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MINISTRY OF AGRICULTURE RURAL DEVELOPMENT AND THE ENVIRONMENT

Cyprus National Climate Change Adaptation Strategy and Action Plan

Ayis Iacovides, Director, I.A.CO Ltd

AARC Trinomics Fresh Thoughts Consulting where science meets policy alp-S I.A.CO Ltd Environmental & Water Consultants

The team

Leading and coordinating

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The consultants

Trinomics

Fresh Thoughts Consulting
where science meets policy

I.A.CO Ltd
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Climate trends and impacts

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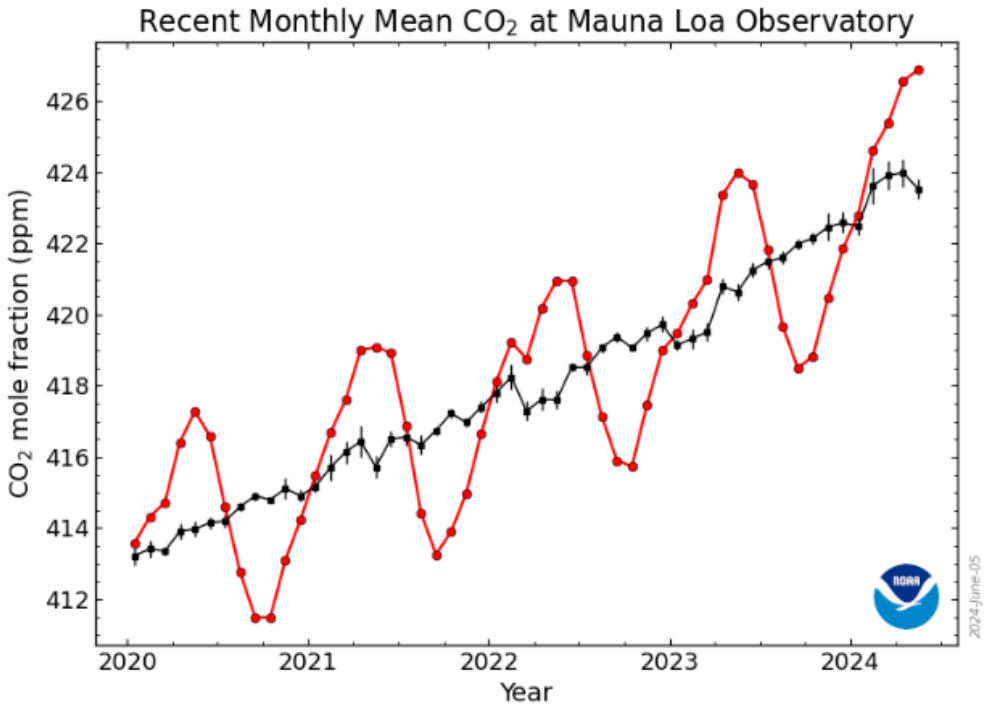
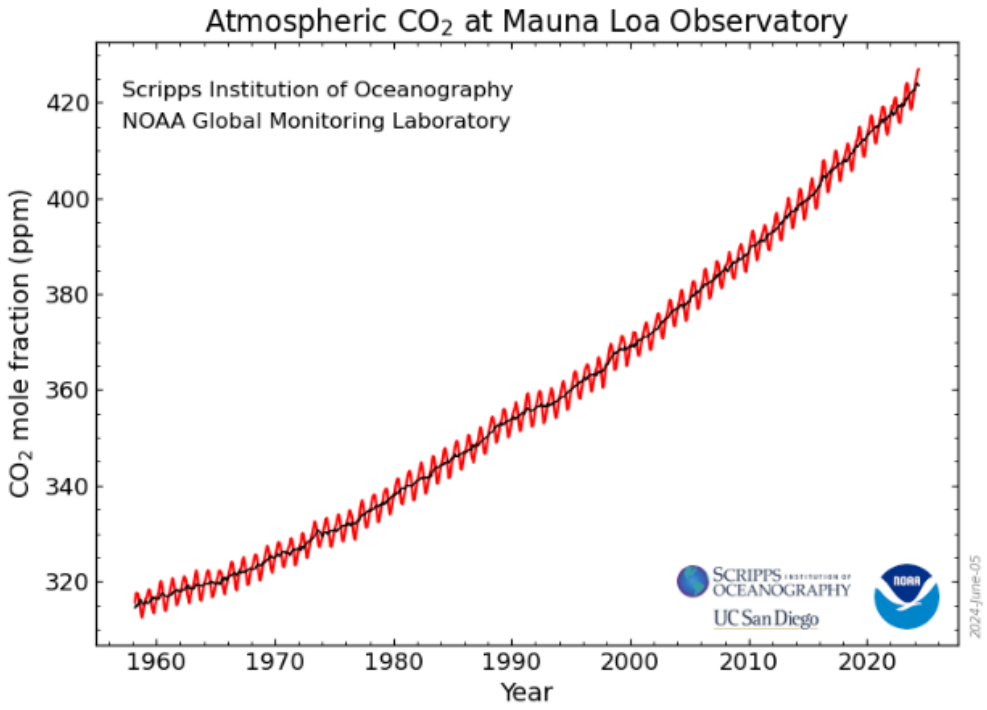
Where we are headed

May 2024: 426.90 ppm
May 2023: 424.00 ppm
Last updated: Jun 05, 2024





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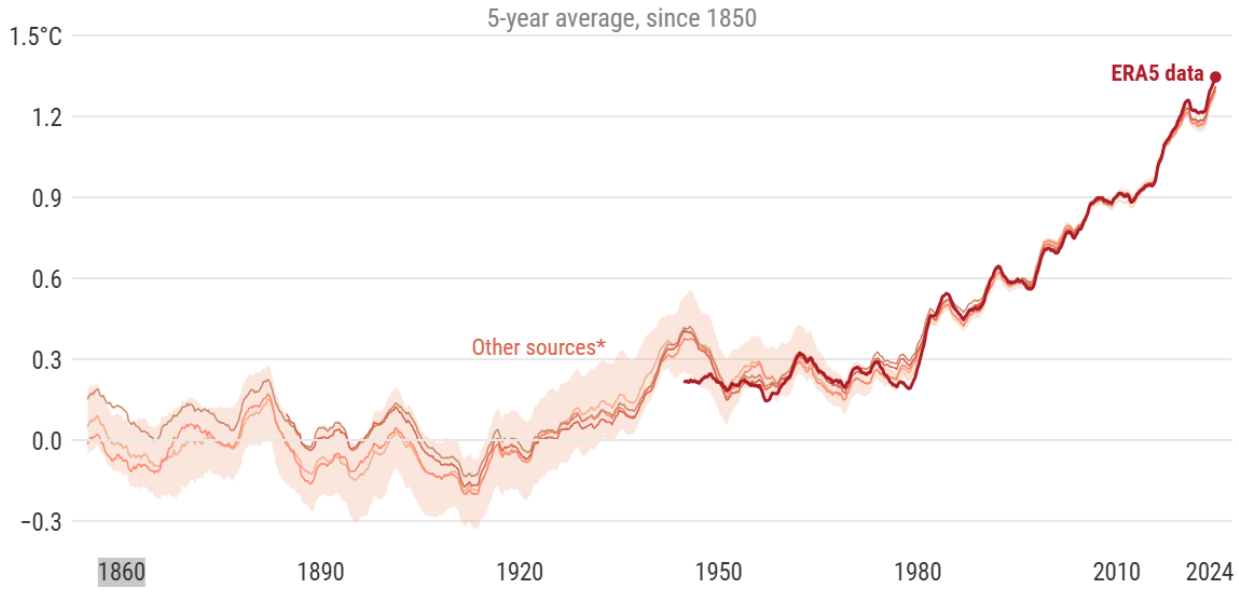
Record breaking temperatures in 2024

Global surface temperature: increase above pre-industrial

Reference period: pre-industrial (1850–1900) • Credit: C3S/ECMWF



***Other sources** comprise JRA-3Q, GISTEMPv4, NOAAGlobalTempv6, Berkeley Earth and the HadCRUT5 ensemble mean. Shading shows the range of the HadCRUT5 ensemble.

Key temperature statistics for 2024

Region	Anomaly (vs 1991–2020)	Actual temperature	Rank (out of 85 years)
Globe	**+0.72°C** (+1.60°C vs pre-industrial)	15.10°C	**1st highest** 2nd - 2023
Europe	**+1.47°C**	10.69°C	**1st highest** 2nd - 2020
Arctic	**+1.34°C**	-11.37°C	**4th highest** 1st - 2016
Extra-polar ocean	**+0.51°C**	20.87°C	**1st highest** 2nd - 2023

Find more about data, definitions and methods in the GCH2024 Data and methods page. The European region is defined as 25°W-40°E, 34°-72°N. The extra-polar ocean region is defined as 60°N-60°S.
Statistics for *globe*, *Europe* and *the Arctic* refer to surface air temperatures, statistics for *extra-polar ocean* refer to the sea surface temperature. Temperatures for Europe and the Arctic are **over land only**.

Data source: ERA5 • Credit: C3S/ECMWF

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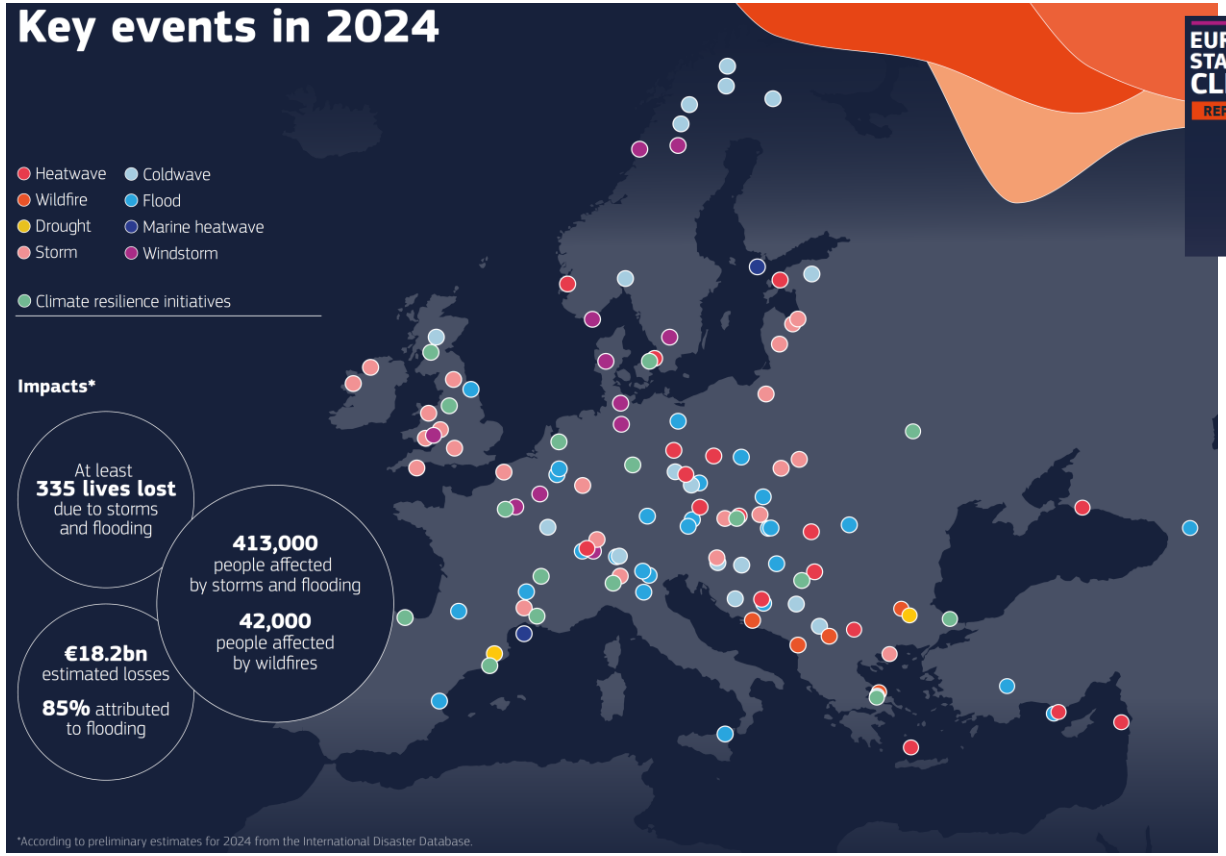
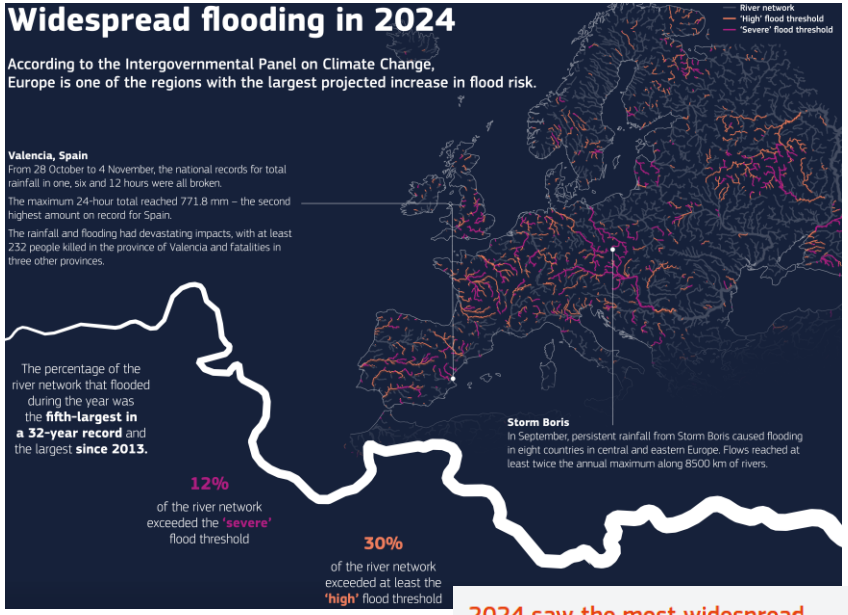
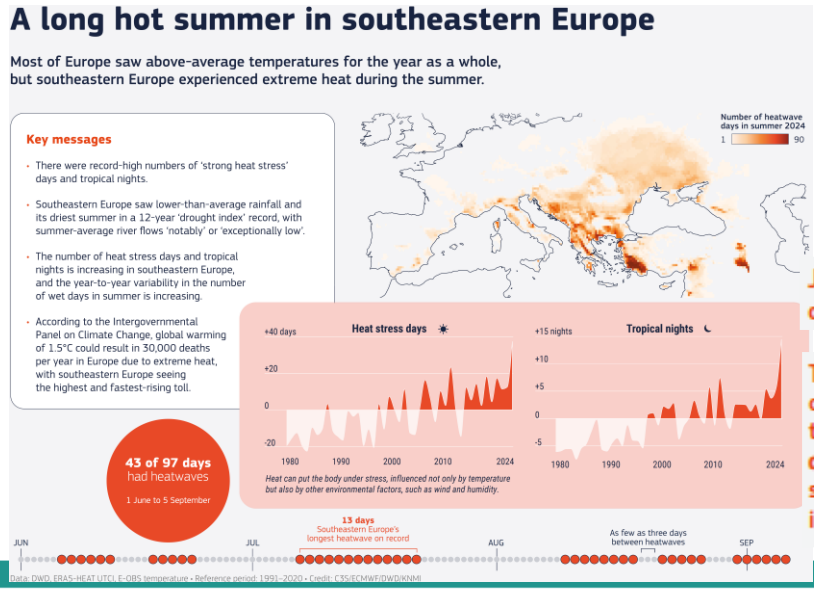
Climate impacts (2024)





2024 saw the most widespread flooding since 2013, with river flows in 30% of the European river network exceeding the 'high' flood threshold and 12% exceeding the 'severe' flood threshold.



July 2024 saw the longest heatwave on record for southeastern Europe.

There were record-breaking numbers of 'strong heat stress' days and tropical nights in southeastern Europe during summer. The numbers of heat stress days and tropical nights are increasing in this region.

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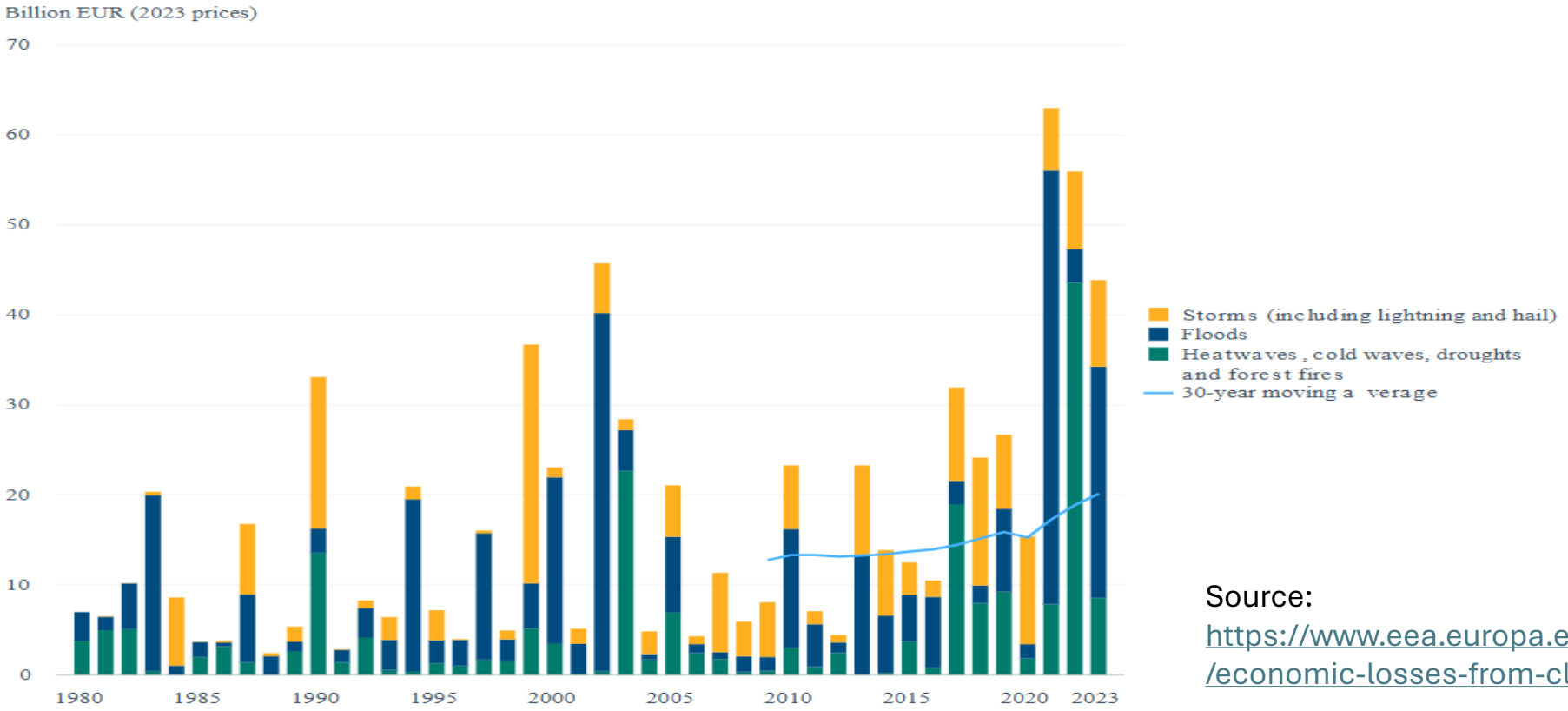
Climate impacts – Economic losses

Annual economic losses caused by weather - and climate - related extreme events in the EU Member States



Source: https://www.eea.europa.eu/en/analysis/indicators/economic-losses-from-climate-related

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Climate impacts – Recent events

© Emilio Morenatti/2024. AP

Valencia (Spain) (2024)
224 dead

© Cyprus Mail, 2025

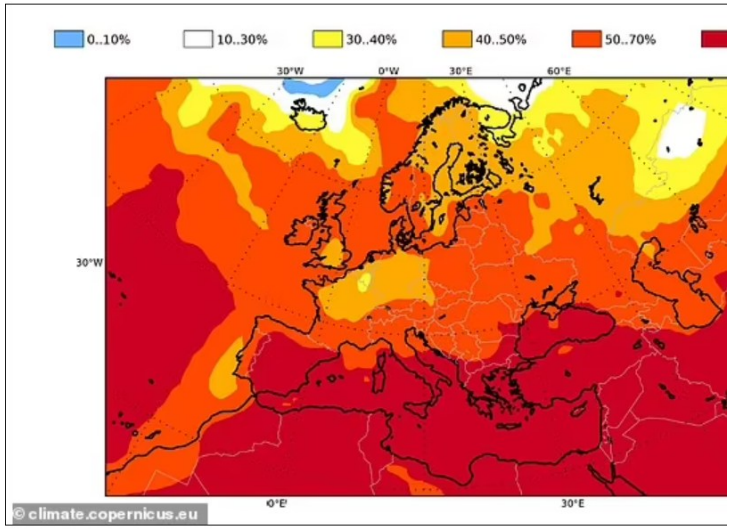
Cyprus (2025), burned 130 km^2, destroyed/damaged ~ 600 homes, across 13 villages, killed 2 people

Mail Online

Escape to the oven!: British holidaymakers seeking the sun in top summer spots like Greece, Cyprus and Turkey are warned they will face 'record breaking temperatures' due to unseasonable heatwave

- **Forecasters predict extreme and hotter-than-average temperatures in the Med**

By MIRIAM KUEPPER
PUBLISHED: 21:14 GMT, 15 June 2024 | **UPDATED:** 22:45 GMT, 15 June 2024



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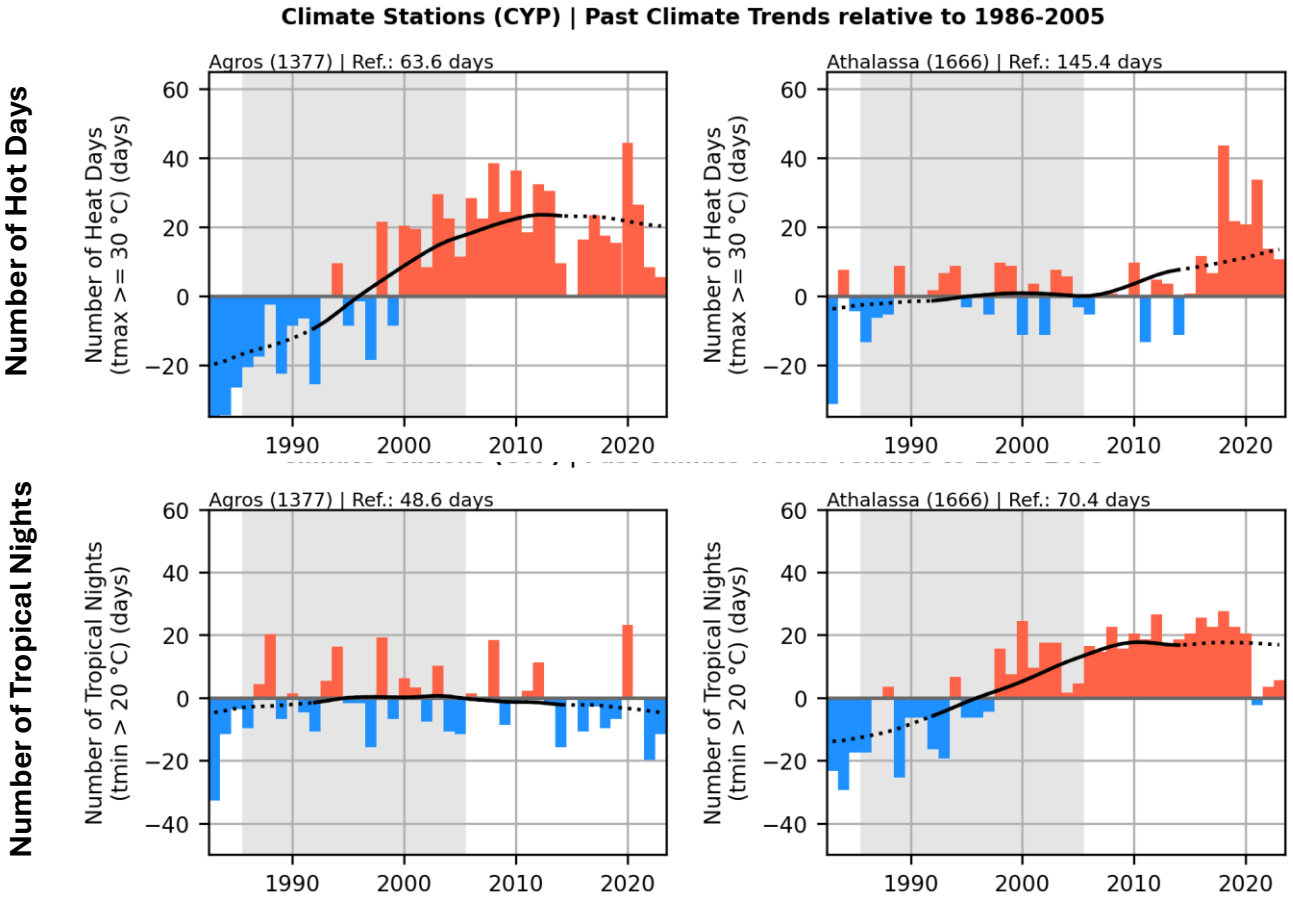
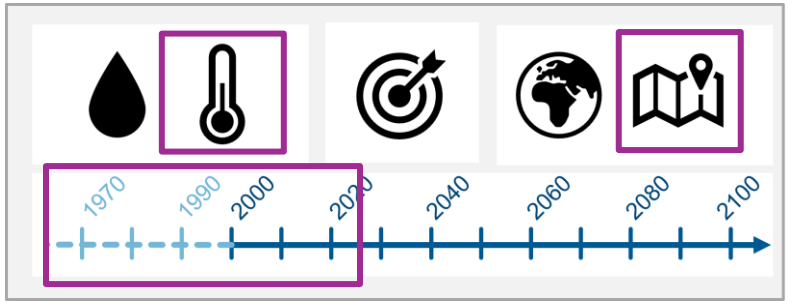
Historical changes in **Temperature**

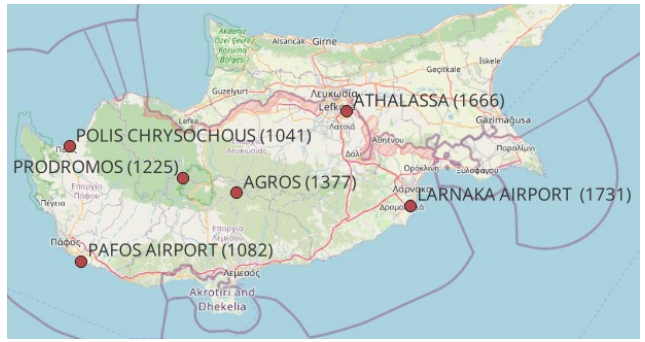
Climate Impact Drivers





Snapshot of observed changes in the last 40 years…

- Mountain areas (Agros) are more prone to increase in hot days (>30 °C) compared to lowland areas (Athalassa)
- Lowland areas show a significant increase in tropical nights (>20 °C) → this is not yet seen for mountain areas



Weather Data Reference: Department of Meteorology, Section of Climatology and Meteorological Applications, MARDE

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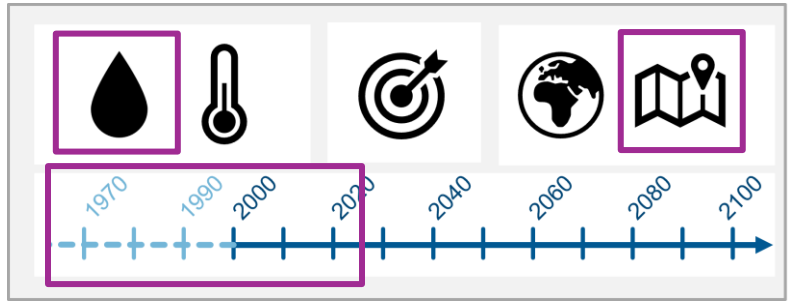
Historical changes in **Precipitation**

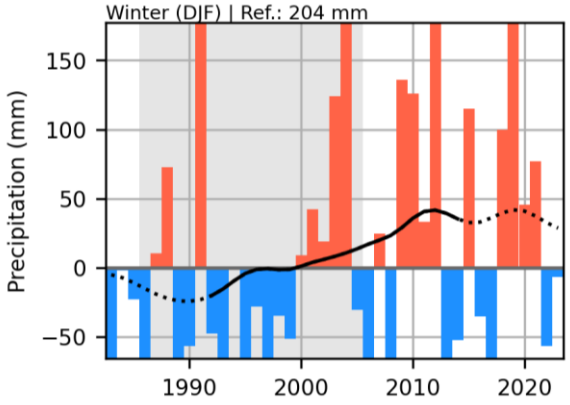
Climate Impact Drivers

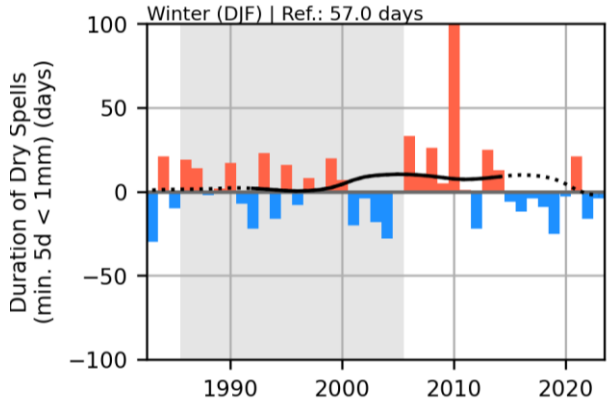


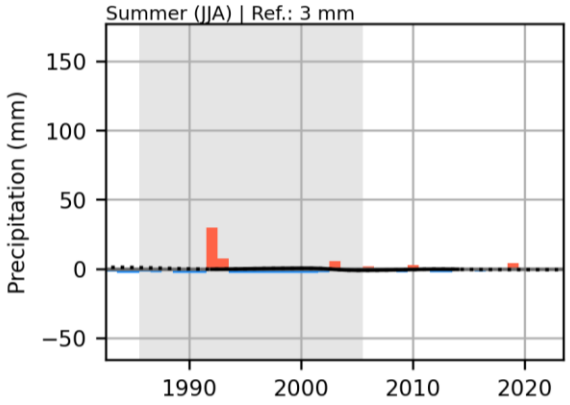
Seasonal Precipitation - Larnaka Airport (1731)

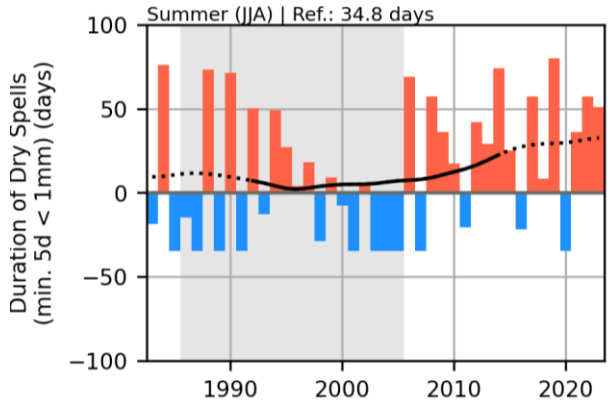
Dry Spells – Athalassa (1666)

Past Climate Trends relative to 1986-2005



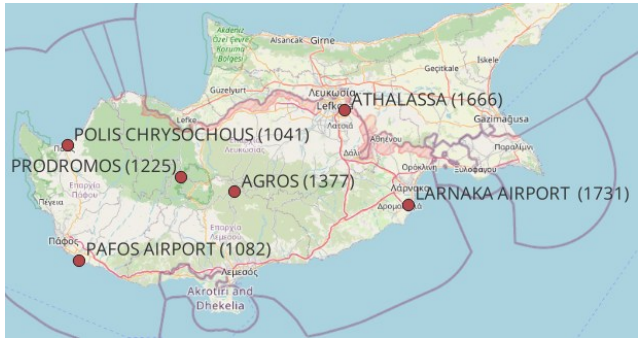






Snapshot of observed changes in the last 40 years…

- An increase in winter precipitation is mostly visible in Cyprus (e.g. Larnaka).
- Summer is the period which most prone to an increase in dry spells. This is mostly observable in Cyprus (e.g. Athalassa).



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National Strategy on Adaptation to Climate Change

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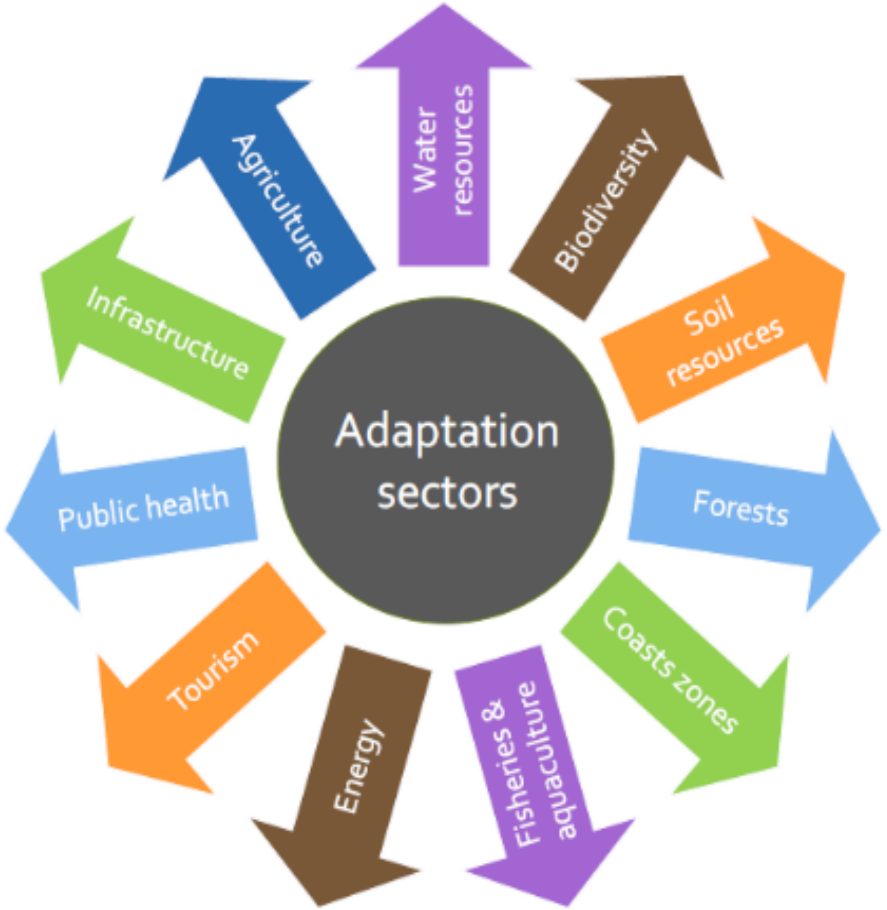
What was the starting point?

- First National Adaptation Strategy (NAS) staring point: 2014
- CY has adopted its (NAS) and Action Plan (NAP) in May 2017.
- Some implementation of the measures, some autonomous adaptation
- NAS and NAP have to be revised and updated to address Paris Agreement and the Cyprus led ‘Initiative for Climate Change of the Mediterranean and the Middle East regions’.
- As resources were scarce, CY -- > project started asked DG REFORM for technical assistance (TSA) in 2023

Assessment of 2017 NAS implementation



12 sectors / policy areas – 81 measures

Periodic Reports to the Council of Ministers on the Implementation of NAS and NAP (5 developed)

Some **barriers** for implementation:

- Insufficient resources and technical capacity for implementation
- Limited data to support implementation
- Inadequate monitoring and evaluation framework
- Insufficient coordination of adaptation action
- Limited financial resources for implementation
- Limited understanding of the urgency of adaptation
- Limited involvement of civil society and the private sector

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The project phases

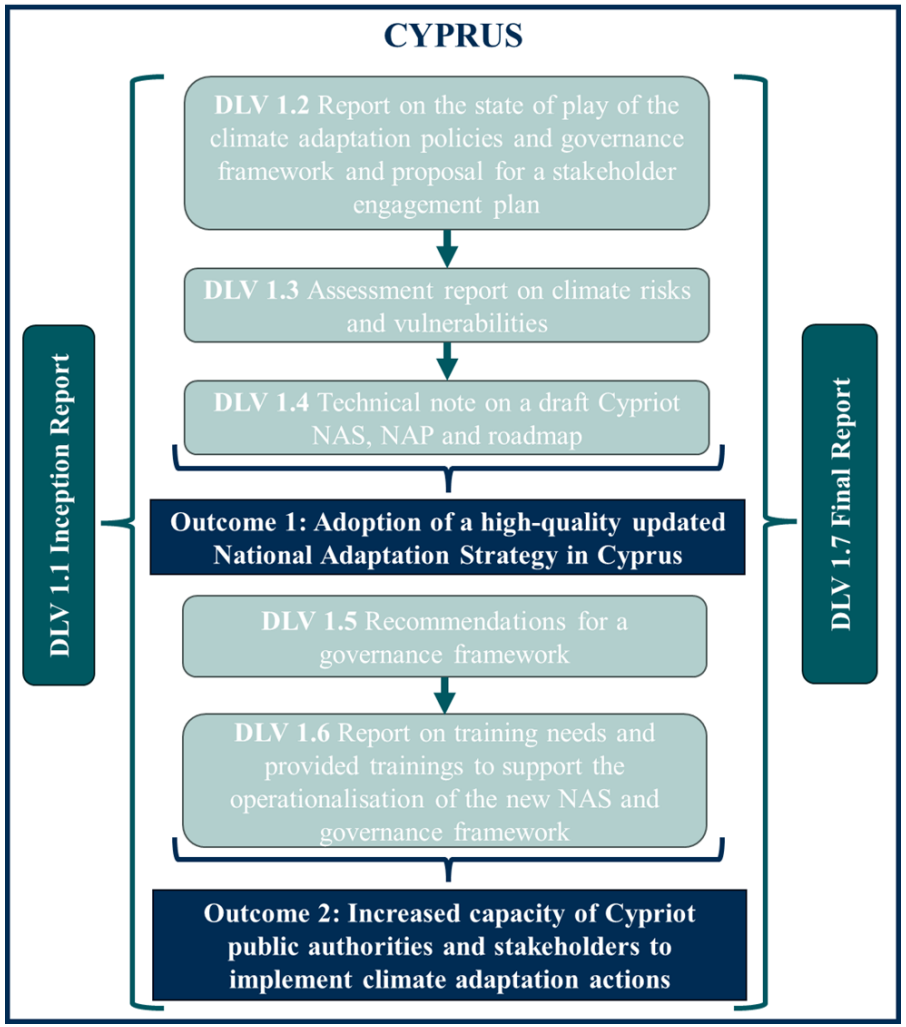
PHASE I: Report on the status of climate adaptation policies and governance framework in Cyprus

PHASE II: Climate risk and vulnerability assessment

PHASE III: Updated National Adaptation Strategy and implementation action plan

PHASE IV: Recommendation for a governance framework for adaptation

PHASE V: Report on training needs and provide trainings to support the operationalisation of the new NAS and governance framework



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Sectors covered in 2025 NAS and NAP

- Agriculture
- Biodiversity & Ecosystems
- Cultural Heritage
- Disaster Risk Management & Civil Protection
- Economy & Industry
- Energy
- Fisheries & Aquaculture
- Forestry
- Health
- Hydrological Regime & Water Management
- Soil
- Tourism
- Transport, Infrastructure & Buildings
- Sea & Coastal Areas
- Spatial Planning
- Education
- Governance

Step 1: Sector-specific and participated Climate Risk and Vulnerability Assessment (**CRVA**)

Selection of relevant climate impact drivers / climate-related hazards

Participated identification of climate-related biophysical and socioeconomic impacts

Workshop 1:
Sector specific climate impact assessments

Participated prioritization of climate impacts:
Key impacts

For key impacts, participated assessment:

- Adaptive capacity (financial resources and governance)
- Urgency to act

Workshop 2:
Key risks and strategic directions

Non-climatic risk drivers impacting the sector

Exposed sectoral sub-systems

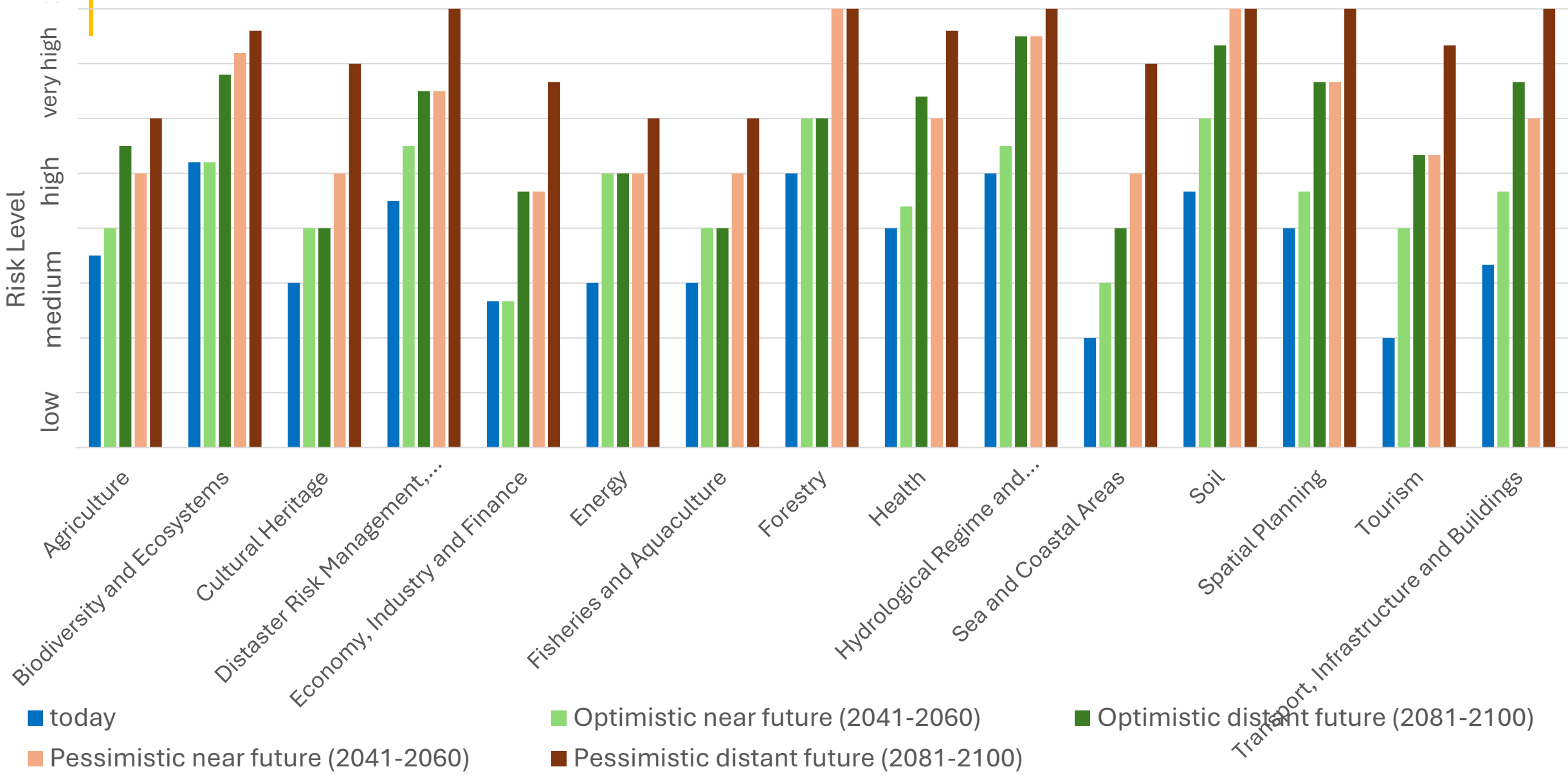
Cross sectoral connections

Participated identification and prioritization of **key risks**

Strategic directions
(for each sector in response to key risks)

Sectoral climate impact chains

Risk Assessment per sector and climate scenario



Climate Change Mitigation

Activities and measures to reduce emissions

Climate Change Adaptation

Measures to reduce the negative impacts resulting from climate change and activities harnessing positive effects

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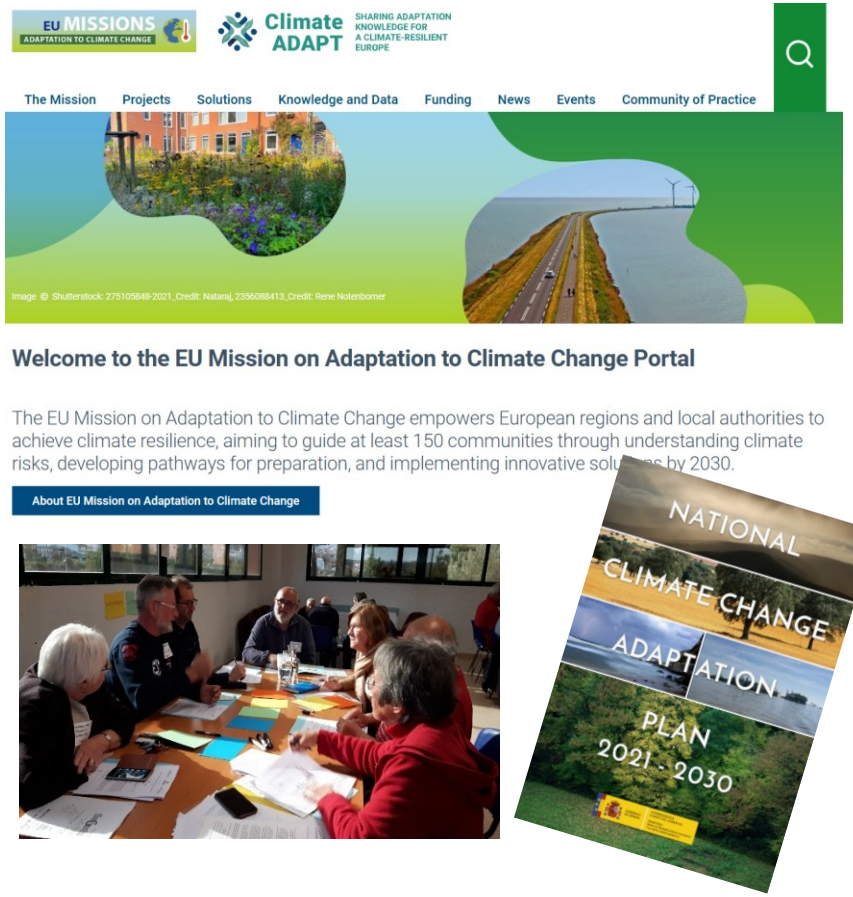
Step 2: Collaboratively identifying potential Adaptation Measures

- 2017 National adaptation strategy
- Interactions – interviews, bilateral meetings, consultation feedback – with competent authorities and experts and stakeholders regarding adaptation needs and options
- Adaptation strategies of other EU member states with similar risks and vulnerabilities – France, Greece, Malta, Spain, Italy
- EU Mission on Adaptation to Climate Change Portal Climate-ADAPT



15+2 policy areas – NAS 2025	12 Policy areas – NAS 2017
Agriculture (9) (3 new measures)	Agriculture (7)
Biodiversity and Ecosystems (10) (4 new measures)	Biodiversity (6)
Energy (5) (3 new measures)	Energy (15)
Fisheries and Aquaculture (5) (4 new measures)	Fisheries & aquaculture (1)
Forestry (10) (6 new measures)	Forestry (8)
Health (6) (3 new measures)	Public health (8)
Hydrological Regime and Water Management (13) (4 new measures)	Water (11)
Sea and Coastal Areas (3) (2 new measures)	Coastal zones (7)
Soil (7) (3 new measures)	Soil (4)
Tourism (3) (3 new measures)	Tourism (1)
Infrastructure, Transport and Buildings (10) (6 new measures)	Transport (6) & Infrastructure (7)
Cultural Heritage (8)	
Disaster Risk Management, Civil Protection & Critical Infrastructure (7)	
Economy, Industry and Finance (5)	
Spatial Planning (5)	
Cross-sectoral governance measures (7)	
Cross sectoral education measures (5)	
Total: 118 (78 new measures)	**Total: 81**

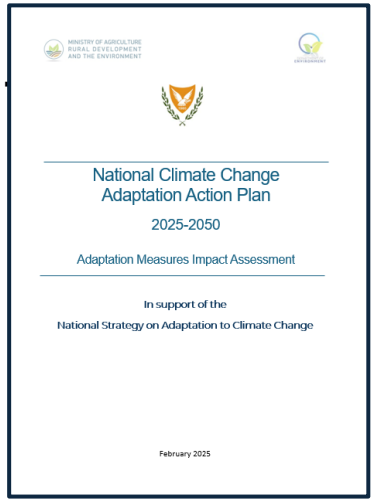
Step 3: Meetings with the authorities and stakeholders

- Over 120 people have participated at some stage of the process
  - Public administrations (national, regional and local)
  - Independent public organisations
  - Business organizations
  - Civil society organizations
  - Research institutions

Step 4: Stakeholder involved Adaptation Measures Impact assessment

Co-development of an impact assessment between consultants and authorities, to capture t maximum of knowledge. Key aspects were:

- Priority /timeline for implementation
- Responsible authority for implementation and other involved actors
- Estimated cost of implementation and maintenance
- Preliminary screening of social, environmental and economic implications /co-benefits
- Co-benefits for climate mitigation and maladaptation risks
- Barriers for implementation
- Social acceptability and implementation readiness (technical / institutional)
- Synergies
- Indicators for monitoring and evaluation


National Climate Change Adaptation Action Plan

2025-2050

Adaptation Measures Impact Assessment

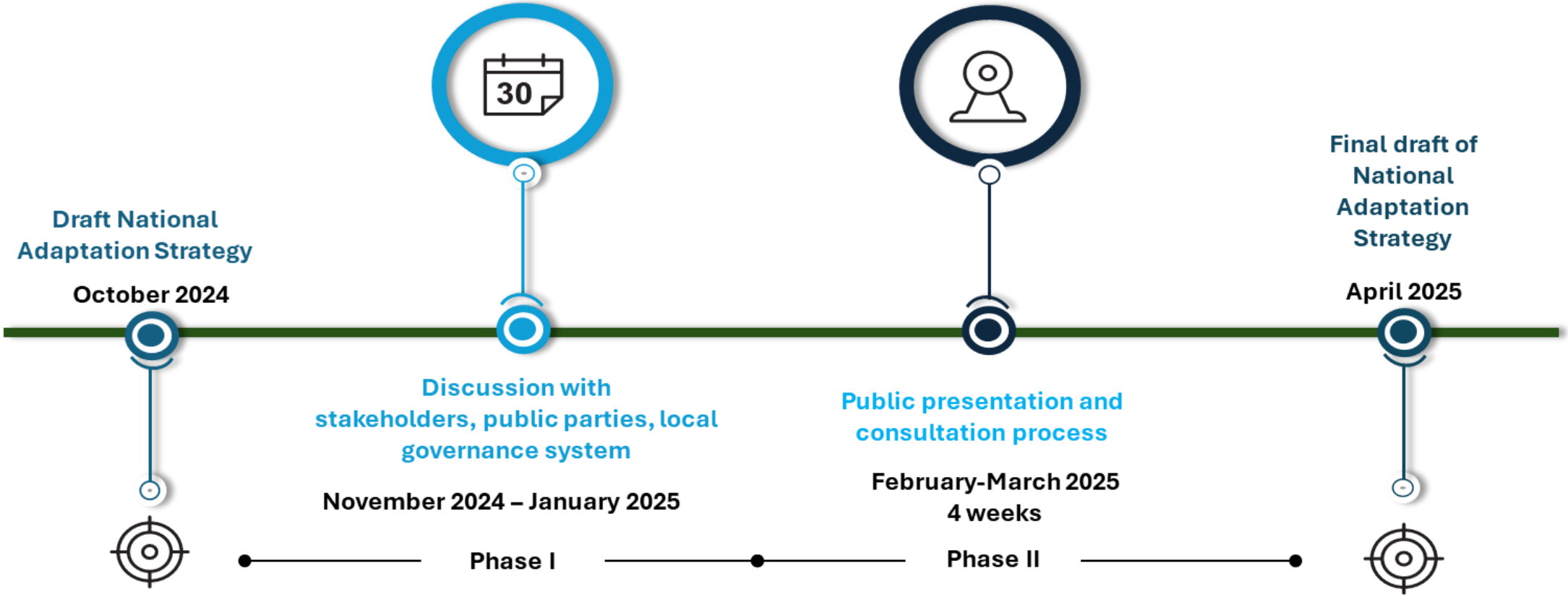
In support of the

National Strategy on Adaptation to Climate Change

February 2025

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)[280]	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	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

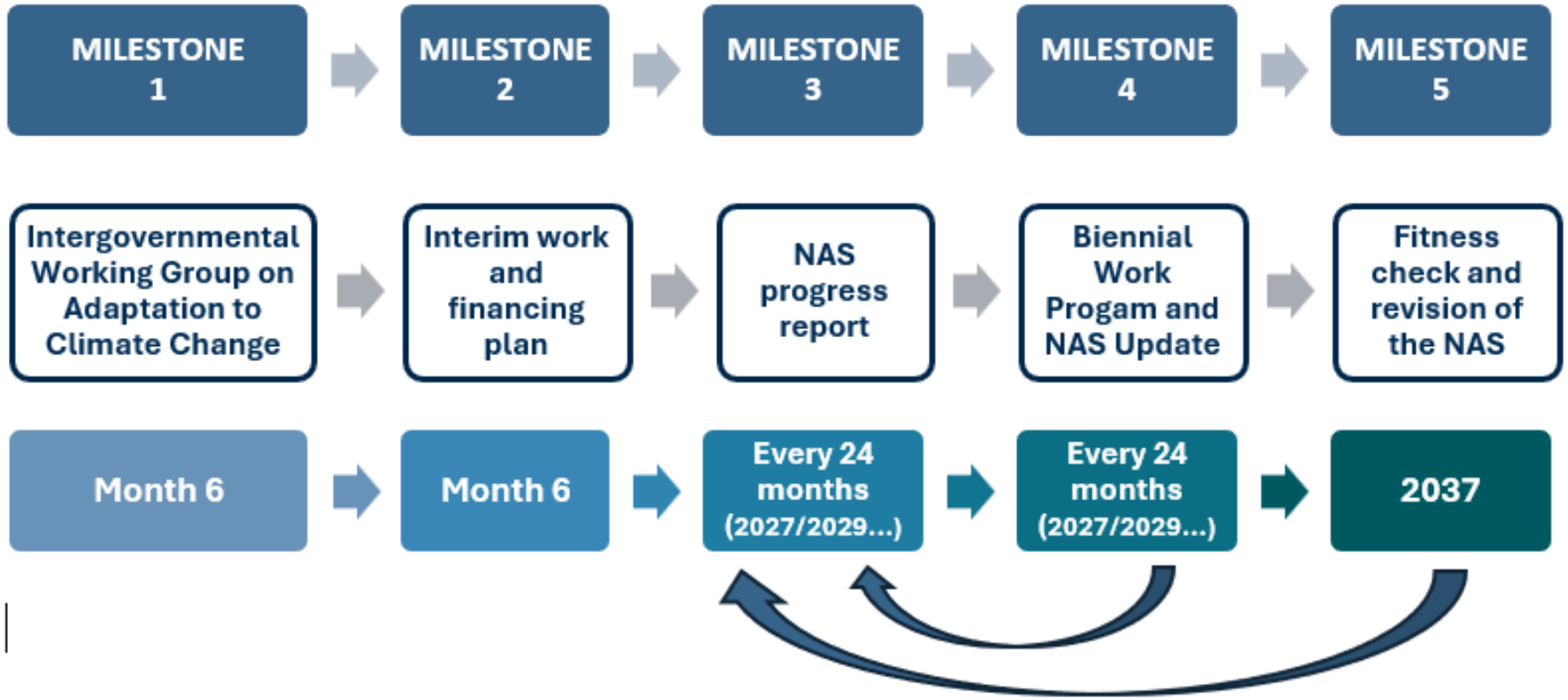
Step 5: Two-step public consultation process



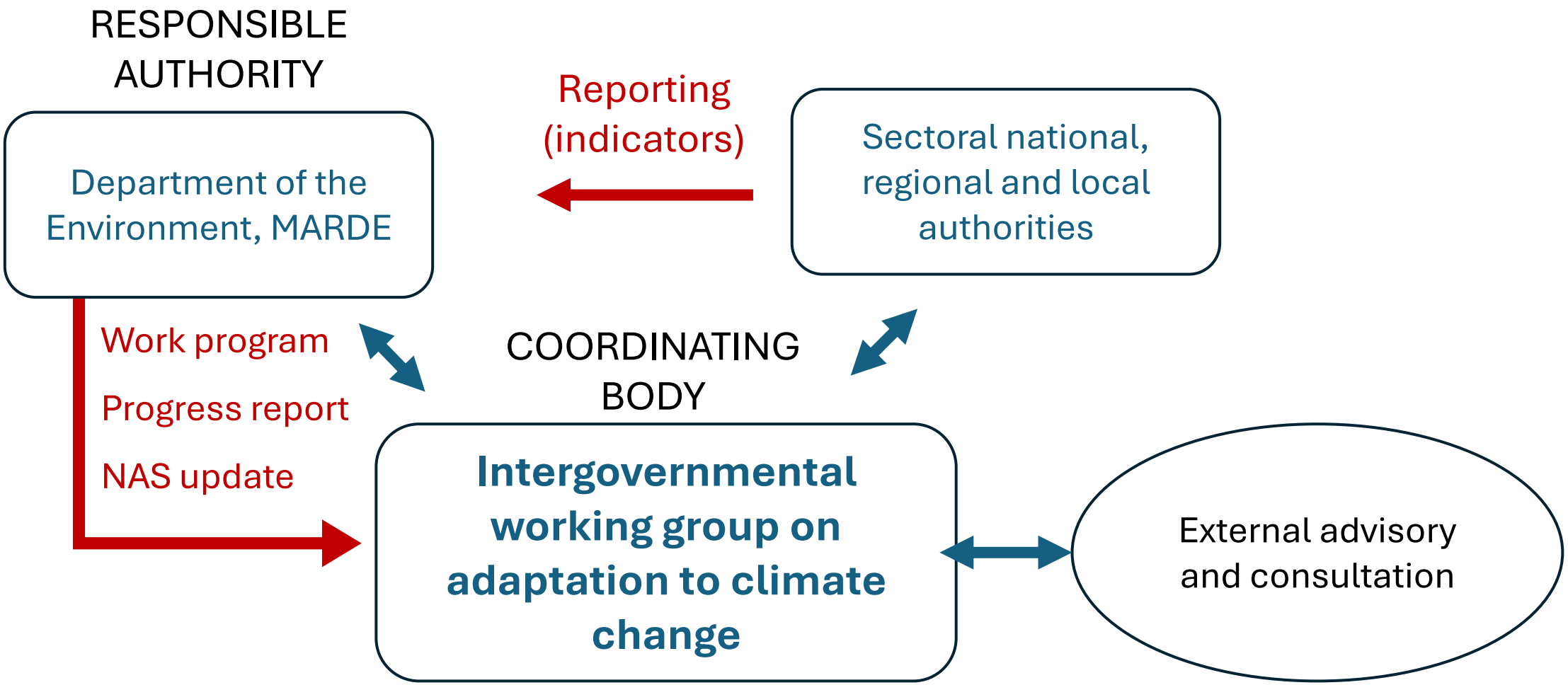
Step 6: Political agreement and commitment

- The political agreement should take place soon
- Measures will be used to program future EU funds (e.g. CAP)
- Estimated cost must be included

Implementation plan and timeline



Implementation governance



Some key takeaways…

- Improved knowledge and understanding of sector-specific impacts of climate change is critical to inform policies and plans.
- Monitoring and evaluation will be critical for effective adaptation.
- Measures emphasize collaboration with private sector and citizens
- Capacity building, training and education measures remain critical tools to enhance social resilience
- Nature based solutions – making nature work for you – are at the core of adaptation work
- Focus remains on preserving, protecting and maintaining ecosystems, resources and assets
- Availability of resources for adaptation Is a common challenge

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The strategic vision for Cyprus 2050

Cyprus will be a resilient, sustainable, and thriving island nation that has successfully adapted to the challenges posed by climate change.

Its natural ecosystems, economy, and communities will be fortified against the impacts of rising temperatures, extreme weather events, and water scarcity.

A strong governance system is developed to support and drive effective adaptation action.

Cyprus will fulfil and develop the commitments undertaken in the European and international context.

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Thank you for your attention!

Ayis Iacovides
Director, I.A.CO Ltd

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