Food and Agriculture Organization of the United Nations

> FAO Webinar Series

Earth observation data for agricultural statistics

March-May 2023

SESSION 2 : Crop Yield Mapping and Yield Statistics

20 March 2023

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6 WEBINARS, 8 MARCH – 10 MAY 2023.

Session 1 (8 March 2023, 15:30 – 17:00) Registration link	**EOSTAT project overall presentation** Organized jointly with the Global Network of Data Officers and Statisticians Speakers: Pietro Gennari, FAO & Lorenzo De Simone, FAO
Session 2 (20 March 2023, 15:30 – 17:00)	**Crop yield mapping and yield statistics** Speaker: Lorenzo De Simone Guest: Prof. Bruno Basso, Michigan State University
Session 3 (4 April 2023, 15:30 – 17:00)	**Crop type mapping and acreage** Speaker: Lorenzo De Simone, FAO Guest: Sophie Bontemps, Université of Louvain
Session 4 (13 April 2023, 15:30 – 17:00)	**EO augmented survey design, in-situ data standards, and best practices in georeferencing** Speaker: Lorenzo De Simone, FAO Guest: Sophie Bontemps, Université of Louvain

Session 5 (26 April 2023, 15:30 – 17:00)	**Standardized land cover classification for land cover statistics** Speaker: Lorenzo De Simone, FAO Guest: William Ouellette, CEO at SoilWatch
Session 6 (10 May 2023, 15:30 – 17:00)	**Crop field boundaries mapping using machine learning and very high-resolution data** Speaker: Lorenzo De Simone, FAO Guest: Sherrie Wang, DEAFRICA/MIT

From March to May 2023, join FAO Webinar Series on Earth observation data for agricultural statistics! The webinar series will raise awareness of the EOSTAT project and highlight FAO's work in building countries' capacity on the use of Earth observation data for the production of agricultural statistics.Full program online:

https://www.fao.org/statistics/events/detail-events/en/c/1631683/

SCOPE OF EOSTAT

Launched in 2019 in OCS, the main objective of the **EOSTAT project** is to build **capacity** in countries in producing **crop statistics** using alternative data sources (Earth Observations) in line with the principles of the Modernization process of National Statistics Offices promoted by the UN Statistical Commission.
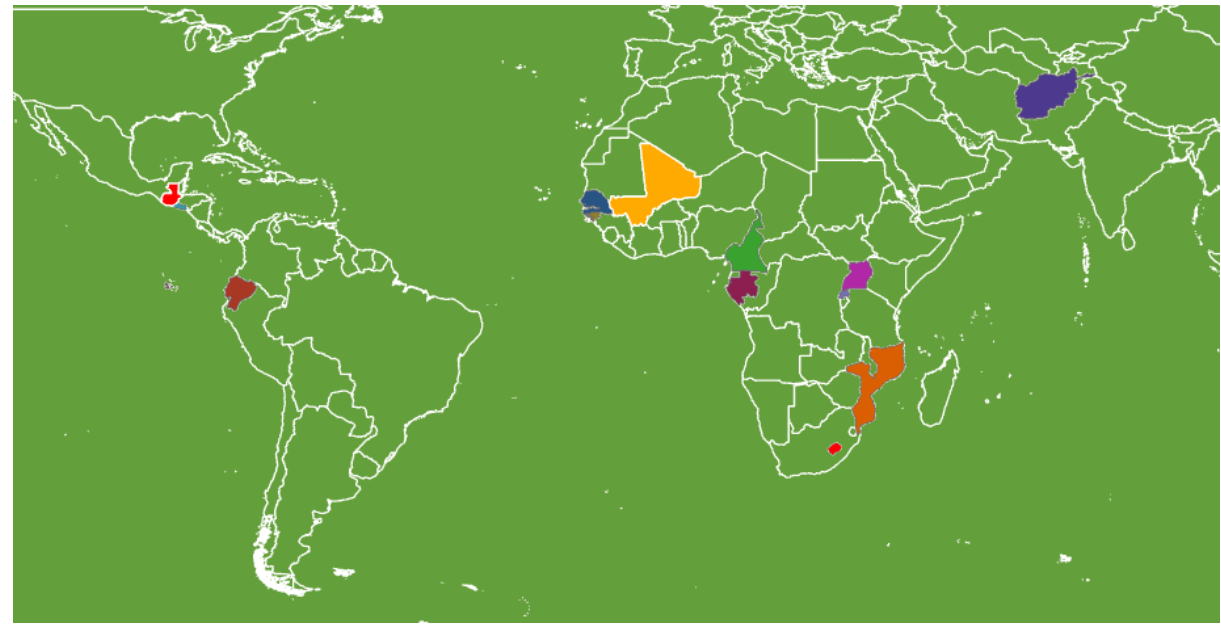

In connection to the main objective, there are a series of other relevant goals, such as i) increasing the <u>quality</u> of crop statistics reported by countries increasing the <u>accuracy</u>, the <u>timeliness</u> and the <u>disaggregation</u>, ii) filling data gaps in FAO's databases, and iii) promote innovation through methodological development and technology.

Currently **implemented** in **12 Countries**, and expanding to 18 in 2023, EOSTAT is supporting the standardization of Earth Observations Methods for the production of official statistics in countries. In this context EOSTAT is also supporting the internal process in FAO on standardization of methods for land cover and land use mapping discussed under the mandate of the Data Coordination Group

MAIN ACTIVITIES AND DATA FOR HIH

EOSTAT PROJECT

1. Crop type mapping

2. Crop yield mapping

3. Crop field boundaries

4. Standardized annual land cover

5. Optimization of survey design and collaboration

6. Methodological development (data frugal algor
   situ data)

7. Development of tools (EOSTAT CROP MAPPER)

8. Support the standardization of EO methods in th
   agencies and across NSO's

9. On site training, webinars and seminars. Transfer of knowhow and tools.
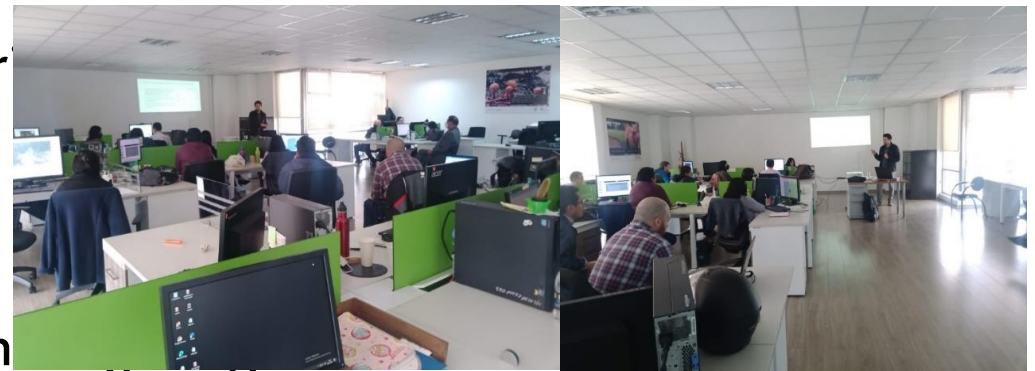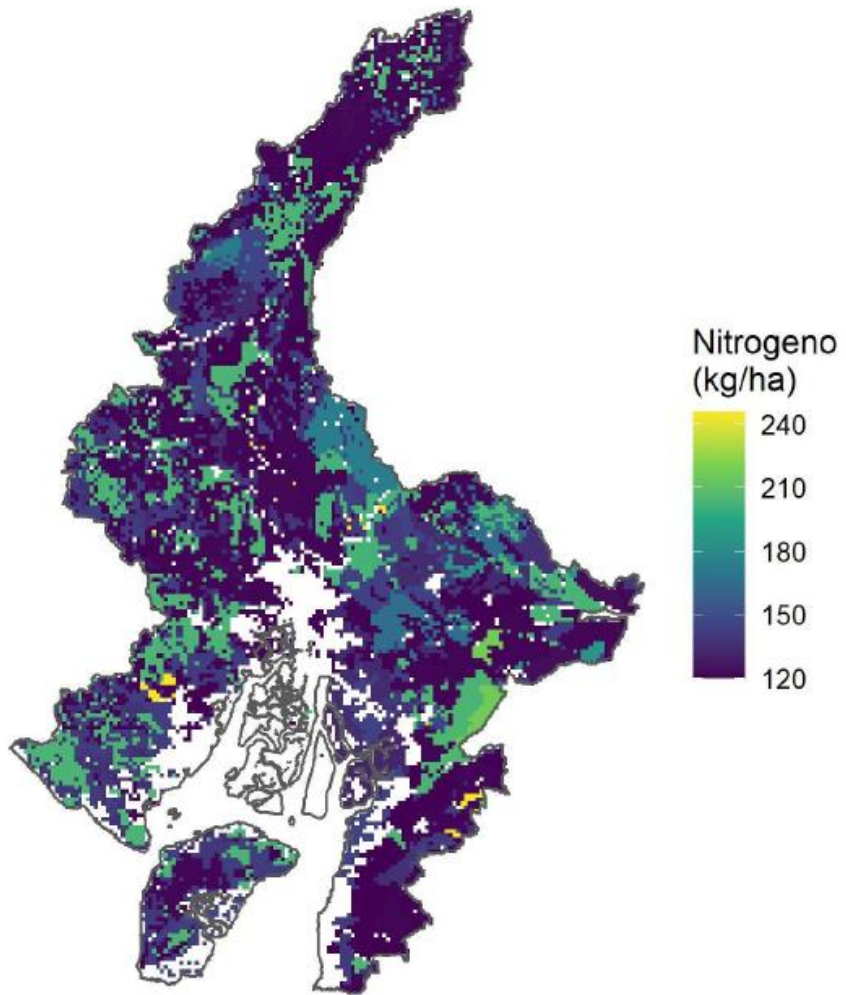
CROP YIELD MAPPING AND CROP YIELD STATISTICS: COLLABORATION WITH THE MICHIGAN STATE UNIVERSITY. PROFESSOR BRUNO BASSO

Bruno Basso is John A. Hannah Distinguished Professor and MSU Foundation Professor of Earth and Environmental Sciences at Michigan State University. He is an internationally recognized **agroecosystem scientist and crop systems modeler.**

His **research focuses on agriculture and environmental sustainability, climate change's impact on agricultural systems, food security, circular bio-economy of agricultural systems.**

He is a **Fellow of the American Association for the Advancement of Science (AAAS);**

He is the recipient of the **2021 Morgan Stanley Sustainability Solution Prize** Collaborative among other prestigious awards he received.

He serves as **member of the Board of Agriculture and Natural Resources of the US National Academies of Sciences, Engineering and Medicine** (NASEM).