Rice Yield Estimation for Individual Rice Plots
What We Can Do and Observe Under Lockdowns and In-between

A workshop for CAM: Climate Resilient Rice Commercialization Sector Development Program

13 October 2021
9:00 a.m. - 10:30 a.m. Cambodia
10:00 a.m.-11:30 a.m. Manila/Beijing/Singapore time (GMT+8)

Join the webinar via Zoom
Password: RDFSTG2021

Background

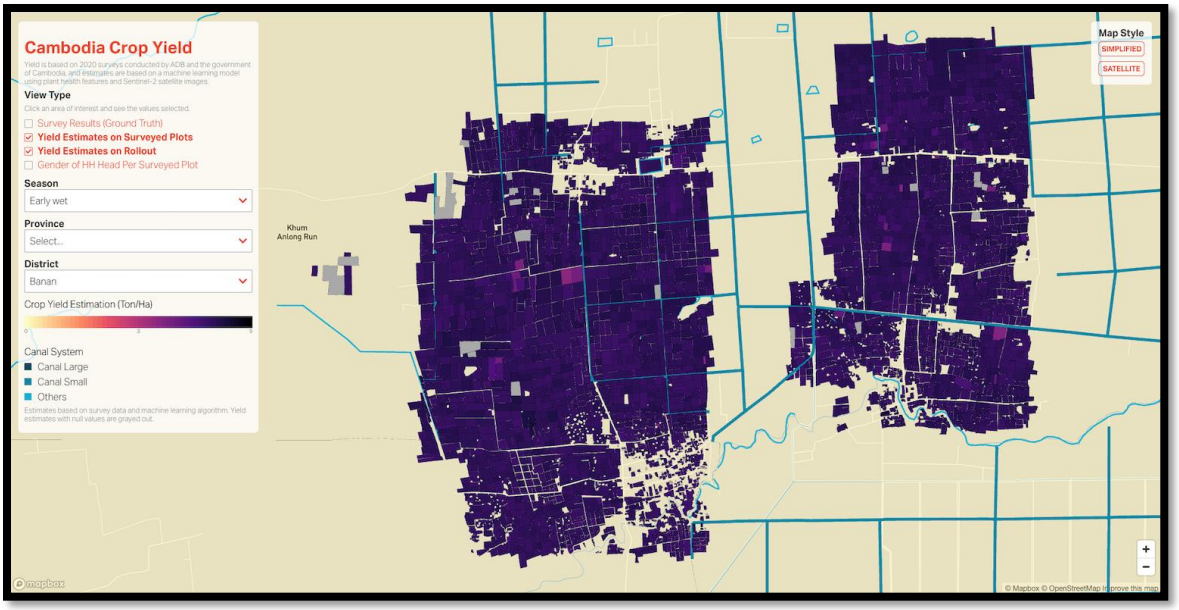
As a part of monitoring and evaluation activities of the Rice SDP project in Cambodia a crop survey was carried out in 2020 with 390 households and the location of their rice plots that they cultivate have been geotagged. Based on the survey data, earth observation and machine learning, (i) rice plots of 16,000 project beneficiary households have been mapped; (ii) the crop yield of each rice plot for entire project command areas have been estimated for three seasons (early wet, wet and dry seasons); and (iii) the results are presented in color graduation in the rice plot map (see the interactive map here).

The accuracy of crop yield estimation results was not good enough for project monitoring and impact evaluation purpose. However, the use of remote sensing technologies has shed light on the crop yield gap at the individual plot level for the entire project command area.

The crop yield map and the gender disaggregation of the surveyed plots clearly shown in the map may serve as an effective tool for focus group discussions with project beneficiaries on crop yield gaps and any gender inequality in the command area. Considering that the remotely sensed data collection may be the only feasible mode of data collection under lockdown, this kind of estimation work may also help with future project planning and targeting works.

The workshop will discuss the data, methodology, results and their potential use, and areas of improvement.

Secretariat, Rural Development and Food Security (Agriculture) Thematic Group
Sustainable Development and Climate Change Department
Asian Development Bank
Email: rdfstg@adb.org



Provisional Agenda

09:00–09:10 a.m.	**Introduction** Michiko Katagami, Principal Natural Resources and Agriculture Economist, SDCC, ADB **Welcome Remarks** HE Seilava, Project Director, Rice SDP, Ministry of Economy and Finance
09:10–9:50 a.m.	**Presentations** **Crop Survey and Geo Tagging (10 mins)** Biranchi Kumar Choudhury, Project Implementation Advisor, PMO, Rice SDP Edward Maningo, Crop Survey Consultant, PMO, Rice SDP **Rice Plot Mapping (15 mins)** Willam Wu, Director and Co-Founder, QED **Rice Yield Estimation (15 mins)** Ren Avel Flores, Geospatial Machine Learning Researcher, Thinking Machines
09:50–10:10 a.m.	**Comments and Result discussions (20 mins)** Chanthou Hem, Senior Project Officer CARM, ADB Representative, MAFF/Rice SDP Leonard Heung, Natural Resources Economist, SEER, ADB Navin Twarakavi, Senior Digital Agriculture Specialist, SDCC, ADB
10:10–10:20 a.m.	**IRRI Rice Yield Estimation Best Practices (10 mins)** Dr. Emma Quicho, International Rice Research Institute
10:20–10:30 a.m.	**Summary/Next Steps**

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