5 years; Long: more than 5 years

| Implementing a coastal contract for integrated wetland management in the context of climate change | |
|--|---|
| Name of the measure | |
| Number of the measure | SEA 3n |
| Priority (high-medium-low) ³⁸⁴ | Medium |
| Climate impact (s) addressed | All |
| Primary Sector | Hydrological Regime and Water Management |
| Secondary sector | Biodiversity protection Spatial Planning |
| KTM category ³⁸⁵ | Nature Based Solutions and Ecosystem-based Approaches |
| Sub-KTM | Blue options |
| Goal of the measure | Protecting coastal (wet-)lands for climate change adaptation and environmental protection |
| Description of the measure | <p>Healthy wetlands are crucial in mitigating global warming, acting as natural carbon sinks, and providing resilience against extreme climatic events. However, the fragmentation of governmental responsibilities typically challenges the management of wetlands. Governance mechanisms encouraging multi-actor cooperation are considered a good practice in river basin management.</p> <p>Specific actions to be developed within the measure include:</p> <ol style="list-style-type: none"> Establishment of a governance mechanism for cooperation on integrated wetland management. Research and analysis of the risks to coastal wetlands associated with climate change. Proposal of specific measures (incl. for individual wetlands where applicable) for protecting ecosystems, resp. biodiversity and to increase the capacity of wetlands for carbon sequestration. If there is an identified need, proposals should be made to change or supplement the protection regimes of the wetlands that are an object of protection (NATURA 2000, conventions, etc.). |
| Spatial scope of the measure | National and local |
| Implementation Cost (high-medium-low) ³⁸⁶ | Medium |
| Maintenance cost (high-medium-low) | Low |
| Implications for society with special attention to vulnerable populations | The measure will contribute to balanced and effective management of wetlands along the coast, protection and maintenance of the biodiversity, and therefore provision of relevant ecosystem services for the benefit of society. |
| Co-benefits for regional or local development priorities | The ecosystem services provided by the wetlands benefit the regional and local businesses, incl. tourism. Wetlands have a high potential for reducing the flood risk in extreme weather events. |
| Co-benefits for climate mitigation | The measure is directly aimed at climate change mitigation by increasing the capacity of wetlands for carbon sequestration. Balanced ecosystems, by themselves, are more resistant to manifestations of |

³⁸⁴ High: to implement within 2 years; Medium: to implement in 2 to 5 years; Low: to implement after 5 years

³⁸⁵ See <https://climate-adapt.eea.europa.eu/en/knowledge/tools/adaptation-support-tool/step-3-0>

³⁸⁶ Low: €100,000 or less; Medium: €100,000 – €1,000,000; High: over €1 million

| Name of the measure | Implementing a coastal contract for integrated wetland management in the context of climate change |
|---|---|
| | climate change. On the other hand, the measure contributes to the role of wetlands in flood prevention. |
| Co-benefits for the environment | The measure will contribute to the hydrological balance, protection, and maintenance of biodiversity, and to reducing the harmful effects caused by flood events. |
| Political and social acceptability (high-medium-low) | High |
| Barriers for implementation | Potential resistance of water users in case of necessity for allocation of water resources to maintain the wetlands. In this regard, information campaigns about the importance of wetlands would be of benefit. |
| Maladaptation risks | None |
| Responsible authority for implementation | Department of Environment, Ministry of Agriculture, Rural Development and the Environment |
| Other actors involved | Water Development Department. Game and Fauna Service, NGOs |
| Other policy initiatives that align / synergies | The measure contributes to achieving the objectives of the Water Framework Directive, respectively RBMPs, Birds and Habitats Directives, and the Biodiversity Strategy for 2030. Synergy with the Flood Risk Management Plans. |
| Technical/institutional readiness (high-medium-low) | High |
| Period of implementation (long-medium-short) ³⁸⁷ | Medium |
| Time to effectiveness | Direct effect on the environment and on climate change mitigation or adaptation is expected in the medium and long-term aspects after the implementation of specific measures and initiatives as a result of actions C and D. |
| Financing (high-medium-low) | Low |
| Indicator for verification of implementation progress | <ul style="list-style-type: none"> • Number of wetlands identified at risk associated with climate change. • Number and type of measures identified per wetland. • Number of proposals to change or supplement the protection regimes of the wetlands, defined as a protection area. |
| Relates to | |

³⁸⁷ Short: less than 2 years; Medium: between 2 to 5 years; Long: more than 5 years

Soil measures impact assessment factsheets

| Name of the measure | Continuation and increase of interventions through the implementation of the CAP Strategic Plan 2023-2027 |
|--|---|
| Number of the measure | SOIL 1 |
| Priority (high-medium-low) ³⁸⁸ | High |
| Climate impact (s) addressed | Droughts, extreme weather events |
| Primary Sector | Soil |
| Secondary sector | Agriculture |
| KTM category ³⁸⁹ | Governance and Institutional |
| Sub-KTM | Policy instruments |
| Goal of the measure | Addressing increased soil erosion / desertification |
| Description of the measure | Soil protection by promoting agri-environmental measures. |
| Spatial scope of the measure | National |
| Implementation Cost (high-medium-low) ³⁹⁰ | Low |
| Maintenance cost (high-medium-low) | n.a. |
| Implications for society with special attention to vulnerable populations | None |
| Co-benefits for regional or local development priorities | Healthy Soil Conditions lead to a sustainable and viable agricultural sector |
| Co-benefits for climate mitigation | Increased carbon soil storage. |
| Co-benefits for the environment | Healthy soil with increased organic carbon promotes healthy plants that are less vulnerable to pests and disease; has a sponge-like structure that holds moisture and prevents erosion. Healthy soil captures, filters, and infiltrates stormwater, contributing to improved water quality. |
| Political and social acceptability | High |
| Barriers for implementation | Not sufficient funding for farmers |
| Maladaptation risks | None |
| Responsible authority for implementation | Department of Agriculture through Common Agricultural Policy (CAP) implementation |
| Other actors involved | Farmers |
| Other policy initiatives that align / synergies | CAP |
| Technical/institutional readiness (high-medium-low) | High |

³⁸⁸ High: to implement within 2 years; Medium: to implement in 2 to 5 years; Low: to implement after 5 years

³⁸⁹ See <https://climate-adapt.eea.europa.eu/en/knowledge/tools/adaptation-support-tool/step-3-0>

³⁹⁰ Low: €100,000 or less; Medium: €100,000 – €1,000,000; High: over €1 million



| Name of the measure | Continuation and increase of interventions through the implementation of the CAP Strategic Plan 2023-2027 |
|---|---|
| Period of implementation (long-medium-short) ³⁹¹ | Already being implemented |
| Time to effectiveness (to have an effect or impact) | n.a. |
| Financing | CAP funding |
| Indicator for verification of implementation progress | <ul style="list-style-type: none">• Relevant CAP indicators |
| Relates to | AGRI 1 |

³⁹¹ Short: less than 2 years; Medium: between 2 to 5 years; Long: more than 5 years

| Name of the measure | Improve management of extensive livestock farming and control of illegal grazing |
|--|---|
| Number of the measure | SOIL 2 |
| Priority (high-medium-low) ³⁹² | High |
| Climate impact (s) addressed | Droughts; Extreme weather events |
| Primary Sector | Soil |
| Secondary sector | Agriculture Forestry |
| KTM category ³⁹³ | Governance and Institutional |
| Sub-KTM | Policy instruments |
| Goal of the measure | Prevent desertification, prevent soil erosion and promote the restoration of degraded land. |
| Description of the measure | <p>Extensive livestock farming is an integral part of mediterranean agricultural practices. In climate change contexts, excessive stocking rates cause soil degradation, ecosystem deterioration and economic losses. Strategic plans need to be developed to adjust stocking rates to carrying capacity under new climate conditions – reduced rainfall and increased temperatures.</p> <ul style="list-style-type: none"> A. Revise the Goat Law to promote sustainable livestock farming and protect the environment and extend its application to all areas in Cyprus. B. Control grazing through licensing according to the carrying capacity of each area. C. Conduct studies to determine the carrying capacity of sensitive areas and under new climate conditions. D. Develop strategic plans to adjust stocking rates to carrying capacity. E. Reintroduce the field guard to help control illegal grazing and compliance with permitted stocking rates. F. Hire agronomists/field guards in Local Authorities or District Offices, who will have the authority, among other things, to control illegal grazing. G. Combination with compensatory measures for breeders. |
| Spatial scope of the measure | National |
| Implementation Cost (high-medium-low) ³⁹⁴ | High |
| Maintenance cost (high-medium-low) | Medium |
| Implications for society with special attention to vulnerable populations | Not significant |
| Co-benefits for regional or local development priorities | Improvement of healthy soils |
| Co-benefits for climate mitigation | Increased soil carbon storage. |

³⁹² High: to implement within 2 years; Medium: to implement in 2 to 5 years; Low: to implement after 5 years

³⁹³ See <https://climate-adapt.eea.europa.eu/en/knowledge/tools/adaptation-support-tool/step-3-0>

³⁹⁴ Low: €100,000 or less; Medium: €100,000 – €1,000,000; High: over €1 million

| Name of the measure | Improve management of extensive livestock farming and control of illegal grazing |
|---|--|
| Co-benefits for the environment | Increased health of forest ecosystems and increased soil health. Improved management of extensive livestock farming can help in fire prevention by reducing flammable material in forests. |
| Political and social acceptability | Social: High if the cost is undertaken by the state. However, if local communities have to pay for field guards, social acceptance will be low. |
| Barriers for implementation | Finding funding for field guards |
| Maladaptation risks | Grazing in forests is an effective fire hazard control measure. Reduction of illegal grazing can result in accumulation of flammable plant material in forests and increased fire risks. |
| Responsible authority for implementation | Department of Agriculture |
| Other actors involved | Local Authorities |
| Other policy initiatives that align / synergies | Will help forests as a whole Goats can help to protect from forest fires |
| Technical/institutional readiness (high-medium-low) | Medium |
| Period of implementation (long-medium-short) ³⁹⁵ | Medium |
| Time to effectiveness (to have an effect or impact) | Upon implementation |
| Financing | Low |
| Indicator for verification of implementation progress | <ul style="list-style-type: none"> Area under the measure |
| Additional comments | <p>A way must be found to implement this measure. Very old legislation requires urgent update. Very important/ desirable.</p> <p>The problem in reintroducing the field guard is that while there is social recognition of the benefits, local authorities (communities) do not want to pay for its implementation (i.e., pay the salary of the field guards).</p> |
| Relates to | |

³⁹⁵ Short: less than 2 years; Medium: between 2 to 5 years; Long: more than 5 years

| Name of the measure | |
|--|--|
| Number of the measure | SOIL 3 |
| Priority (high-medium-low) ³⁹⁶ | High |
| Climate impact (s) addressed | Droughts; Extreme weather events |
| Primary Sector | Soil |
| Secondary sector | Agriculture |
| KTM category ³⁹⁷ | Knowledge and Behavioural change |
| Sub-KTM | Capacity building, empowering and lifestyle practice |
| Goal of the measure | Reduction of desertification and degradation of agricultural soils |
| Description of the measure | <p>Increasing the soil organic matter (SOM) of agricultural soils by incorporating organic additives such as compost, increases soil permeability, water retention capacity, creates conditions for an increase in soil biodiversity and, in particular, beneficial soil micro-organisms, contributes to soil carbon storage and makes soil more resistant to erosion due to heavy rainfall.</p> <p>However, in Cyprus there is a striking discrepancy between the need to increase soil organic matter to improve fertility and combat drought conditions on the one hand, and the availability of waste biomass, such as park and garden cuttings and prunings, food waste, etc., which could be used as soil amendments. Diverting these materials from landfill and using them for compost and incorporation into soil could, in addition to the benefits mentioned, reduce methane production from landfills.</p> |
| Spatial scope of the measure | National |
| Implementation Cost (high-medium-low) ³⁹⁸ | Medium |
| Maintenance cost (high-medium-low) | Medium |
| Implications for society with special attention to vulnerable populations | None |
| Co-benefits for regional or local development priorities | Decreased quantities of waste in landfills/Circular economy |
| Co-benefits for climate mitigation | Increased soil carbon storage. Additionally, diverting organic matter from landfills can help decrease methane emissions from landfills |
| Co-benefits for the environment | Healthy soil creates healthy plants that are less vulnerable to pests and disease; has a sponge-like structure that holds moisture and prevents erosion. Healthy soil captures, filters, and infiltrates stormwater, contributing to improved water quality. |
| Political and social acceptability | High |
| Barriers for implementation | Hesitation due to lack of compost quality assurance and standards |
| Maladaptation risks | None |

³⁹⁶ High: to implement within 2 years; Medium: to implement in 2 to 5 years; Low: to implement after 5 years

³⁹⁷ See <https://climate-adapt.eea.europa.eu/en/knowledge/tools/adaptation-support-tool/step-3-0>

³⁹⁸ Low: €100,000 or less; Medium: €100,000 – €1,000,000; High: over €1 million

| Name of the measure | Promote the practice of incorporating compost to reduce desertification and degradation of agricultural soils |
|---|---|
| Responsible authority for implementation | Department of Agriculture |
| Other actors involved | Department of Environment, Regional local governments in charge of urban waste management; farmers; agricultural extension offices; farmer unions and organizations |
| Other policy initiatives that align / synergies | Common Agricultural Policy |
| Technical/institutional readiness (high-medium-low) | High |
| Period of implementation (long-medium-short) ³⁹⁹ | Medium |
| Time to effectiveness (to have an effect or impact) | Medium |
| Financing | Low |
| Indicator for verification of implementation progress | <ul style="list-style-type: none"> Area covered by the measure |
| Additional comments | Research and pilot implementation already done under the LIFE – AgrOasis. Need to increase implementation to whole country |
| Relates to | AGRI 3n |

³⁹⁹ Short: less than 2 years; Medium: between 2 to 5 years; Long: more than 5 years

| Name of the measure | Promote the practice of installing plant barriers to reduce soil erosion |
|--|---|
| Number of the measure | SOIL 4 |
| Priority (high-medium-low) ⁴⁰⁰ | Med |
| Climate impact (s) addressed | Droughts; Extreme weather events |
| Primary Sector | Soil |
| Secondary sector | Biodiversity and Ecosystems |
| KTM category ⁴⁰¹ | Nature Based Solutions and Ecosystem-based Approaches |
| Sub-KTM | Green options |
| Goal of the measure | Limitation of soil erosion |
| Description of the measure | The establishment of drought-resistant hedgerows on degraded agricultural field margins can significantly reduce soil erosion and help adapt to climate change. At the same time, they can contribute to the retention of rainwater in the field, enhance the biodiversity of agri-systems and provide sources of alternative income for producers. |
| Spatial scope of the measure | Local |
| Implementation Cost (high-medium-low) ⁴⁰² | Low |
| Maintenance cost (high-medium-low) | Low |
| Implications for society with special attention to vulnerable populations | None |
| Co-benefits for regional or local development priorities | Not significant |
| Co-benefits for climate mitigation | Improved soil health enhances soil carbon storage capacity |
| Co-benefits for the environment | Enhance biodiversity of agroecosystems; improved water retention helps improve surface water quality and groundwater recharge. |
| Political and social acceptability | High |
| Barriers for implementation | Insufficient funding mechanisms and resources Insufficient education of farmers |
| Maladaptation risks | None |
| Responsible authority for implementation | Department of Agriculture, Department of Forestry, Department of Environment |
| Other actors involved | Farmer unions and organisations |
| Other policy initiatives that align / synergies | Common Agricultural Policy (CAP) |
| Technical/institutional readiness (high-medium-low) | High |
| Period of implementation (long-medium-short) ⁴⁰³ | Short |

⁴⁰⁰ High: to implement within 2 years; Medium: to implement in 2 to 5 years; Low: to implement after 5 years

⁴⁰¹ See <https://climate-adapt.eea.europa.eu/en/knowledge/tools/adaptation-support-tool/step-3-0>

⁴⁰² Low: €100,000 or less; Medium: €100,000 – €1,000,000; High: over €1 million

⁴⁰³ Short: less than 2 years; Medium: between 2 to 5 years; Long: more than 5 years



| | |
|--|--|
| Name of the measure | Promote the practice of installing plant barriers to reduce soil erosion |
| Time to effectiveness (to have an effect or impact) | Direct |
| Financing | CAP 2021 - 2027 |
| Indicator for verification of implementation progress | <ul style="list-style-type: none">• Area covered under the measure |
| Additional comments | Work for this topic is being developed under the LIFE – AgrOassis project |
| Relates to | |

| Name of the measure | Limit land take and soil sealing by applying various tools (e.g. spatial planning etc.) |
|--|---|
| Number of the measure | SOIL 5n |
| Priority (high-medium-low) ⁴⁰⁴ | High |
| Climate impact (s) addressed | Floods; droughts |
| Primary Sector | Soil |
| Secondary sector | Spatial Planning Hydrological Regime and Water Management |
| KTM category ⁴⁰⁵ | Governance and Institutional; Economic and Finance; Knowledge and Behavioural change |
| Sub-KTM | Policy instruments; Management and planning; Financing and incentive instruments; Capacity building |
| Goal of the measure | Limit land occupation and soil sealing |
| Description of the measure | <p>This measure can include the following actions:</p> <ul style="list-style-type: none"> A. Stricter land-use planning: Enforce zoning regulations and urban development boundaries. B. Brownfield redevelopment: Prioritise development on already developed and abandoned areas. C. Recultivation of urban areas. D. Green roofs and walls: Encourage research for suitable vegetation on buildings to reduce impermeable surfaces. E. Tax incentives: Offer tax breaks for land conservation and green infrastructure. F. Impact fees: Charge developer fees to offset the environmental costs of new construction. G. Infrastructure sharing: Promote shared underground infrastructure to reduce land use. H. Mandatory use of technological options (e.g. permeable surfaces). I. Public Awareness and Education. |
| Spatial scope of the measure | Local |
| Implementation Cost (high-medium-low) ⁴⁰⁶ | Medium |
| Maintenance cost (high-medium-low) | Medium |
| Implications for society with special attention to vulnerable populations | Reduces flood risks in urban environments |
| Co-benefits for regional or local development priorities | Improve implementation of local land use plans; improved stormwater management |
| Co-benefits for climate mitigation | Improved carbon storage capacities in new urban green spaces |
| Co-benefits for the environment | Reduced urban stormwater runoff helps improve water quality; increase groundwater recharge. Increase green spaces in urban areas helps improve urban biodiversity and create ecological corridors. |

⁴⁰⁴ High: to implement within 2 years; Medium: to implement in 2 to 5 years; Low: to implement after 5 years

⁴⁰⁵ See <https://climate-adapt.eea.europa.eu/en/knowledge/tools/adaptation-support-tool/step-3-0>

⁴⁰⁶ Low: €100,000 or less; Medium: €100,000 – €1,000,000; High: over €1 million

| Name of the measure | Limit land take and soil sealing by applying various tools (e.g. spatial planning etc.) |
|---|--|
| Political and social acceptability | High |
| Barriers for implementation | Resistance to adopt to new pervious materials |
| Maladaptation risks | None |
| Responsible authority for implementation | Department of Town Planning and Housing |
| Other actors involved | Ministry of the Interior, Directorate of Technical Services, Public Works Department, Local Authorities |
| Other policy initiatives that align / synergies | Limit land occupation and soil sealing -> linked to not building new roads (transport sector) Synergy with ICZM (Integrated Coastal Zone Management) Synergy with INFR 1 Need to control expansion of development in rural areas to limit soil sealing. |
| Technical/institutional readiness (high-medium-low) | High |
| Period of implementation (long-medium-short) ⁴⁰⁷ | Medium |
| Time to effectiveness (to have an effect or impact) | Medium |
| Financing | Low |
| Indicator for verification of implementation progress | Percentage of sealed land in CY (measures via satellite) per year |
| Relates to | GOV 2n GOV 3n SPA 1n SPAT 3n |

⁴⁰⁷ Short: less than 2 years; Medium: between 2 to 5 years; Long: more than 5 years

| Name of the measure | Include soil erosion prevention measures in remediation requirements after mines cease operating |
|--|--|
| Number of the measure | SOIL 6n |
| Priority (high-medium-low) ⁴⁰⁸ | Medium |
| Climate impact (s) addressed | Soil loss |
| Primary Sector | Soils |
| Secondary sector | Health, Water Quality |
| KTM category ⁴⁰⁹ | Governance and institutional |
| Sub-KTM | Management and planning |
| Goal of the measure | Prevent soil erosion |
| Description of the measure | When mines cease operating are and remediation plans are developed, establish stricter requirements, including specifications on soil erosion prevention. This could be achieved by incorporating new requirements in Calls for Tenders. |
| Spatial scope of the measure | National |
| Implementation Cost (high-medium-low) ⁴¹⁰ | Low |
| Maintenance cost (high-medium-low) | Low |
| Implications for society with special attention to vulnerable populations | n/a |
| Co-benefits for regional or local development priorities | Tourism use, cultural heritage |
| Co-benefits for climate mitigation | Rehabilitation of abandoned mines will require planting of trees to stabilize erosion leading to CC benefits |
| Co-benefits for the environment | Improved mine restoration Improved water quality in rivers, reduce acid mine drainage. |
| Political and social acceptability | High |
| Barriers for implementation | None |
| Maladaptation risks | Afforestation needs to use endemic and resilient species |
| Responsible authority for implementation | Geological Survey Department, Ministry of Agriculture, Rural Development and the Environment (MARDE); The Mine Service - MARDE |
| Other actors involved | Geological Survey Department - MARDE, Committee for the Sustainable Development of Mineral Resources, Department of Environment |
| Other policy initiatives that align / synergies | Environment protection, safety aspects Achieve Water Framework Directive objectives |
| Technical/institutional readiness (high-medium-low) | High |

⁴⁰⁸ High: to implement within 2 years; Medium: to implement in 2 to 5 years; Low: to implement after 5 years

⁴⁰⁹ See <https://climate-adapt.eea.europa.eu/en/knowledge/tools/adaptation-support-tool/step-3-0>

⁴¹⁰ Low: €100,000 or less; Medium: €100,000 – €1,000,000; High: over €1 million



| Name of the measure | Include soil erosion prevention measures in remediation requirements after mines cease operating |
|---|---|
| Period of implementation (long-medium-short) ⁴¹¹ | Medium |
| Time to effectiveness (to have an effect or impact) | Long-term |
| Financing | Available per case (tender procedure) |
| Indicator for verification of implementation progress | <ul style="list-style-type: none">• Number of mines, where the measure is applied• Area covered by the measure |
| Relates to | |

⁴¹¹ Short: less than 2 years; Medium: between 2 to 5 years; Long: more than 5 years

| Name of the measure | Reuse of excavated soil from construction industry waste depending on their specifications for soil improvement |
|--|--|
| Number of the measure | SOIL 7n |
| Priority (high-medium-low) ⁴¹² | High |
| Climate impact (s) addressed | Soil loss |
| Primary Sector | Soils |
| Secondary sector | Spatial planning Infrastructure, transport and buildings |
| KTM category ⁴¹³ | Governance and institutional |
| Sub-KTM | Policy instruments |
| Goal of the measure | Prevent loss of good quality soil |
| Description of the measure | Apply regulation for the use of excavated soil from development sites (buildings, quarries, road excavations, plot development). Right now, all excavation material and building waste is disposed of in a regulated manner, but what is proposed here is to go one step further and regulate what is done with good quality agricultural soil. The Geological Survey Department and the Water and Soil section of the Department of Agriculture can cooperate to designate the areas where this can be applied but also the nearby areas where the soil can be reused for agriculture. One easy way to apply this measure is to include this extra condition in planning / building Permit. |
| Spatial scope of the measure | Regional / local |
| Implementation Cost (high-medium-low) ⁴¹⁴ | Low (for the state)/ Low to Medium (for private sector to implement it) |
| Maintenance cost (high-medium-low) | n.a. |
| Implications for society with special attention to vulnerable populations | Not significant |
| Co-benefits for regional or local development priorities | High |
| Co-benefits for climate mitigation | High |
| Co-benefits for the environment | High |
| Political and social acceptability | High |
| Barriers for implementation | Maybe by the private (construction) sector |
| Maladaptation risks | No |
| Responsible authority for implementation | Department of Town Planning and Housing – Ministry of Interior |
| Other actors involved | Department of Agriculture, Geological Survey Department |

⁴¹² High: to implement within 2 years; Medium: to implement in 2 to 5 years; Low: to implement after 5 years

⁴¹³ See <https://climate-adapt.eea.europa.eu/en/knowledge/tools/adaptation-support-tool/step-3-0>

⁴¹⁴ Low: €100,000 or less; Medium: €100,000 – €1,000,000; High: over €1 million



| Name of the measure | Reuse of excavated soil from construction industry waste depending on their specifications for soil improvement |
|---|--|
| Other policy initiatives that align / synergies | Soil Directive |
| Technical/institutional readiness (high-medium-low) | High |
| Period of implementation (long-medium-short) ⁴¹⁵ | Short |
| Time to effectiveness (to have an effect or impact) | Direct |
| Financing | Needs to be investigated |
| Indicator for verification of implementation progress | <ul style="list-style-type: none">• Volume of good quality excavated soil reused, Area of land where this soil was utilized/ applied |
| Relates to | INFR 4n |

⁴¹⁵ Short: less than 2 years; Medium: between 2 to 5 years; Long: more than 5 years

Spatial planning measures impact assessment factsheets

| | |
|---|---|
| Name of the measure | Integrate climate change adaptation into territorial and urban planning, by climate-proofing according to specific guidelines |
| Number of the measure | SPAT 1n |
| Priority (high-medium-low) ⁴¹⁶ | High. Existing plans are currently under review. Actions in this area must be included in the Spatial Plan Revision Report by the Minister of Interior which kick starts the process |
| Climate impact (s) addressed | Heat waves, fires, droughts, floods, rising sea levels |
| Primary Sector | Spatial Planning |
| Secondary sector | Urban Planning |
| KTM category ⁴¹⁷ | Governance and Institutional |
| Sub-KTM | Management and Planning |
| Goal of the measure | Improved integration of climate adaptation into spatial and urban planning is supported through the analysis and monitoring of urban sprawl from a climate change perspective |
| Description of the measure | <p>Cities and regions have strong planning capacities, either directly or via energy, climate, and development agencies. However, they often lack options to support and facilitate implementation. Although spatial plans are a multidisciplinary tool that covers most, if not all, aspects of development in an area, they are not widely used to enforce energy and climate ambitions beyond the implementation of national construction standards. By expanding their use and including key elements to fulfil local or regional energy and climate goals, spatial plans can become a great lever of change.</p> <p>This process requires cooperation between key actors: local and regional governments, energy and climate planning experts, and urban and spatial planners. It is also necessary to harmonise plans and strategies such as development plans, Sustainable Energy and Climate Action Plans, climate change adaptation and resilience plans, etc.</p> <p>Some possible actions to implement this measure include:</p> <ol style="list-style-type: none"> A. Incorporate climate change considerations and prevention of natural risks in spatial plans to be developed or amended. B. Incorporate natural risk maps into planning to avoid urban developments that could be affected by floods, torrential rains, rising sea levels, water insufficiency, risk of landslides, etc. C. Include climate change scenarios, implementation of climate change emergency plans and promotion of prevention and adaptation actions on urbanised land susceptible to natural hazards. D. Incorporate the concept of urban green and blue infrastructures into planning, as multifunctional nature-based solutions, which solve urban problems such as improving biodiversity, managing flood-prone areas reducing heat islands, combating climate change and improving air quality. E. Promote the incorporation of urban climate risk mapping into urban planning, which can encourage the creation of climate refugia. |

⁴¹⁶ High: to implement within two years; Medium: to implement in 2 to 5 years; Low: to implement after 5 years

⁴¹⁷ See <https://climate-adapt.eea.europa.eu/en/knowledge/tools/adaptation-support-tool/step-3-0>

| | |
|--|--|
| | <p>F. Implement, monitor and evaluate the Sustainable Urban Mobility Plans in all cities. Incorporating strategic planning for public transport and micromobility in the urban planning promotes environmentally friendly transportation, while minimizing the urban sprawl, minimizes the needs for transportation and thus simplifies the strategic planning needed for public transport and micromobility.</p> <p>G. Establish urban planning obligations for new residential buildings and large constructions, including tree planting and upgrading the surrounding environment of the building, in a way that promotes the sustainable development of the area (e.g., bike racks, electric vehicle charging stations, sidewalks, bike lanes, solar panels, water features, etc.).</p> <p>H. Drafting guidelines for urban planning by the Department of Town Planning and Housing, aiming at drawing up a framework of specifications for the creation of sustainable parks, squares, roads, and more generally public spaces that respond to the climate crisis through the use of water elements, the Introduction of high-biodiversity greenery aimed at creating a favourable microclimate and finally through urban equipment, such as playgrounds, paving, etc.</p> |
| Spatial scope of the measure | National and local |
| Implementation Cost (high-medium-low) ⁴¹⁸ | Medium |
| Maintenance cost (high-medium-low) | Not applicable |
| Implications for society with special attention to vulnerable populations | <p>Incorporating green infrastructure, such as parks, green roofs, and urban gardens, can improve air quality, reduce heat island effects, and provide recreational opportunities for all residents.</p> <p>By carefully considering the distribution of resources, infrastructure, and opportunities, it can help to address inequalities and create more equitable communities even under a changing climate.</p> |
| Co-benefits for regional or local development priorities | <p>Better access to essential services like schools, healthcare facilities, and public transportation.</p> <p>Using participatory planning methods, such as charrettes and workshops, can empower communities to have a say in the development of their neighbourhoods.</p> |
| Co-benefits for climate mitigation | Allows also to consider mitigation aspects |
| Co-benefits for the environment | Allows to provide room for nature-based solutions and therewith strengthen the role of environment |
| Political and cultural acceptability (high-medium-low) | High |
| Barriers for implementation | <p>Resistance to change in the public sector.</p> <p>Dependent on other Departments providing input on CCA strategies</p> |
| Maladaptation risks | <p>Spatial planning exacerbates existing vulnerabilities or creates new ones. For example, land use decisions, such as zoning and development patterns, can have lasting effects on a community's vulnerability to climate change if underestimated. Each plan should be subject to a detailed maladaptation risk assessment</p> |
| Responsible authority for implementation | Ministry of Interior – Department of Town Planning and Housing (TPHD), cooperation input from all other disciplines of authorities |
| Other actors involved | Spatial planners |

⁴¹⁸ Low: €100,000 or less; Medium: €100,000 – €1,000,000; High: over €1 million



| | |
|--|---|
| | Ministry of Transport, Communications and Works, Public Works Department MARDE, Department of Environment, to provide climate risk assessments |
| Other policy initiatives that align / synergies | Whatever relates to climate change adaptation |
| Technical/institutional readiness | High |
| Period of implementation | 2025 and continuous updates |
| Time to effectiveness | As soon as the plan are legally binding |
| Financing (high-medium-low) | Low |
| Indicator for verification of implementation progress | Number of new/ amended plans per year that have incorporated climate change considerations, prevention of natural risks or other actions as described in the measure |
| Additional comments | <ul style="list-style-type: none">• New Plans include a Natural Risk Area Map, so that people/investors know. These come from other departments, such WDD for flood risk areas, the Geological Survey Department for Geotechnical Risks, etc• The measure is already partially implemented, maybe indirectly, but can be improved• This must be included in Spatial Plan Revision Report by the Minister of Interior which kick starts the process. |
| Relates to | INFR 2 INFR 5 INFR 7n INFR 10n |

| Name of the measure | | Create a forum for information exchange between local authorities |
|--|--|---|
| Number of the measure | SPAT 2n | |
| Priority (high-medium-low) ⁴¹⁹ | High | |
| Climate impact (s) addressed | Heat waves, fires, droughts, floods, rising sea levels | |
| Primary Sector | Spatial Planning | |
| Secondary sector | Cultural heritage Infrastructure, transport and buildings Health Hydrological regime and water management Sea and coastal areas | |
| KTM category ⁴²⁰ | Governance and Institutional Knowledge and Behavioural change | |
| Sub-KTM | Coordination, cooperation and networks | |
| Goal of the measure | Enhance the exchange of information and best practices on climate change adaptation. | |
| Description of the measure | The creation of a forum for the exchange of information between local authorities on climate changes would make it possible to better estimate its consequences and improve adaptation policies. Emphasis should be placed on the adaptation dimension in the reference framework for territorial approaches to sustainable development and an exchange of good practices should be organised on this subject. | |
| Spatial scope of the measure | National | |
| Implementation Cost (high-medium-low) ⁴²¹ | Medium | |
| Maintenance cost (high-medium-low) | Low | |
| Implications for society with special attention to vulnerable populations | Improved spatial planning and reduced exposure to climate risks. Using participatory planning methods, such as charrettes and workshops, can empower disadvantaged groups to have a say in the development of their neighbourhoods. | |
| Co-benefits for regional or local development priorities | Coordinate local priorities and achieve solutions that are “more than the sum of the individual parts” | |
| Co-benefits for climate mitigation | Allows to learn on Mitigation/adaptation win-win solutions implemented in practice and can lead to a higher replication rate | |
| Co-benefits for the environment | Allows to learn on nature-based solutions implemented in practice and can lead to a higher replication rate | |
| Political and social acceptability (high-medium-low) | High | |
| Barriers for implementation | Unwillingness / lack of time/lack of personnel to participate | |

⁴¹⁹ High: to implement within two years; Medium: to implement in 2 to 5 years; Low: to implement after 5 years

⁴²⁰ See <https://climate-adapt.eea.europa.eu/en/knowledge/tools/adaptation-support-tool/step-3-0>

⁴²¹ Low: €100,000 or less; Medium: €100,000 – €1,000,000; High: over €1 million

| Name of the measure | Create a forum for information exchange between local authorities |
|--|---|
| Maladaptation risks (if any) | None |
| Responsible authority for implementation | Depending on its scope it could fall under the Ministry of Finance, or Department of the Environment at the Ministry of Agriculture, Rural Development and the Environment or Ministry of Interior |
| Other actors involved | Local authorities Union of Municipalities and Union of Communities |
| Other policy initiatives that align / synergies | European Urban Initiative + such a forum can provide input to other objectives as well |
| Technical/institutional readiness | Not applicable |
| Period of implementation | Continuous |
| Time to effectiveness (to have an effect or impact) | Depends on how fast individuals participating in such meetings are able to implement their lessons learned. |
| Financing | Low |
| Indicator for verification of implementation progress | <ul style="list-style-type: none"> • Number of meetings a year • Number of local communities involved |
| Additional comments | <ul style="list-style-type: none"> • The European Urban Initiative process under way for which the Town Planning and Housing Department is the National Contact Point, creating hubs and fora for capacity building in whatever urban matters with local authorities in which information exchange can include CCA programmes. This Initiative can be expanded towards this respect. • The «Town and Spatial Planning Law» had a provision for a Joint Board, that comprised of representatives of local authorities whenever a Local Plan was under preparation/amendment. This provision was abolished from the Law in 2014, because its application until then did not bring about the desired results in developing a joint vision statement for the area under review. However, this is a good opportunity to bring this tool back into more general application, and not only be activated during development plan preparation/ update but be in continuous operation for the exchange of information on various themes. It could also serve for awareness on CCA issues. |
| Relates to | INFR 10n |

| Name of the measure | Map land and soil reserves, and secure crucial areas (e.g. for air corridors, ecologically relevant areas) |
|---|---|
| Number of the measure | SPAT 3n |
| Priority (high-medium-low) ⁴²² | High |
| Climate impact (s) addressed | Fires, droughts, floods, rising sea levels |
| Primary Sector | Spatial Planning |
| Secondary sector | Agriculture Biodiversity Soil |
| KTM category | Governance and institutional |
| Sub-KTM | Management and planning |
| Goal of the measure | Prepare the ground for spatial planning decisions and in particular for measure SPAT 4n. |
| Description of the measure | <p>The measure involves the following steps:</p> <p>A. Land and Soil Mapping</p> <ul style="list-style-type: none"> • Inventory of land and soil resources: A comprehensive assessment of land and soil types, quality, and distribution within a specific region. • Data collection: Gathering information on soil composition, fertility, erosion rates, and other relevant parameters. • Geographic Information System (GIS) mapping: Creating digital maps to visualise land and soil characteristics. <p>B. Identification of Crucial Areas</p> <ul style="list-style-type: none"> • Ecological assessment: Identifying areas with high ecological value, such as biodiversity hotspots, wetlands, or forests. • Infrastructure assessment: Determining the location of existing and planned infrastructure, including transportation routes (air corridors). • Overlay analysis: Combining ecological and infrastructure data to identify areas that require protection. <p>C. Securing Crucial Areas</p> <ul style="list-style-type: none"> • Legal protection: Establishing legal frameworks to safeguard identified areas from development or harmful activities. • Land acquisition: Purchasing or leasing critical land parcels to ensure long-term protection. • Conservation easements: Implementing legal agreements to restrict land use while maintaining private ownership. • Monitoring and enforcement: Establishing systems to monitor the condition of protected areas and enforce regulations. |
| Spatial scope of the measure | National |
| Implementation Cost (high-medium-low) ⁴²³ | High |
| Maintenance cost (high-medium-low) | Low |
| Implications for society with special attention to vulnerable populations | none |

⁴²² High: implement within two years; Medium: implement in 2 to 5 years; Low: implement after 5 years

⁴²³ Low: €100,000 or less; Medium: €100,000 – €1,000,000; High: over €1 million

| Name of the measure | Map land and soil reserves, and secure crucial areas (e.g. for air corridors, ecologically relevant areas) |
|---|--|
| Co-benefits for regional or local development priorities | Can be used for other planning purposes as well |
| Co-benefits for climate mitigation | none |
| Co-benefits for the environment | Increased areas for nature, better soil quality and water retention |
| Political and social acceptability (high-medium-low) | High |
| Barriers for implementation | Low resources availability |
| Maladaptation risks | None |
| Responsible authority for implementation | Ministry of the Interior – Department of Town Planning and Housing |
| Other actors involved | local and regional authorities, researchers |
| Other policy initiatives that align / synergies | Cross Sectoral |
| Technical/institutional readiness | High |
| Period of implementation (high-medium-low) | Medium |
| Time to effectiveness (to have an effect or impact) | Shortly after implementation |
| Financing (high-medium-low) | Low |
| Indicator for verification of implementation progress | <ul style="list-style-type: none"> Number of maps /updates produced per year |
| Additional comments | <p>This is being done. Need for specific input such as Non-productive Agricultural Land from the Dept of Agriculture, etc.</p> <p>Corine Maps, as Land Use Maps are of large scales for Cyprus</p> <p>The European Space Agency will provide adequate Land Use Inventory and info on Land Use. We need to improve it with technology. We need Capacity Building to interpret data given by European Space Agency, and for Coordinating work, as well as on relevant infrastructure to use this data.</p> |
| Relates to | |

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|--|---|
| Name of the measure | Develop, in collaboration with local and regional authorities, medium- and long-term balanced land strategies that limit the consumption of natural, agricultural and forestry areas to achieve the objective of zero net artificialisation |
| Number of the measure | SPAT 4n |
| Priority (high-medium-low) ⁴²⁴ | High |
| Climate impact (s) addressed | Droughts, Floods |
| Primary Sector | Spatial Planning |
| Secondary sector | Agriculture, Biodiversity, Forestry |
| KTM category | Governance and Institutional |
| Sub-KTM | Management and Planning |
| Goal of the measure | Limit the consumption of natural, agricultural and forestry areas to achieve the objective of zero net artificialisation and minimise soil sealing. |
| Description of the measure | <p>This measure requires a two-step approach:</p> <p>A. Activities under SPAT 3n: <i>Map land and soil reserves</i></p> <p>B. Discuss measures to disincentivise artificialisation such as:</p> <ul style="list-style-type: none"> • Land Tax: Implementing a higher land tax on artificialised land can make it less economically attractive to convert natural areas. • Development Fees: Increasing development fees for projects that involve significant artificialisation can discourage such developments. • Subsidies for Conservation: Providing subsidies or incentives for land conservation and restoration can make these options more economically viable than artificialisation. • Zoning Restrictions: Implementing stricter zoning regulations to limit the expansion of urban areas and protect natural landscapes. • Urban Renewal Policies: Promoting urban renewal and redevelopment within existing urban areas to reduce the need for new development on natural lands. |
| Spatial scope of the measure | National /regional |
| Implementation Cost (high-medium-low) ⁴²⁵ | High |
| Maintenance cost (high-medium-low) | Low |
| Implications for society with special attention to vulnerable populations | <p>Increased Public Health such as⁴²⁶:</p> <ul style="list-style-type: none"> • Improved Air Quality: Reduces air pollution associated with urban development. • Reduced Noise Pollution: Maintains quieter environments, contributing to better mental health. • Access to Green Spaces: Provides opportunities for outdoor recreation and stress reduction. |

⁴²⁴ High: to implement within two years; Medium: to implement in 2 to 5 years; Low: to implement after 5 years

⁴²⁵ Low: €100,000 or less; Medium: €100,000 – €1,000,000; High: over €1 million

⁴²⁶ https://www.strategie.gouv.fr/sites/strategie.gouv.fr/files/atoms/files/dp_-_artificialisation_-_gb.pdf

| Name of the measure | Develop, in collaboration with local and regional authorities, medium- and long-term balanced land strategies that limit the consumption of natural, agricultural and forestry areas to achieve the objective of zero net artificialisation |
|--|--|
| Co-benefits for regional or local development priorities | Not known |
| Co-benefits for climate mitigation | Better storage of CO ₂ ⁴²⁷ |
| Co-benefits for the environment | Increased areas for nature, better soil quality and water retention |
| Political and social acceptability (high-medium-low) | Medium |
| Barriers for implementation | No legal framework supporting some of these Planning tools. Needs to be studied to ensure compliance and potential interactions other policies and objectives. Need a cross-cutting study to analyse impacts on other policies and objectives. |
| Maladaptation risks | None |
| Responsible authority for implementation | Ministry of the Interior – Department of Town Planning and Housing |
| Other actors involved | Local and regional authorities, researchers |
| Other policy initiatives that align / synergies | None identified |
| Technical/institutional readiness | No legal framework supporting some of these Planning tools, need to be studied against other policies and objectives. Need a cross-cutting study to analyse impacts on other policies and objectives |
| Period of implementation | Continuously after the legal basis have been developed |
| Time to effectiveness (to have an effect or impact) | Immediately |
| Financing (high-medium-low) | Low |
| Indicator for verification of implementation progress | <ul style="list-style-type: none"> Percentage of reduction in gross artificialization and the renaturation |
| Additional comments | <ul style="list-style-type: none"> Planning Tools, such as the ones mentioned in this measure, are useful, some, are under investigation constantly, but need in-depth studies with regards to constitutional rights of owners, impacts on other sectors, political costs, etc. Should be applied in existing urban and suburban areas Existing Land Strategies include some of these principles (i.e. continuous/connected development growth) Urban Land Consolidation, development of road network in existing development Planning Zones to lay the conditions for development of idle plots. Intensification in areas where adequate infrastructure is there and upon justifying carrying capacities |
| Relates to | INFR 5 INFR 10n |

⁴²⁷ https://www.strategie.gouv.fr/sites/strategie.gouv.fr/files/atoms/files/dp_-_artificialisation_-_gb.pdf

| Apply the Climate Resilience City (CRC) tool to elaborate adaptation options in urban planning | |
|--|--|
| Name of the measure | |
| Number of the measure | SPAT 5n |
| Priority (high-medium-low) ⁴²⁸ | Medium |
| Climate impact (s) addressed | Extreme Temperatures, Flooding, Droughts |
| Primary Sector | Spatial Planning |
| Secondary sector (if any) | Urban planning |
| KTM category ⁴²⁹ | Physical and Technological |
| Sub-KTM | Technological options |
| Goal of the measure | Support the collaborative planning of climate adaptation measures for more resilient and attractive cities |
| Description of the measure | The CRC Tool supports the selection of nature-based adaptation options in urban adaptation planning and stakeholder dialogues, to address precipitation, drought and heat hazards. It uses a conceptual urban water balance model to calculate the hydrological effects of solutions that are drawn in by users. The CRC Tool can be used on a computer to explore and compare adaptation options, or on a touchscreen for the co-creation of urban designs with stakeholders. These results are shown on a map interface and in an accompanying table. The tool provides information on the hydrological effectiveness and an indication of the construction and maintenance costs. |
| Spatial scope of the measure | Local |
| Implementation Cost (high-medium-low) ⁴³⁰ | Low |
| Maintenance cost (high-medium-low) | None |
| Socioeconomic implications with special attention to vulnerable populations | The tool supports open adaptation discussions amongst stakeholders, based on a visually intuitive environment |
| Co-benefits for regional or local development priorities | Support planning processes |
| Co-benefits for climate mitigation | None |
| Co-benefits for the environment | Promotion of nature-based adaptation options. |
| Political and social acceptability (high-medium-low) | High |
| Barriers for implementation | Need a clear set of indicators to review against |
| Maladaptation risks (if any) | No |
| Responsible authority for implementation | District Local Government Organisation Department of Town Planning and Housing for large projects |
| Other actors involved | Stakeholders |

⁴²⁸ High: to implement within two years; Medium: to implement in 2 to 5 years; Low: to implement after 5 years

⁴²⁹ See <https://climate-adapt.eea.europa.eu/en/knowledge/tools/adaptation-support-tool/step-3-0>

⁴³⁰ Low: €100,000 or less; Medium: €100,000 – €1,000,000; High: over €1 million

| Apply the Climate Resilience City (CRC) tool to elaborate adaptation options in urban planning | |
|--|--|
| Name of the measure | |
| Other policy initiatives that align / synergies | Climate law |
| Technical/institutional readiness (high-medium-low) | High |
| Period of implementation | < 1 month |
| Time to effectiveness (to have an effect or impact) | As soon as the tool has been set up with local datasets |
| Financing (high-medium-low) | Low |
| Indicator for verification of implementation progress | <ul style="list-style-type: none"> • Number of projects that have applied the tool in designing processes and/or stakeholder dialogues |
| Additional comments | <ul style="list-style-type: none"> • Can be used in small areas at the project level and for development control during evaluating development applications for Planning permits, especially for bigger developments, not in spatial plans. • Development control process for most developments lies with DLGOs. Only certain large development projects lie within the responsibilities of TPHD. This measure can be considered as requirement for specific big projects during their permitting procedures, a pre-requisite e.g. by the DoE during environmental permitting procedures, or by planning authorities (DLGO/ TPHD) during planning permitting procedures. Either way, application of the tool would lie on each project owner/ applicant. |
| Relates to | INFR 5 INFR 10n |

Tourism measures impact assessment factsheets

| | |
|--|---|
| Name of the measure | Conduct a study of the regionalised impacts of climate change in the tourism sector and integrate adaptation into plans, programmes and strategies |
| Number of the measure | TOUR 1n |
| Priority (high-medium-low) ⁴³¹ | High |
| Climate impact (s) addressed | All |
| Primary Sector | Tourism |
| Secondary sector | Spatial planning |
| KTM category ⁴³² | Governance and Institutional Knowledge and behavioural change Economic and finance |
| Sub-KTM | Management and planning Communication and dissemination Financing and incentive instruments |
| Goal of the measure | Actively promote the adaptation of the tourism sector in Cyprus, maintaining its competitiveness and utilising the opportunities and potential that result from climate change. |
| Description of the measure | <p>Some of the measures of this line of action include:</p> <ul style="list-style-type: none"> A. Conduct a study on the impacts of climate change on tourism and the economic consequences due to possible changes in tourism patterns. B. Develop climate factsheets (overview of climatic changes) per region and tourism region-specific vulnerabilities. C. Develop climate impact chains (visualisation of the cascading impacts of climate change) on the different tourism activities and infrastructures. D. Adaptation compass (navigation aid in the complex process of adaptation). E. Create a funding program for climate adaptation of the tourism sector and a funding radar to support finding appropriate funding opportunities for adaptation. F. Create interdepartmental and intersectoral working spaces to exchange ideas (good practice examples for inspiration), tackle adaptation in the tourism sector and promote inter-administrative coordination and cooperation with the private sector. |
| Spatial scope of the measure | National |
| Implementation Cost (high-medium-low) ⁴³³ | Low |
| Maintenance cost (high-medium-low) | None |

⁴³¹ High: to implement within 2 years; Medium: to implement in 2 to 5 years; Low: to implement after 5 years

⁴³² See <https://climate-adapt.eea.europa.eu/en/knowledge/tools/adaptation-support-tool/step-3-0>

⁴³³ Low: €100,000 or less; Medium: €100,000 – €1,000,000; High: over €1 million

| Name of the measure | Conduct a study of the regionalised impacts of climate change in the tourism sector and integrate adaptation into plans, programmes and strategies |
|--|---|
| Implications for society with special attention to vulnerable populations | Aspect can be covered in the study |
| Co-benefits for regional or local development priorities | Yes, both regionally or locally. |
| Co-benefits for climate mitigation | None |
| Co-benefits for the environment | None |
| Political and social acceptability | High |
| Barriers for implementation | Lack of funding mechanisms for both the public and the private sector. For receiving funds, tourism operations need to be in line with their building permits and/or have received their licence and classification certifications. If not compliant, they cannot receive the appropriate funding. |
| Maladaptation risks | None |
| Responsible authority for implementation | Deputy Ministry of Tourism |
| Other actors involved | Tourist operators and businesses |
| Other policy initiatives that align / synergies | <p>Other relevant funding/ promotion of relevant actions, e.g. energy savings/ efficiency regulations.</p> <p>Synergy between Deputy Ministry of Tourism, local government and private sector to promote all year-round tourism (union of Cyprus municipalities)</p> <p>Synergies with WAT 12: limit water intensive tourism developments</p> |
| Technical/institutional readiness (high-medium-low) | High |
| Period of implementation (long-medium-short) ⁴³⁴ | It's already included as a direction in the National Tourism Strategy 2035; however, the Action Plan is not ready yet. |
| Time to effectiveness (to have an effect or impact) | Depending on the results of the study, and on the availability of funding mechanisms, effectiveness could vary from short term to long term. |
| Financing | Low |
| Indicator for verification of implementation progress | <ul style="list-style-type: none"> Study of the regionalized impacts of climate change in the tourism sector and integrate adaptation into plans, programmes and strategies in the field of tourism conducted: started/ongoing/finalised |
| Relates to | GOV 1n WAT 12 |

⁴³⁴ Short: less than 2 years; Medium: between 2 to 5 years; Long: more than 5 years

| Promote tourism models that are more resilient to the impacts of climate change | |
|--|--|
| Name of the measure | |
| Number of the measure | TOUR 2n |
| Priority (high-medium-low) ⁴³⁵ | High |
| Climate impact (s) addressed | Extreme temperatures |
| Primary Sector | Tourism |
| Secondary sector | Spatial planning Forestry |
| KTM category ⁴³⁶ | Governance and Institutional |
| Sub-KTM | Management and planning |
| Goal of the measure | Reformulate the current tourism model, seeking models that are sustainable, moving away from the dominating “sea, sun, sand” model, and consider sector specific climate change risks and vulnerabilities. Contribute to the overhaul of tourism in areas affected by obsolescence, as well as to its revaluation and innovative projection. |
| Description of the measure | Interventions to achieve this diversification could include, among others: <ul style="list-style-type: none"> A. Diversify economic activities in tourist areas, changing tourist activities (for example, from ski tourism to mountain tourism), redistributing tourist flows to untapped destinations (from coastal areas to inland) and de-seasonalising sun and beach destinations. B. Promote alternative tourism models to beach tourism: gastronomic, sports, cultural, leisure, rural, agrotourism, health tourism, winter sports, or others. C. Promote sustainable tourism destinations and products. D. Reinforce the collaboration between public administrations with competencies in tourism and the private sector, the former creating intervention frameworks that favour long-term strategies and synergies. |
| Spatial scope of the measure | National |
| Implementation Cost (high-medium-low) ⁴³⁷ | Low |
| Maintenance cost (high-medium-low) | None |
| Implications for society with special attention to vulnerable populations | Small size tourism units will benefit from the shifting of tourism attraction/ visitation. |
| Co-benefits for regional or local development priorities | Benefits to cultural and other regions economically and socially |
| Co-benefits for climate mitigation | None |
| Co-benefits for the environment | Reduced concentrated pressure on valuable coastal ecosystems. |
| Political and social acceptability | High |

⁴³⁵ High: to implement within 2 years; Medium: to implement in 2 to 5 years; Low: to implement after 5 years

⁴³⁶ See <https://climate-adapt.eea.europa.eu/en/knowledge/tools/adaptation-support-tool/step-3-0>

⁴³⁷ Low: €100,000 or less; Medium: €100,000 – €1,000,000; High: over €1 million

| Name of the measure | Promote tourism models that are more resilient to the impacts of climate change |
|---|--|
| Barriers for implementation | <ul style="list-style-type: none"> • Funding, willingness (of people) to shift to new forms • Lengthy/ demanding permitting procedure, • Limited / inadequate connectivity in the low season to support the needs of the reformed tourism model - product • Accessibility is limited in low season e.g. winter, very limited/ infrequent accessibility with massive transport means in mountainous/ rural areas. |
| Maladaptation risks | None |
| Responsible authority for implementation | Deputy Ministry of Tourism |
| Other actors involved | Tourist operators and businesses (both national and international) |
| Other policy initiatives that align / synergies | Promotion of cultural heritage events Forest: promote rural tourism synergy with forestry |
| Technical/institutional readiness (high-medium-low) | Medium |
| Period of implementation (long-medium-short) ⁴³⁸ | Most of these initiatives are already underway, mainly to address economic, environmental and social challenges, but so far not to address climate change adaptation directly. |
| Time to effectiveness (to have an effect or impact) | Depends on the effectiveness of the efforts to change the tourism models |
| Financing (high-medium-low) | Low- for management and planning purposes High- for the implementation phase |
| Indicator for verification of implementation progress | <ul style="list-style-type: none"> • Monthly Visitors/Tourists Arrival Counts • Conduct specialized questionnaires at arrival points to inquire reasons of visiting Cyprus. The latter is somehow being done by the Statistical Service of Cyprus |
| Relates to | |

⁴³⁸ Short: less than 2 years; Medium: between 2 to 5 years; Long: more than 5 years

| Promote the resilience of tourism resources - including natural and cultural resources - and infrastructures to climate change impacts | |
|--|---|
| Name of the measure | |
| Number of the measure | TOUR 3n |
| Priority (high-medium-low) ⁴³⁹ | High |
| Climate impact (s) addressed | Extreme temperatures; Droughts; Floods; Sea level rise; Forest fires |
| Primary Sector | Tourism |
| Secondary sector | Biodiversity and Ecosystems Cultural heritage Infrastructure, Transport and Buildings Sea and Coast Spatial planning |
| KTM category ⁴⁴⁰ | Governance and Institutional |
| Sub-KTM | Management and planning Coordination, cooperation and networks |
| Goal of the measure | Identify, plan and develop adaptation initiatives to protect tourism destinations and resources, as well as promote the resilience of infrastructures and facilities. |
| Description of the measure | <p>Tourist resources include those natural or cultural elements located in tourist destinations that are likely to attract tourists. Tourism infrastructures can be understood as the collection of constructions and services used by tourism to boost its activity. This line of action includes measures such as:</p> <p>A. Promote investment in the development of bioclimatic infrastructure and the use of advanced technologies to improve climatic conditions in tourist units.</p> <p>B. Adaptive planning and management of natural protected areas.</p> <p>C. Develop adaptation initiatives in the coastal areas.</p> <p>D. In the cultural sector:</p> <ul style="list-style-type: none"> ○ Integrate climate change risks in the conservation of cultural heritage. ○ Promote responsible, climate change-adapted and low-carbon cultural tourism. ○ Use interpretative media associated with cultural heritage as a tool for climate awareness and communication of climate actions, including generating visibility of good practices. ○ Analyse the needs for climate change adaptation in cultural tourism in Cyprus. ○ Analyse mitigation-adaptation synergies in cultural tourism (for example, electric mobility reduces harmful vibrations for the built environment and reduces pollution, which can damage heritage elements). <p>E. Take climate change risks into consideration in the management and maintenance of transport infrastructure. Promote sustainable mobility and micromobility to provide tourists with a variety of transport options, as well as promote a sustainable mindset, which is more attractive to tourists, mainly from Western-European countries</p> |

⁴³⁹ High: to implement within 2 years; Medium: to implement in 2 to 5 years; Low: to implement after 5 years

⁴⁴⁰ See <https://climate-adapt.eea.europa.eu/en/knowledge/tools/adaptation-support-tool/step-3-0>

| Name of the measure | Promote the resilience of tourism resources - including natural and cultural resources - and infrastructures to climate change impacts |
|--|---|
| | <p>Institutional coordination of the tourism sector with these other areas is therefore essential to ensure that the adaptation needs of tourism are incorporated into the planning and development of these initiatives.</p> <p>For its part, the tourism sector can promote the adoption of measures that favour the incorporation of adaptive criteria for the protection of tourism resources, as well as the adaptation of infrastructures and facilities.</p> |
| Spatial scope of the measure | Local, National |
| Implementation Cost (high-medium-low) ⁴⁴¹ | Medium |
| Maintenance cost (high-medium-low) | Medium |
| Implications for society with special attention to vulnerable populations | Win-win situation for all interconnected clusters/sections |
| Co-benefits for regional or local development priorities | <p>Benefits to all associated sectors, protection of cultural heritage and nature, economy gain etc.</p> <p>Improved attractiveness of tourist opportunities in the face of climate change risks</p> |
| Co-benefits for climate mitigation | Improved tourist infrastructures and facilities can help reduce energy consumption and CO2 emissions |
| Co-benefits for the environment | Improved management of natural areas that are tourist destinations |
| Political and social acceptability | High |
| Barriers for implementation | Willingness of other authorities and availability of resources |
| Maladaptation risks | None |
| Responsible authority for implementation | Deputy Ministry of Tourism (DMoT) with the competent authorities |
| Other actors involved | <p>Ministry of Finance, Ministry of Interior, Ministry of Energy, Commerce and Industry, Ministry of Transport, Communications and Works, Ministry of Agriculture, Rural Development and Environment, Deputy Ministry of Culture, Local Authorities</p> <p>Tourist operators and businesses.</p> |
| Other policy initiatives that align / synergies | Synergies with associated policies of relevant sectors, e.g. management of natural areas, etc. |
| Technical/institutional readiness (high-medium-low) | High |
| Period of implementation (long-medium-short) ⁴⁴² | Long |
| Time to effectiveness (to have an effect or impact) | Directly upon implementing interventions |
| Financing | <p>High</p> <p>Use new (for instance green fees on tourist accommodation) and existing (e.g. from entrance fees) revenue sources such as Special</p> |

⁴⁴¹ Low: €100,000 or less; Medium: €100,000 – €1,000,000; High: over €1 million

⁴⁴² Short: less than 2 years; Medium: between 2 to 5 years; Long: more than 5 years



| | |
|--|--|
| Name of the measure | Promote the resilience of tourism resources - including natural and cultural resources - and infrastructures to climate change impacts |
| | Funds that could give the chance to invest in actions for CC adaptation measures. |
| Indicator for verification of implementation progress | <ul style="list-style-type: none">• No. of grants given to tourist units per area• No. of Protected Areas Management Plans adjusted• No. of cultural heritage sites analysed and CC adaptation plans drafted and implemented• Units of transportation infrastructure upgraded |
| Relates to | GOV 3n |



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