

Water Productivity Masterclass Series

Welcome to the Webinar – Week 3

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WaterPIP
Water Productivity Improvement in Practice



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Water Productivity Masterclass Series

June 3, 2020: Introduction to Monitoring Water Productivity

June 10 & 17, 2020: Monitoring Water Productivity using WaPOR

June 24, 2020: Water Productivity & Sugar Cane Production

July 1, 2020: Socioeconomic Water Productivity

July 8, 2020: Monitoring Water Productivity using AquaCrop

Information, recordings, and presentations available at:

waterpip.un-ihe.org

www.thewaterchannel.tv



- > Home
- > Water Productivity Masterclass Series

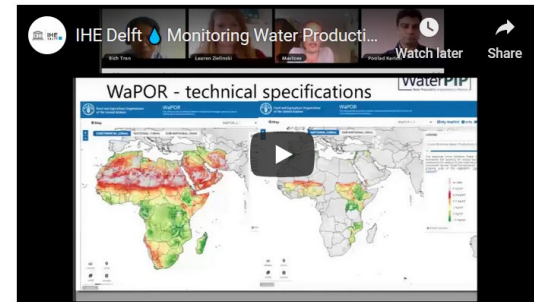
Introduction to the Project

The coming 10-40 years will see major challenges in meeting food demand in a demand will rise by 60% by 2050 and fiber by 80-95%. This occurs at a time of water quantity and quality. Agriculture is by far the world's largest water user and water use sectors is increasing rapidly, not only in semi-arid and arid zones. The industry, energy and urban development, demand more water to be 'freed up' for. At the same time climate change and extreme weather events affects the available food production: unreliable rainfall and higher temperatures that increase the crop water requirements.

The withdrawals of water from rivers and aquifers to irrigated land and enhance generally speaking not efficient, and there is ample room for improvement, if on

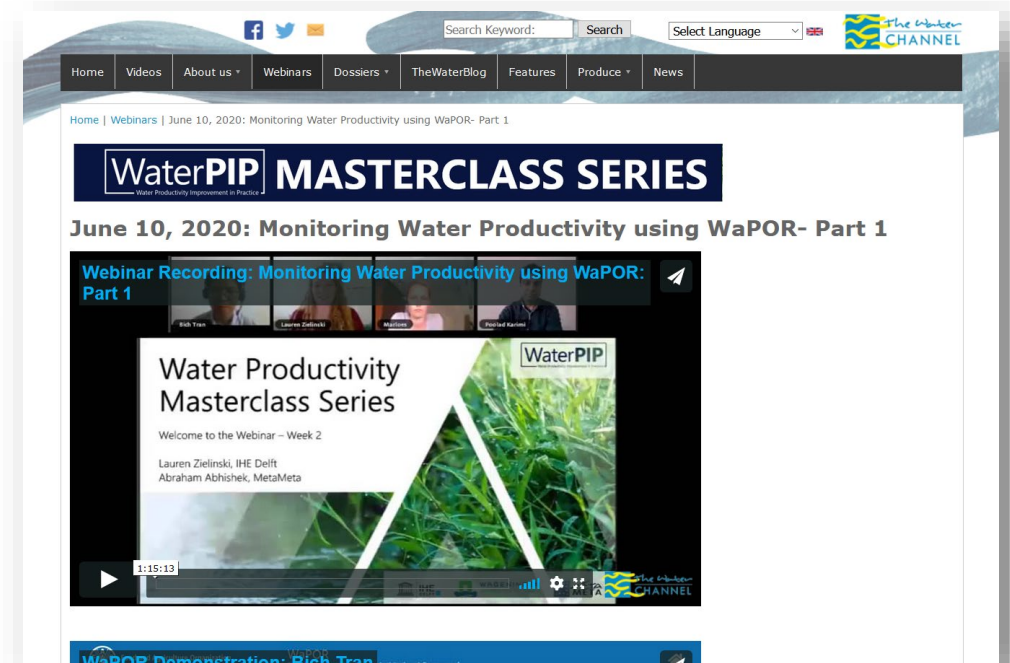
Outputs of the Webinar

Webinar Recording



Presentations

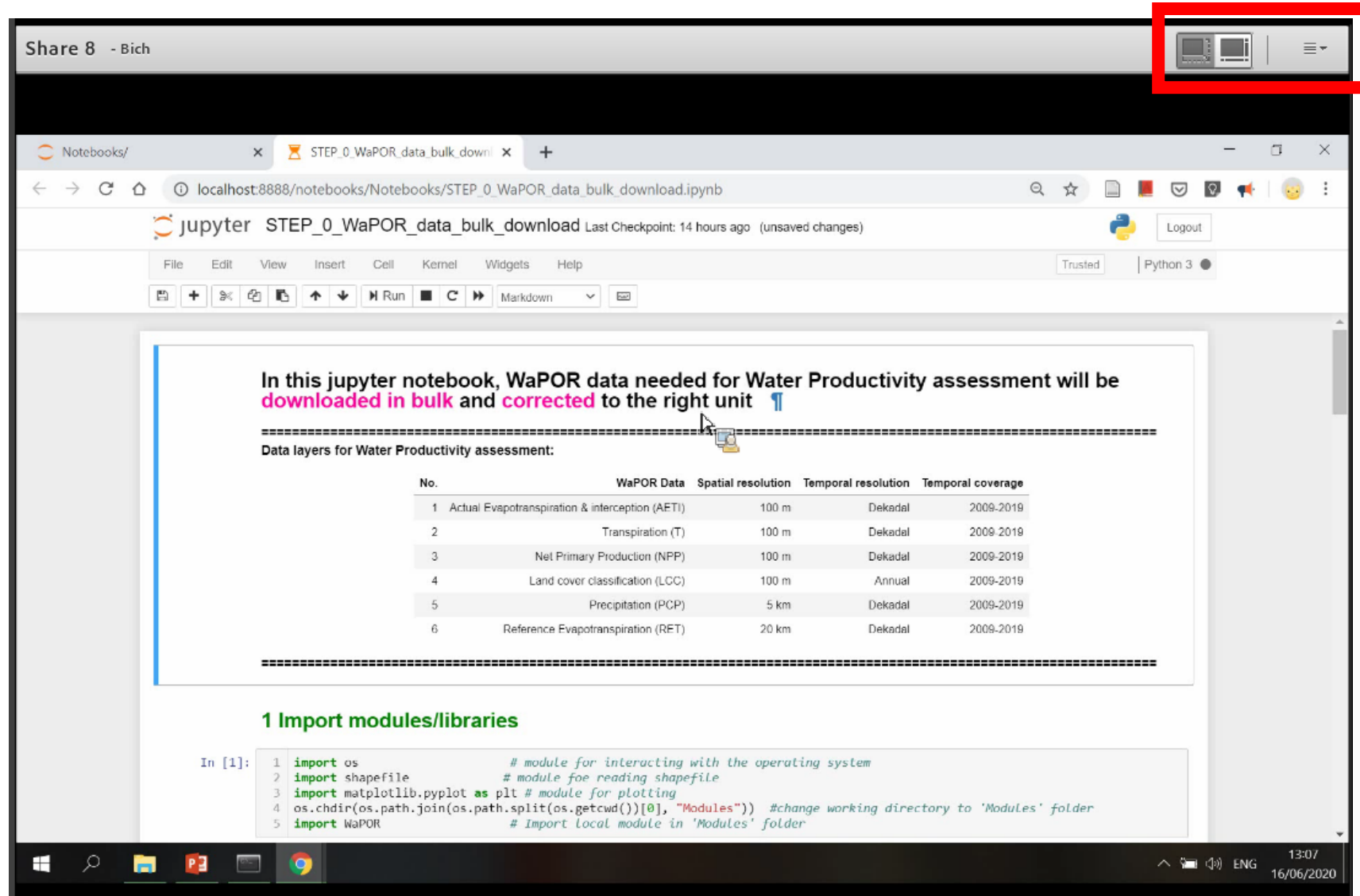
- o Week 2 Introduction - Lauren Zielinski, IHE Delft
- o Video: Introduction to WaPOR - The Water Channel



Agenda

<u>Presenter</u>	<u>Topic</u>	<u>Time</u>
Bich Tran, MSc <i>Project Assistant, IHE Delft</i>	Video: Download data using the WaPOR portal	5 mins
Sajid Pareeth, PhD <i>Lecturer in Remote Sensing, IHE Delft</i>	Processing WaPOR data in QGIS	15 mins
Bich Tran, MSc <i>Project Assistant, IHE Delft</i>	Bulk download using python	15 mins
Abebe Chukalla, PhD <i>Lecturer/Analyst in Remote Sensing and Crop Water Productivity, IHE Delft</i>	Assessing WP and other irrigation performance indicators using python	25 mins
Lauren Zielinski & Abraham Abhishek <i>Moderators</i>	Q&A	30 mins

Share 8 - Bich



localhost:8888/notebooks/Notebooks/STEP_0_WaPOR_data_bulk_download.ipynb

jupyter STEP_0_WaPOR_data_bulk_download Last Checkpoint: 14 hours ago (unsaved changes)

File Edit View Insert Cell Kernel Widgets Help Trusted Python 3

In this jupyter notebook, WaPOR data needed for Water Productivity assessment will be **downloaded in bulk** and **corrected to the right unit**

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 Data layers for Water Productivity assessment:

No.	WaPOR Data	Spatial resolution	Temporal resolution	Temporal coverage
1	Actual Evapotranspiration & interception (AETI)	100 m	Dekadal	2009-2019
2	Transpiration (T)	100 m	Dekadal	2009-2019
3	Net Primary Production (NPP)	100 m	Dekadal	2009-2019
4	Land cover classification (LCC)	100 m	Annual	2009-2019
5	Precipitation (PCP)	5 km	Dekadal	2009-2019
6	Reference Evapotranspiration (RET)	20 km	Dekadal	2009-2019

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1 Import modules/libraries

```
In [1]: 1 import os           # module for interacting with the operating system
        2 import shapefile # module for reading shapefile
        3 import matplotlib.pyplot as plt # module for plotting
        4 os.chdir(os.path.join(os.path.split(os.getcwd())[0], "Modules")) #change working directory to 'Modules' folder
        5 import WaPOR      # Import local module in 'Modules' folder
```

13:07 16/06/2020

Scale to Fit
 Zoom In
 Pod Options