

 Early Warning System

ADB-60190-001

Agricultural Shock Monitoring Using Remote Sensing and Machine
Learning for Real-Time Disaster Impact Assessment



Quick Facts

Countries	Philippines, Vietnam
Specific Location	Regional
Financial Institutions	Asian Development Bank (ADB)
Status	Proposed
Bank Risk Rating	U
Sectors	Agriculture and Forestry, Technical Cooperation
Investment Type(s)	Advisory Services



Project Description

According to bank's website, the proposed technical assistance aims to addresses critical analytical and institutional gaps by developing a next-generation artificial intelligence (AI)- and satellite-based agricultural risk analytics platform. The platform will integrate hazard, exposure, and vulnerability layers using advanced earth observation (EO) data, AI and machine-learning (ML) models, and a Digital Twin environment to visualize impacts and simulate adaptation scenarios. It will generate high-resolution crop type, crop growth-stage, and yield maps core inputs required to estimate agricultural exposure, quantify yield losses, and evaluate recovery trajectories for both preparedness and post-disaster response applications.

The proposed work will be piloted in the Philippines and VietNam where countries facing significant climate and disaster risks in agriculture while retaining flexibility to adjust pilot locations depending on data availability, institutional readiness, and implementation feasibility.



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Investment Description

- Asian Development Bank (ADB)



Contact Information

No contacts available at the time of disclosure.

ACCESS TO INFORMATION

You can submit an information request for project information at: <https://www.adb.org/forms/request-information-form>

ADB has a two-stage appeals process for requesters who believe that ADB has denied their request for information in violation of its Access to Information Policy. You can learn more about filing an appeal at: <https://www.adb.org/site/disclosure/appeals>

ACCOUNTABILITY MECHANISM OF ADB

The Accountability Mechanism is an independent complaint mechanism and fact-finding body for people who believe they are likely to be, or have been, adversely affected by an Asian Development Bank-financed project. If you submit a complaint to the Accountability Mechanism, they may investigate to assess whether the Asian Development Bank is following its own policies and procedures for preventing harm to people or the environment. You can learn more about the Accountability Mechanism and how to file a complaint at: <http://www.adb.org/site/accountability-mechanism/main>.



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Bank Documents

- [Regional: Agricultural Shock Monitoring Using Remote Sensing and Machine Learning...Project Summary](#)