## **EUROPEAN CLIMATE RISK ASSESSMENT**

Building resilience of European societies to climate change risks

ISIMIP Interactive Viewer for the European Climate Risk Assessment - beta version

© Igor Popovic, Climate Change PIX /EEA





European Environment Agency European Topic Centre Climate change adaptation and LULUCF



# EU policy drive on climate change adaptation

2021 EU Strategy on Adaptation to Climate Change

#### Smarter, swifter and more systematic adaptation



Improve knowledge of climate impacts and adaptation solutions



Step-up adaptation planning and climate risk assessments



Accelerate adaptation action



Help to strengthen climate resilience on a

global scale

# **EUCRA objective:**

set priorities for adaptation in Europe

# Main features and added policy value

## An assessment of key current and future climate risks in Europe



Fast-track, to be published in **April 2024** 



Expert-driven and evidence-based



Involving the European Commission and other key stakeholders



Identifying key risks per system sector and across systems and sectors



Identifying priorities for action

Use of interactive tools

**Planned products EUCRA** report **Executive summary** (input to planned Commission Communication) Interactive data viewers Sectoral policy briefs

# **Different lines of evidences**

## Quantitative



Climate data and climate scenarios

e.g. European Climate Data Explorer, C3S, IPCC Interactive Atlas

- Socio-economic data & event databases
  e.g. DKMKC Risk Data Hub, Eurostat database
- Climate change impacts projections e.g. PESETA IV, COACCH, ISIMIP

Socio-oconomic sconarios





- Literature reviews e.g. IPCC AR6
- Climate change impacts studies e.g. EU-funded research projects
- Expert elicitation e.g. Expert Advisory Group
- Stakeholder engagement e.g. Commission Working Group

# EUCRA Interactive viewer – beta version (internal)

#### Purpose: visualize and

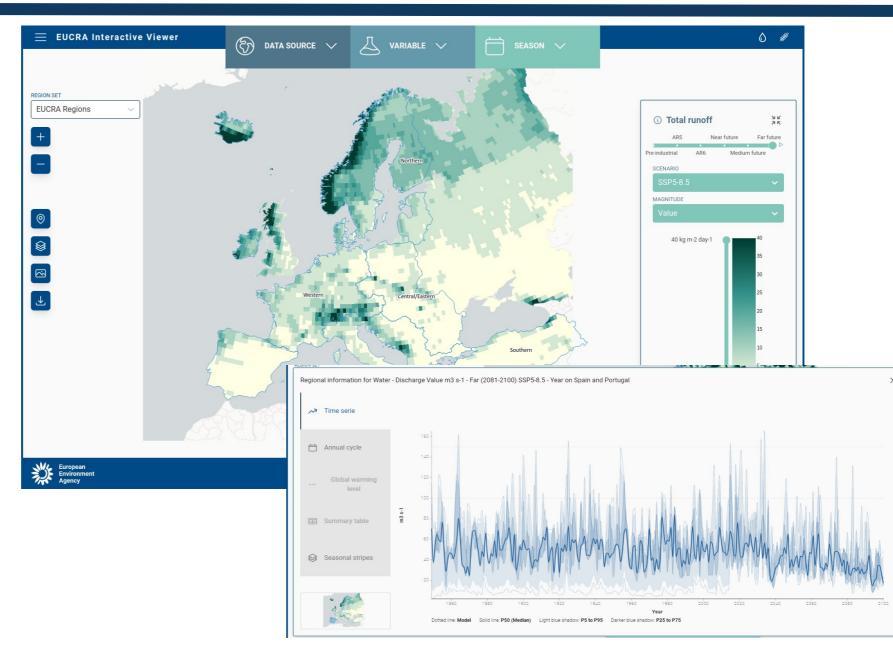
download information that support the climate risk analysis within EUCRA

Domain: Europe

1<sup>st</sup> set: User-driven selection of ISIMIP variables

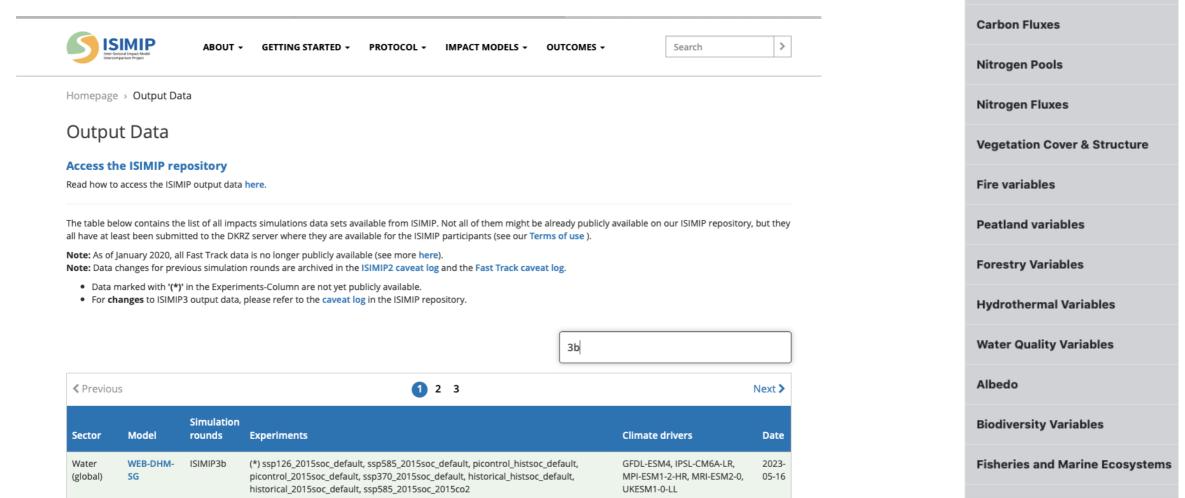
Next: additional ISIMIP variables, possibly include climate impact drivers, non-climatic drivers, exposure, vulnerability eea-eucra.predictia.es Username: predictia

Password: demo



## **FUCRA Interactive viewer – beta version**

#### https://protocol.isimip.org/#42-output-variables



**Temperature-related Mortality** 

Hydrological Variables

Agricultural Variables

Carbon Pools

Water management Variables

## Data sources

## **Fisheries**

- Total Consumer Biomass Density (**tcb**)
- Total Catch (commercial groups / size classes) (**tc**)

## **Biomes**

- Carbon Mass in Vegetation (cveg-total)
- Carbon Mass in Above Ground Vegetation Biomass (cvegag-total)
- Carbon Mass Flux out of Atm. due to Net Primary Production on Land (npp-total)
- Carbon Mass Flux out of Atm. due to Net Biospheric Production on Land (nbp-total)
- Leaf Area Index (lai-total)
- Burnt Area Fraction (**burntarea-total**)

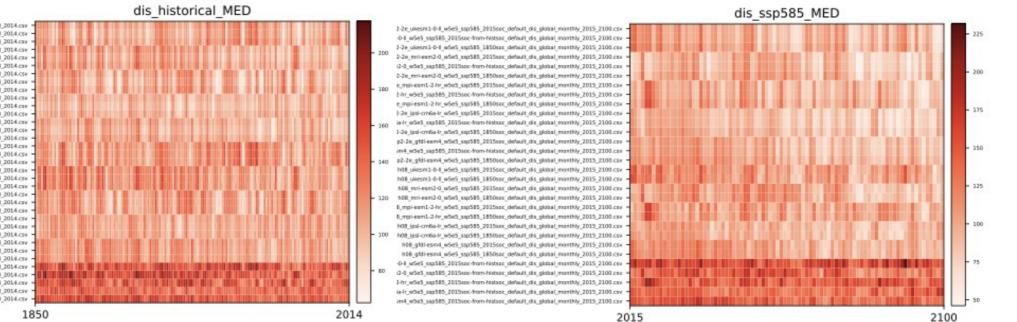
\*Instead of using the total it may also make sense to show the results per plant functional type (pft)

## Agriculture: Crop production (not ready)

Water: discharge (dis), runoff (qtot)

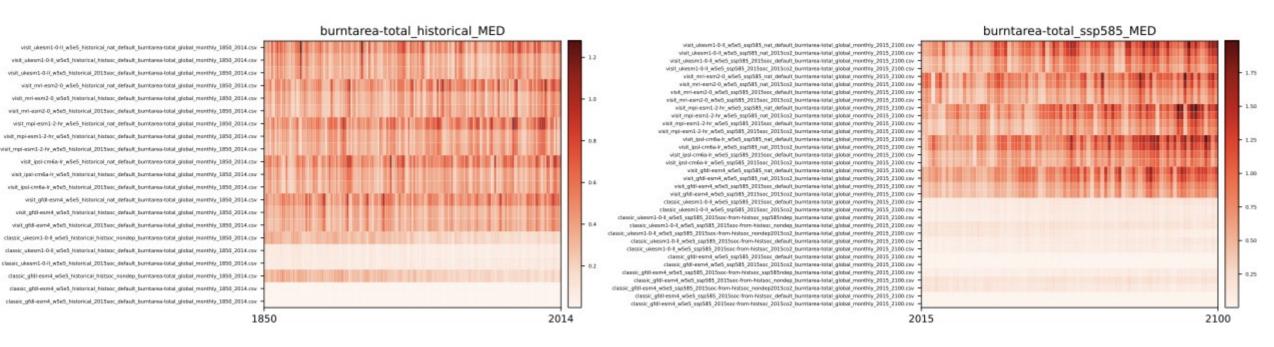
# Which **additional variables** from these sectors could provide robust information for EUCRA?

## Data sources



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## Data sources



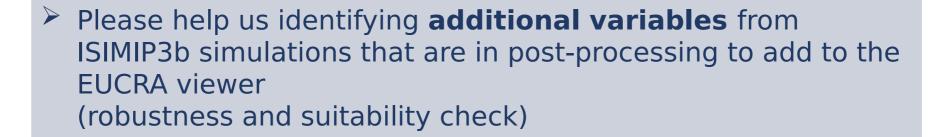
# Potential: ISIMIP viewer (not EEA funded)

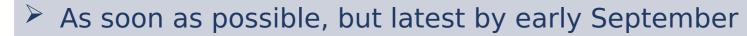
Spin-off of EUCRA version (open source)

Global coverage

Inclusion of further ISIMIP variables (without EEA involvement)

# Call to action





Please let us know if simulations for additional sectors are already in an advance stage

For more information on EUCRA:

Visit the <u>EUCRA webpage</u> on Climate-ADAPT

Contact us: EUCRA@eea.europa.eu

