Food and Agriculture Organization of the United Nations

Module 5
AquaCropPlotter

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Context

- This presentation will focus on how to visualize and interpret AquaCrop results when running multiple simulations.

- AquaCrop results are txt files with extension OUT. Even with fairly simple experimental designs, such as multiple locations and multiple years of simulations, you can easily find yourself with more than 10 files. This can scale up to hundreds of files.

- We developed AquaCropPlotter, an app that can automatically load and process the results of AquaCrop.

Resources

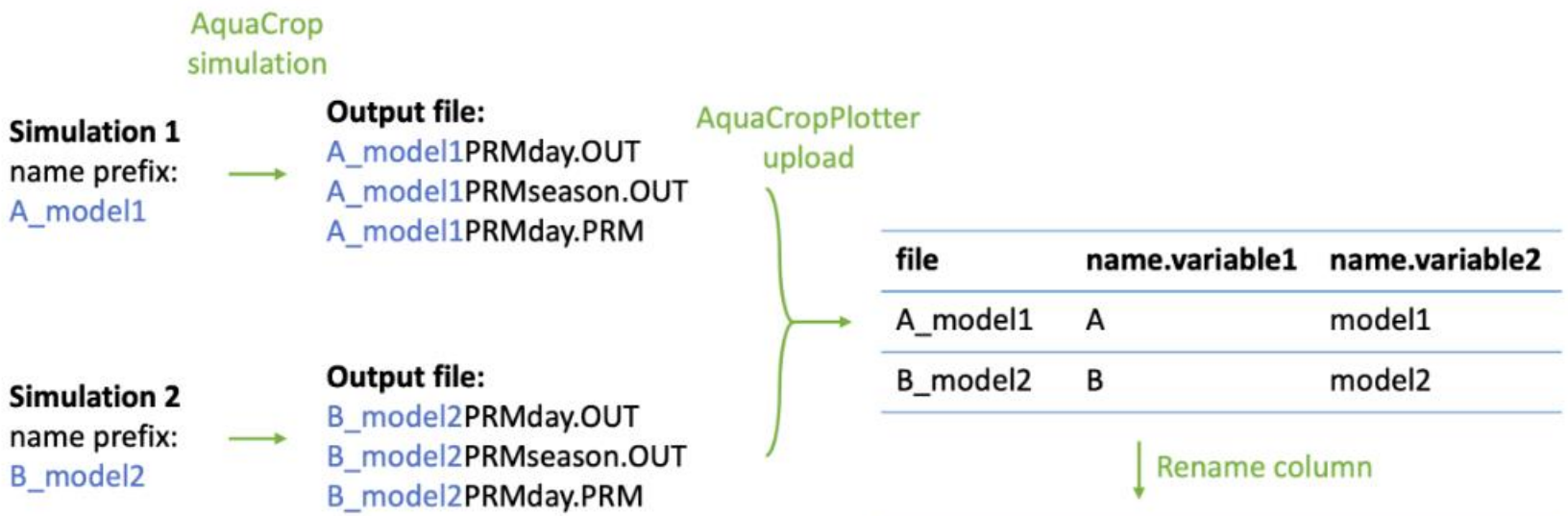
- AquaCropPlotter can be found on GitHub.
- AquaCropPlotter can be run locally after installing the app in R or it can be used online.
- In this tutorial we will use the online version.

AquaCropPlotter

- The app works in four steps:
  1. Load the data
  2. Combine the data
  3. Plot the data
  4. Analyse the data

Important: Input requirements

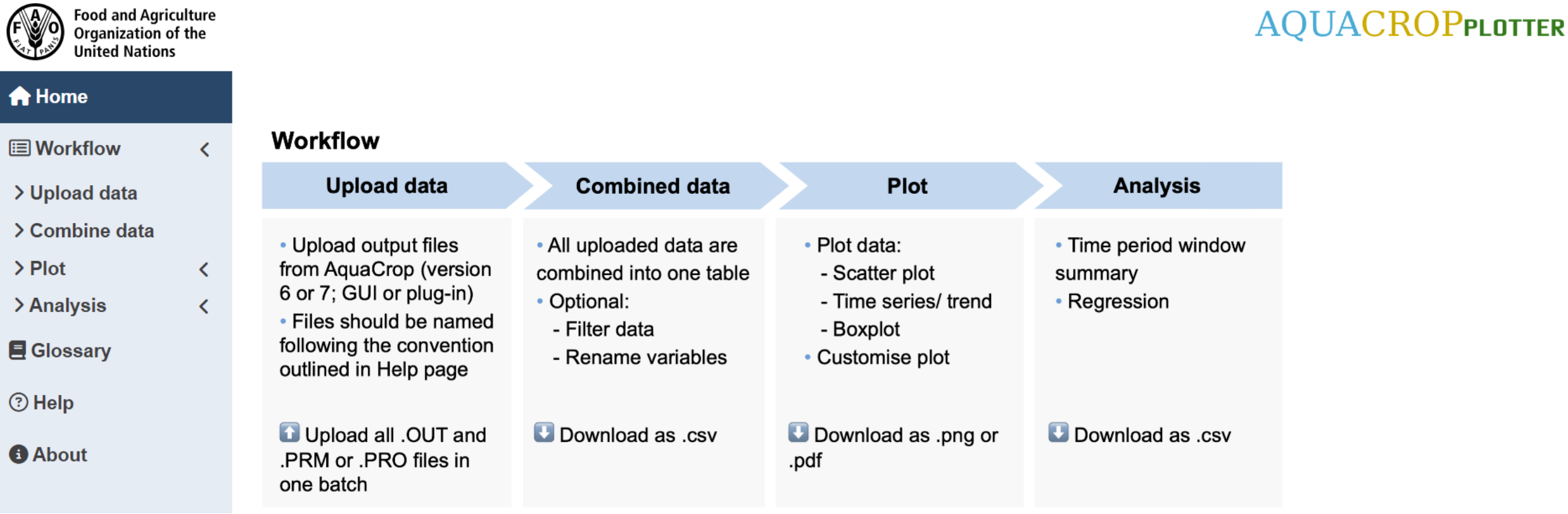
- When you run AquaCrop, you will have PRM and OUT files. Place them in the same folder before uploading the data in AquaCropPlotter.
- **<u>Correctly specify the file name (variables separated by underscore)</u>**



file	name.variable1	name.variable2
A_model1	A	model1
B_model2	B	model2

file	location	climate_model
A_model1	A	model1
B_model2	B	model2

Workflow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• Upload output files from AquaCrop (version 6 or 7; GUI or plug-in)
• Files should be named following the convention outlined in Help page
Upload all .OUT and .PRM or .PRO files in one batch
• All uploaded data are combined into one table
• Optional:
- Filter data
- Rename variables
Download as .csv
• Plot data:
- Scatter plot
- Time series/ trend
- Boxplot
• Customise plot
Download as .png or .pdf
• Time period window summary
• Regression
Download as .csv

Load the data and next steps

- In this tutorial we will be working with AquaCrop simulations for wheat grown in 2 locations and under two different GHG emission scenarios.
- The data to be uploaded to the app is found here or in GitHub (Directory Crop_Module_5).
- The rest of the tutorial will be about using the app directly
- For additional documentation, visit our page

Thank you!

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