



EDORA

European Drought Observatory for Resilience and Adaptation

EDORA Project Team

Network of Drought Observatories in the EU – kick-off meeting

16/06/2022

*Joint
Research
Centre*

Project Conception

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overall aim:

Lend scientific and technical support to improve resilience and adaptation to droughts across the EU.

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Administrative Arrangement between DG for Environment (DG ENV) and DG Joint Research Centre (DG JRC) to:

“... build up on the existing European Drought Observatory hosted by JRC. It will strengthen the Observatory’s capacity by developing works in specific technical areas covering drought risk assessment at different scales [...], impacts in different sectors [...]. It includes the assessment of drought risk with regard to impacts of climate change as well as the development of early warning systems.”

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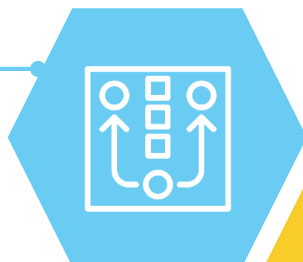
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- funding by the European Parliament
- launched 2021 (signed 10 December 2020)

In 4 parts

contract – 2 lots

Technical and scientific support to the European Drought Observatory (EDO) for Resilience and Adaptation



network of drought observatories in the EU

- Terms of Reference
- Development of data sharing protocols
- Support Member States in the establishment of their own Drought Observatories



implementation in EDO



R&D within EDO

- research lines on Drought Impact and Drought Risk
- Complementing the contract and Horizon activities
- improved drought impact and risk indicators and modelling

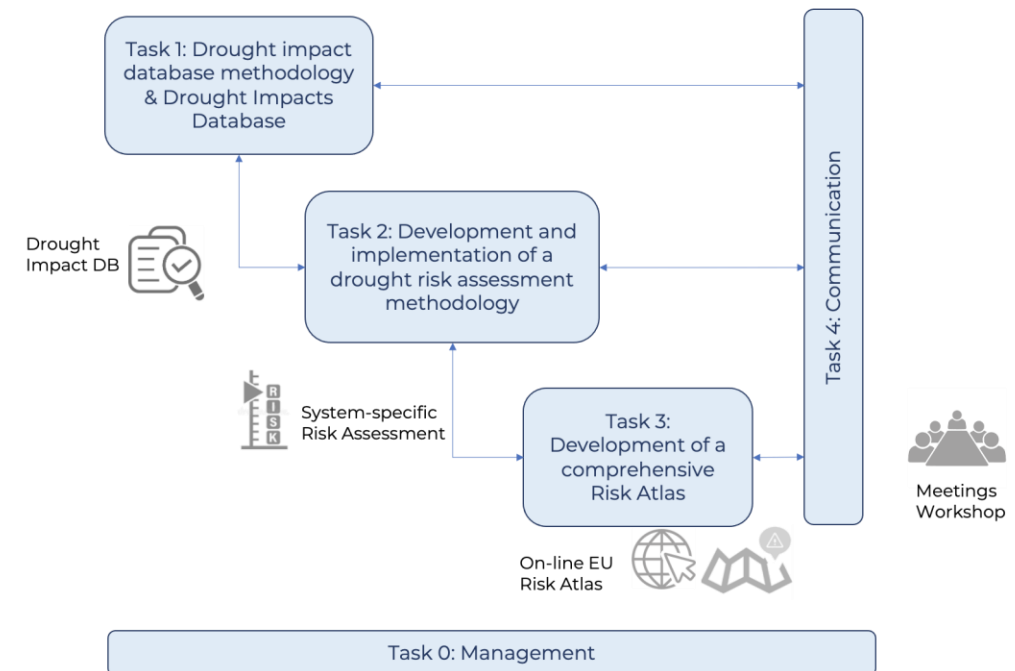
Technical and scientific support for the European Drought Observatory (EDO) for Resilience and Adaptation

Lot 1: drought impact and risk assessment

	Fondazione CIMA - Centro Internazionale in Monitoraggio Ambientale	CIMA	Italy
	Albert-Ludwigs-Universität Freiburg	ALU-FR	Germany
	Vrije Universiteit Amsterdam - Institute of Environmental Studies	IVM-VU	The Netherlands
	Global Change Resource Institute	CzechGlobe	Czech Republic
	United Nations University, Institute for Environment and Human Security (UNU-EHS)	UNU	Germany (headquartered in Japan)

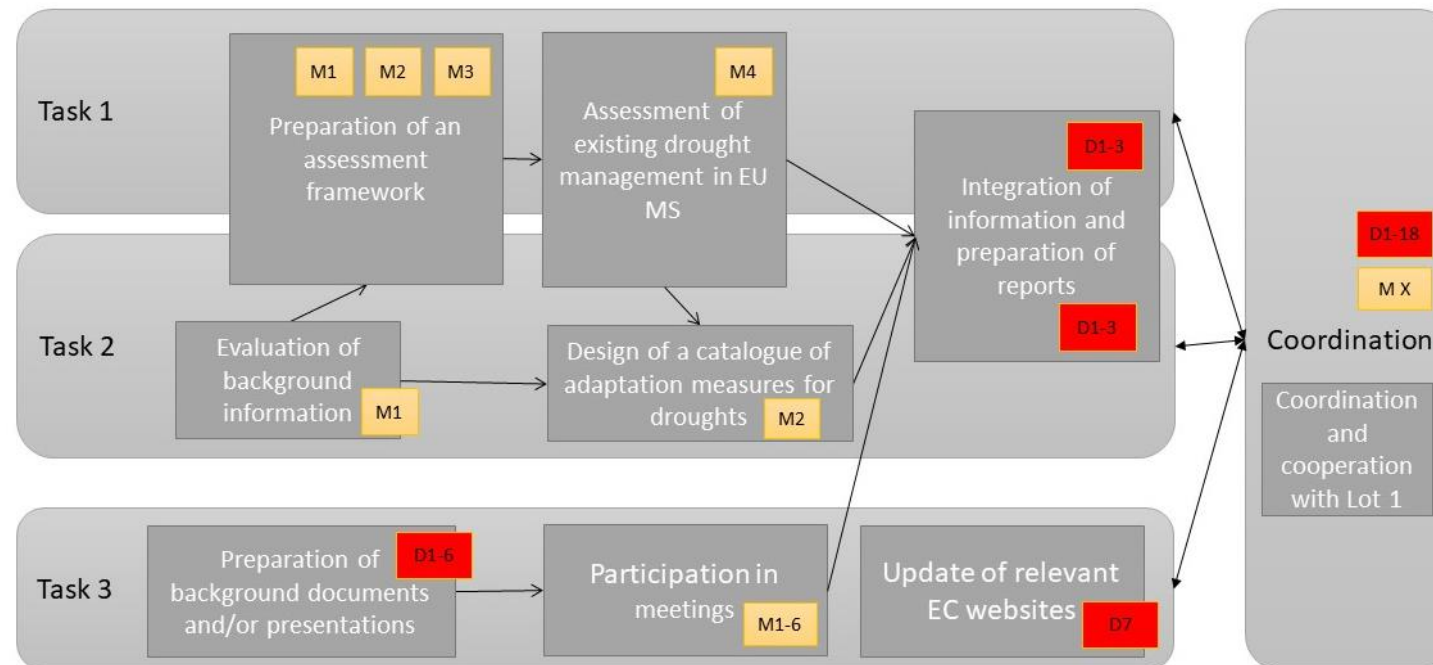
Lot 1: drought impact and risk assessment

- Development and implementation of drought impact and risk assessment
- Across different sectors and systems: agriculture, ecosystems, energy, transport,...
- European Drought Impact Database (EDID)
- Methodology for drought risk assessment
 - Drivers of drought risk and impact chains
 - Data-driven parameterisation of drought risk
- pan-European Drought Risk Atlas
 - Per sector/system
 - Risk aggregation methods: multi-system risk risk
 - Risk under future climate scenarios: +1°C, +2°C, +3°C
 - Integration of drought impact and loss data
- Communication and consultation



Lot 2: drought management and climate adaptation

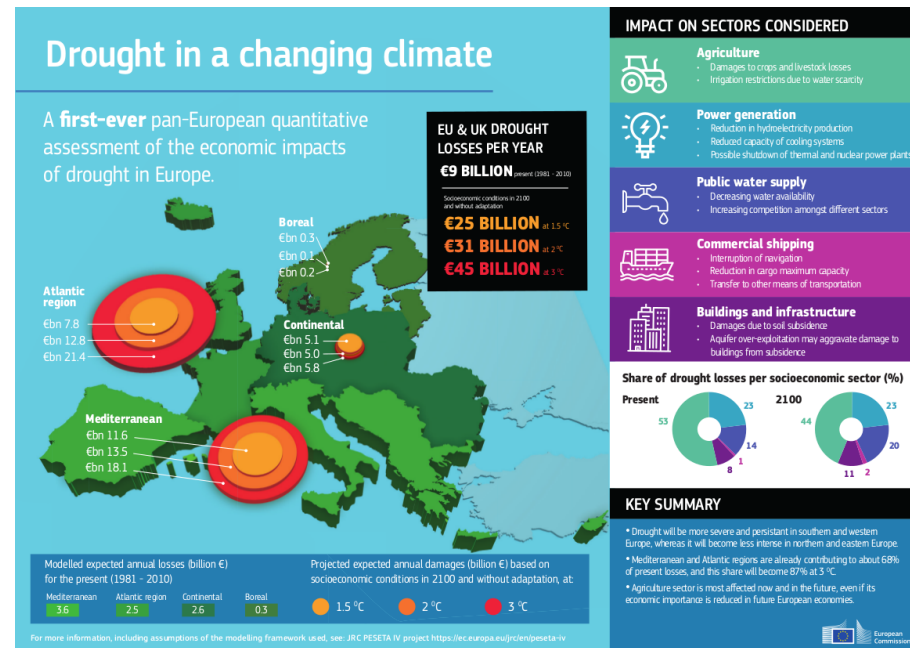
- Take stock of the existing water scarcity and drought management plans in the EU Member States
- Report on climate adaptation actions against drought in different sectors



Implementation in EDO

Implementation in EDO

- Host the European Drought Impact Database (EDID)
- Host the digital Drought Risk Atlas and related information (factsheets,...)
- Improve the capacity of EDO to perform drought impact and risk assessment:
 - connection to relevant EU-wide datasets (Eurostat, COPERNICUS,...)
 - indicators
 - methodologies



source: PESETA IV

network of drought observatories in the EU

European network of Drought Observatories

Objective:

Better exploit existing connections between drought observatories and with EDO, harmonise the information provided, and promote development in countries that do not have such systems yet.

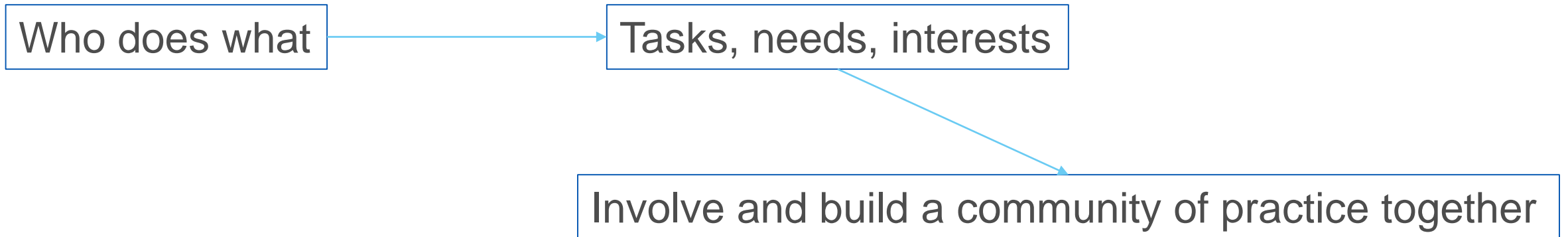
- Establishment of guidelines for the functioning of the network
 - Terms of Reference for the network
 - Development of a roadmap for the network
 - Contact prospective partners and establish scope of the network based on bilateral meetings, surveys,...
- Development of data sharing protocols
 - Better enable network partners to use EDO and GDO data
 - Allow users to share data with EDO and GDO
- Support member states in establishment or improvement of drought observatories

The case for a network of drought observatories

- Preliminary survey of EU Drought Observatories
- Entity creating drought information via data products → “drought observatory”
- Looking at: activities, indicators, products, role within MS, projects, ...
- Bilateral talks. Survey template from



Why



Value:

1. Knowledge exchange, networking etc.
2. Reference for technical and scientific expertise on droughts
3. Insight for EDO developments

The survey

Open activity, 25 entities so far (19 EU countries) – 2/3 with formal mandates

1. Monitoring activity, analysis and bulletins
2. Stakeholder engagement and information dissemination
3. Scientific and/or operational research

- Avg. 4+ projects for each on drought
- About 150 indicators in use

Primary obstacle in drought monitoring:

1. Lack of funding, tools, personnel or expertise
2. Lack of coordination between the necessary actors
- 3a. Lack of data/information on drought occurrence or impacts
- 3b. Lack of standards or methodologies for drought monitoring or management

The talks

30 bilateral meetings so far (incl. survey responders)

Few operational “standards” for use of indicators, rather expert knowledge

Good technical expertise to implement methods/indicators (incl. IT)

Drought risk assessment is patchy

Impact data seldom collected (only agri)

Hidden data in private sector?

NOT an issue: awareness or lack of interest in drought

The way forward

Complete mapping exercise

Foster a common understanding of indicators, impacts, risk

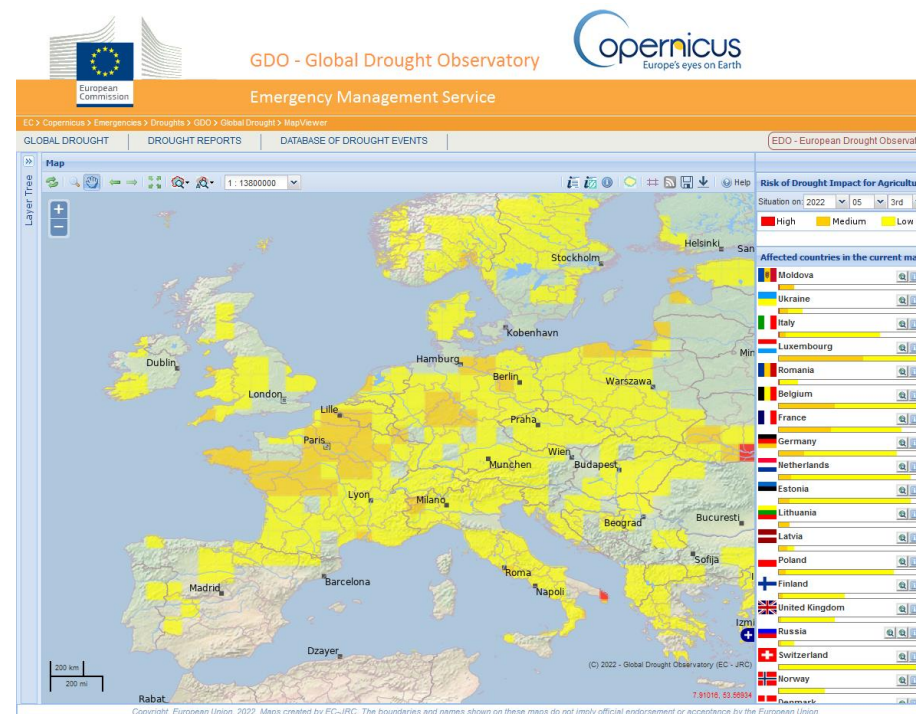
Identify best developments and research directions

R&D within EDO

Drought impact and risk research lines

Objective:

Establish and implement research lines to improve EDO with respect to drought risk assessment and drought impact assessment, in parallel with the contract work, and utilizing synergies with Horizon Europe activities.



Thank you

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