

**Project Evaluation Series  
08/2020**

**Mid-term evaluation of the project  
“Monitoring water productivity by  
remote sensing as a tool to assess  
possibilities to reduce water productivity  
gaps”**

**Project code: GCP/INT/229/NET**

**Annex 5. Working list of WaPOR applications**

## Working list of WaPOR applications (December 2019)

Type of Source	Source	WaPOR-data used	WaPOR-data used for	Link (if available)
Report	OSS in the WB BRICKS project under the Sahel and West Africa Program (SAWAP) supporting the Great Green Wall Initiative (Jan 2019)	<ul style="list-style-type: none"> <li>Above Ground Biomass Production (AGBP)</li> <li>Net Primary Production (NPP)</li> </ul>	<a href="#">Creation of Land Cover Maps</a>	<a href="http://www.oss-online.org/sites/default/files/publications/OSS-BRICKS-Atlas_En.pdf">http://www.oss-online.org/sites/default/files/publications/OSS-BRICKS-Atlas_En.pdf</a>
Report	OSS in Algeria, Egypt, Jordan, Libya, Mauritania, Morocco and Tunisia, Atlas of Land Cover Maps	<ul style="list-style-type: none"> <li>Above Ground Biomass Production (AGBP)</li> <li>Net Primary Production (NPP)</li> </ul>	<a href="#">Creation of Land Cover Maps</a>	<a href="http://www.oss-online.org/sites/default/files/OSS-MENA-DELP-Atlas_En.pdf">http://www.oss-online.org/sites/default/files/OSS-MENA-DELP-Atlas_En.pdf</a>
Report	Satellite Earth Observations in Support of the Sustainable Development Goals	<ul style="list-style-type: none"> <li>Actual Evapotranspiration and Interception (ET)</li> </ul>	<a href="#">Observations for integrated water resource management</a>	<a href="http://eohandbook.com/sdg/files/CEOS_EOHB_2018_SDG.pdf">http://eohandbook.com/sdg/files/CEOS_EOHB_2018_SDG.pdf</a>
Report and Platform	Earth Observation For Sustainable Development	<ul style="list-style-type: none"> <li>Above Ground Biomass Production (AGBP)</li> </ul>	<a href="#">Maximize impact by ESA investing in public domain EO products for specific domains</a>	<a href="https://datacatalog.worldbank.org/collections/earth-observation-sustainable-development">https://datacatalog.worldbank.org/collections/earth-observation-sustainable-development</a> (trends) / <a href="http://landscapeportal.org/projects/11">http://landscapeportal.org/projects/11</a> (maps) / <a href="https://www.spacefordevelopment.org/wp-content/uploads/2019/09/Cari-bou-Space-Evaluation-of-ESA-EO4SD.pdf">https://www.spacefordevelopment.org/wp-content/uploads/2019/09/Cari-bou-Space-Evaluation-of-ESA-EO4SD.pdf</a> (report)
Report	Earth Observation For Sustainable Development, Agriculture and Rural Development Cluster - Syria Satellite-derived information to assess the consequences of armed conflict on the agriculture sector	<ul style="list-style-type: none"> <li>Above Ground Biomass Production (AGBP)</li> </ul>	<a href="#">Calculate Agriculture Productivity</a>	<a href="https://www.eo4idi.eu/sites/default/files/publications/eo4sd_syria_final.pdf">https://www.eo4idi.eu/sites/default/files/publications/eo4sd_syria_final.pdf</a>
Report	Earth Observation For Sustainable Development, Agriculture and Rural Development   Burkina Faso	<ul style="list-style-type: none"> <li>Above Ground Biomass Production (AGBP)</li> <li>Net Biomass Water Productivity (NBWP)</li> </ul>	<a href="#">Cluster of land information services</a>	<a href="https://www.eo4idi.eu/sites/default/files/publications/eo4sd_agri_burkina_faso_en_2019.pdf">https://www.eo4idi.eu/sites/default/files/publications/eo4sd_agri_burkina_faso_en_2019.pdf</a>

Type of Source	Source	WaPOR-data used	WaPOR-data used for	Link (if available)
	Effective management and evaluation of rural development and sustainable land and forestry projects	<ul style="list-style-type: none"> <li>Actual Evapotranspiration and Interception (ET)</li> </ul>		
Report	Earth Observation For Sustainable Development, Agriculture and Rural Development   Ethiopia Sustainable land management and food security	<ul style="list-style-type: none"> <li>Above Ground Biomass Production (AGBP)</li> <li>Net Biomass Water Productivity (NBWP)</li> <li>Actual Evapotranspiration and Interception (ET)</li> </ul>	<a href="#">Support agricultural monitoring and management tasks</a>	<a href="https://www.eo4idi.eu/sites/default/files/publications/eo4sd_agri_ethiopia_en_2019.pdf">https://www.eo4idi.eu/sites/default/files/publications/eo4sd_agri_ethiopia_en_2019.pdf</a>
Report	Earth Observation For Sustainable Development, Agriculture and Rural Development   Great Green Wall Initiative Sahel and West Africa Program (SAWAP) Building Resilience through Innovation, Communication and Knowledge Services (BRICKS)	<ul style="list-style-type: none"> <li>Above Ground Biomass Production (AGBP)</li> <li>Net Biomass Water Productivity (NBWP)</li> <li>Actual Evapotranspiration and Interception (ET)</li> </ul>	<a href="#">Biomass analysis for agriculture development</a>	<a href="https://www.eo4idi.eu/sites/default/files/publications/eo4sd_great_green_wall_en_2019.pdf">https://www.eo4idi.eu/sites/default/files/publications/eo4sd_great_green_wall_en_2019.pdf</a>
Platform	Conservation International Resilience Atlas	<ul style="list-style-type: none"> <li>Actual Evapotranspiration and Interception (ET)</li> <li>Gross Biomass Water Productivity (GBWP)</li> <li>Above Ground Biomass Production (AGBP)</li> </ul>	<a href="#">Platform to open WaPOR-data in map</a>	<a href="https://foodsecurityiap.resilienceatlas.org/">https://foodsecurityiap.resilienceatlas.org/</a>
Platform		<ul style="list-style-type: none"> <li>Actual Evapotranspiration and Interception (ET)</li> <li>Biomass Production (Above Ground Biomass Production or Total Biomass Production)</li> <li>Gross Biomass Water Productivity (GBWP)</li> </ul>	<a href="#">Platform to open WaPOR-data in map</a>	<a href="http://eo4sd.lizard.net">http://eo4sd.lizard.net</a>
Smartphone application	PlantVillage	<i>Not known</i>		<a href="https://plantvillage.psu.edu/">https://plantvillage.psu.edu/</a>

Type of Source	Source	WaPOR-data used	WaPOR-data used for	Link (if available)
Smartphone application	FAMEWS	<i>Not known</i>		<a href="http://www.fao.org/fall-armyworm/monitoring-tools/famews-mobile-app/en/">http://www.fao.org/fall-armyworm/monitoring-tools/famews-mobile-app/en/</a>
Information system	AQUASTAT - FAO's Global Information System on Water and Agriculture	<ul style="list-style-type: none"> <li>All available data on WaPOR</li> </ul>	<a href="#">Global information system using WaPOR-data</a>	<a href="http://www.fao.org/aquastat/en/geospatial-information/">http://www.fao.org/aquastat/en/geospatial-information/</a>
Report	Water Productivity Analysis in Gezira Scheme (Sudan) for 2009-2018 (MetaMeta, 2019)	<ul style="list-style-type: none"> <li>Actual Evapotranspiration and Interception (ET)</li> <li>Reference Evapotranspiration (ET0)</li> <li>Precipitation (P)</li> <li>Total Biomass Production (TBP)</li> <li>Gross Biomass Water Productivity (GBWP)</li> </ul>	Calculate Water Productivity trend and other trends to find conclusions	
Report	Optimizing Water Allocation using WaPOR in Abadir Irrigation Scheme, Ethiopia (MetaMeta, 2019)	<ul style="list-style-type: none"> <li>Actual Evapotranspiration and Interception (ET)</li> <li>Reference Evapotranspiration (ET0)</li> <li>Precipitation (P)</li> </ul>	Improve water allocation plan using WaPOR-data	
Report	Crop Water Productivity Analyses in Wonji Main Irrigation Scheme, Ethiopia (MetaMeta, 2019)	<ul style="list-style-type: none"> <li>Actual Evapotranspiration and Interception (ET)</li> </ul>	Calculate Water Productivity trend	
API	API of WaPOR in Python, Tim Hessels, 2019	<ul style="list-style-type: none"> <li>All available data on WaPOR</li> </ul>	<a href="#">Quicker way to download WaPOR-data</a>	<a href="https://github.com/TimHessels/WaporAPI">https://github.com/TimHessels/WaporAPI</a>
Report	Monitoring Water Productivity: Demonstration Case for ThirdEye Mozambique, FutureWater (August, 2017)	<ul style="list-style-type: none"> <li>Gross Biomass Water Productivity (GBWP)</li> <li>Biomass</li> <li>Actual Evapotranspiration and Interception (ET)</li> </ul>	<a href="#">Demonstration case for ThirdEye using WaPOR as comparison</a>	<a href="https://www.futurewater.nl/wp-content/uploads/2017/09/MonitoringWaterProductivity_FW169.pdf">https://www.futurewater.nl/wp-content/uploads/2017/09/MonitoringWaterProductivity_FW169.pdf</a>
Report	Piloting innovations to increase the Water Productivity and Food security for Climate Resilient smallholder agriculture in the Zambezi valley of Mozambique, FutureWater (November, 2019)	<ul style="list-style-type: none"> <li>Gross Biomass Water Productivity (GBWP)</li> <li>Biomass</li> <li>Actual Evapotranspiration and Interception (ET)</li> </ul>	<a href="#">Increase Water Productivity analysis</a>	<a href="https://www.futurewater.eu/projects/apsan-vale/">https://www.futurewater.eu/projects/apsan-vale/</a>

Type of Source	Source	WaPOR-data used	WaPOR-data used for	Link (if available)
Report	Rwanda Natural Capital Accounts - Water (March, 2019)	<ul style="list-style-type: none"> <li>Actual Evapotranspiration and Interception (ET)</li> </ul>	<a href="#">ET-analysis for agricultural productivity</a>	<a href="https://www.wavespartnership.org/sites/waves/files/kc/18_Mar_2019_RW%20NCA%20Water%20Account_Final.pdf">https://www.wavespartnership.org/sites/waves/files/kc/18_Mar_2019_RW%20NCA%20Water%20Account_Final.pdf</a>
Report	Analyzing Water Productivity of Sugar Cane Crop; The Case of Finchaa Plantation Estate, Blue Nile Basin, Ethiopia	<ul style="list-style-type: none"> <li>Actual Evapotranspiration and Interception (ET)</li> <li>Net Primary Production (NPP)</li> <li>Above Ground Biomass Production (AGBP)</li> <li>Gross Biomass Water Productivity (GBWP)</li> </ul>	<a href="#">Analyzing Water Productivity of Sugar Cane Crop</a>	
Report	The application of the FAO Water Productivity Open-Access Portal (WaPOR) for the assessment of the Water-Energy-Food Nexus in the Eastern Nile River Basin	<ul style="list-style-type: none"> <li>Actual Evapotranspiration and Interception (ET)</li> <li>Above Ground Biomass Production (AGBP)</li> <li>Gross Biomass Water Productivity (GBWP)</li> </ul>	<a href="#">Assessment of the Water-Energy-Food Nexus</a>	<a href="https://meetingorganizer.copernicus.org/EGU2018/EGU2018-5356-1.pdf">https://meetingorganizer.copernicus.org/EGU2018/EGU2018-5356-1.pdf</a>
Report	Water Productivity Analyses Using WaPOR database: a case of Xinavane, Mozambique (December, 2019) (IHE Delft)	<ul style="list-style-type: none"> <li>Actual Evapotranspiration and Interception (ET)</li> <li>Land Cover (LCC)</li> <li>Net Primary Production (NPP)</li> <li>Above Ground Biomass Production (AGBP)</li> </ul>	<a href="#">Analyze Water Productivity including yield and water productivity gaps</a>	
Report	Wheat Water Productivity Analyses Using WaPOR database: a case of Bekaa Valley, Lebanon (IHE Delft)	<ul style="list-style-type: none"> <li>Actual Evapotranspiration and Interception (ET)</li> </ul>	<a href="#">Analyze Water Productivity including yield and water productivity gaps</a>	
Report	Nature based Water Infrastructure for #GlobalGoals in Kenya and Ethiopia (IHE Delft)	<ul style="list-style-type: none"> <li>Precipitation (P)</li> <li>Actual Evapotranspiration and Interception (ET)</li> <li>Reference Evapotranspiration (ET0)</li> <li>Interception (I)</li> <li>Land Cover (LCC)</li> </ul>	<a href="#">Water accounting for assessing the limits and potential of growth of farmer led small-scale irrigated agriculture</a>	

Type of Source	Source	WaPOR-data used	WaPOR-data used for	Link (if available)
Report	Water productivity mapping in Urmia Lake Basin in Iran (IHE Delft)	<ul style="list-style-type: none"> <li>• Net Primary Production (NPP)</li> </ul>	<a href="#">Finding Hotspot and Bright spots for WP to guide pilot project sites selection</a>	
Report	Water Productivity analyses in Xinavane (Mozambique), Wonji (Ethiopia), Bekaa Valley (Lebanon), Amibara (Ethiopia), Tunisia, Algeria and Morocco (IHE Delft)	<ul style="list-style-type: none"> <li>• Actual Evapotranspiration and Interception (ET)</li> <li>• Net Primary Production (NPP)</li> <li>• Land Cover (LCC)</li> </ul>	<a href="#">Support of solutions to reduce agricultural yield and water productivity gaps</a>	
Report	Water Accounting in the Fayoum area, Egypt (IHE Delft) – EU funded	<ul style="list-style-type: none"> <li>• Actual Evapotranspiration and Interception (ET)</li> <li>• Net Primary Production (NPP)</li> <li>• Transpiration (T)</li> <li>• Evaporation (E)</li> <li>• Interception (I)</li> </ul>	<a href="#">Use of actual ET and biomass for computing water balance of the Fayoum area and compiling water accounts. The water accounting process also entails validation/verification of the input data (RS data from WaPOR), development of indicators for monitoring water resources conditions and planning purposes, and development of scenarios for testing future conditions.</a>	
Report	Water Accounting+ in Litani, Jordan, Awash, Nile and Niger (IHE Delft) (project output)	<ul style="list-style-type: none"> <li>• Precipitation (P)</li> <li>• Actual Evapotranspiration and Interception (ET)</li> <li>• Reference Evapotranspiration (ET0)</li> <li>• Interception (I)</li> <li>• Transpiration (T)</li> <li>• Evaporation (E)</li> <li>• Net Primary Production (NPP)</li> <li>• Land Cover (LCC)</li> </ul>	<a href="#">Water Resource Management</a>	