Regional training workshop for advancing satellite crop monitoring to enhance agricultural resilience using the CropWatch cloud system in Latin America and the Caribbean

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Lima, Peru

Concept note

Overview

The Zero Hunger goal is one of the most important targets among the United Nations Sustainable Development Goals (SDGs). Enhancing the transparency of agricultural information is a key means to stabilize food markets and prevent abnormal fluctuations. However, the lack of capacity to obtain agricultural information has made the journey toward achieving the Zero Hunger goal extremely challenging for many developing countries, including those along the Belt and Road. Despite their awareness that Earth observation is an important means to acquire agricultural information, these countries are increasingly distant from proactively obtaining such information due to technological or financial constraints, leaving them to passively receive information from third parties.

Therefore, assisting developing countries in mastering advanced remote sensing and geospatial technologies to serve agricultural sustainability, and enhancing the agricultural monitoring capabilities of participating countries, will help improve the transparency of global agricultural information, bridge the agricultural information gap, stabilize the international food market, and promote the realization of the United Nations SDGs.

Crop monitoring with earth observation on a massive scale are neither easy nor inexpensive exercises. However, both hold immense potential for better food security planning and progress toward Sustainable Development Goals. Yet, many developing countries do not have access to the required tools due to technology deficits or associated costs.

To overcome this, the CropWatch Innovative Cooperation Programme (CropWatch ICP) was launched in 2021 by the UN Trade and Development (UNCTAD), the Alliance of International Science Organizations (ANSO), and the Aerospace Information Research Institute (AIR) of the Chinese Academy of Sciences (CAS). The programme could enhance capacities for food security early warning using the Earth observation satellite system for crop monitoring in developing countries. The CropWatch ICP programme aims to enable developing countries to

conduct earth observation-based crop monitoring at a national and sub-national scale without additional investment in storage and computing facilities, allowing for better food security planning and achieving Sustainable Development Goals, particularly Goal 2: Zero Hunger.

The programme has already demonstrated significant progress, yielding tangible benefits for participating African nations (https://unctad.org/project/cropwatch-innovative-cooperation-programme). Building on this success, the programme is now extending invitations to developing countries across Latin America and the Caribbean (LAC). The programme aims to empower participating countries to independently monitor crops in real or near-real time, leverage a robust infrastructure platform to synthesize critical data for advancing national food security, and tailor the system to meet specific regional and national priorities.

Against this background, a regional workshop will be organized in Peru to bring together technicians, policymakers, and other stakeholders from LAC countries to receive training to use the CropWatch systemParticipants will be given access to the technology (both during and after the workshop), and provided with training to use it, including being shown how to customize it to specific local requirements. The workshop will be hosted by the National Institute of Agricultural Innovation (INIA) of Peru in collaboration with UNCTAD, ANSO, and AIR-CAS.

Objectives

The main objective of this workshop is to facilitate and stimulate agricultural monitoring in the beneficiary countries for the advancement of the SDG goal of zero hunger. Specifically, the workshop aims to:

1. To enhance the region's capacity to use remote sensing technology for agricultural monitoring. Train and educate participants to use the technology and tools made available to them under the CropWatch ICP project, enabling them to apply it in their countries to help achieve SDG 2: Zero Hunger.
2. Develop independent agricultural monitoring capabilities to support the achievement of the "Zero Hunger" goal. Share knowledge alongside technology, providing participants from beneficiary countries with the skills and knowledge required to fully adopt the CropWatch system for their regular crop monitoring activities in the long-term, continuing to use the technology for crop monitoring autonomously after the project is finished.

Target Audience

The workshop will include 15-20 participants from the ministries of agriculture or space agencies of beneficiary Latin America and the Caribbean countries.