Food and Agriculture Organization of the United Nations

Module 1
Introduction CAVA

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December, 2023

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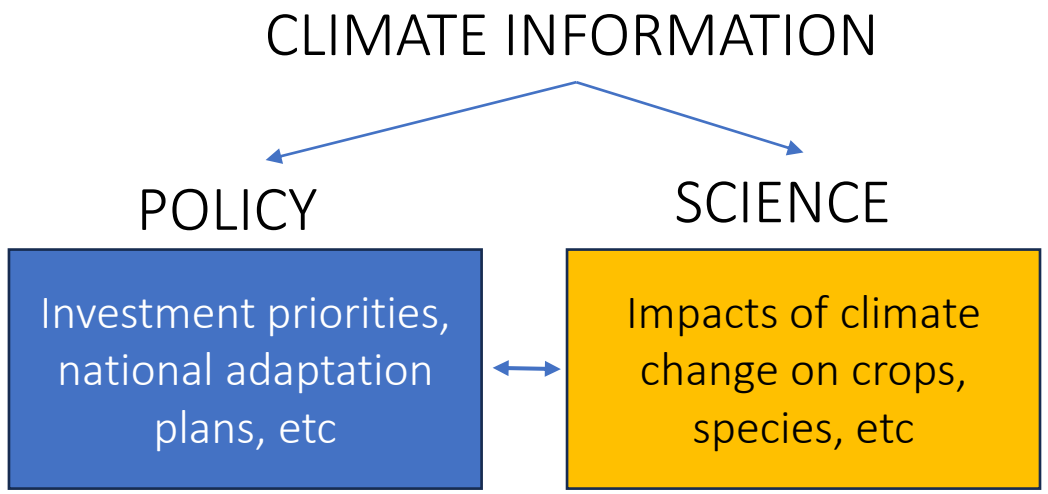
Why is climate information useful?

- "Climate Information (CI) refers to the collection and interpretation of observations of the actual weather and climate as well as the simulations of climate for both the past and future periods"

- Effectively, climate information influences two important dimensions of how our lives, policy and science



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The problem: climate models are hard to access and to use

A lot of the climate information come from climate models. Accessing and using climate model outputs require a lot of experience.

Complexities:

1) Getting the data (NetCDF files, several files, and hundreds of Giga)
2) Using the data (multiple models, multiple RCPs/SSPs, and model biases)
3) Some climate model outputs require reprojection (changing the coordinate reference system)

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Climate and Agriculture Risk Visualization and Assessment (CAVA)

CAVA is an **approach** to climate information with a focus on agriculture that aims at democratising access and usability of climate and impacts information for the provision of long-term climate services

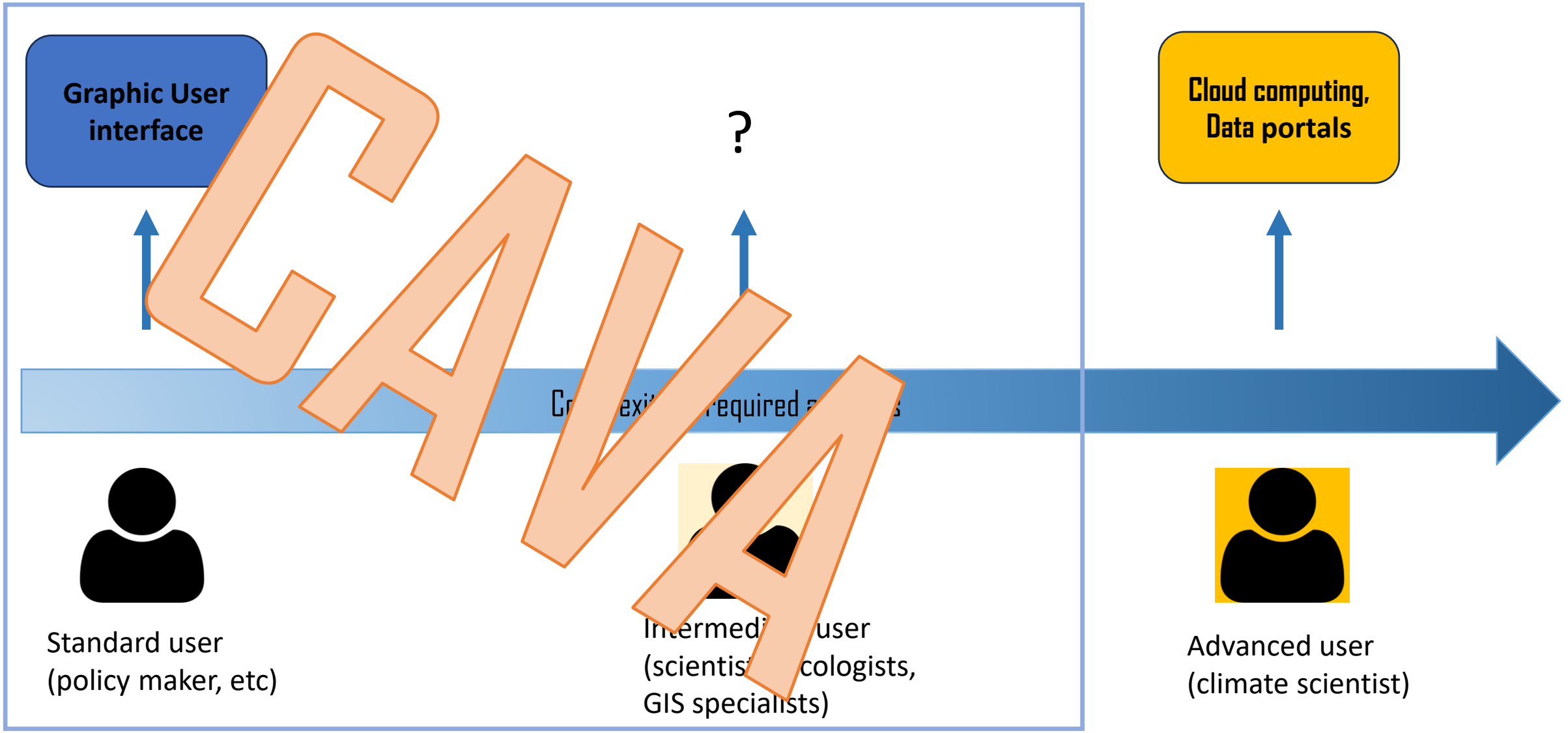
Did we need another tool? Really?

Existing tools can be mainly classified into two categories

1. Visualization. Mainly serve the "**policy community**" or general users.

2. Accessing data. Mainly serve **advanced** users.

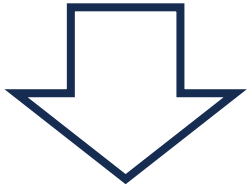
Did we need another tool? Really?



CAVA modules

- Climate. CAVA provides past and future climate information for the provision of long-term climate information

- Agriculture. CAVA provides past and future crop yield information for the provision of climate change impact information



Long-term climate services

CAVA climate data sources

- Future climate data. CAVA makes use of outputs from regional climate models that dynamically downscale coarse resolution climate data. The data are provided by the Coordinated Regional Climate Downscaling Experiment (CORDEX) for two possible future GHG emission scenarios

- Past climate data. CAVA also hosts two widely known datasets for the historical period covering the whole world

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CAVA agriculture data sources

CAVA aims to host the results of the Inter-Sectoral Impact Model Intercomparison Project (ISIMIP) for the agricultural sector

- 11 crop models forced with **two** RCPs and **six** GCMs
- With and without irrigation
- Several crops (wheat, maize, rice, sorghum, millet, cassava, etc)

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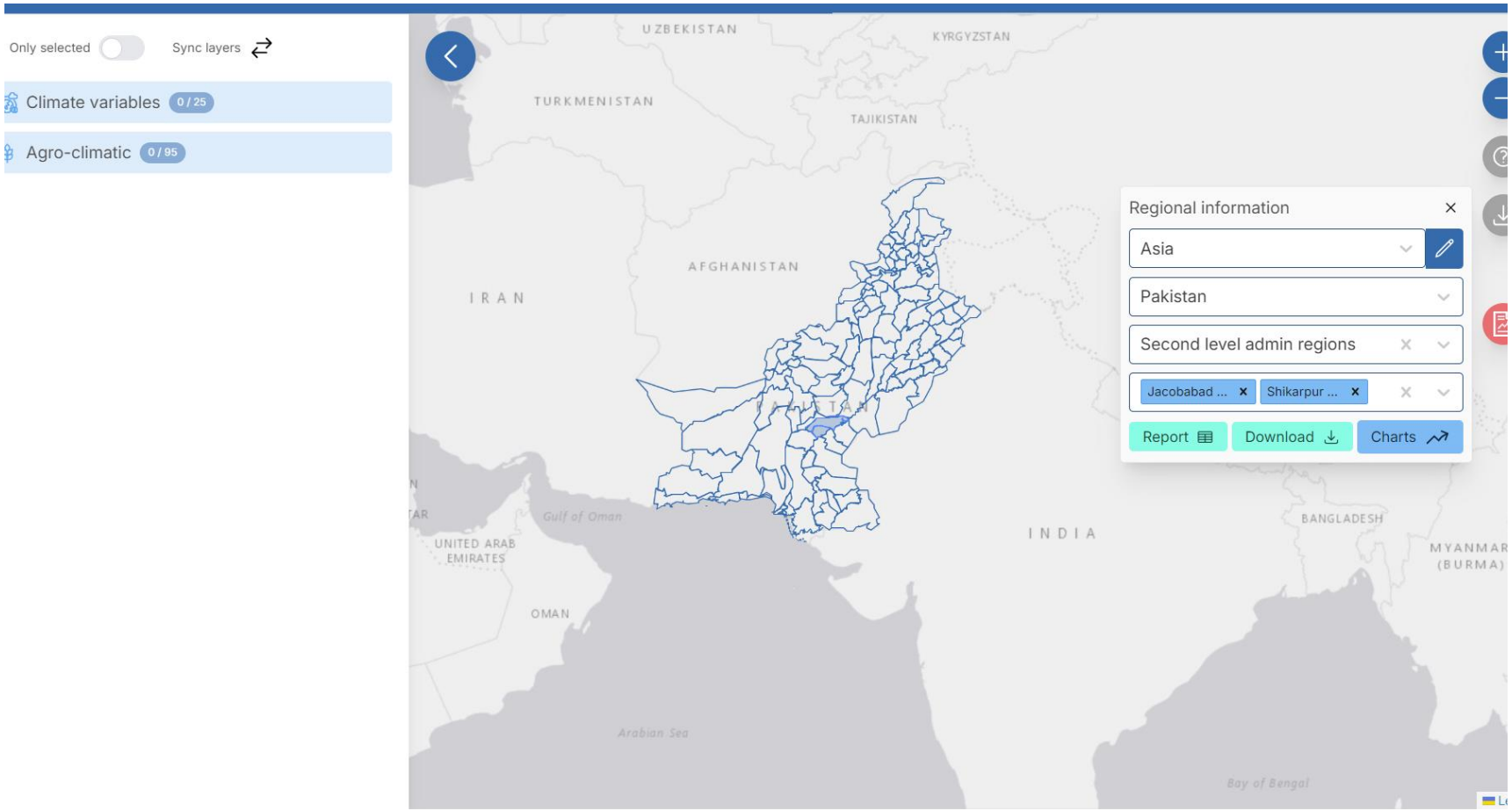
Retrieving climate data using CAVA



https://fao-cava.predictia.es/

Thank you!

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